

Asia-Pacific Expert Group on Disaster-related Statistics

Draft Analysis of the Survey of Current Practices on Disaster-Related Statics in Asia and Pacific.

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GENERAL FINDINGS

INTRODUCTION

Following EGM 1&2

- **Survey Objective**

- examine feasibility of proposed guidelines on definitions and use of terminology for statistical purposes, based on existing references from UNISDR, UNDP, and other sources.

- **Survey Method**

- Survey ask each Member States to identify the degree of alignment of their current national practices with the cited terminologies and definitions.

- **Survey Task Groups**

- Disaster Occurrence
- Immediate Impact of Disaster
- Disaster Spatial Temporal

KEY CONCLUSION

1. DISASTER OCCURENCE

- **Responds to disaster occurrence survey suggest that:**
 - Significant shares of countries indicates alignment to some extent towards guideline reference from IRDR Glossary in two hierarchies (family and main event)
 - Exception for extraterrestrial category, extra-tropical storm, extreme temperature
 - The last hierarchy, at peril level, 3 respondent indicated non alignment for almost 50% out of total peril types.
- **In regards to the result, Expert Group may consider**
 - Reaching preliminary agreement on definition on the top levels of the classification (family and main event)
 - Conducting further study to employ additional source (WMO, IPCC?) to accommodate the exceptional findings
 - Keeping peril types classification since most of the non responses to peril types was caused by non existence of such type at the Member States.

KEY CONCLUSION

2. IMMEDIATE IMPACT DISASTER

- **Responds to immediate impact to disaster survey suggest that:**
 - Member States have less consistent alignment with single international reference
 - DesInventar for human impacts, particularly deaths and injured, are more likely to be used in countries as compared to CRED or FDES definitions.
 - The FDES use of the term "affected" persons scored slightly higher than the definition for "affected" cited from the DesInventar.
 - Asset impact by sector and types, a slight proportionate preference for definition cited from **DesInventar**
 - For economic damages, the majority respondent indicated some degree of alignment to definition cited from **CRED**
- **In regards to the result, Expert Group may consider**
 - Taking into account input comment from Member States to increase national accuracy of immediate impact disaster data (e.g. comment on using household unit instead of family unit)
 - Conducting further round group discussion to achieve common understanding among Member States
 - Exploring possibility to set standard of practice to accommodate varied practices among Member States.

KEY CONCLUSION

3. GEOGRAPHIC & TEMPORAL SCALE OF DISASTER OCCURRENCE

- **Responds to geographic and temporal scale of disaster survey suggest that:**
 - There are various method are in place at national praxis to determine 4 scale scenarios as follow (a) one disaster event affecting two or more administrative area; (b) two or more disaster affecting one administrative area; (c) two or more linked disaster occurrences affecting one administrative area; (b) two or more disasters affecting more than one administrative area and (d) disasters where the impacts span across international borders.
 - **There is not consistent methodologies yet among countries in terms of geographic scale identifier and temporal scale identifier.**
- **In regards to the result, Expert Group may consider**
 - Exploring possibility to set standard of practice to accommodate varied practices among Member States.

What will be our next challenge towards the findings?

How to guide national praxis to attain standardize expected outcome?

