THE EAST & SOUTHERN AFRICA KATOOMBA GROUP

PAYMENTS FOR ECOSYSTEM SERVICES (PES) IN EAST AND SOUTHERN AFRICA: ASSESSING PROSPECTS & PATHWAYS FORWARD

PURPOSE

The East and Southern African Katoomba Group (E&SAKG) is embarking on an assessment of:

(1) Existing payment for ecosystem service (PES) deals that could be expanded or replicated in other sites, and
(2) Promising potential sites for broadening and deepening either:
    (a) Engagement in environmental markets (most notably international carbon markets) and/or
    (b) Application of the payments for ecosystem services (PES) in the region.

The purpose of this assessment is to improve the understanding of the development and potential for PES initiatives in select countries within the East and Southern Africa region and to explore "proof of concept" related to PES applications within the region. The end goal is to contribute both to conservation and rural economic development, including poverty alleviation objectives.

This document provides:

- **A brief background to PES** in the East and Southern African Region as well as an overview of insights from the related field of community conservation (or community based natural resource management (CBNRM))
- **A definition of ecosystem services and PES**, which is intended to guide the selection of existing and potential PES sites in the inventories, and
- **A guide to the methodology** that will be used by the country teams to conduct the inventories and associated activities that follow the inventory

The definition and guide/methodology will serve as the structure and approach for all country-level consultants undertaking the in-country PES inventories.

BACKGROUND

Typically conservation agendas in east and southern Africa have been dominated by the region's charismatic species that include; elephant, buffalo, lion, leopard and rhino (both species). For many years the primary approach to conservation and in particular the conservation of biodiversity—often through a focus on wildlife—has been to create protected areas that are managed by state wildlife agencies. Within the five mainland countries there are over 400,000 km^2 of land that is designated as protected areas. The proportion of protected area ranges by countries from just 6% in South Africa to about 30% in Tanzania. In Madagascar about 4% of the country or 25,000 km^2 of land is designated as protected. Conservation issues on the island have generally been dominated by the extreme changes in landuse and deforestation.

In addition to the state owned and managed protected areas, there is private land and communally owned land. The different forms of land tenure have a significant impact on the different types of conservation and activities that have been tried over time.

> **Private land**: Within the region, private land is considered to be land to which individuals have legal rights. This allows them to buy or sell land on the open market. Private land is generally a relic of these countries' colonial past where land was expropriated for the purpose of settling expatriate farmers. Across the selected countries, it is only in South Africa and Kenya that there are still significant areas of private land.
>
> **Communal land:** Is generally held in trust by the state for and on behalf of its citizens. Citizens may, subject to local rules and regulations, settle on communal land. Typically tenure arrangements are a complex mix of modern, traditional, common property and private property. There are variations on how communal tenure systems operate both within countries and between the countries themselves.

Approaches to conservation and more latterly development, have changed over time within the region. Initially conservation was all about creating protected areas and excluding people on the basis that people and animals could not co-exist. Over the last 20 to 30 years there is an increasing realisation that conservation cannot occur in isolation from the needs of people.

In recent years the variations of the 'community based conservation' have become the dominant conservation (and development) for communal lands in east and southern Africa and Madagascar. CBC is characterised by a common set of core values that apply across the region even when the precise format, structure and facilitation varies. The key elements of CBC are:

> **Generating economic incentives**: CBC recognises that current management of land and natural resources is driven by the current structure of incentives and costs. On communal land families need there is often and tension between the needs of people (development) and the perceived needs of conservation. Fundamentally, to change the way land is managed requires changing the incentives for all the stakeholders involved farmers, communities and very often the responsible local government.
>
> **Community management**: Within the CBC paradigm there is a strong sense that communities can be and are the appropriate management unit for land and natural resources. However, the approach requires governments to devolve authority over some aspects of land and resource management to communities.

Some analysts are confident that many CBC approaches have failed; others adopt a more nuanced approach that they are actually part of a much longer ongoing process of 'experimentation'. Importantly, in nearly all east and southern African countries there are cases that have failed, other that have prospered and many which are still in the process of evolving.

