



Horn of Africa Partnership for Early Warning and Early Action

Increasing the availability and use of
disaster risk information for
decision-making in the IGAD region



Preliminary Findings of a Mapping and Analysis of recent Flood Risk Assessments in the IGAD region,
GHACOF 58, DRR Co-production session, 25.5.2021

Objectives of the exercise

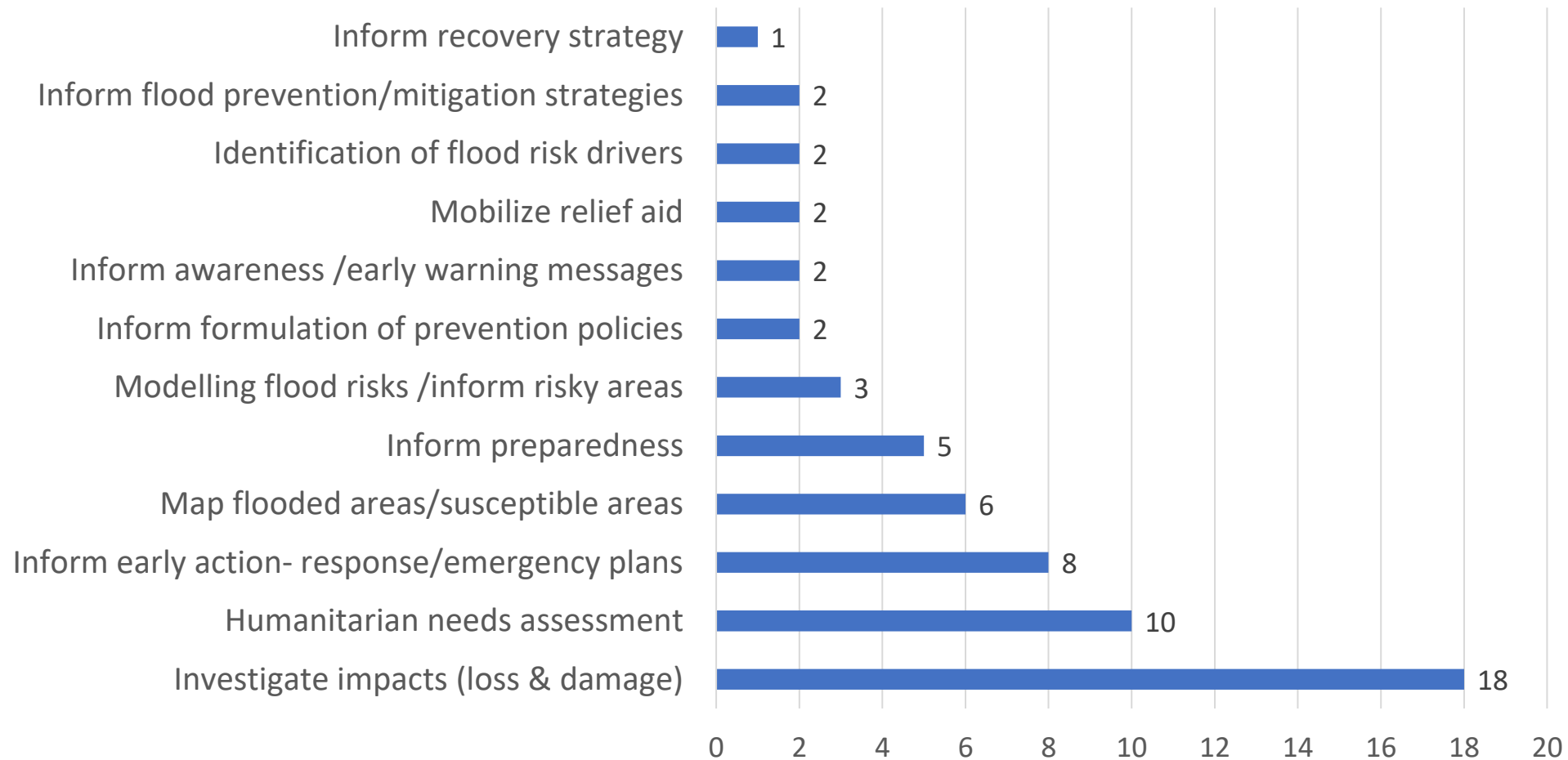
1. Document the **type of risk information contained in past flood assessments** by various agencies
2. Catalogue and compare **commonly used methods for flood assessment** in IGAD countries
3. **Determine the divergence/convergence of diverse methods** used in flood risk assessments in IGAD region –*future work*
4. Establish the **uses of flood risk assessments** results –*future work*

