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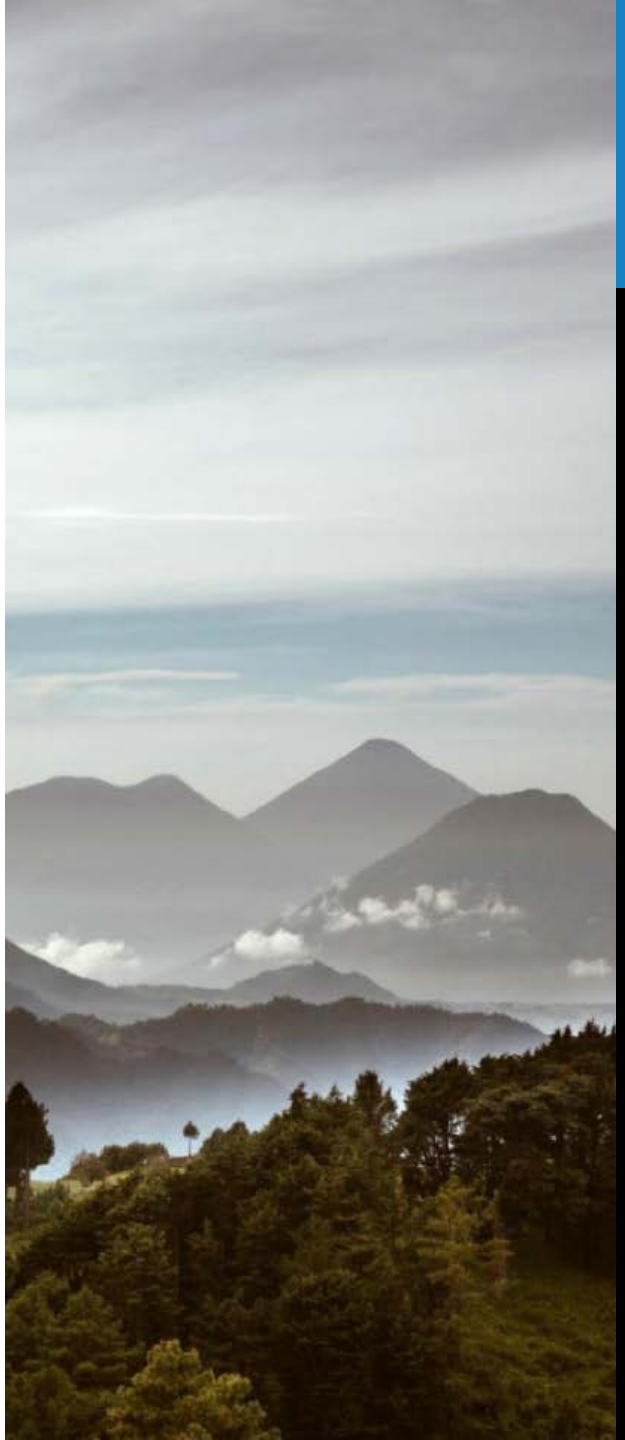
Better living conditions for Latin America

