

Newsletter 2: July 2014 [p4ges](#) is a three year project involving a consortium of ten institutions in the UK, Madagascar, the USA and the Netherlands. Our aim is to influence the development and implementation of international ecosystem service payment schemes in the interests of poverty alleviation. The project is focused in the eastern rainforests of Madagascar in a REDD+ pilot project known as the Corridor Ankeniheny Zahamena. p4ges is funded by [espa](#) (Ecosystem Services for Poverty Alleviation). This document is a brief update aimed at our national and international advisory committees to keep them informed of the project's progress. Regular updates are also posted on our [website](#).

Progress in research

The last six months have been very intensive with all the empirical work packages finalising field methods, sampling design, and doing site visits to seek local permission and finalise site selection.

Biophysical work packages: These are looking at hydrological, carbon and biodiversity services from land uses which can be incentivized under PES. They have identified 4 zones of interest for sampling (see Figure 2). They have nearly completed field work in their first 'zone of interest' (ZOI2_Andasibe). This area was the focus of the reforestation project 'TAMS' (and is the location on ongoing reforestation efforts by the NGO Mitsinjo) therefore they were able to sample reforestation in this zone (this land use won't be sampled in other zones as is not available). In this zone they have therefore sampled in 14 sites which represent 5 focal land uses (closed canopy forest, tree fallow, shrub fallow, active reforestation, and highly degraded land). Hydrology and biodiversity are



constrained to work in the wet season only but they plan to increase the replication of some land uses (particularly fallow sites) in the next field season. Results are being analysed from this 1st lot of field work but preliminary results are available. The hydrology team have demonstrated a clear difference between the land uses in terms of the potential for soil to soak into the ground (ultimately influencing water flow in rivers) under the different and uses (see figure 1).

Combined with modelling work (using the policy support tool waterworld) and other data being collected we will be able to model the likely impacts in terms of hydrological services available to people different scenarios of land cover change.

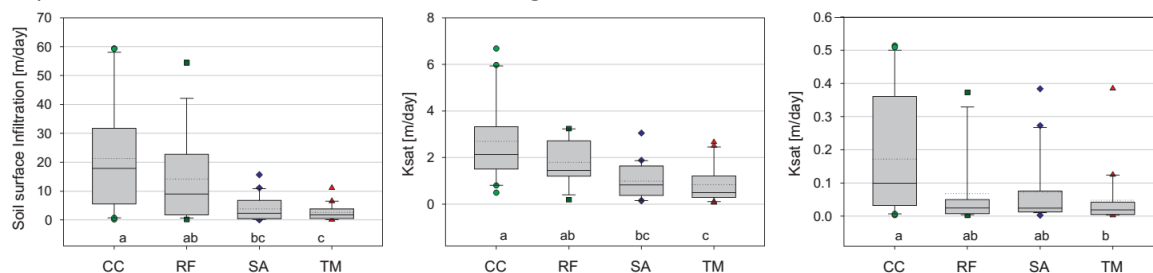


Figure 1. Infiltration rates (left), and hydraulic conductivity at 10-20 cm (middle) and 20-30 cm (right) below the surface for the closed canopy (CC), reforestation (RF), fallow ('savoka' SA) and degraded ('tany maty' TM) sites.

