Flood risk management workflow

https://www.humanitarian-risk.org/







wiss Agency for Development

STEP

Context analysis compile baseline data

Remote analysis

3
Field assessment collect local information

Assets at risk identify and prioritize

5
Mitigation scenarios combine adapted measures

6 Strategy compare and decide

Define area of interest

Sort existing data on:

- flood hazard
- boundaries, roads,...
- buildings
- natural features

Use global sources and locally available data (drone, topo, maps, ...)

Analyze:

- existing hazard maps
- watershed and natural drainage
- lowlands
- ground water
- past events

Identify type of flood

Observe the terrain:

- natural features
- human footprint
- silent witnesses

Engage with community:

- interviews
- participatory mapping

Verify / adapt remote data. Compile information in consolidated hazard map Identify and categorize assets at risk (vulnerability / criticity)

Define acceptability and prioritize intervention needs

Receive propositions of migitation measures

Analyse maps and measures from GIS Tool

Understand the type of measure and effect using the decision tree

Add local measures if adequate

Estimate implementation cost, time, feasibility

Compare impact (adapt hazard and repeat step 4)

Compile information to allow for an informed decision on the strategy

OUTPUT

SUIDES

BASE MAP

INDICATIVE
HAZARD MAP can
be inserted in GPS or
phone for site survey

GELOCALIZED DATA

FINAL HAZARD MAP adapted with local info

RISK MAP

LIST OF ASSETS AT RISK and priorities

SCENARIOS combining adapted measures

STRATEGY
ACTION PLAN

Internet qGIS software Tutorials Internet qGIS software Tutorials Avenza, Timestamp Local data collection guide qGIS Risk Strategy plugin Priorization Table Compendium of Measures
Decision tree

Cost-Benefit Analysis

Action plan template