DRR/CCA with a watershed approach – a case study from Guatemala

Monika Hess, Project leader

VIVAMOS MEJOR



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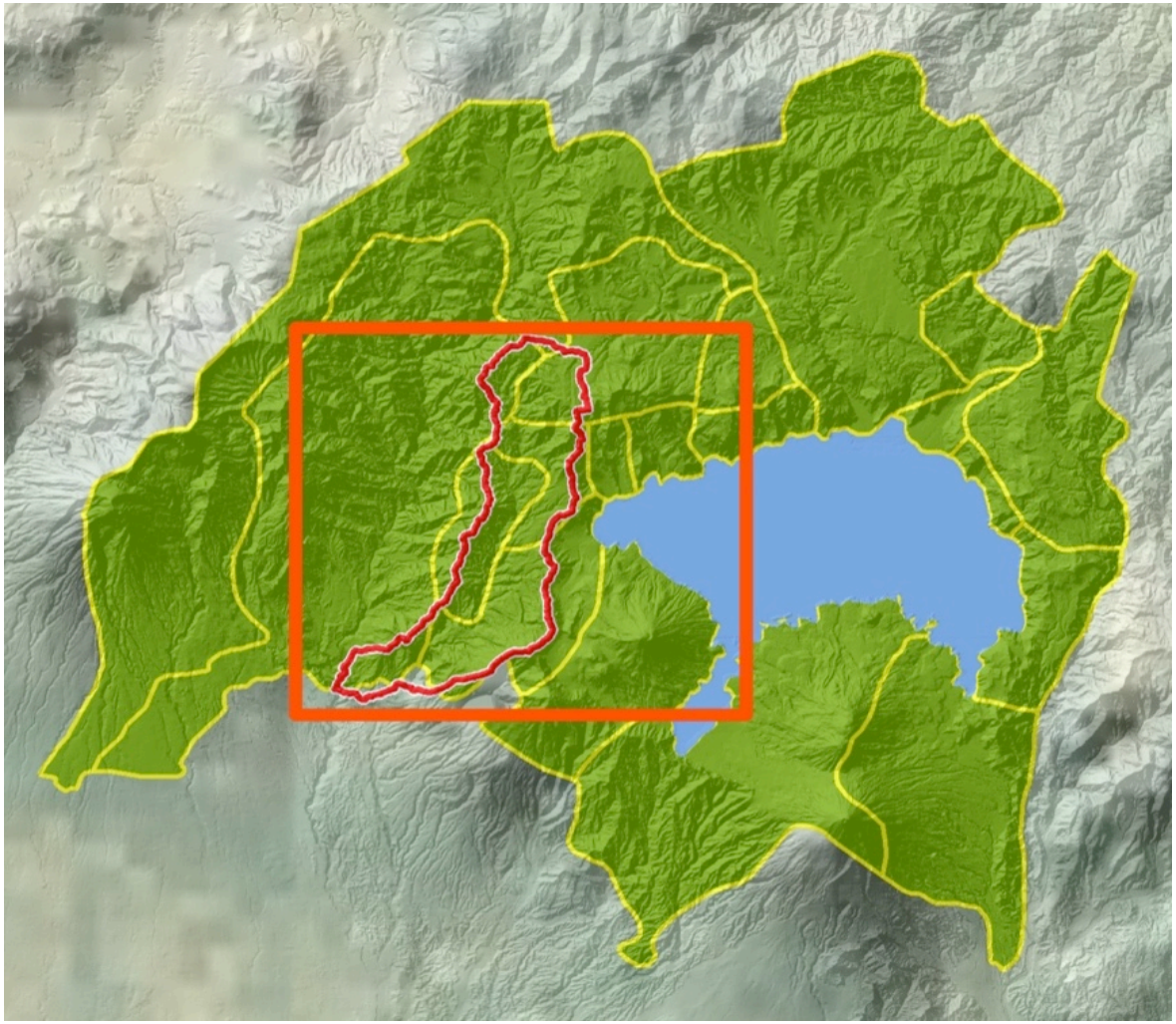
PROJECT REGION



