



Vulnerability and resilience of farm households

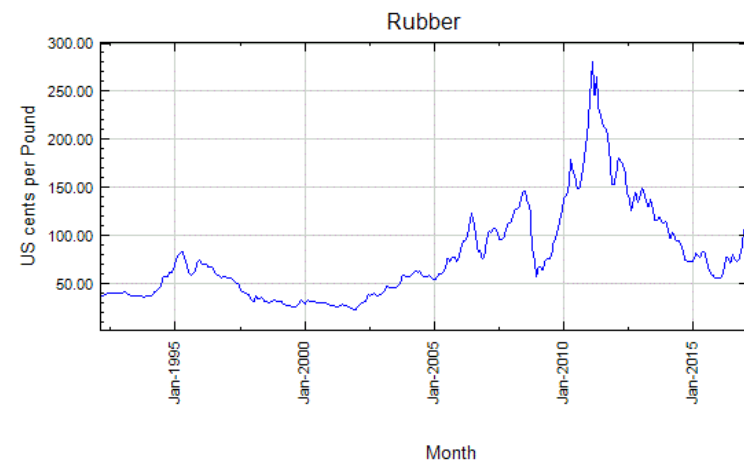
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Changing & challenging environment

- Shocks
- Normal trends
- Global changes with local consequences
- Change is accelerating, less predictable



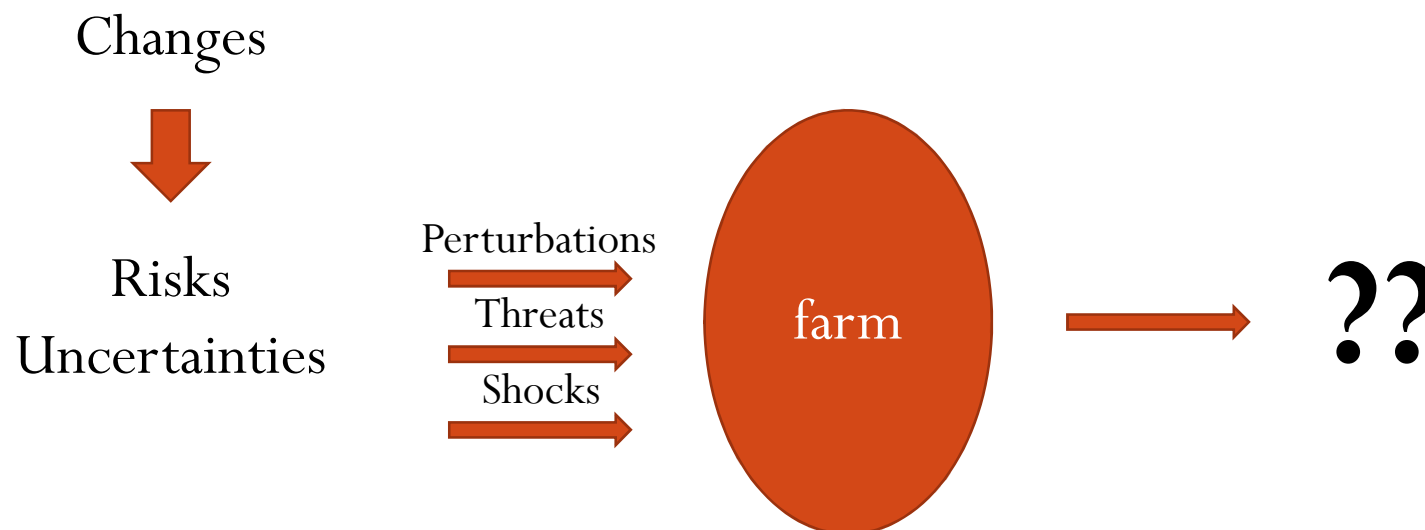
Photo C. Kongmanee



Source: <http://www.indexmundi.com/commodities>

Vulnerability

- **Susceptibility to be harmed due to exposure to threat or perturbation**
- **Capacity or not for a system to preserve its structure**



Example of vulnerability

Household A

- 40 rai of rice
- Husband work as a teacher in the village

Household B

- 30 rai of rice

Household C

- 15 rai of rice
- 15 rai of rubber



Disease affecting rice field
and almost no harvest

Most vulnerable?

