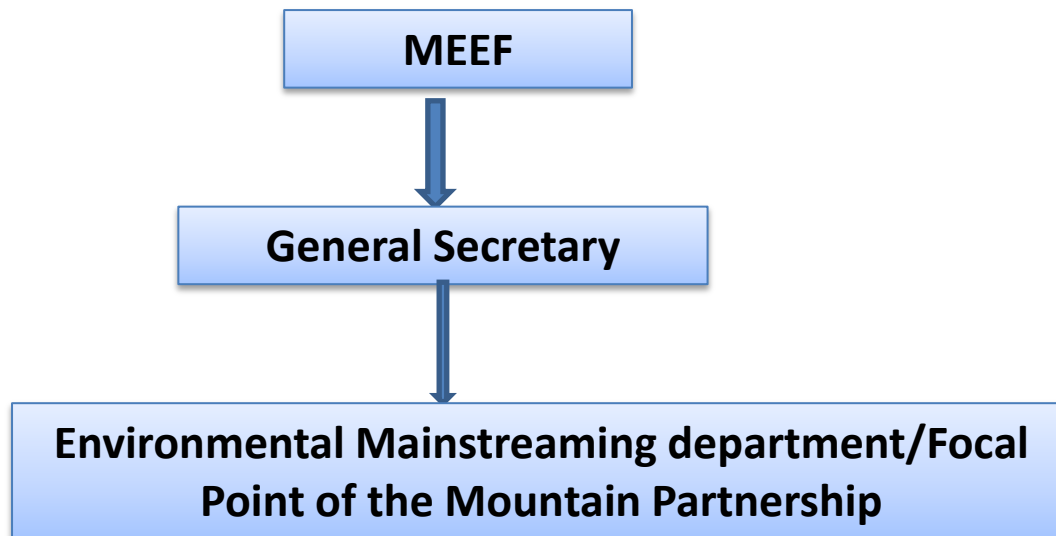




RAMAHAVALISOA Valérie Benjamin

**Focal Point of the Mountain Partnership, MEEF
/Madagascar**

Member of African Mountain Champion's Committee



MEEF Current General Policy (up to December 2014)

- **-03 Legal instruments** including the new updates of environmental charter developed in terms of environmental management in different levels
 - 01 Appropriated **action plan** for **climate change** mitigation developed
 - 01 carbon project adopted by the Designated National authorities
 - 01 National action Plan for tackling climate change developed
 - 02 concrete projects of climate change adaptation implemented (the one in rice culture)
- -40 environmental permits issued
- -05 **regional** environmental units implemented
- -10 regional implementation plan for Environment developed
- -10 TV and Radio station broadcasting “green emission” established
- -20 environmental complaints resolved
- -01 National Action Plan **for tackling desertification** elaborated
- -Reduction of burnt areas
- -01 ecological partnership developed

Steep relief ,dominated by mountains

50-70% Mountainous areas

- Central mountains 800m-1200m
- Steep eastern slope
- Gentle western slope
- Mountains cover 50% of the territory
- Mountains have volcanic origin:

Example of mountain ranges:

- North:Tsaratanana-Peak Maromokotro 2876m
- Center:Ankaratra: 2642m
- South-east: Andringitra-Peak Boby 2658m



Mountain people livelihood, pressure on natural resource and biodiversity loss

- ✓ Rural people with extensive rice cultivation based activities : irrigated rice growing and rain fed
- ✓ Additional cultivation: food agriculture, cash crop and extensive farming
- ✓ Rural poor: production cannot even satisfy their subsistence needs



- ✓ Agriculture yields: 2t/ha
- ✓ 3Mio ha used/36Mio ha arable land
- ✓ 70%: used land < 1.5ha
 - 23%: 1.5 < used land < 4ha
 - 4%: land used > 4ha

Source: Institut National de la Statistique

✓ Pressure on natural resource and biodiversity threats

- **“Tavy” phenomenon**, a widespread slash and burn agriculture practice threatens mountain biodiversity

- Illegal forest grazing and forest exploitation as firewood are also contributing

E.g:

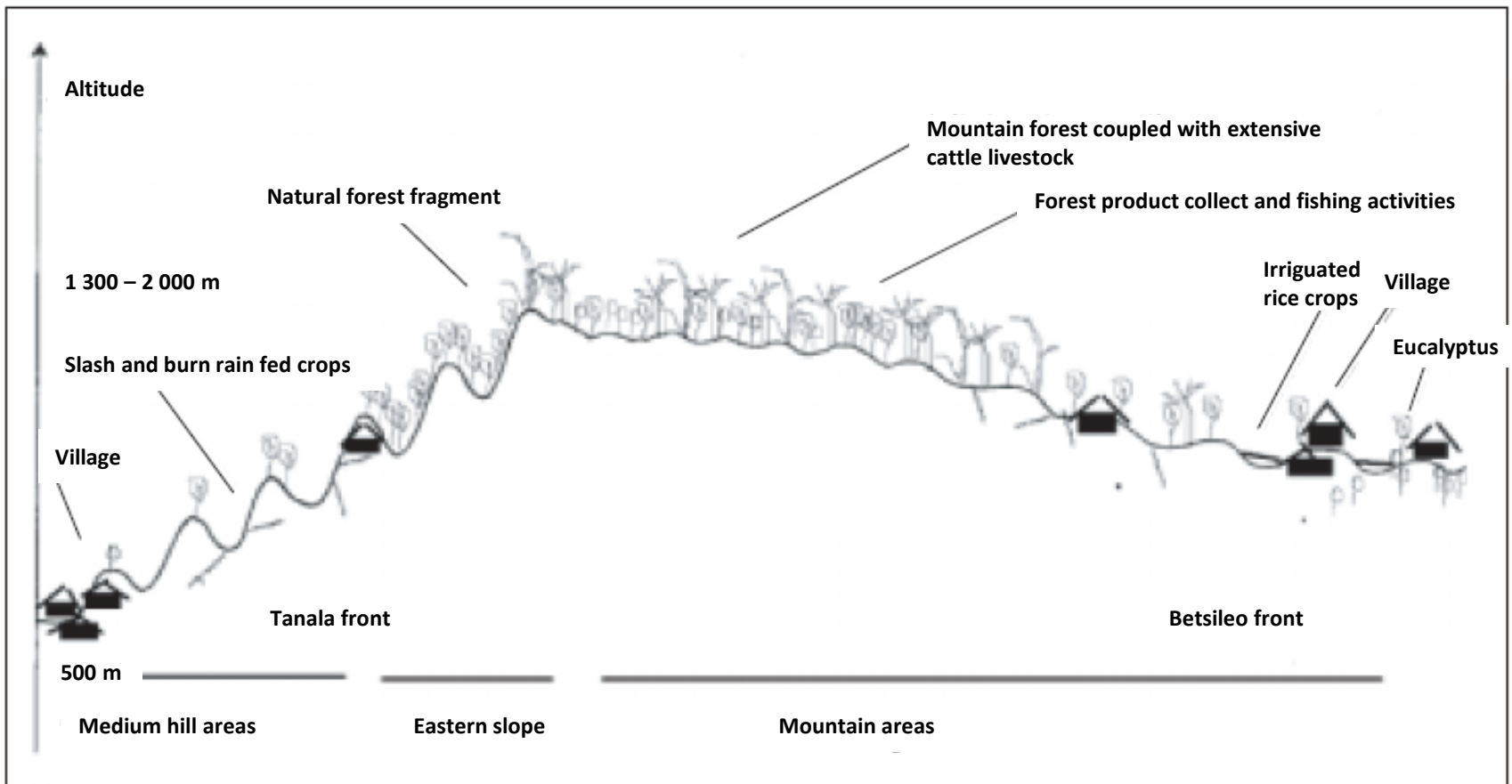
- sclerophyllous forest mountain is fragmented,

- mountain ericoid bush is threatened however it is a rare species in Madagascar Protected areas and it has an ecological value for **the high mountain taxa** such as reptiles and amphibians