DISASTER RISKS IN THE PROJECT REGION

Hazards

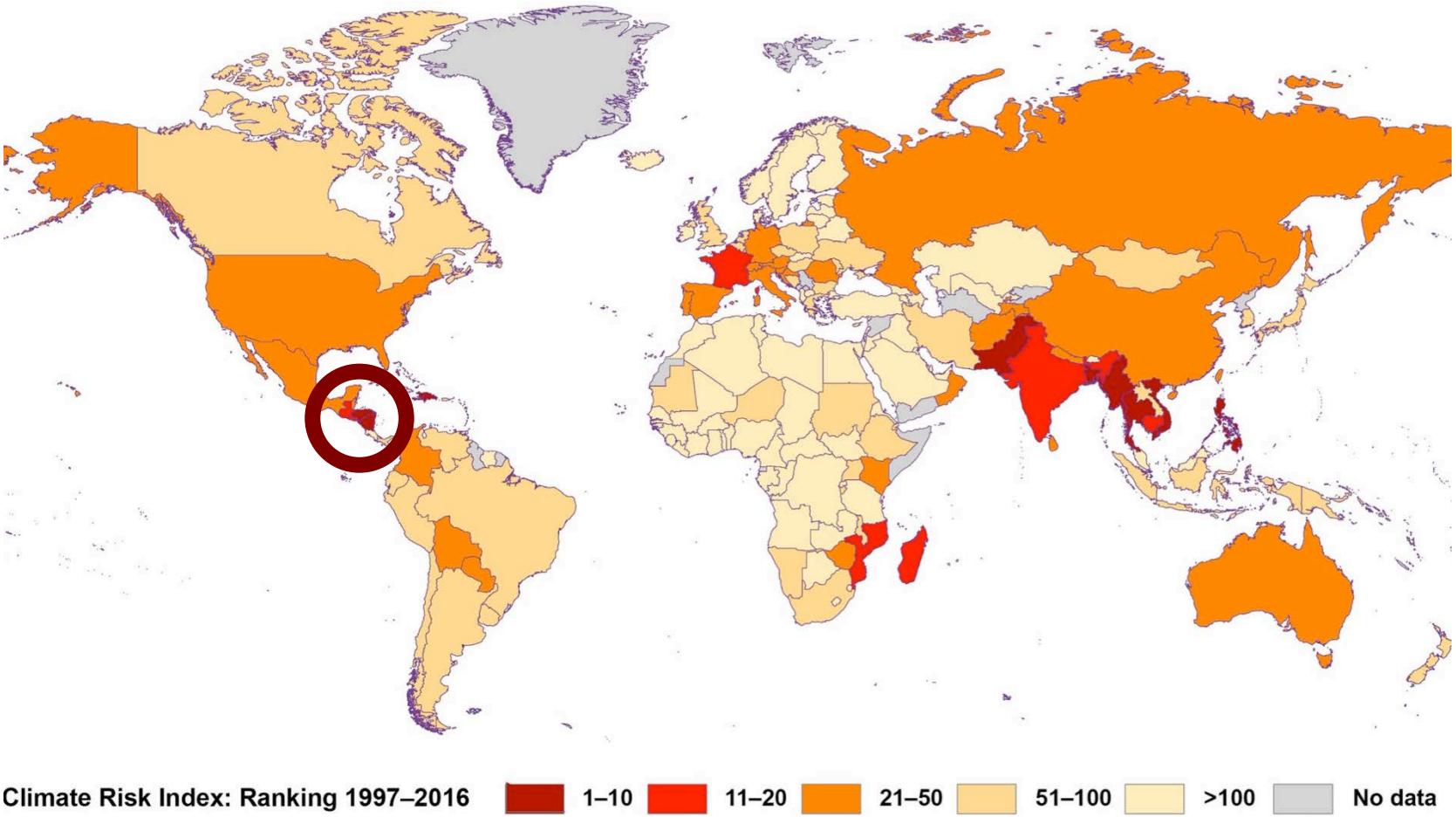
- Heavy rainfalls, hurricanes, land slides
- Droughts and heat waves, forest fires, pests
- Earthquakes

Impacts

- Damage of infrastructure
- Loss of agricultural land and fertility
- Water scarcity and poor water quality
- Loss of agricultural production
- Food insecurity

