

# **SOUTH AFICA**

## **AN INVENTORY OF CURRENT AND POTENTIAL PROJECTS AND MARKETS FOR PAYMENTS FOR ECOSYSTEM SERVICES**

### **Inventory undertaken:**

*Begun:* 5 May 2008

*Completed:*

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# AN INVENTORY OF CURRENT AND POTENTIAL PROJECTS AND MARKETS FOR PAYMENTS FOR ECOSYSTEM SERVICES

## Introduction

The Katoomba group, with Forest Trends acting as its secretariat, wish to update the 2005 inventory of PES projects in South Africa and asked Beatus to perform this task in conjunction with a list of stakeholders and contributing parties, the task team, as listed on the cover page.

The task team met on 12 May 2008 and considered the 2005 inventory providing inputs to the current version below. After compiling this inventory it was circulated among all the members of the task team again for a final evaluation. The inventory was then workshopped at a dedicated PES workshop on 6 June 2008 and amended.

The report is structured as follows. First we consider the definition of a PES project, followed by Steps 0, 1, 2 and 3 in the 7-step inventory process as described in Bond<sup>1</sup>. Steps 4-7 is to be conducted in committee by the Katoomba management group during a workshop 7-11 July 2008.

## Definition of a PES project:

Waage, Scherr, Inbar and Jenkins<sup>2</sup> defined a PES project as follows:

*“Current 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.”*

Following this definition it is possible to motivate that initiatives such as eco-labelling, bio-banking, and offset investments are also PES projects. This raises the concern that one can even include industrial carbon-offsetting projects as PES through technology switching. The task team, after

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<sup>1</sup> The East & Southern Africa Katoomba Group. Payments for Ecosystem Services (PES) in East and Southern Africa: Assessing Prospects & Pathways Forward.

<sup>2</sup> <http://www.katoombagroup.org/regions/africa/documents/National%20Inventory%20Framework.doc>

discussion, decided to include offset and eco-labelling projects but to exclude industrial technology switching projects since those are contra the ethos of a PES project (there are no bio-banking projects currently). What is remarkable lacking from the definition though is the value of restoration since, as specified in the (a) component of what the buyers are willing to pay for, it per definition is excluded. This is since restoration will bring about a change in structure from say a state and process of desertification to another state of a functioning grassland ecosystem, for example. The task team decided to include restoration although, strictly speaking, it seems to be excluded from the definition. Lastly, the definition emphasise the monitoring and evaluation (M&E) component as a qualifier for a project to be a PES project. While the task team wholeheartedly support this notion, it is a tough one to assess in practice and the framework provided does not allow for commenting on whether or not M&E does take place or not.

### **Step 0: Revisiting the 2005 inventory**

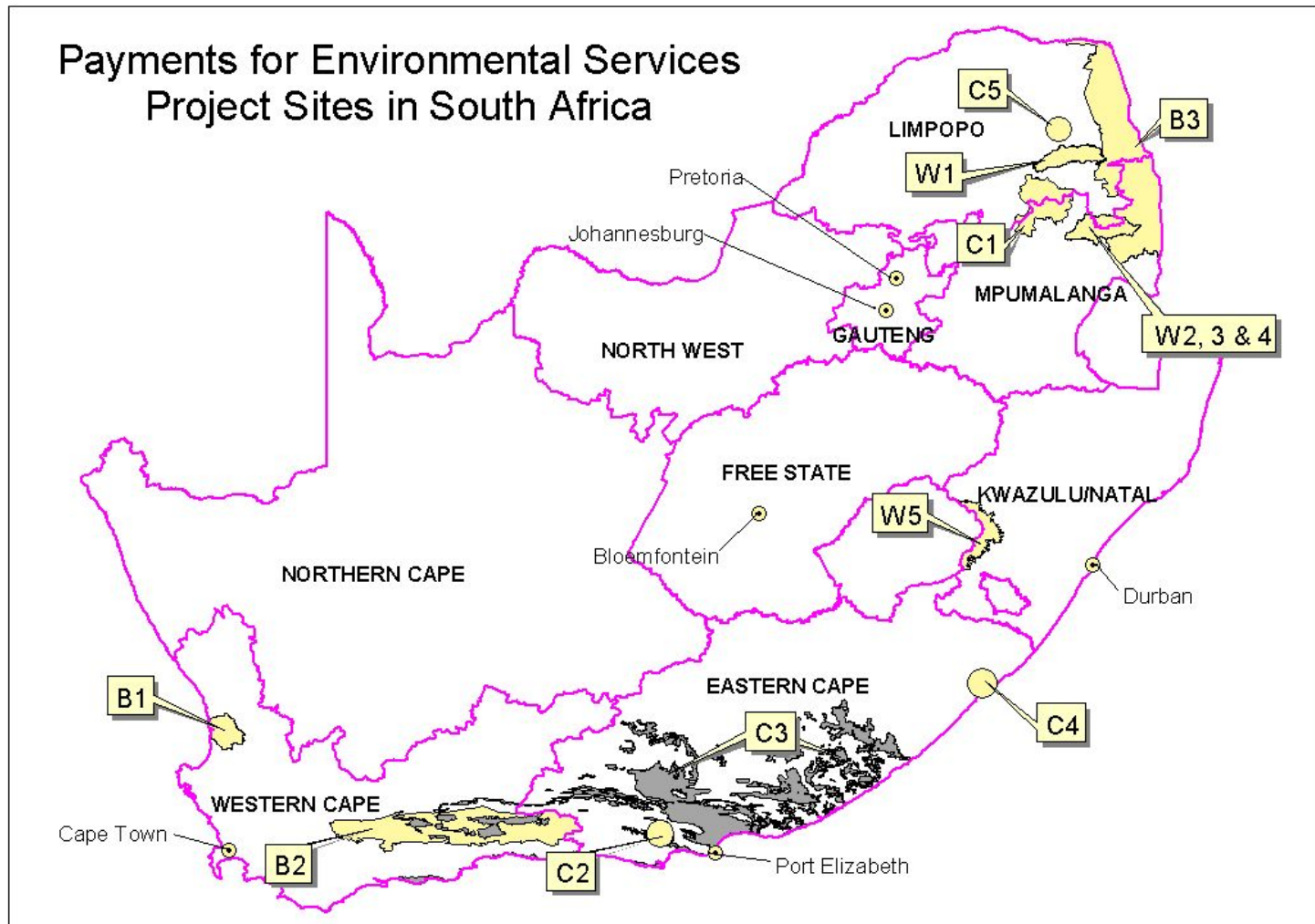
In 2005 the CSIR conducted the first PES inventory, see Table 1a below. The task team took the information provided in Table 1a as baseline and updated this, see Table 1b.