DISCUSSION

DETAILED FINDINGS

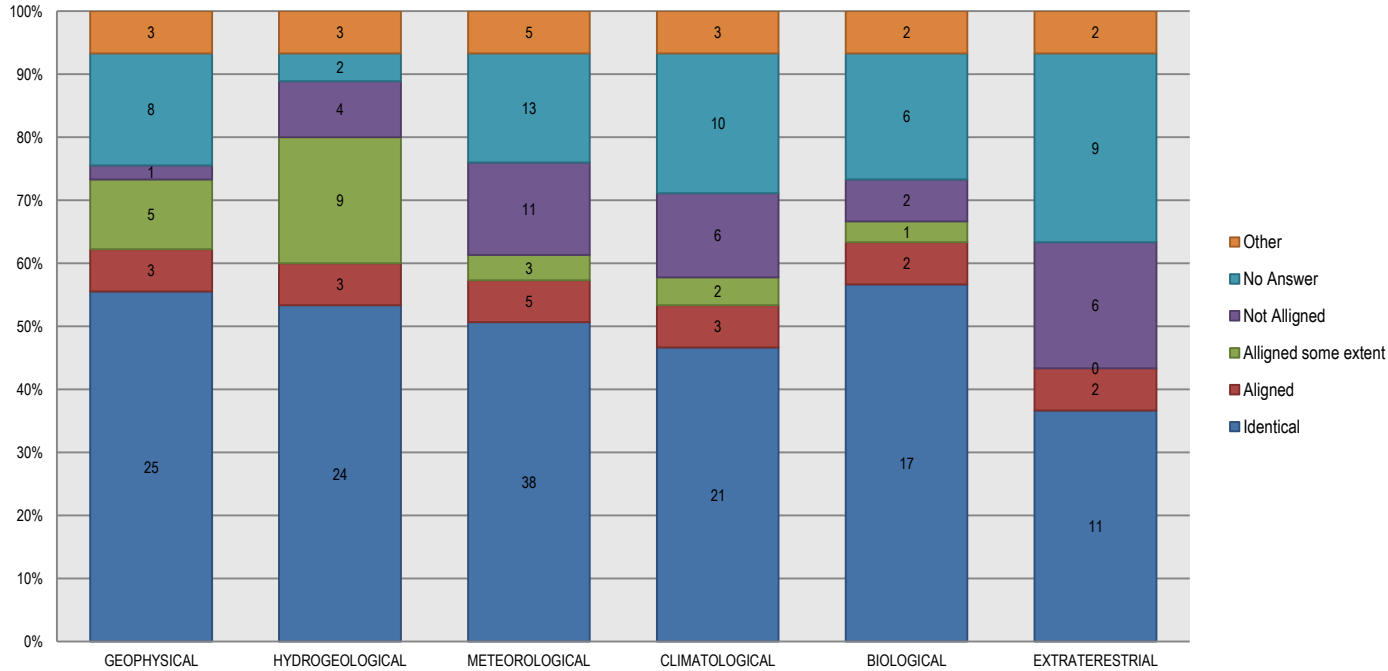
Types of Disaster Occurrences

- IRDR Peril Glossary employs hierarchical framework of disaster: family, main event, and perils.
- **General Result:**
 - Concurrence with the IRDR Glossary terminology
 - Exception of the extraterrestrial family
 - For this case, the majority of respondents neglected to respond, suggesting the category may not be of high relevance for this guideline.
 - In all other disaster family categories most respondents indicated an identical formulation with the IRDR definition.