METHODOLOGY

A comprehensive guide to the key steps in an inventory of PES schemes was produced by the Katoomba Group in 2005 (See Waage, Scherr, Inbar and Jenkins[1]). The inventory was used to produce basic information on the development of PES in the region prior to the meetings in Uganda (2005) and South Africa (2006). Summaries of the key information were used for the review of PES initiatives by Ruhweza and Waage (2007).

The inventory used the following definition of payments for ecosystem services:

> **"**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."

The 2008 will use this definition because any substantive changes to the working definition means that we will not be able to look at the trend in the development of PES in the region. The key steps of the 2008 review are presented in Table 1. Note the approach does differ slightly from the full inventory that was carried out for Forest Trends in 2005 / 6.

No previous inventory has been carried out in Malawi. Therefore, the Malawian Team will omit Step 0. However, it is essential that Steps 1 – 6 are fully and comprehensively completed. In addition, the team will need to document; the supporting institutions (organisations), the degree of community involvement in the PES initiatives, sources of national and regional technical assistance, sources of funding, standards and guidelines and comment on the awareness of PES.

[1] The 2005 / 2006 inventory protocol can be found at: http://www.katoombagroup.org/regions/africa/documents/National%20Inventory%20Framework.doc and the inventories for Kenya, Tanzania, Uganda, Madagascar, and South Africa can be found at: http://www.katoombagroup.org/regions/africa/assessments.php. A synthesis of the findings is posted at: http://www.katoombagroup.org/regions/africa/documents/Current%20State%20of%20PES%20Play.pdf

The Katoomba methodology sets out 10 steps with the information being captured in a set of matrices. The early stage of the update and the full inventory for Malawi will use a very similar approach. The specific steps are laid out below and summarized in the table below.

Table 1: Summary of Inventory and associated steps

	Activities	**RATIONALE**
Step 0	Complete Matrix 1 – which re-visits all the projects and sites described in the original inventory	*Will provide a record of the performance of the projects that were covered in the first inventory either in 2005 or 2006.*
Step 1	Complete matrix 2 - Record the details of the new or previously un-documented PES projects.	*Steps 0 and 1 will provide:* - *a full current inventory* - *a notional sense of trend* *The legal and policy review will update the institutional context in which these projects are being implemented.*
Step 2	Complete matrix 3 – potential projects that might mature in the next few years.	*Will give us insight into the pipe-line of potential projects that are being developed.*
Step 3	The value chain approach to ecosystem services applied to between one and three cases.	*Will help understand the incentives for each stakeholder that forms the value-chain for PES. This is a narrative analysis.*
Step 4	A demand analysis	*Together with Step #3, will provide an indication of the demand for ecosystem services in the region.*
Step 5	Country-specific pathway for proving the PES approach	*Each country will have a unique pathway for the development of PES approaches depending on its economy, legal and policy framework and bio-physical attributes.*
Step 6	The future role of the regional East and Southern Africa Katoomba Group in developing PES both in-country and in the region	*The E&SA Katoomba Group has limited resources but perceives that it has a role to play in the development of PES in the region. This needs to be defined and articulated by the countries in the region.*
Step 7	Identifying sites that are appropriate for the incubator treatment	*Katoomba is developing a methodology of intensive support to specific sites known as the incubator approach. The country teams will consider this approach, identify and select sites (if appropriate) and broadly identify the kind of support that each site requires.*

Steps #4 to #7 (inc) will be done collaboratively at a workshop in Uganda on the 8,9 &10 July 2008.

Step 0: Revisiting the 2005 or 2006 inventories
For the Kenyan, Tanzanian, Ugandan, Malagasy and South Africa teams, the first step of the inventory **must** be to review the projects and/or programmes that were recorded as part of the first inventory. It is essential that we use this opportunity to develop a good understanding of the progress of these projects for which we have existing information.

To do this the teams must simply modify the existing inventory and update the matrix (Annex 2), drawing upon the 2005/2006 material (which can be found at: http://www.katoombagroup.org/~katoomba/regions/africa/assessments.php). This step also provides an opportunity for the teams doing the inventory to check on the basic facts of the project in terms of its area, the type and frequency of the payments.

The update and the review of the matrix are essential because it has been shown that some categories of PES projects (for example watershed services) have failure rate that is approaching 50% (Porras and Grieg-Gran, 2007). Other information is particularly crucial to our analysis includes:

- area involved (column 4, question B), and
- Value of the payments (column 6, question A).