Land-use in the South Eastern mountain regions

Showing human pressure on mountain forest



The case of the northern mountain regions

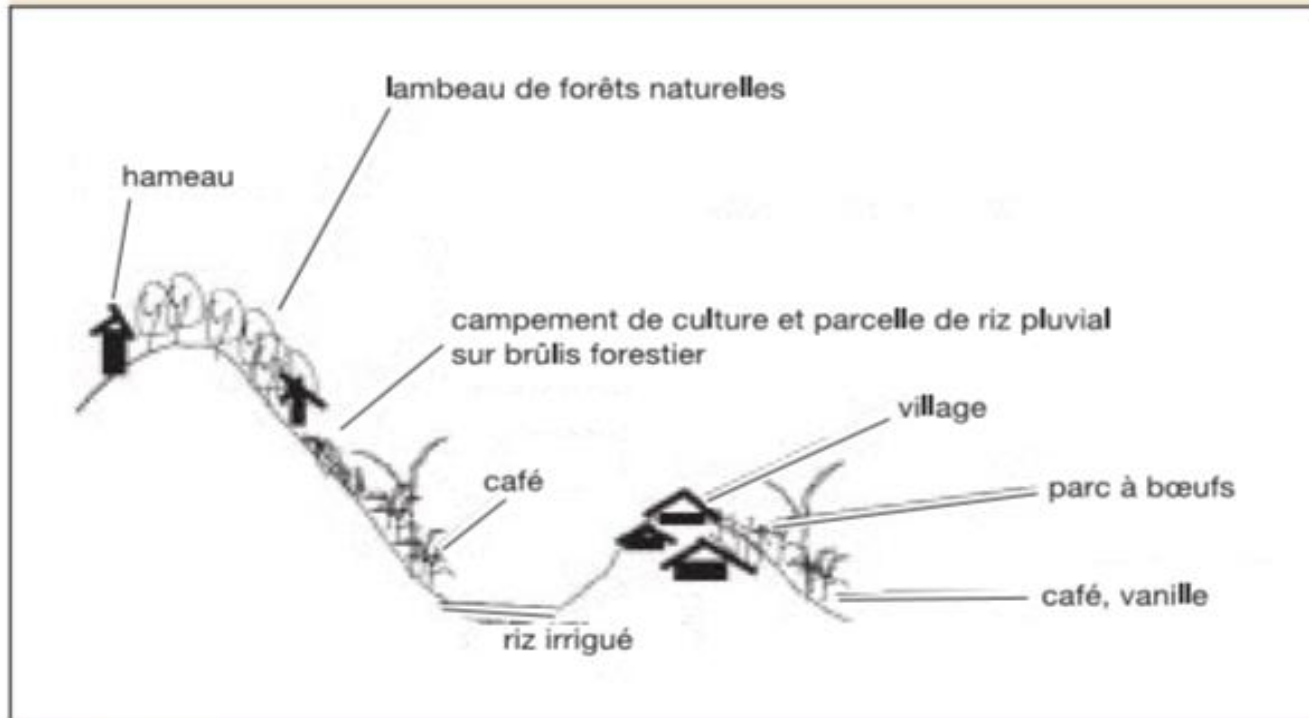


Figure 1.

Aménagement de l'espace dans la région montagneuse du nord de Madagascar. Transect présentant le front pionnier depuis les forêts de basse altitude. *Spatial planning in the mountainous area of northern Madagascar. Transect showing the pioneer front moving in from low altitude forests.*

Mountain Family economy

Cattle and rice culture: capital

Pig breeding :Term deposits

Poultry and Forest product: Current account

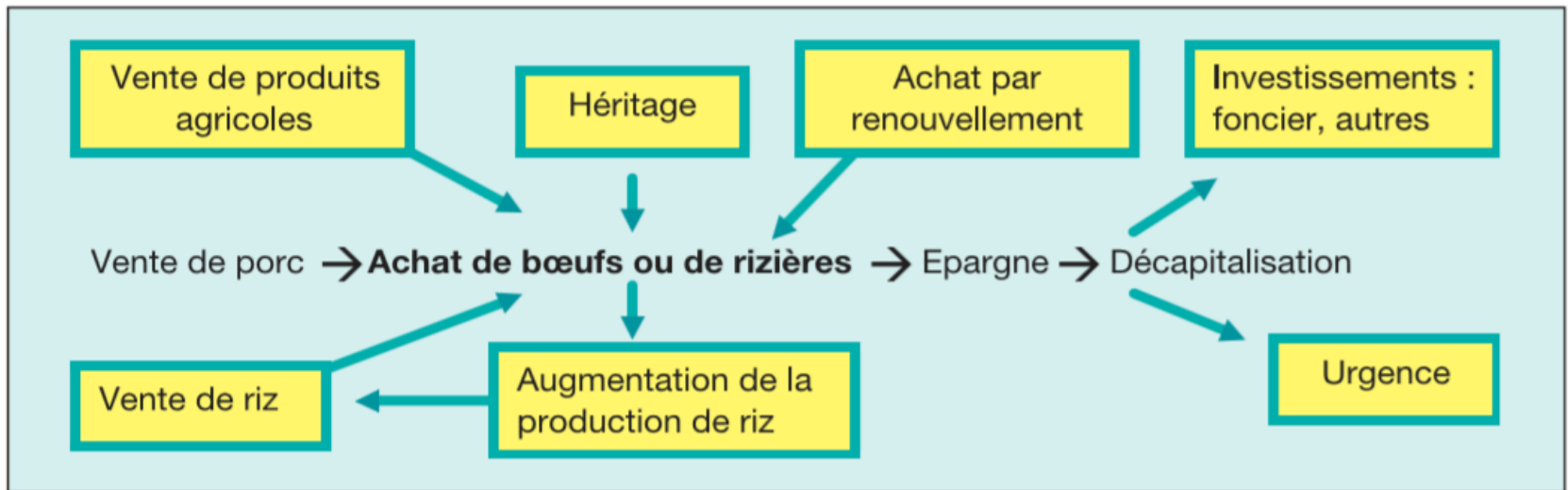


Figure 4

LAVAKISATION phenomenon: the most frequent,
a regressive type erosion, occur generally in mountainous regions
Point of departure of huge mude flows
200-400t/ha lost per year throughout Madagascar