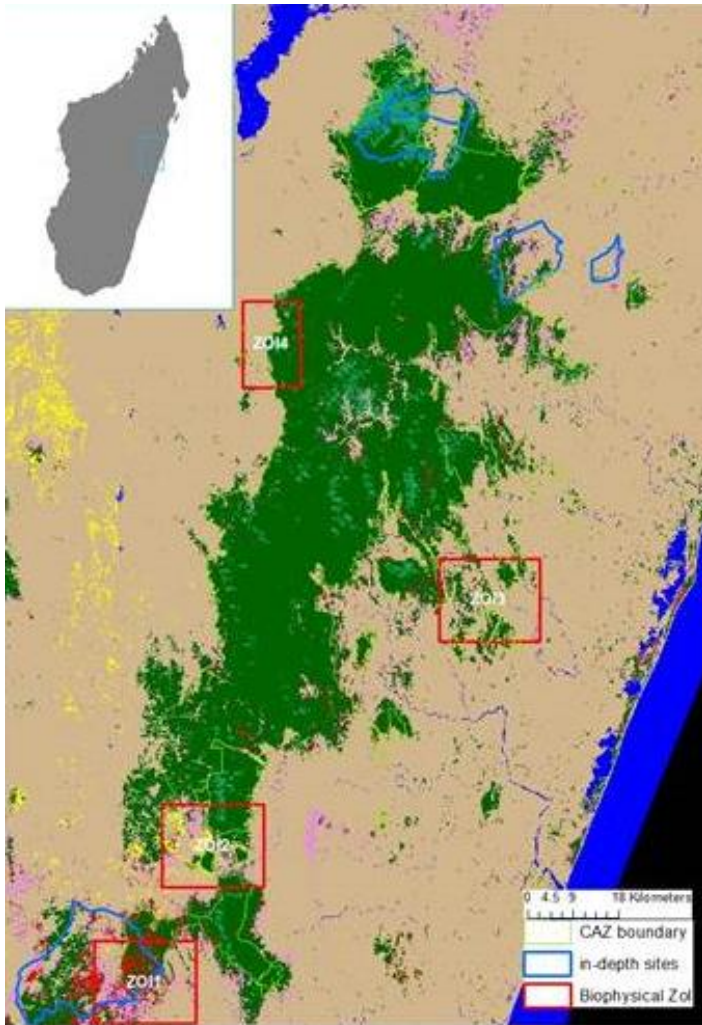


Figure 2: The location of the CAZ REDD+ pilot project in eastern Madagascar and the Zones of Interest for the p4ges biophysical work and the in-depth sites where we are estimating the opportunity cost of conservation restrictions

livelihoods.

We are also conducting a desk-based analysis to bring together data on what community-level investments have been made in the CAZ corridor (to allow investigation into the transaction costs of different approaches). This desk-based work will inform the selection of sites for field work aimed at exploring the effectiveness of different approaches at delivering lasting benefits to communities.



Currently members of the three biophysical workpackages are in the field in ZOI4_Didy and will travel to ZOI3_Anjamana in July, they are carrying out reconnaissance and site selection.

Social workpackages: The field teams have spent a lot of time in the field over the past few months talking to local people, collecting qualitative information to inform the sampling design and design of quantitative research instruments and also getting local permission for the research. The field teams are focusing their attention at the moment in 4 in-depth sites (see Fig 1) which have been selected to allow the opportunity cost of conservation restrictions to be estimated. In each site the economic team are developing a sampling frame based on intensive field work and community mapping and selecting households for a main household survey. From this survey 50 households are selected for intensive further study-with these households we carry out a detailed agricultural survey which involves mapping of agricultural fields, and a further interview on the use of wild-harvested products. Our social-institutional team are doing qualitative research in these sites which better captures non-economic impacts of conservation restrictions on

Progress in impact activities

The research is some way from producing results which can be usefully disseminated. However good relationships with stakeholders at local, national and international scales are vital to p4ges' success (in terms of ensuring our research is well targeted to current and future stakeholder needs and to ensure results are likely to be well understood and used) so and we have been working at building these.

Relationship with stakeholders at local scale:



We need local communities to be happy with our project on a practical level: without local acceptance the research would simply not be possible. However these relationships are also vital if results we produce (concerning linkages between land use and ecosystem services) are to be used locally. At each site the team spend time doing courtesy visits, explaining project objectives and gaining local permission before any field work starts. We also ensure we hire local guides and field assistants to increase trust. We have developed a project information leaflet which explains the aims of the project, has a picture of the core team and contact information. We have identified

further information leaflets which would be helpful for explaining particular aspects of the project (e.g. the hydro team are working on a leaflet with diagrams explaining the mechanism by which land cover can influence the flow of water in rivers). A message we get often is that people are willing to participate in research but they want to see the results of research returned to them. We maintain a list of all villages visited and are retaining resource to ensure we can feedback results at the end of the research.



Relationships with stakeholders at the national scale:

Our [national advisory committee](#) has met twice. They have given useful advice on our project, especially in terms of what national scale processes our project may be able to contribute to. We have also organised two workshops

which were identified as useful to stakeholders at the national scale. These were both very successful.