**Table 1a: Projects as listed in the 2005 inventory**

<p><b>Current Ecosystem Service Payment or Market</b></p> <p><i>List specific in-country ecosystem service projects under each of the categories below.</i></p>	<p><b>Who is the Buyer?</b></p> <p><i>List name(s) of both key contact people and government agencies, companies, etc.</i></p>	<p><b>Who is the Seller?</b></p> <p><i>List both name(s) of people and/or community organizations</i></p>	<p><b>(a) Where is the Project located?</b></p> <p><b>(b) How much area involved in agreed deal (hectares)?</b> <i>Include name of village and/or province</i></p>	<p><b>(A) How is the deal structured?</b> Is the deal: <i>(A) A gov't payment?</i> <i>(B) A private deal?</i> <i>(C) open trading?</i></p> <p><b>(b) What conservation management practices required?</b></p>	<p><b>How do Payments flow from the Buyer to the seller?</b></p> <p><i>Provide a brief explanation.</i></p>	<p><b>What are the roles of the Institutions Engaged in Payment Scheme?</b></p> <p><i>List all institutions involved (including intermediaries) and briefly explain roles.</i></p>	<p><b>Date deal agreed?</b></p> <p><i>List date contract or agreement signed.</i></p>	
<b>Carbon</b>								
Carbon Project 1:	Industries with high emissions, International demanders of carbon offsets	Sekhukhune rural households	Sekukhuneland, Mpumalanga Province	A) A private deal B) Land rehabilitation through the planting of trees to stop soil erosion,	Direct payments for labour	Implementing institution is Environmental Offset Investments	To be decided	
Carbon Project 2:	Not identified, potential sales to international industry (European)	Local Baviaanskloof Patensie Community	Baviaanskloof, Eastern Cape	A) A private deal but Government is funding the initial assessment B) Planting indigenous trees	Government (Department of Water Affairs and Forestry) acts as an intermediary	Department of Water Affairs and Forestry → Gamtoos Irrigation Board → Intermediary consultant → Community suppliers	Project ongoing, no deal signed	
Carbon Project 3:	Department of Environmental Affairs and Tourism (DEAT)	Collectives as transaction costs are too high for individual land owners. Gamtoos Irrigation Board and Stateleville	a) Across the Western and Eastern Cape provinces, subtropical thicket biome (b) Total area is 105 454 km <sup>2</sup> , however no deal has been set up yet. 30% of sub tropical thicket biome in RSA	(A) Not identified (B) Maintenance and possible rehabilitation of the vegetation (as developed in the conservation management plan)	Not identified	Land user → Collective → Broker → Client (over the counter trade)	Ongoing negotiations	
Carbon project 4:	Department of Environmental Affairs and Tourism (DEAT)	Collectives as transaction costs are too high for individual land owners. Port St Johns land owners	Port St Johns, Eastern Cape	A) Government payment B) Rehabilitation of riparian vegetation C) Rehabilitation of coastal dunes	Direct payments for labour	Implementing institution is Environmental Offset Investments	Started Nov 2004	
Carbon Project 5:	Department of Environmental Affairs and Tourism (DEAT)	Collectives as transaction costs are too high for individual land	Letaba Valley, Mpumalanga	A) Government payment B) Rehabilitation of riparian vegetation	Direct payments for labour	Implementing institution is Environmental Offset Investments	Started Nov 2005	