Inappropriate land use practices

HIGH CLIMATE RISK



https://www.germanwatch.org/14638

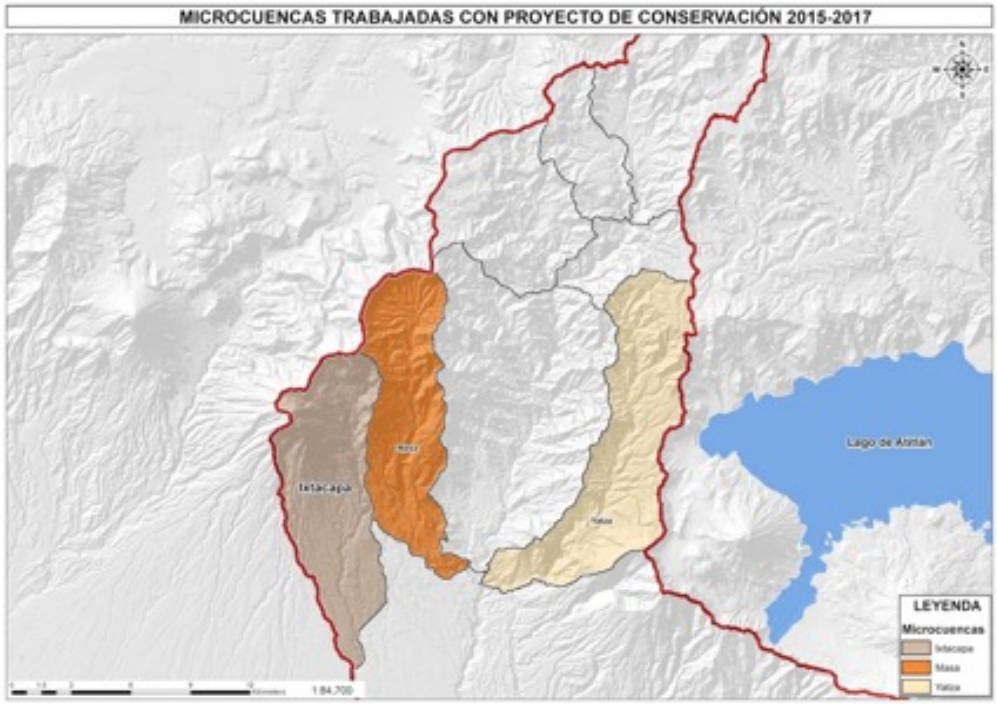
PROJECT OUTLINE

Objective: Increase the resilience of communities to cope with climate change and disaster risks through integrated management of water and forests.

Location: 8 villages and 3 municipalities in the watershed Yatzá

Duration: 2018-2020

Institutional setting



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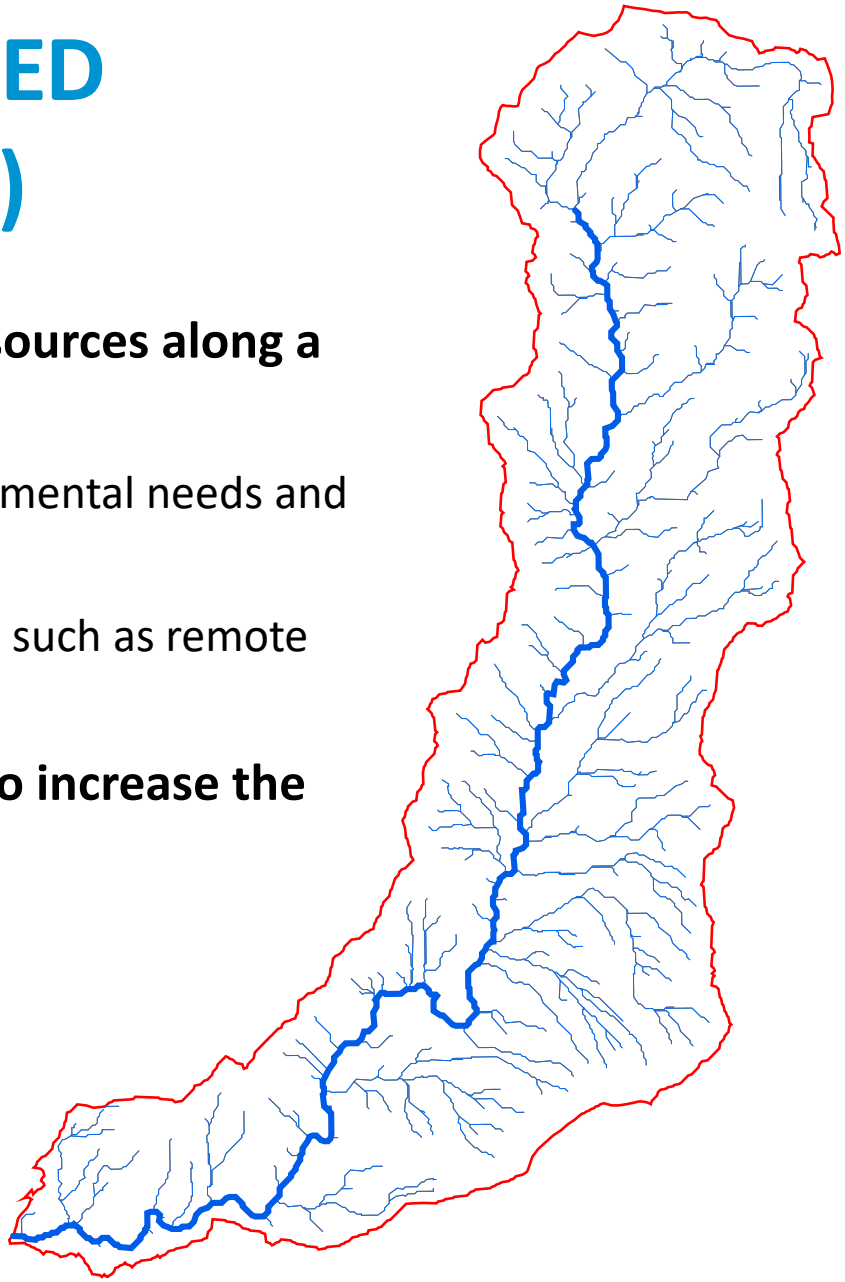
INTEGRATED WATERSHED MANAGEMENT (IWSM)