Without this information it is impossible to assess the scale of PES interventions and their trends.

Step 1: Identification of new payments for ecosystem service initiatives
The second step of the process will be to identify and document PES projects and programmes that:

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

After identifying the projects, the teams must collect the information that allows them to complete the matrix (Annex 3). This matrix should be clearly labeled 'new projects' and should include:

  - where the PES deals are located in the country,
  - what the details are on context, such as ecology, politics and economy of the area
  - what attributes makes this particular effort ideal for scaling up and/or learning from

The two matrices, one of updated projects and the other of new projects should be accompanied by a brief review of the legal and policy framework in which these projects are being implemented. The teams should use the Katoomba Inventory Methodology for the key questions such as:

- Are there legal instruments that cover payments for ecosystem service payments?
- What are the policy instruments and precedents that are governing payments for ecosystem services?
- Are there government agencies that exist to regulate and manage payments for ecosystem services?
- Is there any involvement of government in decreasing the risks associated with payments for ecosystem services
- Are there any additional laws, regulations or administrative rules needed to support growth of payments for ecosystem services?

Additionally for each project the teams must record the following information:

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.).

Key Contacts: Please attach a list of key contact people related to the inventory information. For example, project leaders, experts, government officials, etc.

Bibliography: Provide a list of books, articles, websites, and other resources—separated into these four core categories—that would provide background material for the inventory.

The final output for this point of the inventory will be a set of matrices, a brief review of the legal and policy framework together with a map, key contacts and a bibliography. The team is expected to provide a short narrative on the results of the updated inventory. The narrative and analysis should focus on the key changes that have taken place since the last inventory and the reasons why these changes have taken place.

Step 2: Identification of potential / promising sites of new payments for ecosystem service initiatives

The third step of the process will be to identify and document ***potential*** promising PES project sites and lay out (Annex 4):

- where the promising sites are located in the country,
- what the details are on context, such as ecology, politics and economy of the area
- what attributes makes this particular effort ideal for scaling up and/or learning from

Step 3: The value chain approach to ecosystem services

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**
MONITORING (Service)	
	How is (or could) this PES agreement monitored?
	What are (or could be) the means of verification of changes in landuse?
	Who / what organization is measuring / verifying? With what frequency?
	How do the agreements deal with issues of permanence, leakage and additionality?
BUYERS (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)?
PRICES (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?
	Did buyers and sellers as well as independent review perceive these prices as fair?
	What percentage if any went to brokers or other go-betweens who assisted either the buyer or the seller
CHANGES IN LANDUSE (Operations)	
	What are the changes in landuse 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 landuse change, both for direct resourc 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?
SELLERS (Inbound logistics	
	What are the current landuse systems?
	What are both the direct and opportunity costs of changing landuse?
	Are sellers engaging the deal individually or as a group? Why? If in a group, with wha level of organization?
LEGAL and POLICY Framework (Infra-structure)	
	What is the legal and policy environment for PES?

Steps in the PES value chain (Value chain activities)	**Key questions**
	Is it a framework that supports the use of PES?
	What is the role of government that exists or is needed? Why?
FACILITATION AND SUPPORT (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?
RESEARCH and DEVELOPMENT 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.)?
TRANSACTION COSTS (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 developing 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).

Step 4: A demand analysis (Regional level)
The information collected for the value chain analyses from the selected projects and countries will also be used to conduct a regional demand assessment for PES. The demand study will disaggregate the market by product to determine where the greatest opportunities for PES lie from a demand side. This will be done collaboratively in our workshop in July 8,9, 10 July 2008.

Key questions will include:

- why specific deals are promising;
- what ecosystem system services can be sold right away and what services can be sold with further investments (specify investments needed),
- who are the potential buyers,
- what are the limiting factors (that is, why they have not reached scale to date),
- what is needed to scale up,
- who are the key resource people and what is their level of knowledge/capacity related to PES, and
- What assistance is needed in scaling this (these) particular initiative(s) up to prove the PES concept in country?

Step 5: Country-specific pathway for proving the PES approach
Each country in the region will have a unique set of characteristics that will determine the opportunities for developing payments for ecosystem services. The inventory and associated analyses will be used to identify the country specific pathways for the development of PES (if appropriate). As with the Step 4, this will be addressed collaboratively as a group on July 8,9, 10 July 2008.