Resilience

- Ability of a system to face changes
- To persist over time, a system has to change
- Used for long and for different disciplines
- Applied to ecosystems, community, farm...



Photo E. Penot



Photo B. Chambon

Two approaches for resilience

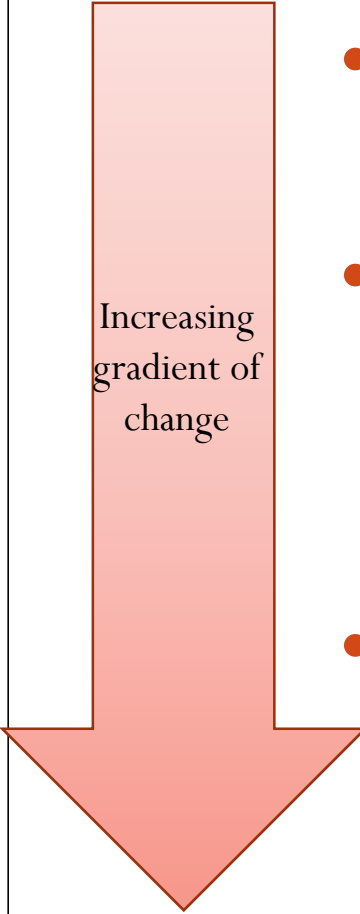
Equilibrium approach or “bounce back”

- return to previous state
- one single state equilibrium
- maintain status quo / preserve existing
- short term shocks / quick restoration (flood)

Two approaches for resilience

Equilibrium approach or “bounce back”	Evolutionary approach or “bounce forward”
<ul style="list-style-type: none">- return to previous state- one single state equilibrium- maintain status quo / preserve existing- short term shocks / quick restoration (flood)	<ul style="list-style-type: none">- change, transform- multiple possible pathways- adapt to new situation or environment- medium and long terms (organic rice)