		owners. Giyani communal land owners						
<b>Biodiversity</b>								
Biodiversity Project 1:	Potential identified: Government, Tourism sector	Potato farmers	Western Province	Government payment	To be decided	To be decided	To be decided	
Biodiversity Project 2:	Unidentified (Key biodiversity services need to be identified and valued first)	Local farmers	Little Karoo	To be decided	To be decided	To be decided	To be decided	
Biodiversity Project 3:	Conservation sector, tourism sector	Communities surrounding the Kruger National Park	Kruger National Park	To be decided	To be decided	To be decided	To be decided	
<b>Water</b>								
Water Project 1:	FOSKOR, PMC, Commercial Game Farmers, Commercial irrigation agriculture Farmers	Legalamedtzi Nature Reserve, Community grazing cattle, x community, Rural farmers, Commercial farmers	Ga-Selati River, Olifants Catchment, South Africa	A) A series of private deals B) Conservation management practices include: removal of unproductive avocado trees; stopping grazing in the sponges; removal of alien invasive plants from riparian zones; and lining of earth irrigation channels	Direct payments will flow from the buyers to the sellers, for example: commercial farmers will provide training on good farm practices to rural farmers; Mines and industry will provide piping for earth channels	Providers: provision of services Buyers: provision of payments (cash and kind) Intermediary: Not identified at this stage	To be decided	pa
Water Project 2:	Sandton Bird Club	Mondi / Sappi Forestry	Sabie River, Sabie-Sand Catchment, South Africa	A) A private deal B) Protection of riparian vegetation and natural forest	Direct payments	Sandton Bird Club - Buyer Sappi - Supplier of forest protection with payments to local communities	To be decided	pa
Water Project 3:	Commercial Game Farmers for Tourism	Local communities	Sabie River, Sabie-Sand Catchment, South Africa	A) A private deal B) Improved rural irrigation agricultural practices	Direct payments	To be decided	To be decided	pa
Water Project 4:	Urban water users	Local communities	Sabie River, Sabie-Sand Catchment, South Africa	A) A private deal B) Improved land management alongside the rive and improved sanitation practices to reduce pollution levels in the river water	Direct payments	To be decided	To be decided	pa
Water Project 5:	Various water users across South Africa	The Maluti-Drakensberg communities	Maluti-Drakensburg, Kwa-zulu Natal	A private deal and a Government payment	The project is investigating the feasibility of establishing a National Office for payments to	To be decided	To be decided	pa

Water Project 6:	Various water users: 1) Bulk water users (domestic and industrial); 2) Agriculture; 3) Forestry	Contractors provide services to Working for Water who sells the service to buyers. 33 thousand people	National, 1.2 million hectares of riparian zone and 11 million hectares of mountain area	A) A government payment B) Removal of alien invasive plant species that are large water users	act as an intermediary The water user pays a water service provider such as a Municipality or Water User Association for the service, this is then paid into the National WARMS system (Department of Water Affairs and Forestry Accounting system) acting as central broker, from this the Working for Water programme is paid and they pay the service providers.	Working for Water trains teams to remove alien invasive plant species and thereby improve water supply, it also trains the team leaders to cost the work and develop quotes for buyers, a monitoring programme is also in place for follow up work. Each team acts as an individual unit providing the service and being paid for it.	1998/2000 and is ongoing	In be pa s an
Water Project 7:	Various land owners	Working for Wetlands	National	A government payment		Working for Wetlands trains teams to provide services that rehabilitate wetlands and wetland functions, it also trains the team leaders to cost the work and develop quotes for buyers, a monitoring programme is also in place for follow up work. Each team acts as an individual unit providing the service and being paid for it.		In pa ar
<b>Other Ecosystem Service Projects</b>								
Fire Project 1	Individual land owners, Fire Protection Association, District and Local Government, Conservation agencies	Working on Fire is a section 21 Company made up of collectives that supply the service	Country wide	A) A government payment or private payment B) Integrated fire management practices	The Buyer (Land owner) pays the Working for Fire programme who acts as an intermediary. Payments are then made to each of the sub contracting teams providing the service	Working for Fire trains teams to provide the services that reduce fire risks in plantations and other areas, it also trains the team leaders to cost the work and develop quotes for buyers, a monitoring programme is also in place for follow up work. Each team acts as an individual unit providing the service and being paid for it.	Ongoing since	In pa



**Figure 1:** Location of projects according to the 2005 inventory where C = carbon, B = biodiversity and W = water with the respective project number added

