



Forests for Water: Is Lombok PES a non-case?

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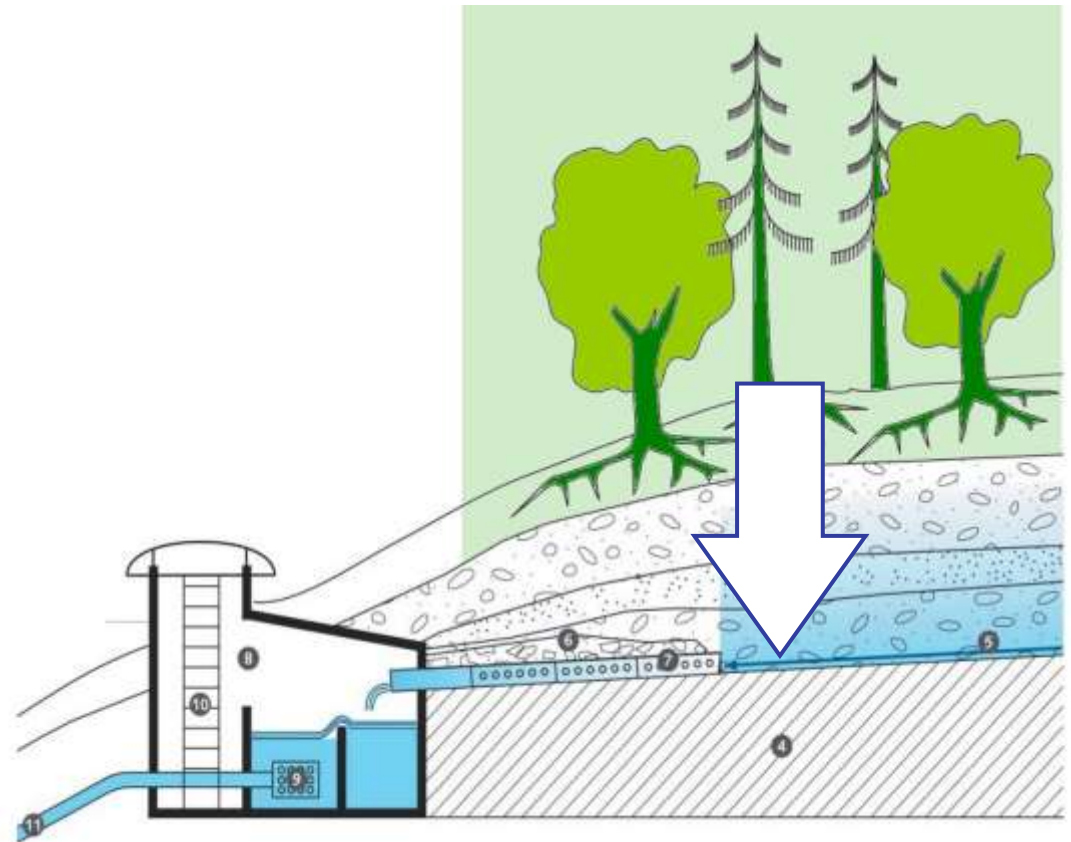
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Forests for water (1)

Forests provide an active protection of groundwater through the natural filtration and purification processes provided by forest soil during infiltration.

Water quality and quantity depend on the type of exploitation of the forest.



Forests for water (2)

Some facts in Switzerland:

- The city of **Basel** rely on its urban “water-forests” for the public water supply.
- 98% of **freshwater come from the aquifers** in small towns (less than 10'000 inhab.).
- 47% of groundwater **protection areas are located in the forest area.**
- 33% of the total supplied water is not treated at all !

This is efficient but only possible **with adequate forest management.**

Some facts in Lombok:

- Traditional Sasak customary law regulates the protection of forest around springs
- Forestry law forbids any logging in a 200 m. radius around springs (UU41/1999, 50§3).
- The regional regulation on catchment protection is not implemented (perda 2/2001).
- **More than 40% of the large springs dried up following deforestation.**

Restoring this situation is only affordable **with reforestation and conservation.**