Coordinated management of natural resources along a watershed

- It attempts to balance human and environmental needs and to guard ecosystem services
- Incorporates technological advancements, such as remote sensing or GIS

Watershed approach has the potential to increase the effectiveness of DRR measures

- Regional and cross-municipal focus
- Integrated view on risks



Sources: Wang, G., Mang, S., Cai, H. et al. J. For. Res. (2016): Integrated watershed management: evolution, development and emerging trends. Journal of Forestry Research, Volume 27, Issue 5, pp 967–994. https://doi.org/10.1007/s11676-016-0293-3.

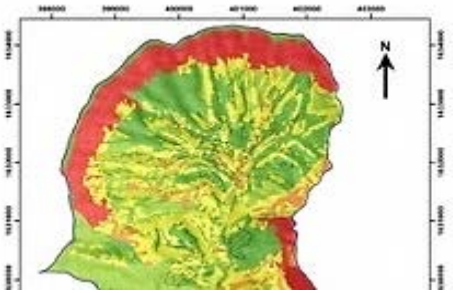
Global Water Partnership: https://www.gwp.org/en/About/why/the-need-for-an-integrated-approach/

ACTIVITIES

Project activities

Hazard mapping & climate monitoring

Watershed committee



Watershed Action Plan

ACTIVITIES

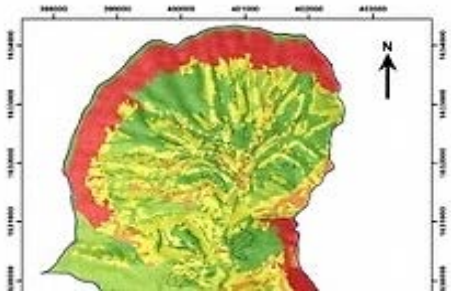
Project activities

Awareness rising and capacity building

Eco-DRR measures

Equipment and training of civil protection units

ACTIVITIES

Project activities	<-->	DRR
Hazard mapping & climate monitoring		Risk assessment
Watershed committee		Risk governance
Watershed Action Plan		Prioritisation of ECO – DRR measures

ACTIVITIES

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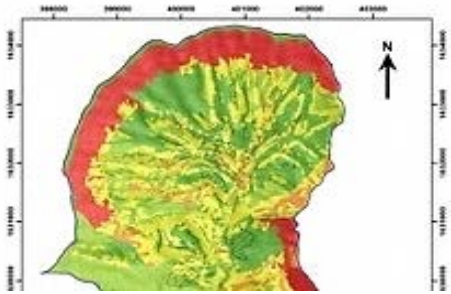
Watershed Action Plan		**Prioritisation of ECO – DRR measures**