Field labour by using cattle Andringitra Mountain



Madagascar is highly vulnerable to erosion

Mainly Caused by:

- ✓ Deforestation in the central highland
- ✓ Steep relief
- ✓ Soil characteristics

Consequences:

- ✓ Silting up of paddy field
- ✓ Change in soil quality

Mountain Family economy system

Cattle and rice culture: capital

Pig breeding :Term deposits

Poultry and Forest product: Current account

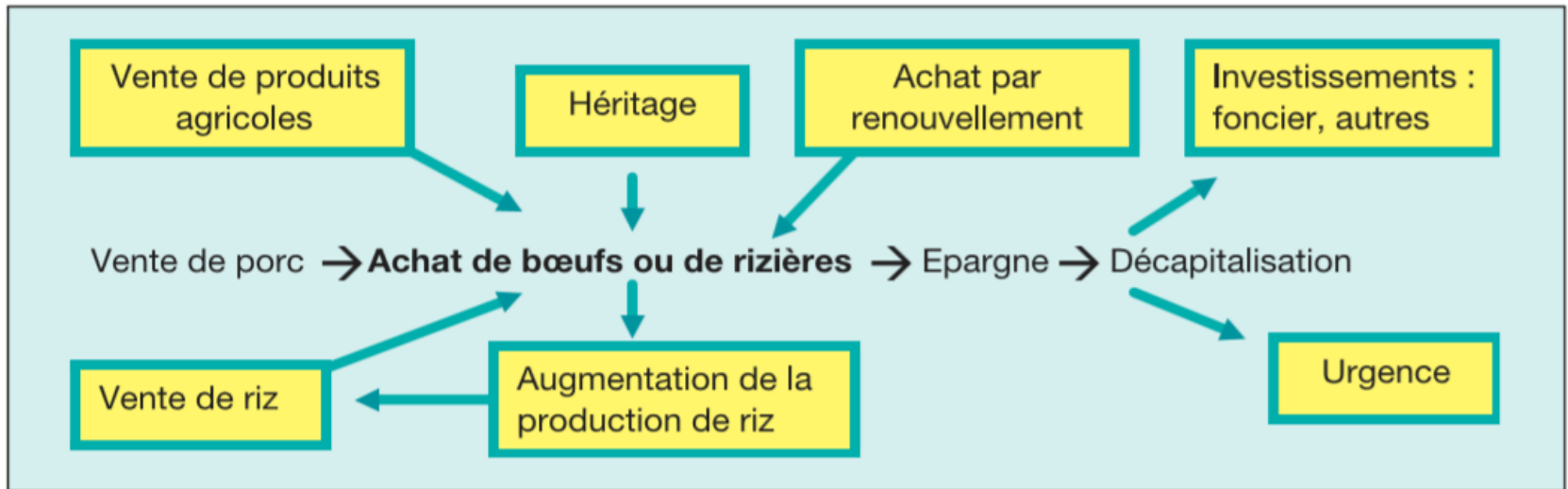


Figure 4

Field labour by using cattle Andringitra Mountain



Ongoing establishment of National Document for Mountain development

- - Operationalizing mountain scheme in Madagascar
- - Addressing achievement in terms of mountain development
- - Raising awareness about ecosystem value
- - Developing approach for the aim of getting mountain people in the decision making process and implementation
- -Promoting high added values activities: tourism, local product, silk handcraft
- -Promoting sustainable water management including equitable benefit sharing
- -Promoting integrated water management
- -Getting the country involved in the international process of SMGs

Nursery In Mantasoa (1377m) with the species Dendrocalamus Strictus



Photo by PROSPERER

Through livelihood enhancement analysis ,Bamboo sector can be addressed for mountain sustainable development, a new pilot project is needed for more addressing mountain sustainable development.

Bamboo an added value for local population livelihood

Example of 1st production

Locality	Altitude	Germination rate	Characteristics
Ambohimiadana	1550m	70%	4cm high 4 leaves
Mantaso	1377m	70%	6cm high 4 leaves
Ambohitratrimo	1375m	70%	4cm high 3leaves

Source : INBAR Progress report 2011

Income generated through young seedlings sale
Some example for the years 2012

Locality	Altitude	Income
Mantasoa	1377m	13 125 000 Ar=5554,50 \$
Ambohimiadana	1520m	10 837 500Ar=4586,43\$
Ampangabe	1224m	10 250 000Ar=4337,80\$

Source PROSPERER