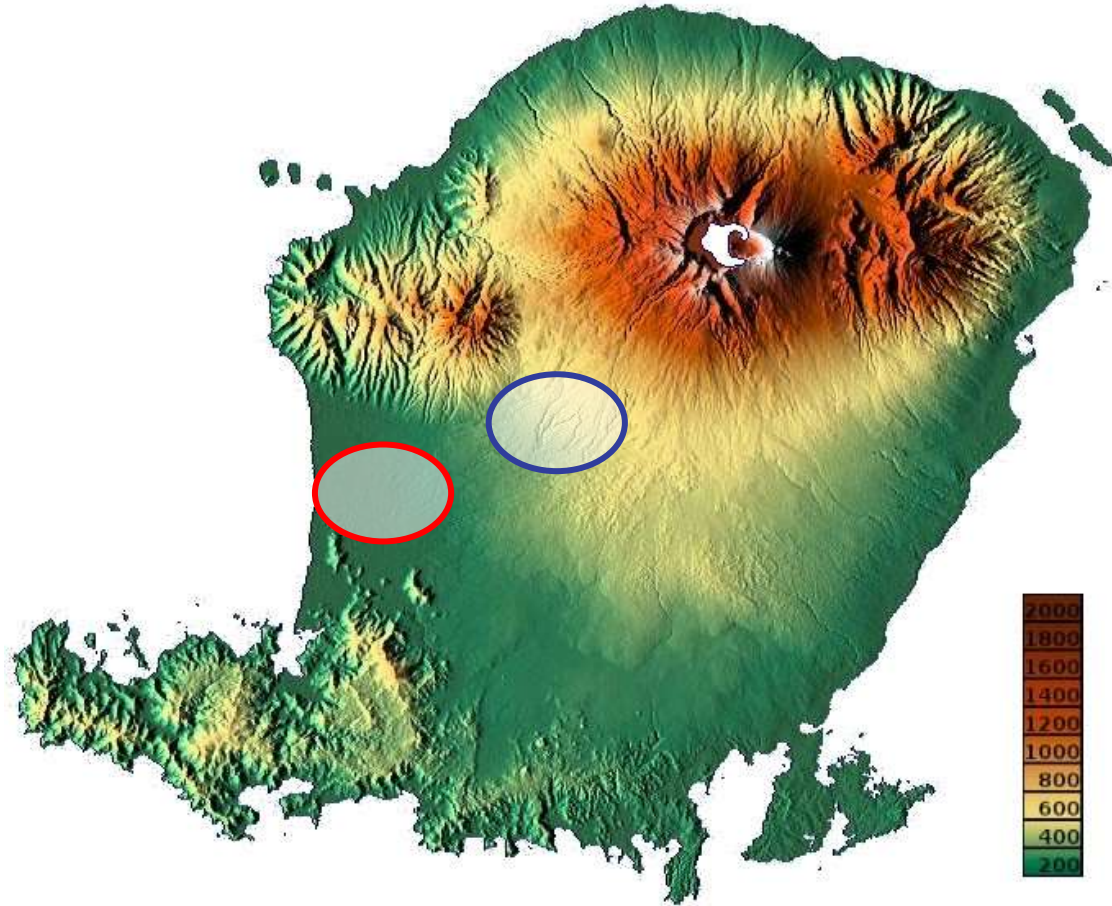
Lombok island



Nusa Tenggara Barat prov,



4 kabupaten + 1 kota





The « famous » Lombok Barat PES scheme



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Lombok PES chronology (1)

- 1999-2006 **ICRAF-WWF-NT** partnership on watershed management.
- 2001 **WWF-NT** - Economic assessment of the Rinjani area (60% = ecoservices).
- 2004 **PDAM** - Willingness To Pay assessment (95% positive).
Konsepsi - Facilitation and extension work in the watershed.
- 2006 Creation of an intermediary body (**Bestari Community Fund**).
Creation of a local service provider group (kelompok **Forum Ranget**).

Implementation of a PES-test with support of **Ford Foundation** and **UNDP**.

Transaction costs of the voluntary payment were too high...

... idea to use **PDAM invoices** instead,

... this requires a **modification of the decree** on water tariffs,

... to add a tax on the tariff **a legal base is required**.

- 2007 kabupaten of Lombok Barat promulgates the **perda 4/2007** on environmental services management which include **provisions for "PES"**.

Lombok PES chronology (2)

- 2007 kabupaten of Lombok Barat promulgates the **perda 4/2007** on environmental services management which include **provisions for “PES”**.
- 2008 Tariff of the tax is set at Rp.**1000/month** for household (perbup 42/2008).
- 2008 Creation of a new intermediary: **IMP** (*Institut Multipihak*):
- **multi-actor** (board include WWF, Konsepsi,...) but still a public body,
 - in charge of the **implementation**,
 - financed by of the **25% of the tax** (75% for activities in the filed).
- 2009 1st Revision of IMP – minor changes.
- 2010** **Beginning of the activities** (money collection since December 2009).
- 2011 MoU between the kab. and kota governments (Rp. ½ bn from kota budget).
- 2012 2nd Revision of IMP – operational costs of IMP charged on the 75%...

Activities in the field (1)

Pemerintah Kabupaten Lombok Barat dan Pemerintah Kota Mataram
PERUSAHAAN DAERAH AIR MINUM MENANG - MATARAM
 Jl. Pendidikan No. 38 Telp. 632510 - 637536 Mataram - Lombok

REKENING AIR


Stn/Th : Nopember/2009
Gol. : 28

No. Samb. : 02-01-00017 / AH0007301

Angka Meter M3	Perincian Harga Air		Harga Air
	M3	Tarif Rp.	
Akhir 854	10	500	5,000
Awal 836	8	850	6,800
Pakai 18			
BA 0			
Restitusi 0			
Total 18			

By. Administrasi	11,800
By. Pemeliharaan	6,000
Tagihan Air	5,000
Denda	0
Miscellaneous	0
Total Tagihan	22,800
Jasa Lingkungan	1,000

Dua Puluh Delapan Ribu Delapan Ratus Delapan Puluh
 Tanggal Lunas : - - Jumlah 28,800
 Pelaksana Kas : NURUL (BANK NTB AMPENAN)
 Retribusi : 5,000 Perda No. 4 Tahun 2005

Direktur Utama

 H. SUHAILY, ST



Activities in the field (2)

Research activities conducted during 3 ½ months:

- 2 in-depth case studies conducted (38 interviews),
- visit almost every scheme.