Resilient farm includes

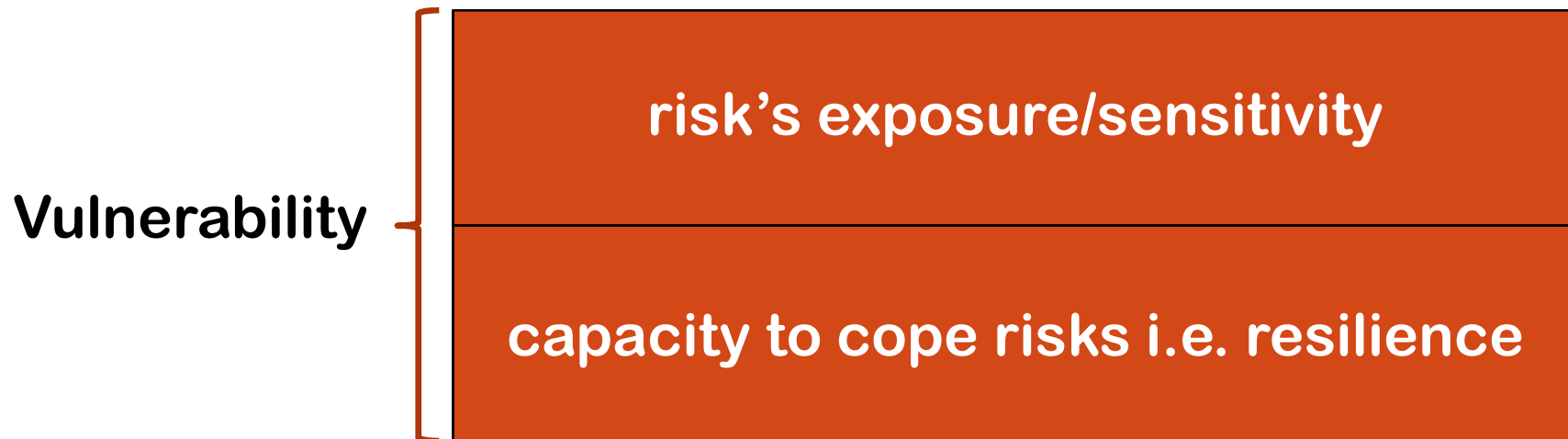


Increasing
gradient of
change

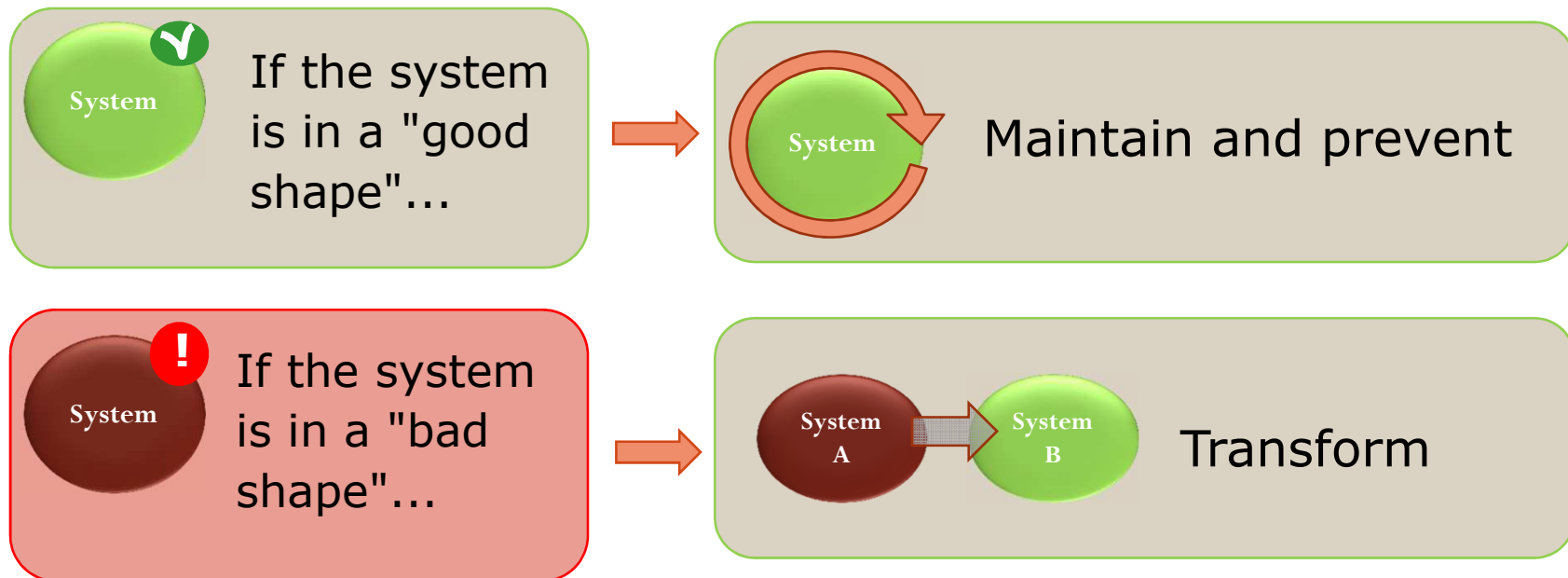
- **Buffer capability:** no change in structure and function (savings)
- **Adaptive capability:** incremental change, adaptation, structure may change but function is maintained; evolution within current trajectory (broadcast/machine)
- **Transformative capability:** radical change, transformation, new system, new function, new trajectory (ecotourism)