Alignment with IRDR Classification

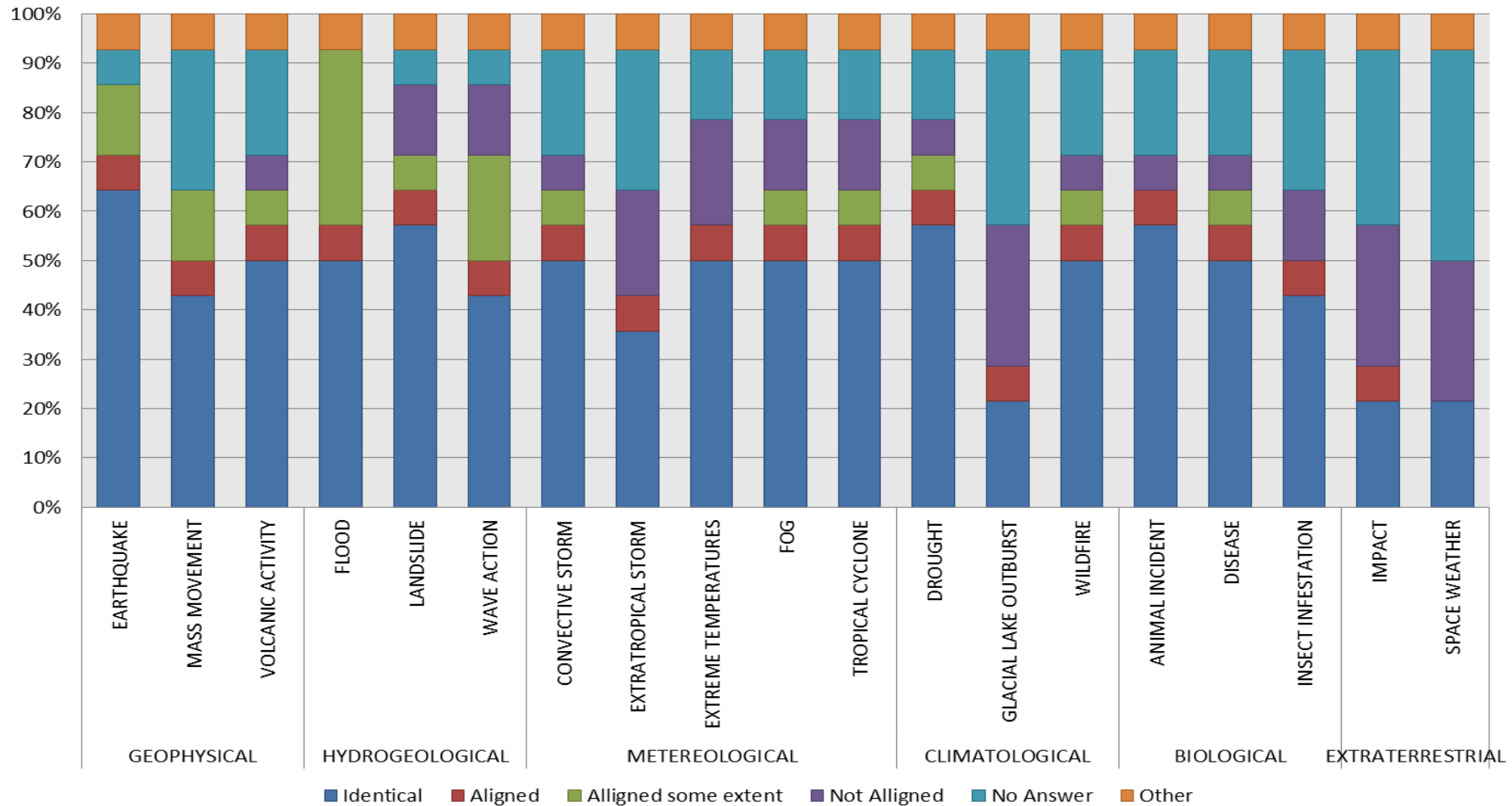
- Most respondents indicated at least alignment to some extent with IRDR definitions for the top levels of the classification: disaster main events and families, with the exception for the extraterrestrial category
- 2 individual meteorological main events that may need further study:
 - Extra-tropical storm, extreme temperatures
- At the peril level, at least 3 respondents indicated non-alignment for 18 out of around 40 items.
- Expert Group could consider reaching preliminary agreement on definition at the top levels of the classification (family and main event level)
- At the peril level, may be a need for some further study of additional references (WMO, IPCC?) for a few selected cases;
 - However, in most cases Expert Group can adopt IRDR definitions for regional Guideline on Basic Range of Disaster Statistics?