Step 6: The future role of the regional East and Southern Africa Katoomba Group in developing PES both in-country and in the region.
The E&SA Katoomba Group perceives that it has a role in developing payments for ecosystem services in region. However the functions and the form of the group must be demand driven by its members. The final step in this process will be to collectively assess the role of the Katoomba Group in the region and to develop options for the future. This process will be informed by the role of other regional expert groups such as IUCN's Southern African Sustainable Use Group (SASUG). As with the Step 5, this will be addressed collaboratively as a group on July 8,9, 10 July, 2008.

Step 7: Identifying and applying an incubator approach to selected sites / programmes

Forest Trends is applying an 'incubator'[2] approach to the development of promising PES schemes in South America and West Africa, with the hope of replicating this approach in east and southern Africa. The 'incubator' or fast-track approach involves focussing a lot of effort on a particular site with a view to 'fast-tracking' the development of the payments scheme. The approach is useful because:

- If successful it produces a pilot that has demonstration value for stakeholders in the region
- Identifies approaches and methodologies that are appropriate and useful 'in-context'

The options of identifying a limited number of projects in the region will be carried out collaboratively at the workshop in July 2008.

[2] The incubator approach is similar to the action-learning approach that is favoured by IIED and similar other organisations.

Technical support

Forest Trends and Katoomba realise that there are real challenges to undertaking the steps and activities. For this reason, Alice Ruhweza and Ivan Bond will be available for consultation during the process.

Contact information:

Alice Ruhweza aruhweza@forest-trends.org (256-752-780020)
Ivan Bond ivan.bond@iied.org (44 0207 3882117)

If you are having problems or have any questions then it is important that you contact either Alice or Ivan.

Timeline

There are two key dates. The first is the meeting that will be held in Uganda July 8,9 & 10. We will use this meeting to consolidate our findings from the inventories and to work collaboratively on Steps 4, 5, 6 & 7. This means that Steps 0-3 inclusive must be concluded at least two weeks before this meeting on Friday 13th June 2008.

The second date will be the full Katoomba Meeting that will be held in Tanzania. 10-12th September 2008. The entire inventory process will have to be completed by August 31st so that it can feed into this meeting.

References

Ruhweza A., and S. Waage (2007) The State of Play: Payments for Ecosystem Services in East and Southern Africa. The Ecosystem Marketplace.

Sissel Waage, Sara Scherr, Mira Inbar, and Michael Jenkins (2005) Guide To Conducting Country-Level Inventories Of Current Ecosystem Service Payments, Markets, And Capacity Building**.** Forest Trends. Washington D.C. (http://www.katoombagroup.org/~katoomba/regions/africa/documents/National%20Inventory%20Framework.doc)

Ina Porras, Maryanne Grieg-Gran and Nanete Neves (2008) '**All that glitters…**Review of payments for watershed services in developing countries'. IIED. London. UK

Annex 1:
State of PES inventories selected East and Southern African Countries[3]

Country	**2005**	**2006**	**Activities in 2008**
Kenya	XX		Update of inventory is needed
Tanzania		XX	Update of inventory is needed
Uganda	XX		Update of inventory is needed
South Africa	XX		Update of inventory is needed
Madagascar		XX	Update of inventory is needed
Malawi			Inventory is needed

[3] The financial resources for each of the national inventories will be set out in the consultant's terms of reference issued by Forest Trends.