Vulnerability and resilience

- Different but related
- Common elements of interest: shocks and stresses

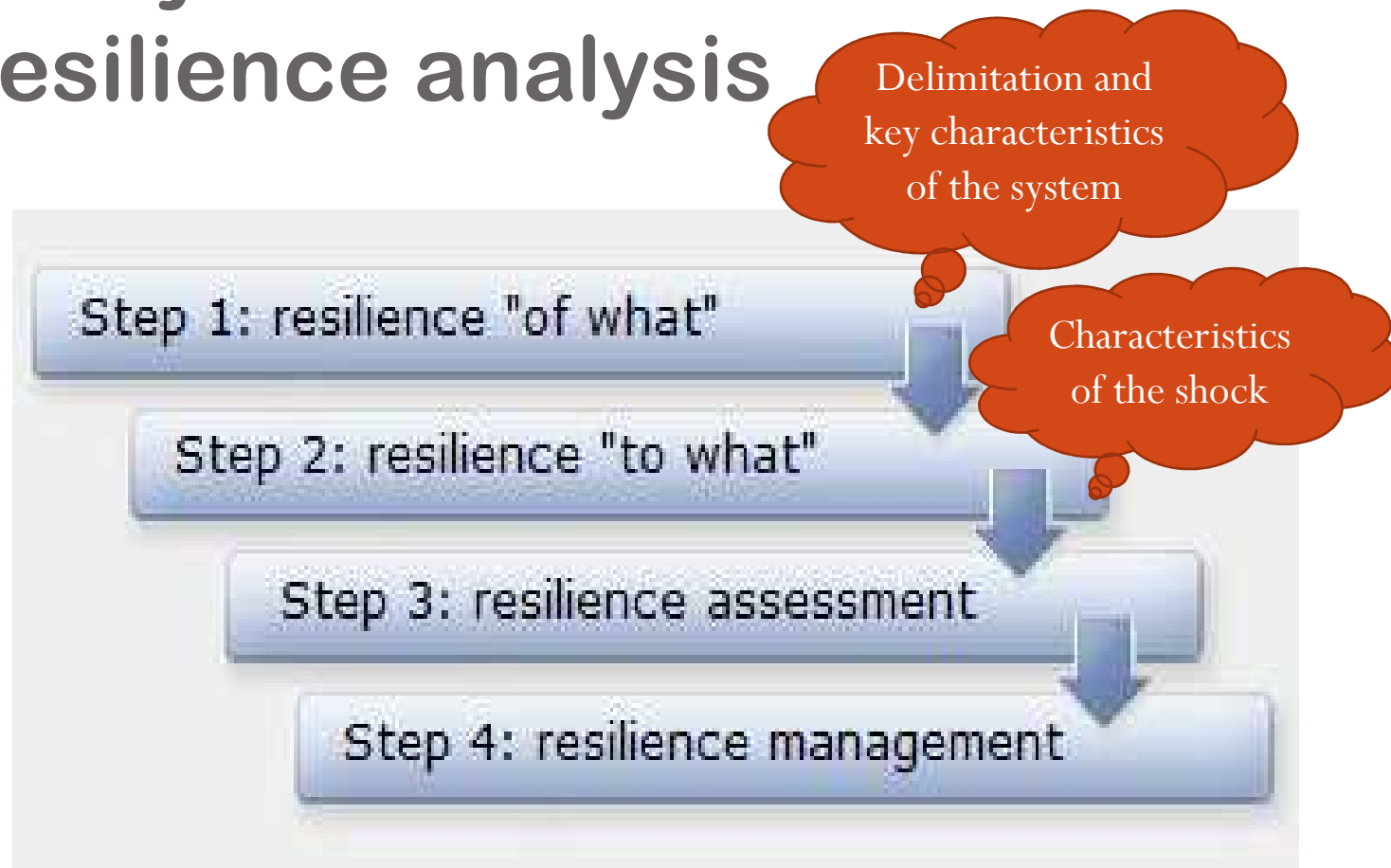


Why assessing farm's resilience?



FAO, 2012

Analytical framework for resilience analysis



FAO, 2012

How to assess farm's resilience?

Indirect assessment



**No direct
indicators**

No formal method



Identification of factors that make farm resilient

GROUP WORK