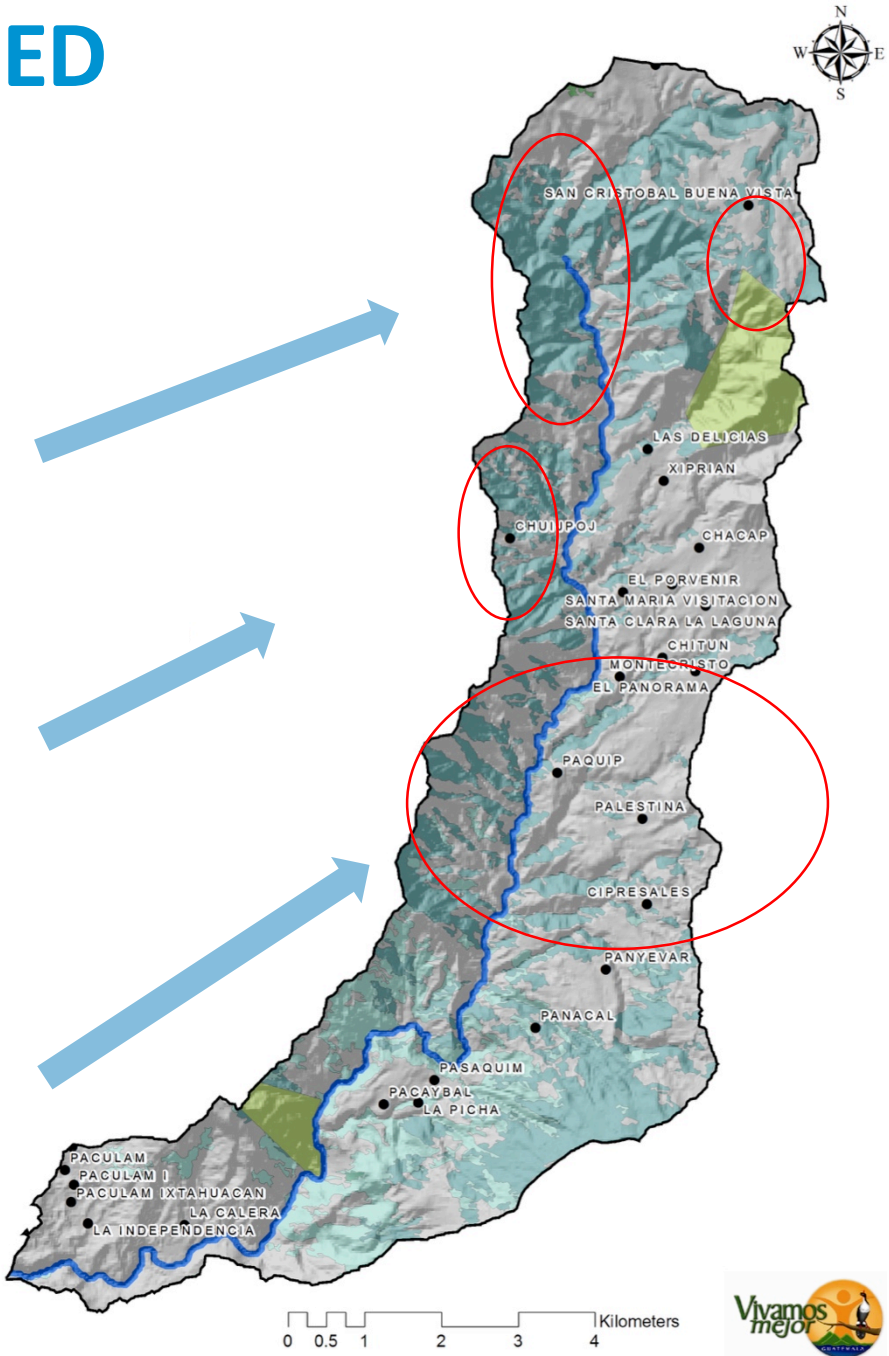
BENEFITS OF WATERSHED APPROACH FOR DRR

ECO – DRR

Conservation/reforestation

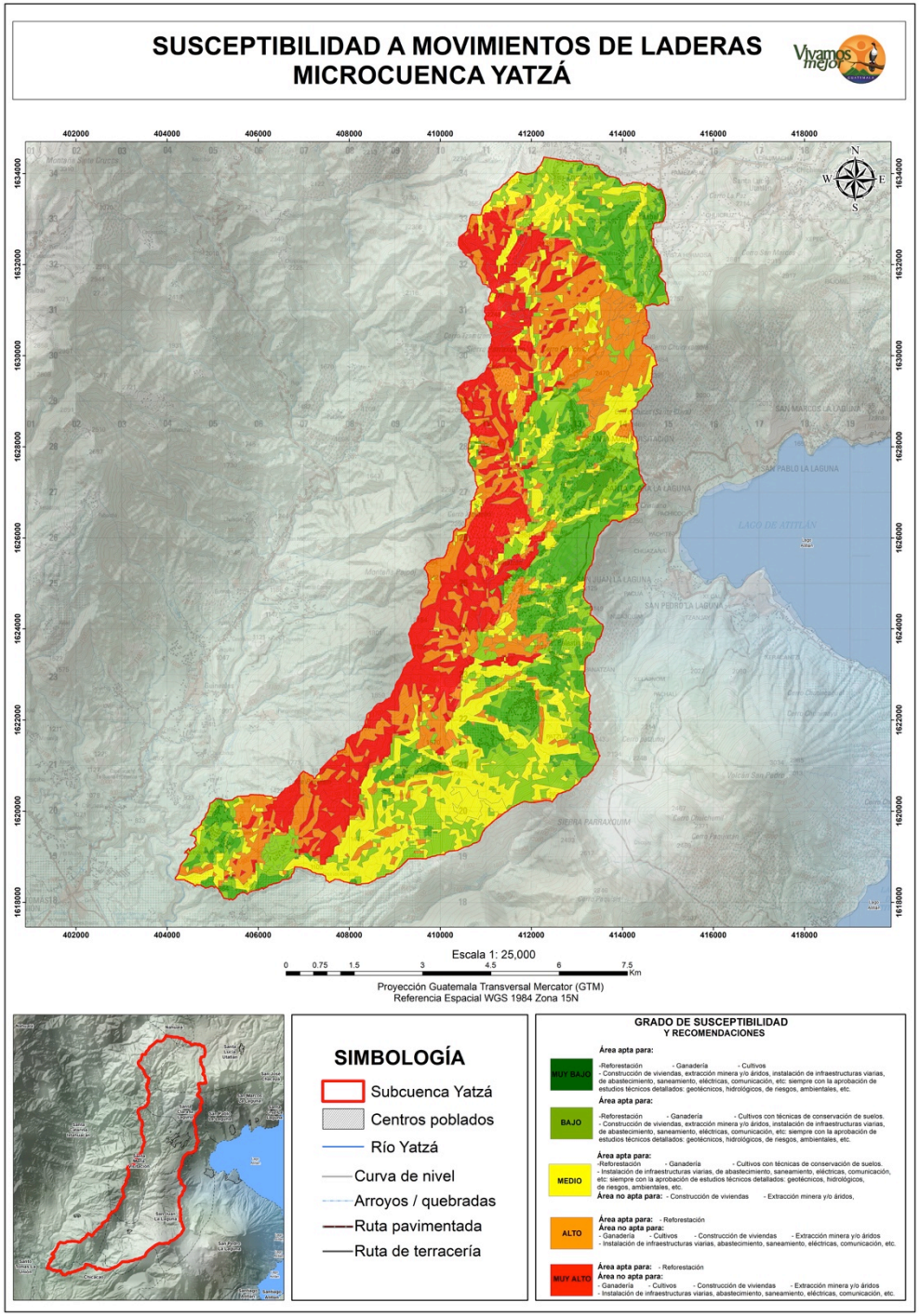
Soil protection

Agroforestry (Coffee, apiculture



GOOD PRACTICES

- Hazard mapping with geologist and GIS
- Watershed committee to coordinate between different municipalities and villages
- Taking into account interrelations between water, forests, soil and disaster risks



CONCLUSIONS

1) Watershed approach has the potential to increase the effectiveness of DRR measures because it coordinates measures across municipalities with an integrated focus
2) Measures at the upper part of the watershed benefit the lower part
3) High added value for other DRR and WASH projects to implement measures according to the watershed action plan and with the coordination of the Watershed Committee

THANK YOU FOR YOUR ATTENTION - QUESTIONS?