



# **IMPACT OF CLIMATE-INDUCED HAZARDS ON RURAL WATER SUPPLY FUNCTIONALITY**

**- CASE NAWALPARASI**

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**Kathmandu**

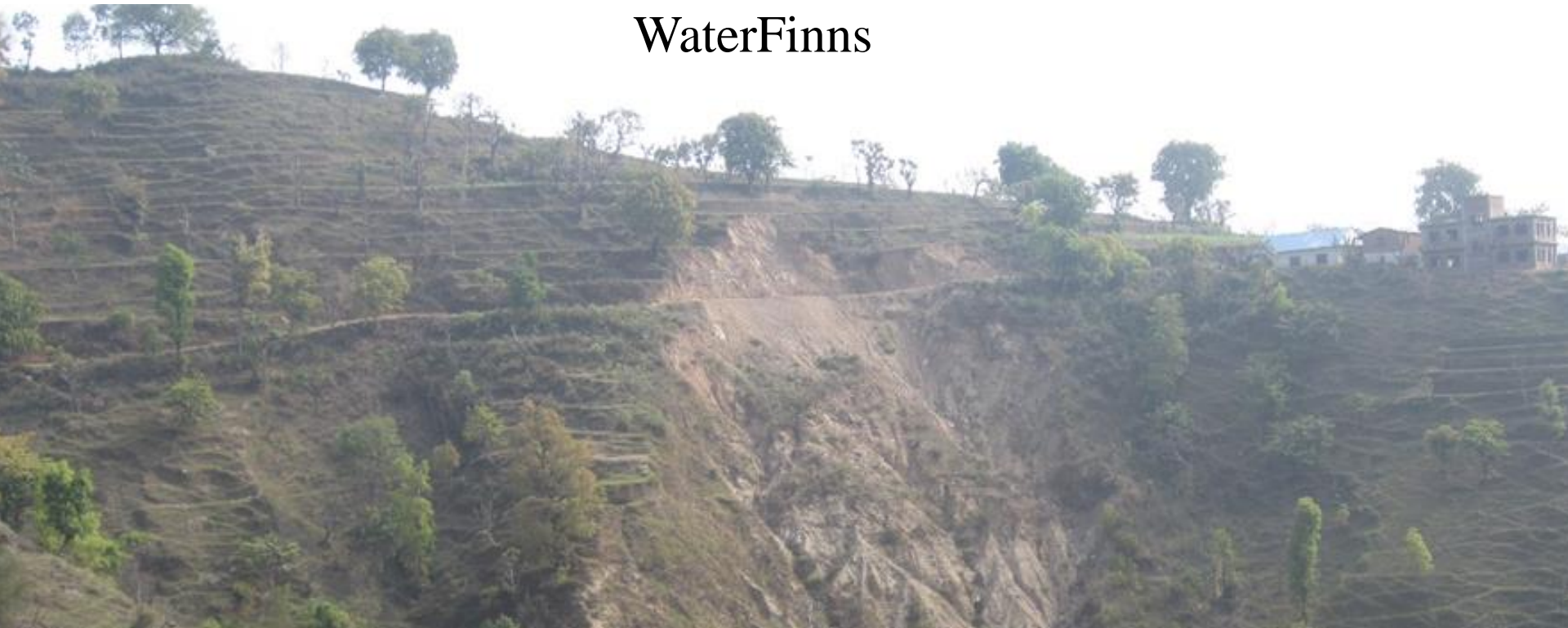
# **IMPACT OF CLIMATE-INDUCED HAZARDS ON RURAL WATER SUPPLY FUNCTIONALITY**

## **– CASE NAWALPARASI**

Aura Liski

Rural Water Supply and Sanitation Project in Western Nepal Phase II

WaterFinns



# INTRODUCTION

- **Who?** WaterFinns: Nawalparasi and Palpa Sustainable Water Supply and Sanitation Project (2014 – 2016)
- **Where?** Rural Water Supply and Sanitation Project gravity schemes (12 – 24 years old)
- **What?** Sustainability
- **Why?** Nepalese water sector suffers from functionality challenges