**Table1b: Review of projects and sites re-visited**

<p><b>Current Ecosystem Service Payment or Market</b></p> <p><i>List specific in-country ecosystem service projects under each of the categories below.</i></p>	<p><b>Who is the Buyer?</b></p> <p><i>List name(s) of both key contact people and government agencies, companies, etc.</i></p>	<p><b>Who is the Seller?</b></p> <p><i>List both name(s) of people and/or community organizations</i></p>	<p><b>(A) Where is the Project located?</b></p> <p><b>(B) How much area involved in agreed deal (hectares)?</b> <i>Include name of village and/or province</i></p>	<p><b>(A) How is the deal structured?</b> Is the deal: <i>(A) A gov't payment?</i> <i>(B) A private deal?</i> <i>(C) Open trading?</i></p> <p><b>(B) What conservation management practices required?</b></p>	<p><b>(A) What is the Value / Amount of the Deal?</b></p> <p><b>(B) How do Payments flow from the Buyer to the seller?</b> <i>Provide a brief explanation</i></p>	<p><b>What are the roles of the Institutions Engaged in Payment Scheme?</b></p> <p><i>List all institutions involved (including intermediaries) and briefly explain roles</i></p>	<p><b>Date deal agreed?</b></p> <p><i>List date contract or agreement signed</i></p>	<p><b>Status in 2005</b></p> <p><i>State if in operation, in planning phase, etc., and whether payments made</i></p>	<p><b>C</b></p>
<b>Carbon</b>									
Carbon Project 1: Thicket restoration	Initial: Society for Conservation Biology and DWAF Future: International investors	Eastern Cape Parks Board	Eastern Cape sub-tropical thicket biome	A) Conservation agency, government and community B) Restoration of thicket, nursery, fencing, erosion gullies, M&E	Initial: SCB: ~R250k DWAF: R7million  DWAF to Gamtoos Irrigation Board to emerging contractor to employees	DWAF payment: Client and facilitator, Gamtoos Irrigation Board: Implementing agent (synonymous to a facilitating agent),  SCB: client Emerging contractors: implementers	Project ongoing; commenced in 2004	Planning phase, pilot for national learning (Poverty alleviation and rural upliftment project)	f b) st  c D e)
Carbon project 2: ARISE	Department of Environmental Affairs and Tourism (DEAT) and DWAF	State forest land (DWAF) and Communal land (DEAT): Sellers/beneficiaries Port St Johns land owners	Port St Johns, Eastern Cape	A) Government payment  B) Rehabilitation and coastal dunes afromontane forests	DWAF: R1.2m.a DEAT: R8m over 3 years  DWAF to Gamtoos irrigation board/IDT to emerging contractors to beneficiaries; DEAT to EOI to beneficiaries	DWAF to Gamtoos irrigation board/IDT to emerging contractors to beneficiaries; DEAT to EOI to beneficiaries	Started Nov 2004	On going	E b f pc on
Carbon Project 3: ARISE	Department of Environmental Affairs and Tourism (DEAT)	Giyani communal land owners	Klein-Letaba Valley, Mpumalanga	A) Government payment B) Rehabilitation of riparian vegetation	R10 over 3 years  DEAT to EOI (implementing agent) to	DEAT to EOI to beneficiaries	Started Nov 2005	On going	E b f pc



					beneficiaries					
<b>Biodiversity</b>										
Biodiversity project 1: Potatoes	Potential identified: Government, Tourism sector	Potato farmers	Western Province	Government payment	-	-	-	-		P c
Biodiversity Project 2: Karoo	Unidentified (Key biodiversity services need to be identified and valued first)	Local farmers	Little Karoo	To be decided	-	-	-	-		P c
Biodiversity Project 3: Kruger Park	Conservation sector, tourism sector	Communities surrounding the Kruger National Park	Kruger National Park	To be decided	-	-	-	-		P f
<b>Water</b>										
Water Project 1: Ga Selati river	FOSKOR, PMC, Commercial Game Farmers, Commercial irrigation agriculture Farmers	Legalamedtzi Nature Reserve, Community grazing cattle, x community, Rural farmers, Commercial farmers	Ga-Selati River, Olifants Catchment, South Africa	A) A series of private deals B) Conservation management practices include: removal of unproductive avocado trees; stopping grazing in the sponges; removal of alien invasive plants from riparian zones; and lining of earth irrigation channels	-	-	-	-		
Water Project 2: Sabie river 1	Sandton Bird Club	Mondi / Sappi Forestry	Sabie River, Sabie-Sand Catchment, South Africa	A) A private deal B) Protection of riparian vegetation and natural forest	-	-	-	-		
Water Project 3: Sabie river 2	Commercial Game Farmers for Tourism	Local communities	Sabie River, Sabie-Sand Catchment, South Africa	A) A private deal B) Improved rural irrigation agricultural practices	-	-	-	-		
Water Project 4: Sabie river 3	DWAF (working for water and working for wetlands) currently, yet possible for urban water users in future	Local communities are selling land use change to advance water delivery services	Sabie River, Sabie-Sand Catchment, South Africa	A) A public deal B) Wetland restoration and clearing of invasive alien plants	R1.5m.a  DEAT to SANBI (facilitation office) to implementing agent to beneficiaries	DEAT to SANBI (facilitation office) to implementing agent to beneficiaries	2000	Ongoing		O a ;

					DWAF to implementers to beneficiaries				
Water Project 5: Maluti-Drakensburg	Various water users across South Africa	The Maluti-Drakensburg communities	Maluti-Drakensburg, Kwa-Zulu Natal	Not decided yet, but probably a combination of private and public funds. Restoration component most likely funded by Gov with water service and O&M paid for by private sector through DWAF	Amount not decided yet, but possibility is huge	To be decided	To be decided	Planning, No payment made yet	
Water Project 6: Working for Water	Various water users: 1) Bulk water users (domestic and industrial); 2) Agriculture; 3) Forestry	Land owners through contractors provide services to Working for Water who sells the service to buyers. 16 thousand people	National, 1.2 million hectares of riparian zone and 11 million hectares of mountain area	A) A government payment  B) Removal of alien invasive plant species that are large water users	R450m; R27m from trading account, direct PES; R440m for poverty alleviation  The water user pays a water service provider such as a Municipality or Water User Association for the service, this is then paid into the National WARMS system (Department of Water Affairs and Forestry Accounting system) acting as central broker, from this the Working for Water programme is paid and they pay the service providers.	Working for Water trains teams to remove alien invasive plant species and thereby improve water supply, it also trains the team leaders to cost the work and develop quotes for buyers, a monitoring programme is also in place for follow up work. Each team acts as an individual unit providing the service and being paid for it.	1998 and is ongoing	Implemented and payments have been made for the past ten years, it is still operational and has an annual income of 13 million ZAR	
Water Project 7: Working for Wetlands	DEAT and DWAF	Land owners through contractors provide services to Working for Wetlands who sells the service to buyers. 2200	National	A public payment  Wetland restoration	R67million.a	Working for Wetlands trains teams to provide services that rehabilitate wetlands and wetland functions, it also trains the team leaders to cost the work and develop quotes for buyers, a	2000	Implemented and payments have and are currently being made	