Scope of the study

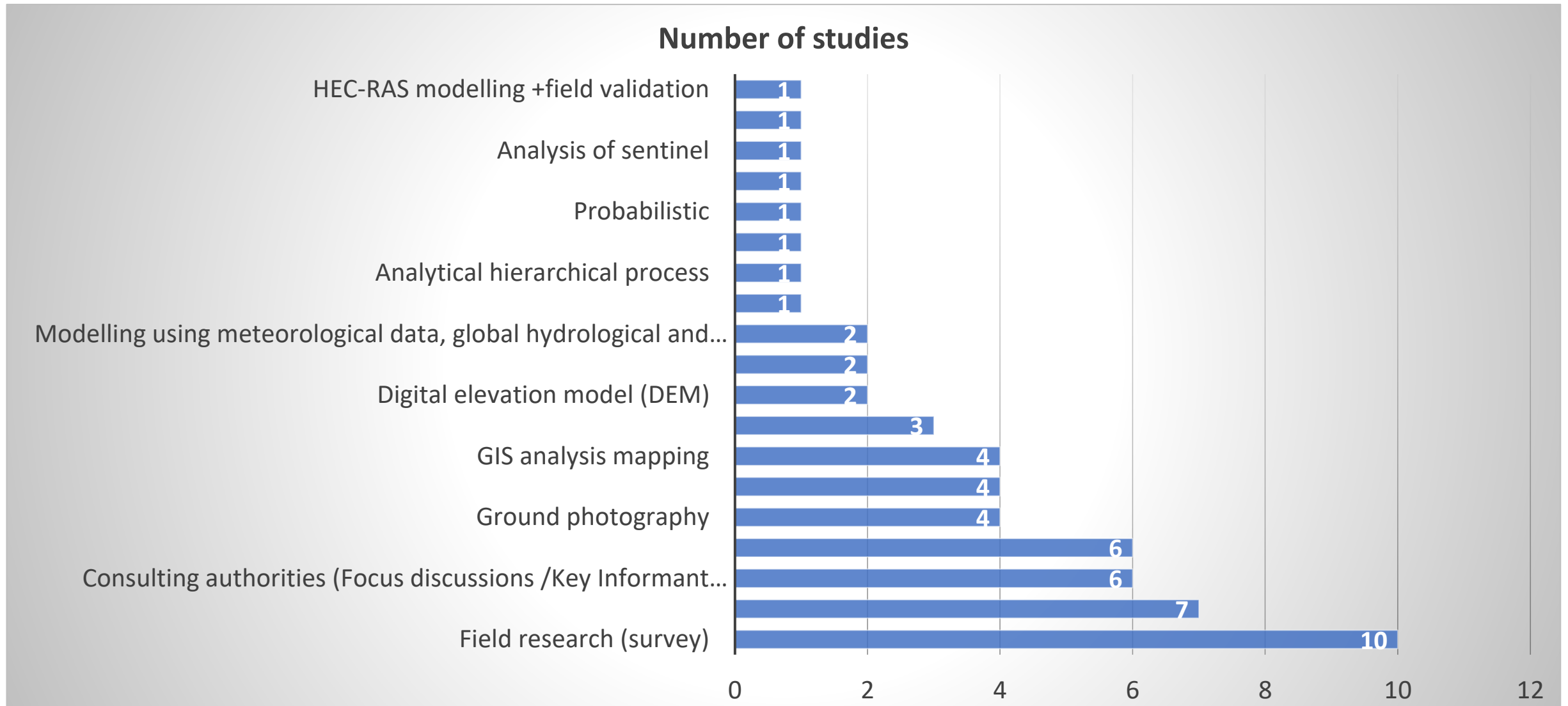
- Purposive –focused only on flood reports accessible from through the internet
- Past studies=> ;**less than 5 years** old
- Diverse geographical context-urban, rural, coastal, lake basin, inland plains and highlands
- Type of assessment **exp-post** i.e. impact studies during and after flood episodes, and **prospective** studies focused on flood risk assessment
- Purposive sampling=> downloaded a **131 multi hazard and stand alone flood reports**, then **narrowed down to 73 reports**. A total of **29 reports sampled** from a list of 73.