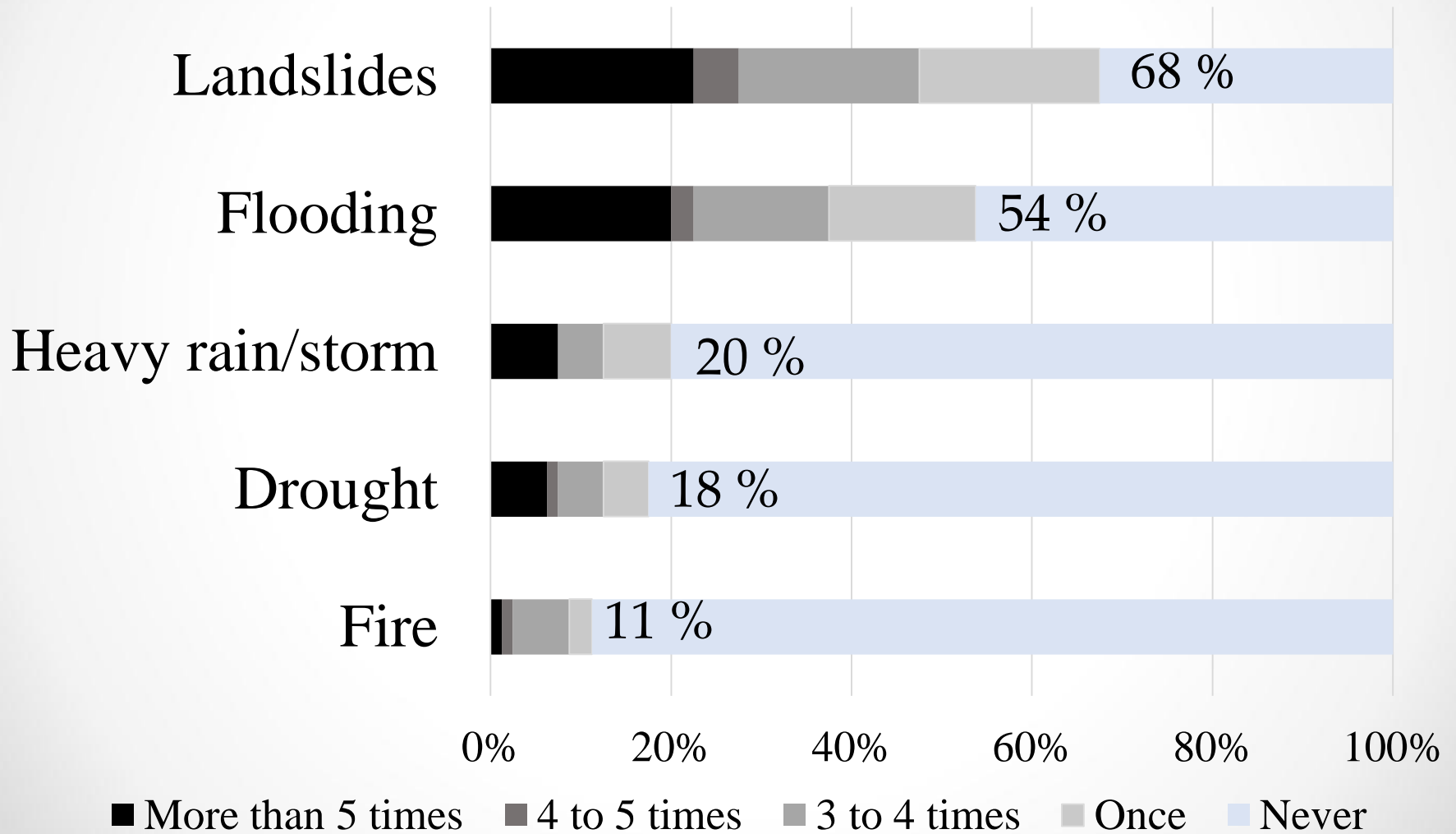
# PROBLEM STATEMENT

- Nepal is very much affected by natural hazards due to its topography and weather patterns.
- Nepal is considered being one of the most vulnerable countries to climate change.
- Despite of the frequency of natural hazards, their impact on the water supply functionality has been little studied.

# RESEARCH QUESTIONS

- Do natural hazards constitute a risk on the functionality of community-based rural water supply services in Nepal?
- Are communities able to cope with natural hazards and what kind of support do they get to manage hazards and disasters?

# FREQUENCY OF NATURAL HAZARDS HARMING WATER SUPPLY FUNCTIONALITY (N=80)



# IMPACT ON WATER SUPPLY FUNCTIONALITY

## ■ FLOODS

- Physical damage 100 %
- Depletion of flow 33 %
- Economic losses 23 %

## ■ LANDSLIDES

- Physical damage 93 %
- Depletion of flow 20 %
- Economic losses 13 %

# CASE STUDY FINDINGS

- Problems especially in the monsoon season
- Landslides and flooding have a negative impact on the service level indicators *quantity, accessibility, reliability and quality*
- If not fixed properly and timely, may become chronic problems





# CHALLENGES

- Vulnerable scheme structures
- Lack of skills and tools in scheme maintenance and repair
- Only 21 % of WUSC reported that their current income is enough to cover all necessary operation and maintenance expenses
- Difficulties in requesting for external support
- Delay in receiving support and repairing the scheme

# SOLUTIONS

- New governmental structure brings help closer to the communities:
  - Accountability
  - Timely support
  - Flexible funding mechanisms
  - Technical help

# ACKNOWLEDGEMENT

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**THANK YOU  
QUESTIONS?**