		thousand people				monitoring programme is also in place for follow up work. Each team acts as an individual unit providing the service and being paid for it.			
<b>Bundled</b>									
Bundled 1: Sekhukhune (this used to be Carbon project 1)	Client 2008/09: Trade and Investment Policy Secretariat (TIPS) (with EU funds) Potential future clients: Industries with high emissions, International demanders of carbon offsets	Sekhukhune rural households organised into a to be determined legal entity (e.g. a CBO) by Independent Development Trust	Sekukhuneland, Mpumalanga and Limpopo Provinces	A) A combination of public and private involvement B) Restoration of gullies, fencing to keep livestock out, restoration of bush encroachment, propagation of restoration material, rescuing plants from the De Hoop dam area, M&E	A Current: Capital cost of R2million for 6 months (TIPS/EU payment)  B Current: EU, to TIPS to DWAF to IDT to labour payments  Future link: EU, to TIPS to DWAF to CBO to labour payments	EU: Client TIPS and DWAF: facilitators IDT: Implementing agent Research institution :M&E	March 2008 for first deal	Planning Phase, No payment made yet	a b in co E d)
Bundled 2: Integrated veld and forest Fire management Working for Fire	Individual land owners, Fire Protection Association, District and Local Government, Conservation agencies	Working on Fire is a section 21 Company made up of collectives that supply the service	Country wide	A) A government payment or private payment B) Integrated fire management practices	The Buyer (Land owner) pays the Working for Fire programme who acts as an intermediary. Payments are then made to each of the sub contracting teams providing the service	Working for Fire trains teams to provide the services that reduce fire risks in plantations and other areas, it also trains the team leaders to cost the work and develop quotes for buyers, a monitoring programme is also in place for follow up work. Each team acts as an individual unit providing the service and being paid for it.	Ongoing since	Implemented and payments are being made	

## **Step 1: Identification of new payments for ecosystem service initiatives**

After reviewing the 2005 inventory the team identify and documented PES projects and programmes that:

- were missed from the original inventory, or
- have been developed since the last inventory

The information was captured in Table 2.

## **Summary**

While a variety of transaction forms can be identified through investigating Tables 1b and 2, it is clear that most of them share the following characteristics:

- A clear intent and plan of action to either restore or maintain the natural capital.
- Some form of a broker or facilitator is active linking the buyer and the seller. This broker can be either an implementing agent or the government that either does the task of restoring and/or maintaining the natural capital himself or through a local contractor.
- While the buyers are usually well-structured and organised, the limiting factor pertaining to institutional aspects in most cases surrounds that of the selling outfit. The better that is organised, the higher the likelihood of a PES. Such institutional organisation can take place through contracting specific local contractors or working with a community-based organisation.
- Working for Water, Woodlands and Wetlands dominate the PES landscape in South Africa. While that is a significant advantage, it could also be a detractor from other PES projects to be initiated. The challenge is going to be to use the Working programmes, which in essence do not buy ecosystem goods and services but poverty alleviation, as springboard to develop other initiatives.
- From scrutinising the projects in this inventory it is evident that while there is no formal PES legal instrument, there is also no legal impediment and/or restriction to conduct PES of any kind.
- The main policy instruments and precedent currently governing payments for ecosystem services is that of poverty alleviation funds that is available.
- Each project functions within a pre-defined framework that defines the checks and balances that regulate and manage payments for ecosystem services. Most, however, are linked to the disbursement of poverty alleviation money.

- Given the above it should be clear that the government's role is, if anything, increasing in the PES market through the Working programmes.
- Sadly lacking is a large-scale afforestation/restoration/avoided deforestation (AD/AR) project financed by, among others, carbon money.

Additionally the following information should be provided:

**Country Map with Locations of the Ecosystem Services Payments & Projects:** Please also attach a map of the country in which the inventory was conducted that notes the location of the payments for ecosystem services payments and projects. The locations should all be numbered and a separate sheet should be attached with a list of the project numbers with the specific project names and locations (village, province, etc.). **AAiiiiiiiiiiiiiiiiiiii!! How must I do this with no GIS skills?**

#### Key Contacts:

- Carbon 1: Mike Powel, [m.powel@ru.ac.za](mailto:m.powel@ru.ac.za)
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- Carbon 4: Dr Christo Marais, [chris@dwaf.gov.za](mailto:chris@dwaf.gov.za),
- Biodiversity: All projects deal
- Water 1-3: Projects dead
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- Bundled 5: Various institutions and people, information can be obtained from Prof Martin de Wit, [martin@sustainableoptions.co.za](mailto:martin@sustainableoptions.co.za)
- Bundled 6: Various institutions and people, information can be obtained from Dr Hugo van Zyl, [hugovz@mweb.co.za](mailto:hugovz@mweb.co.za)

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- Websites,
  - <http://www.dwaf.gov.za/wfw/default.asp>
  - <http://www.futureworks.co.za/>
  - ????
- Other resources
  - Various grey literature
  - ?????