County	No. of recent studies on floods	Number of reports selected for review
Kenya	16	5
Uganda	14	5
Ethiopia	13	3
South Sudan	9	4
Sudan	8	3
Djibouti	7	3
Somalia	6	3
Total	73	29

Findings: Purpose of flood risk assessments



Findings: Methods used to Study Floods in IGAD region



Domain	Findings/conclusions
Type of studies	<ul style="list-style-type: none"> • The number of ex-post studies are often higher (20) than prospective (7). Only 2 studies served as ex-post and prospective. • Modelling flood risk=> Prospective studies focuses on regional and sub-national level.
Causes of flooding	<ul style="list-style-type: none"> • Short term high intensity rainfall occur frequently in all countries and is associated with sudden flooding. • The cause of intense-abrupt rains are attributed to Climate change. Occurrence of floods is due to combination of causes of=>short term high intensity rainfall in inland areas served with poor drainage
Risk drivers/perception	<ul style="list-style-type: none"> • livelihood and social factors motivate human settlement in low lying area which put people's lives to flood risks. • People tolerate floods if they lived in an area for long...relocation is hampered by livelihood uncertainties and fear of losing social identities and relations • Climate change =>torrential rains, overflowing rivers • Inadequate drainage system • Poor waste disposal practices clog up drainage channel • Governance-mismanagement of flood barriers and damage to river embankment • Rise in sea/lake level

Domain	Findings/conclusions
Impacts	<ul style="list-style-type: none"> • Flooding creates need for humanitarian assistance (food, shelter, health care) to the affected population • The cost of recovery and decline of the economy of the affected areas is usually high but is rarely quantified adequately. • The impacts of floods increases where there is lack of preparedness among people likely to be affected and those responsible e.g., governments. Inadequate resources to cope with floods emergencies continue to hinder early action. Moreover, in Kenya it was found that the impacts of floods depended on community land use practices, adherence to early warning and quick implementation of advisories. • Floods causes damage to infrastructure and dwellings, loss of sources of livelihoods and “flood IDPs” leading to socio-economic disruption
Mitigating flood risk	<ul style="list-style-type: none"> • There exist known flood prone areas but no evidence of long-term mitigation plans in place • It is important to identify higher grounds and inform people likely to be affected by floods for purposes of evacuation when floods strike • Only a few studies show mitigation action e.g., building dykes acts as barriers which prevent flooding e.g. In Djibouti, it was found that having a dam (the 14 million cubic meter Dam ‘de l’Amitié’ located in Langobaley over the Ambouli Oued) to impound flood water limited the impacts of flood. • Nevertheless, human interferences with water channels while pursuing irrigation also weakens river banks and in turn cause floods e.g. Somalia

Domain	Findings/conclusions
Preparedness	<ul style="list-style-type: none"> • In Sudan, lack of preparedness is highly associated with high impacts of flooding. • The government of Uganda has a multi-hazard atlas based on participatory mapping. The latter provides basic information about flood prone areas and other hazards in the country • When there's prior knowledge of flooding, external actors spring into emergency mode while there's seems to be no action on the part of the affected people apart from evacuating • Uganda's participatory mapping enhances community awareness
Cascading hazards	<ul style="list-style-type: none"> • Secondary hazards are triggered by flood episodes e.g., water borne diseases such as Cholera • People who are food insecure and experiencing malnutrition

Examples of common indicators of flood severity and secondary (cascading) hazards that are triggered by flood episodes.

Country	Indicators of severity of flooding	Secondary/Cascading hazards
Djibouti	Percent of national population affected by floods; size of territory covered by water; duration of flooding ; coping strategies-borrowing	contamination of water by pit latrines, outbreak of cholera , many pools of stagnant water are potential breeding places for the mosquito
Kenya	number of deaths , number of people affected, number of displaced people, acres of farmland destroyed, number of livestock swept away by floods.	Risk of disease after sanitation facilities are destroyed and communal water points became contaminated: risk of malnutrition
Ethiopia	depth of floods , breadth of flooded area; number of people/households affected , accessibility of the flooded areas by people and number of livestock lost	cholera, water borne diseases e.g. diarrhea, malaria; malnutrition



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Please inform us which other flood risk assessments you are aware of.

Please send feedback to

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