Observations: Trees have been planted...

- *Where, when, by which program ?* – No clear answer!
- Locals are reluctant to present the results (?).
- Documentation is very limited.
- Few scientists recorded in guest books.

Many seedlings have **not been cared for** once planted.

Some plantations grown **where there is no water catchment (!)**.

My impression:
almost no
additionality

Need to be confirmed
by natural scientists

Some critical facts about the “PES” scheme

- The payment is not voluntary. It is a tax in addition to water costs.
- Mataram city consumers don't pay (except for 3 months in 2009-2010).
- The PDAM don't contribute even if it is subject to a tax of Rp. 10/m³.
- IMP is not independent. It is a public body under control of the kabupaten.
- IMP budget tripled in 2012 (from 5% to 15% of the total collected).
- 25% of the tax goes in the regional budget without any link to the activities.
- Less than 75% of the tax is transferred to the field.
- A commission of BPKP stated that the scheme doesn't respect the fiscal regulation.
- No conditionality on the payment, except for the nursing and the planting.
- No provision forbidding logging of the planted trees once mature.
- Few follow-ups, no real control and no mapping of the activities.
- No contract, but proposals from locals to obtain support.
- Selection process not clear, but not based on the hydrogeological relevance.
- Little bargaining (proposals follow a template provided by IMP).
- Administrative decision from IMP to allocate funds (= unilateral).

Some positive facts about the “PES” scheme

- There is no transaction and... this is not a problem.
- Some additional money goes to reforestation.
- **A lot of communication** on this case in Lombok and in Indonesia.
- **Watershed protection is now a key political issue** and not only in the kabupaten.
- There is now a **public intervention** to solve the water problem.
- **Best alternative so far** (no implementation and no enforcement of regulation).
- Even with limited direct effects, this policy has **important indirect effects**.

Our message to actors must understood as:

The perda 4/2007 is a **necessary policy**.

This incentive policy is implemented and has an **impact on local populations**.

The implementation is **refined year after year**. More improvements can be requested.

Such incentive policies are innovative in Indonesia, but **common in other countries**.

Implication for the research

From a restrictive point of view on PES definition (as a Coasean transaction),
... this case is not a PES because there is no transaction!

In fact, **perda 4/2007** kills the attempts of WWF-NT and others to implement PES.
...and allows the kabupaten to control the financial transfers.

This is a surprise that **contradict the scientific literature** and **presentations**:

Pirard, 2012a, 2012b; Fauzi & Anna, 2011; Latifah, Ichsan, Aji, Tarningsih, & Habibi n.d.; Pasha, Leimona, & Rooswiadji, 2011; Prasetyo, Agung, Suwarno, Purwanto, & Hakim, 2007; Kurniawan, 2012; Rooswiadji, 2011; etc.

Our message to scholars must be understood as:

The perda 4/2007 is a common incentive policy,...
.... without bi/multilateral transaction, but implemented by **unilateral decisions**.

This case **doesn't match with the concept of PES** as a Coasean transaction.

We can dismiss the idea that **rational choice theories can explain this case**. Public policy analysis could better contribute to understanding the actors' strategies.



But are there any other “forests for water” PES in Lombok Barat?



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PDAM Watershed Restoration Programme

PDAM collects an extra-operational cost from each customer (Rp. 1000/month) in order to restore the watershed of its catchments. This amount is internalized.

Activities are very similar to the implementation of perda 4/2007 (reforestation and empowerment of local communities).

But,...

- ... based on a bilateral agreements,
- ... with conditions,
- ... with less procedure,
- ... with more money,
- ... on a strong legal base.

This is a perfect beneficiaries-financed PES, implemented by a public body, based on administrative contracts.

It started in 2011 and has not been documented until now in the literature.

Lessons from this second case for PES in Indonesia

PES are only recognized and broadly defined in the national regulation (UU 32/2009). There is **no concrete governmental regulation to implement PES in Indonesia**.

The Ministry of Environment is currently working on **guidelines**. A big issue is the compliance with the **fiscal regulation**.

An alternative way exists to circumvent those difficulties :

National water regulations state that the costs of watershed protection is included in the tariff of water as an operational cost.

This is a **strong legal basis**, for PDAM to use their budget to implement PES scheme.

“Forest for water” PES can be legally implemented today all over Indonesia.

This money will not channel through the administration.

You want more details?

The full report and this presentation will be downloadable soon on [my webpage](#).

... www.idheap.ch > Chair of Public Policies and Sustainability > Contacts

...or just [Google my name](#)

The 2 Indonesian case studies are part of 6 conducted in 3 years of field research.

My message: **PES is only one way** to manage forest environmental services.

My **thesis** is a comparative analysis of the **possible institutional strategies**.





Thank you for your attention

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