**Table 2: New, developed since 2005, or previously un-documented PES projects and sites**

<b>Current Ecosystem Service Payment or Market</b>	<b>Who is the Buyer?</b>	<b>Who is the Seller?</b>	<b>(a) Where is the Project located?</b>	<b>(A) How is the deal structured?</b> Is the deal: <i>(A) A gov't payment?</i> <i>(B) A private deal?</i> <i>(C) Open trading?</i>	<b>(A) What is the Value / Amount of the Deal?</b>	<b>What are the roles of the Institutions Engaged in Payment Scheme?</b>	<b>Date deal agreed?</b>	<b>St</b>
<i>List specific in-country ecosystem service projects under each of the categories below</i>	<i>List name(s) of both key contact people and government agencies, companies, etc.</i>	<i>List both name(s) of people and/or community organizations</i>	<b>(b) How much area involved in agreed deal (hectares)?</b> <i>Include name of village and/or province</i>	<b>(b) What conservation management practices required?</b>	<b>(B) How do Payments flow from the Buyer to the seller?</b> <i>Provide a brief explanation</i>	<i>List all institutions involved (including intermediaries) and briefly explain roles</i>	<i>List date contract or agreement signed</i>	<i>o ple etc. pa</i>
<b>Carbon</b>								
Carbon project 4: Biomass-based electricity	International carbon buyers	Land owners through WfW's value added industries programme	National	To be decided  Clearing of IAPs	To be decided  From the buyer to the project developer to the contractor	To b decided	Expression of Interests in April 2008	Do a
<b>Biodiversity</b>								
none								
<b>Water</b>								
Water project 8 Blue ridge mine	Blue ridge mine	Private land owners through Working for Water	Limpopo province, Loskop dam catchment	Private payment  Clearing of IAPs	From client to DWAF to contractors  Not defined yet	WfW to clear invasive alien plants to release 2million m <sup>3</sup> of water for use by the mine	April 2008	M  com Sep
Water project 9: Shiva mine	Shiva mine	Private land owners through Working for Water	Limpopo province, Loskop dam catchment	Private payment  Clearing of IAPs	From client to DWAF to contractors  Not defined yet	WfW to clear invasive alien plants to release 12 million m <sup>3</sup> of water for use by the mine	Discussions underway	
Water project 10	De Hoek Agriculture Development	De Hoek Agriculture Development	Gouda, Saron, Western Cape	Private payment  Clearing of IAPs	From client to DWAF to contractors  R6million over 6 years	DWAF client; to CAPE nature as implementing agent to contractors to beneficiaries	Application to DWAF May 2008	
Water project 11	Cape Town City Council through DWAF	Private and public land owners through contractors	Tulbach valley, Western Cape	Payment by a municipal council  Clearing of IAPs	From client to DWAF to contractors  R15m over 12 years	City council to DWAF to implementing agent (CAPE nature) to contractors to beneficiaries	2008/09	
Water project 12	Cape Town City	Cape nature	Franschoek valley,	Payment by a municipal council	From client to TCTA to	City council to DWAF to	2005	

	Council through Trans Caledon Tunnel Authority	through contractors	Western Cape	Clearing of IAPs	contractors R11m over 6 years	implementing agent (CAPE nature) to contractors to beneficiaries		
<b>Water project 13: Nhlataze</b>	<b>CM: please add this info</b>							
Water project 14: WWF Water Neutral Project	Large water intensive corporates (1 <sup>st</sup> buyer SAB Ltd)	SANParks and private land owners through WWF & DWAF (Working for Water)	Table Mountain & Kouga Catchment	Large corporates are encouraged to balance their water usage through a three step process of: Review, reduce and replenish. Corporates offset their water deficit by investing in the release of the equivalent amount of water through the clearing alien invasive trees in key catchments that are important to them	Potentially massive; Currently R2.5m over 5 years through the SAB Ltd. pilot projects in Table Mountain & Kouga	WWF: Brokering deals with corporates, overall project management, monitoring & PR Working for Water: Provide logistical framework for clearing of invasive trees WfW contractors: clear invasive trees  Corporates to WWF to implementing agent (Gamtoos irrigation board) to contractors and to beneficiaries	SAB trial: March 2008	Con with ordi app clea soon
<b>Bundled</b>								
Bundled 3: Italy/KNP	Italian Government	Households organised into a to be determined legal entity (e.g. a CBO)	Western boundary of KNP	Donor payment  Restoration of gullies, fencing to keep livestock out, restoration of bush encroachment, propagation of restoration material, M&E	Euro 1,8m  A Donor payment to IUCN, to CESVI to CBO	Donor: buyers  IUCN: facilitator  CESVI: Implementing agent  CBO: implementers	May 2008	
Bundled 4: Baviaanskloof	Water users in the wider Bav.kloof region International carbon buyers	Land owners in the Bav.kloof incl. ECParks board	Bav.Kloof EC (synergy and some overlap with existing carbon project #2)	FS will commence this years (funded by the CAPE/GEF project), so no decision taken but is likely to be a combination of private and public  Restoration of natural capital	To be decided: FS to commence during 2008	To be decided: FS to commence during 2008	To be decided: FS to commence during 2008	FS c
Bundled 5: Environmental offset payments	Various projects in the making, all part of the EIA processes supported by Environmental Management Plans and mainly in the mining sector. The main source is: Department of Environmental Affairs & Development Planning, 2007. <i>Provincial Guideline on Biodiversity Offsets</i> . Edition 2. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Planning, Cape Town. Departmental Project Manager: Gerhard Gerber ( <a href="mailto:Gegerber@pgwc.gov.za">Gegerber@pgwc.gov.za</a> ).							
Bundled 6: Eco-labelling projects	Environmentally aware consumers of products that have a label	Producers of products that meet the requirements to be awarded an eco-	Biodiversity and Wine Initiative (BWI) (Western Cape Winelands) Also:	Private producers invest in measures required to get eco-label. Measures required for a label include provision of ecosystem	Private producers invest in measures required to get eco-label and recover their costs	Various private producers and BWI is a partnership between various conservation organisations (i.e. BotSoc,	BWI has deals in place with various wine producers	Is e