Ecosystem Services Mapping and Policy Support Tools:



introducing Waterworld and Co\$ting Nature was attended by 25 trainees included staff from the Ministry of Water, Ministry of Environment and Forests, university departments, the Office National pour l'Environnement and local and international conservation (WWF, Conservation International, WCS) and development-focused (WaterAid, EU-DEV) organisations. It was delivered by Kings College London and Bangor University and organised by Conservation International. The

workshop was introduced by Dr Rija Ranaivoarison the national coordinator of the WorldBank WAVES programme. The training materials are available to download from our project website (www.p4ges.org)



Academic publishing for poverty and ecosystem services-related science: This workshop was attended by 36 people from university departments, national and international NGOs and Madagascar National Parks. The aim was to help active researchers successfully publish their research internationally. 94% of participants said they felt more prepared to publish research internationally after the workshop.

Relationship with stakeholders at international scale: The first meeting of our [international advisory](#) committee was held in February. We found the advice of the members very helpful, particularly with respect to how we are dealing with poverty issues, how we should communicate the complex methods of the project, and the importance of including in our scenarios development trajectories which will indirectly influence pressure on the forest (eg rapid intensification of agriculture or urbanisation). In the next six months our project will present posters or oral presentations at a range of meetings including the Ecosystem Services Partnership meeting in Costa Rica, the ESPA Science meeting in Delhi, the ESRI users conference in San Diego.

- Short film: Dye infiltration experiment

- Maafaka demonstrates the blue dye infiltration experiment in [this](#) short video.



We are keen that our project is as transparent as possible and that information about our activities is easily available to others who may be working on similar topics. To this end we maintain an up to date website with regular news items, blog entries,

and we post resources to download. We have recently produced a series of [short videos](#) about the project which are available on our website.

Relationship with the espa directorate: In February 2014 p4ges hosted a very successful visit from Paul van Gardingen and Ruth Swanney from the [espa directorate](#) (funders of p4ges). Paul and Ruth visited LRI where they had a presentation from the head of LRI and Herinsitohaina Razakamanarivo from p4ges gave a presentation about the 3 biophysical WPs and integration between them. They then went to ESSA where Bruno Ramamonjisoa gave a really nice overview of progress of the social



WPs and Jeannicq Randrianarisoa did a presentation on our activities concerning impact and stakeholder engagement. Ruth and Paul then spent 4 days in the field, visiting the hydrology and biodiversity teams and then travelling to the village of Mahatsara with members of the socio-economic team. In Mahatsara we were hosted by M. Dimanche, Tangalamena and President of the Fokotany of Faliarana. Paul enjoyed the opportunity to discuss with M. Dimanche the ways in which forests impact the livelihoods of his community

Espa fellows: The p4ges project is delighted to welcome two fellows funded directly by the espa programme to work alongside us on research linking ecosystem services and poverty in Madagascar. Cécile Bidaud Rakotoarivony is an anthropologist who has lived and worked in Madagascar for 10 years. Her research as an espa fellow will focus on how consideration of



local livelihoods and Ecosystem Services could be better incorporated into biodiversity offset programmes to improve the impact of biodiversity offsets on the welfare of communities impacted by major developments. Her field work in Madagascar will focus on the Ambatovy mine—a large nickel mine in the east of Madagascar. Cecile’s mentors are Julia Jones (Bangor University), Patrick Ranjatson (Ecole Supérieure des Sciences Agronomiques) and Kate Schreckenber

(Southampton University). Patrick Rafidimanantsoa is a forester who is interested in how changes in land use influence livelihoods through impacts on water. Patrick’s research will involve a combination of modelling using the policy support tool Waterworld and socio-economic field work with small-scale rice farmers. Patrick’s mentors are Julia Jones (Bangor University), Mahesh Poudyal (Bangor University), Bruno Ramamonjisoa (Ecole Supérieure des Sciences Agronomiques) and Mark Mulligan (Kings College London).



Please look at our [website](#) regularly for updates. If you have any questions about the project please don’t hesitate to get in touch and we will ensure your enquiry goes to the most suitable person (info@p4ges.org)