Annex 2: Matrix One - Review of projects and sites re-visited

CURRENT ECOSYSTEM SERVICE PAYMENT OR MARKET *List specific in-country ecosystem service projects under each of the categories below.*	**WHO IS THE BUYER?** *List name(s) of both key contact people and government agencies, companies, etc.*	**WHO IS THE SELLER?** *List both name(s) of people and/or community organizations*	**(A) WHERE IS THE PROJECT LOCATED?** **(B) HOW MUCH AREA INVOLVED IN AGREED DEAL (HECTARES)?** *Include name of village and/or province*	**(A) HOW IS THE DEAL STRUCTURED?** IS THE DEAL: *(A) A gov't payment?* *(B) A private deal?* *(C) open trading?* **(B) WHAT CONSERVATION MANAGEMENT PRACTICES REQUIRED?**	**(A) WHAT IS THE VALUE / AMOUNT OF THE DEAL?** **(B) HOW DO PAYMENTS FLOW FROM THE BUYER TO THE SELLER?** *Provide a brief explanation.*	**WHAT ARE THE ROLES OF THE INSTITUTIONS ENGAGED IN PAYMENT SCHEME?** *List all institutions involved (including intermediaries) and briefly explain roles.*	**DATE DEAL AGREED?** *List date contract or agreement signed.*	**STATUS IN 2005 OR 2006** *State if in operation, in planning phase, etc., and whether payments made*	**2007 OR CURRENT STATUS?** *Major changes to programme since 2005 or 2006* .
Carbon									
Biodiversity									
Water									
** Please add rows as needed**									

Annex 3: Matrix 2 - Documenting the new (or previously un-documented) projects and sites

CURRENT ECOSYSTEM SERVICE PAYMENT OR MARKET *List specific in-country ecosystem service projects under each of the categories below.*	**WHO IS THE BUYER?** *List name(s) of both key contact people and government agencies, companies, etc.*	**WHO IS THE SELLER?** *List both name(s) of people and/or community organizations*	**(A) WHERE IS THE PROJECT LOCATED?** **(B) HOW MUCH AREA INVOLVED IN AGREED DEAL (HECTARES)?** *Include name of village and/or province*	**(A) HOW IS THE DEAL STRUCTURED?** IS THE DEAL: *(A) A gov't payment?* *(B) A private deal?* *(C) Open trading?* **(B) WHAT CONSERVATION MANAGEMENT PRACTICES REQUIRED?**	**(A) WHAT IS THE VALUE / AMOUNT OF THE DEAL?** **(B) HOW DO PAYMENTS FLOW FROM THE BUYER TO THE SELLER?** *Provide a brief explanation.*	**WHAT ARE THE ROLES OF THE INSTITUTIONS ENGAGED IN PAYMENT SCHEME?** *List all institutions involved (including intermediaries) and briefly explain roles.*	**DATE DEAL AGREED?** *List date contract or agreement signed.*	**STATUS IN 2005 OR 2006** *State if in operation, in planning phase, etc., and whether payments made*
Carbon								
Biodiversity								
Water								
** Please add rows as needed**								

Annex 4: Matrix 3 - Documenting future PES projects

CURRENT ECOSYSTEM SERVICE PAYMENT OR MARKET *List specific in-country ecosystem service projects under each of the categories below.*	**WHO IS THE BUYER?** *List name(s) of both key contact people and government agencies, companies, etc.*	**WHO IS THE SELLER?** *List both name(s) of people and/or community organizations*	**(A) WHERE IS THE PROJECT LOCATED?** **(B) HOW MUCH AREA INVOLVED IN AGREED DEAL (HECTARES)?** *Include name of village and/or province*	**(A) HOW IS THE DEAL STRUCTURED?** IS THE DEAL: *(A) A gov't payment?* *(B) A private deal?* *(C) open trading?* **(B) WHAT CONSERVATION MANAGEMENT PRACTICES REQUIRED?**	**(A) WHAT IS THE VALUE / AMOUNT OF THE DEAL?** **(B) HOW DO PAYMENTS FLOW FROM THE BUYER TO THE SELLER?** *Provide a brief explanation.*	**WHAT ARE THE ROLES OF THE INSTITUTIONS ENGAGED IN PAYMENT SCHEME?** *List all institutions involved (including intermediaries) and briefly explain roles.*	**DATE DEAL AGREED?** *List date contract or agreement signed.*	**STATUS IN 2005 OR 2006** *State if in operation, in planning phase, etc., and whether payments made*
Carbon								
Biodiversity								
Water								
** Please add rows as needed**								

Annex 5: Cover to Work Sheets

The following cover sheet and matrices structure a country-level inventory. *In conducting the inventory, please complete each element / step.*

Upon completion of the country assessments, the worksheets will summarize the current status of ecosystem service payments and markets.

COVER PAGE:

Country: _____

Period Inventory Undertaken:
Begun: _____
Completed: _____

Name of Person Completing Inventory:
_____

Organizational Affiliation:
_____

Contact Information:
_____
_____
_____
_____