		label	<p>Badger-friendly honey Biodiversity Best Practice in Potato production (primarily Sandveld of Western Cape)</p> <p>Biodiversity Best Practice in Rooibos (Western and Northern Cape)</p>	<p>services such as conservation of biodiversity, efficient use of resources (e.g. water), minimisation of pollution, etc that leads to better run-off, return flows and other services.</p>	<p>through increased sale and/or higher prices that flow from label.</p>	<p>CAPE, WWF, Conservation International, IUCN, etc.). They set standards for entry and producers apply to get right to use label</p>		
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## **Step 2: Identification of potential/promising sites of new payments for ecosystem service initiatives**

From Tables 1b and 2 the team identified the most promising PES project sites and listed them in Table 3.

The criteria for selecting these projects were:

- Institutional certainty
- A clearly identified market and market transactors, i.e. buyers, sellers and a transaction mechanism
- Scale and possibility to be duplicated elsewhere
- Novelty yet supported by rigorous research and evidence
- ???

The task team is of the view that the 4 projects identified passes the criteria.

**Table 3: Documenting potential future PES projects**

<p><b>Current Ecosystem Service Payment or Market</b></p> <p><i>List specific in-country ecosystem service projects under each of the categories below</i></p>	<p><b>Who is the Buyer?</b></p> <p><i>List name(s) of both key contact people and government agencies, companies, etc.</i></p>	<p><b>Who is the Seller?</b></p> <p><i>List both name(s) of people and/or community organizations</i></p>	<p><b>(a) Where is the Project located?</b></p> <p><b>(b) How much area involved in agreed deal (hectares)?</b> <i>Include name of village and/or province</i></p>	<p><b>(A) How is the deal structured?</b> Is the deal: <i>(A) A gov't payment?</i> <i>(B) A private deal?</i> <i>(C) Open trading?</i></p> <p><b>(b) What conservation management practices required?</b></p>	<p><b>(A) What is the Value / Amount of the Deal?</b></p> <p><b>(B) How do Payments flow from the Buyer to the seller?</b> <i>Provide a brief explanation</i></p>	<p><b>What are the roles of the Institutions Engaged in Payment Scheme?</b></p> <p><i>List all institutions involved (including intermediaries) and briefly explain roles</i></p>	<p><b>Date deal agreed?</b></p> <p><i>List date contract or agreement signed</i></p>	<p><b>Status</b></p> <p><i>Status open planning etc., and payment</i></p>
<p>Water project 14: WWF Water Neutral Project</p>	<p>Large water intensive corporates (1<sup>st</sup> buyer SAB Ltd)</p>	<p>SANParks and private land owners through WWF &amp; DWAF (Working for Water)</p>	<p>Table Mountain &amp; Kouga Catchment</p> <p>Size ?? CM??</p>	<p>Large corporates are encouraged to balance their water usage through a three step process of: Review, reduce and replenish. Corporates offset their water deficit by investing in the release of the equivalent amount of water through the clearing alien invasive trees in key catchments that are important to them</p>	<p>Potentially massive; Currently R2.5m over 5 years through the SAB Ltd. pilot projects in Table Mountain &amp; Kouga</p>	<p>WWF: Brokering deals with corporates, overall project management, monitoring &amp; PR Working for Water: Provide logistical framework for clearing of invasive trees WfW contractors: clear invasive trees</p> <p>Corporates to WWF to implementing agent (Gamtoos irrigation board) to contractors and to beneficiaries</p>	<p>SAB trial: March 2008</p>	<p>Contract with SA... ordinate... appoint... clearing... soon</p>
<p>Water project 8: Blue ridge mine</p>	<p>Blue ridge mine</p>	<p>Private land owners through Working for Water</p>	<p>Limpopo province, Loskop dam catchment</p> <p>Size ?? CM??</p>	<p>Private payment Clearing of IAPs</p>	<p>From client to DWAF to contractors Not defined yet</p>	<p>WfW to clear invasive alien plants to release 2million m<sup>3</sup> of water for use by the mine</p>	<p>April 2008</p>	<p>MOU... con... comm... Sept...</p>
<p>Water Project 5: Maluti-Drakensburg</p>	<p>Various water users across South Africa</p>	<p>The Maluti-Drakensburg communities</p>	<p>Maluti-Drakensburg, Kwa-Zulu Natal</p> <p>250,000ha</p>	<p>Not decided yet, but probably a combination of private and public funds. Restoration component most likely funded by Gov with water service and O&amp;M paid for by private sector through DWAF</p>	<p>Amount not decided yet, but possibility is huge</p>	<p>To be decided</p>	<p>To be decided</p>	<p>a) F... con... b) Muc... imple... c) Re... gear... impl... pen...</p>

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Bundled 4: Baviaanskloof	Water users in the wider Bav.kloof region International carbon buyers	Land owners in the Bav.kloof incl. ECParks board	Bav.Kloof EC (synergy and some overlap with existing carbon project #2)  Size ?? CM??	FS will commence this years (funded by the CAPE/GEF project), so no decision taken but is likely to be a combination of private and public  Restoration of natural capital	To be decided: FS to commence during 2008	To be decided: FS to commence during 2008	To be decided: FS to commence during 2008	FS to duri

### Step 3: The value chain approach to ecosystem services

CM: I need to discuss this with you.

The 2005 Forest Trends methodology identifies another 8 steps. These steps collect information on everything from the presence of the supporting institutions to the Awareness of Ecosystem Service Values, Payments and markets (Step #10).

This iteration of the inventory will adopt a different approach. Firstly, the team will **select one to three of the most successful PES schemes from the inventory**. The projects or interventions that are selected for the value chain analysis should:

- Take account of the different ecosystem services (bio-diversity, carbon and water)
- Be operating at scale rather than pilot or very localised projects
- Be operational and making payments to landholders rather than planned interventions

For this sub-sample of projects, the team will use the value chain approach to guide their data collection and analysis. Value chain analysis is effectively a framework for a case-study approach to information collection and analysis. It has been contextualised as a series of questions that can be posed at each point in the PES value chain. The questions form the basis for an analytic approach to the project or intervention.

The value chain analysis will differ between ecosystem services. For example the value chain for a local payment for watershed services will be very different to the extended series of stakeholders and payments in for carbon.

**Table 2: The value chain approach to payments for ecosystem services**

Steps in the PES value chain (Value chain activities)	Key questions
<b>MONITORING</b> (Service)	
	How is (or could) this PES agreement monitored?
	What are (or could be) the means of verification of changes in land-use?
	Who / what organization is measuring / verifying? With what frequency?
	How do the agreements deal with issues of permanence, leakage and additionality?
<b>BUYERS</b> (Marketing and sales)	
	Who is the buyer(s) or potential buyers?
	What is (or could be) the buyer's interest / motivation for engaging in the deal?
	What is (or could be) the business case for entering the deal (e.g., averted costs, improved brand/PR, etc.)?
	What are the costs of alternative approaches to gaining the same outcome (e.g., side by side cost comparison of entering into PES deal vs. adopting an alternative course of action)?
<b>PRICES</b> (Outward bound logistics)	
	Do comparable prices exist?
	If a PES deal has already been done, how were the prices contained in the PES agreement reached?
	Were these prices perceived as fair by both buyers and sellers as well as independent review?
	What percentage if any went to brokers or other go-betweens who assisted either the buyer or the seller

<b>Steps in the PES value chain (Value chain activities)</b>	<i>Key questions</i>
<b>CHANGES IN LAND-USE</b> (Operations)	
	What are the changes in land-use required in the PES deal?
	What is the scientific basis of these changes (including citation of past studies, baseline data collection, etc.)?
	What is the basis of scientific confidence that these changes will result in the agreed ecosystem service?
	What are the trade-offs that are involved in this land-use change, both for direct resource users as well as others in the area?
	Who is bearing these costs (buyer, seller, or another party)?
	What are the costs (direct and indirect) of these changes?
<b>SELLERS</b> (Inbound logistics)	
	What is the current land-use systems?
	What are both the direct and opportunity costs of changing land-use?
	Are sellers engaging the deal individually or as a group? Why? If in a group, with what level of organization?
<b>LEGAL and POLICY Framework</b> (Infrastructure)	
	What is the legal and policy environment for PES?
	Is it a framework that supports the use of PES?
	What is the role of government that exists or is needed? Why?
<b>FACILITATION AND SUPPORT</b> (Human resource management)	
	What additional expertise if any is needed to make this deal market-ready?
	What potential partners or brokers have been or could be engaged?
	How much would this cost?
	What are the knowledge and the skills of the sellers with respect to PES?
	What are the knowledge and the skills of the buyers with respect to PES?
	What are the knowledge and the skills of the supporting organisations with respect to PES?
<b>RESEARCH and DEVELOPMENT</b> Technology development	
	Who is thinking and driving innovation around PES in the country / region?
	How are new innovations being tested (including details on where, with what organizations / players, etc.)?
<b>TRANSACTION COSTS</b> (Procurement)	
	What are the transaction costs of the current PES arrangements?
	Who is meeting these costs at the moment?
	Will these transaction costs change over time?

The advantage of the value-chain approach is that it looks at all the stages of a PES deal in order to understand the incentives for the stakeholders who form that chain.

The output of the VCA will be:

- The identification of the three most developed PES sites / projects in each of the countries (1-3 in number),
- An analysis of these projects using the VCA with the result that we have a deeper understanding of the incentives for each stakeholder and the supporting agencies
- In doing this the consultants will propose a country-specific pathway forward for scaling PES up, and
- An informed a set of recommendations on helpful roles for the E&SA Katoomba Group (see for example the #4.7 – the incubator approach).

The final result will be national inventories completed and accessible online for the six focal countries (South Africa, Kenya, Uganda, Tanzania, Malawi, and Madagascar). There are two particular issues that the teams should bear in mind. The first is develop an understanding of the constraints to the development of PES that might exist at either regional or national level. The second is to look at projects that have the potential to be increased in size / hectares covered or “copied” / used as inspiration for new projects elsewhere).