Survey Response by Disaster Family



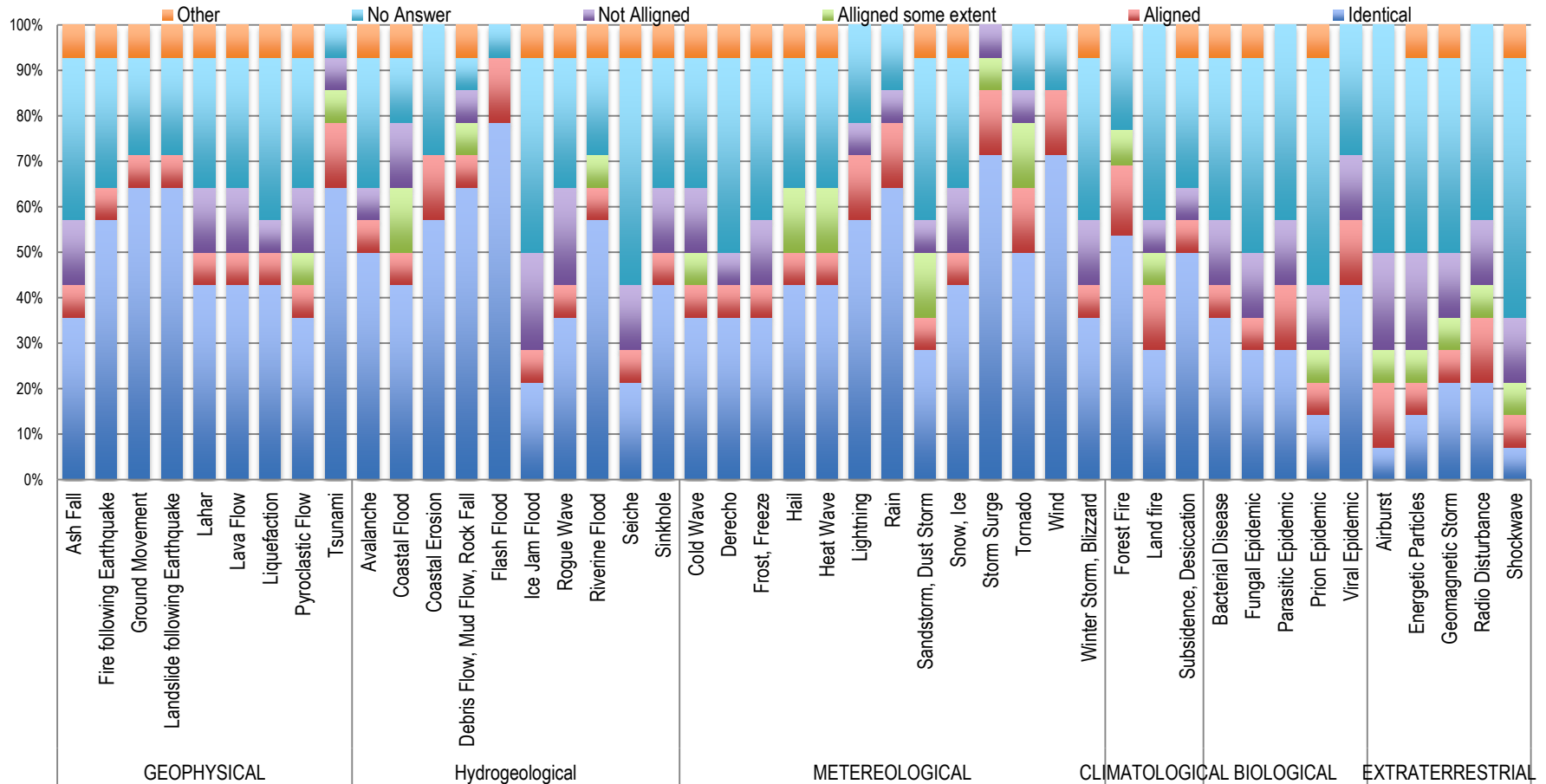
- Definitions for each family of disaster types identical or aligned to the IRDR definitions in more than 50% of cases.
- Only 1 respondent indicated non-alignment with the IRDR definition for the geophysical family.
- Exception are extraterrestrial category and meteorological disasters category.

Survey Responses for Main Event Definitions



- Common understanding among member States for these main events categories
- Less than 50% of respondents indicated definitional alignment for the mass movement, wave action, extra tropical storm, glacial lake outburst, insect infestation, and impact extraterrestrial categories.

Survey Response upon Perils Type



- At the peril types level, a very small minority of respondents indicated non-alignment with the IRDR definitions.
- There were many non-responses, which for many cases resulted in shares of respondents indicating at least partial alignment with the definitions below 50%.
- One possible reasoning for non-responses is lack of relevance of the particular peril type to that respondent country.

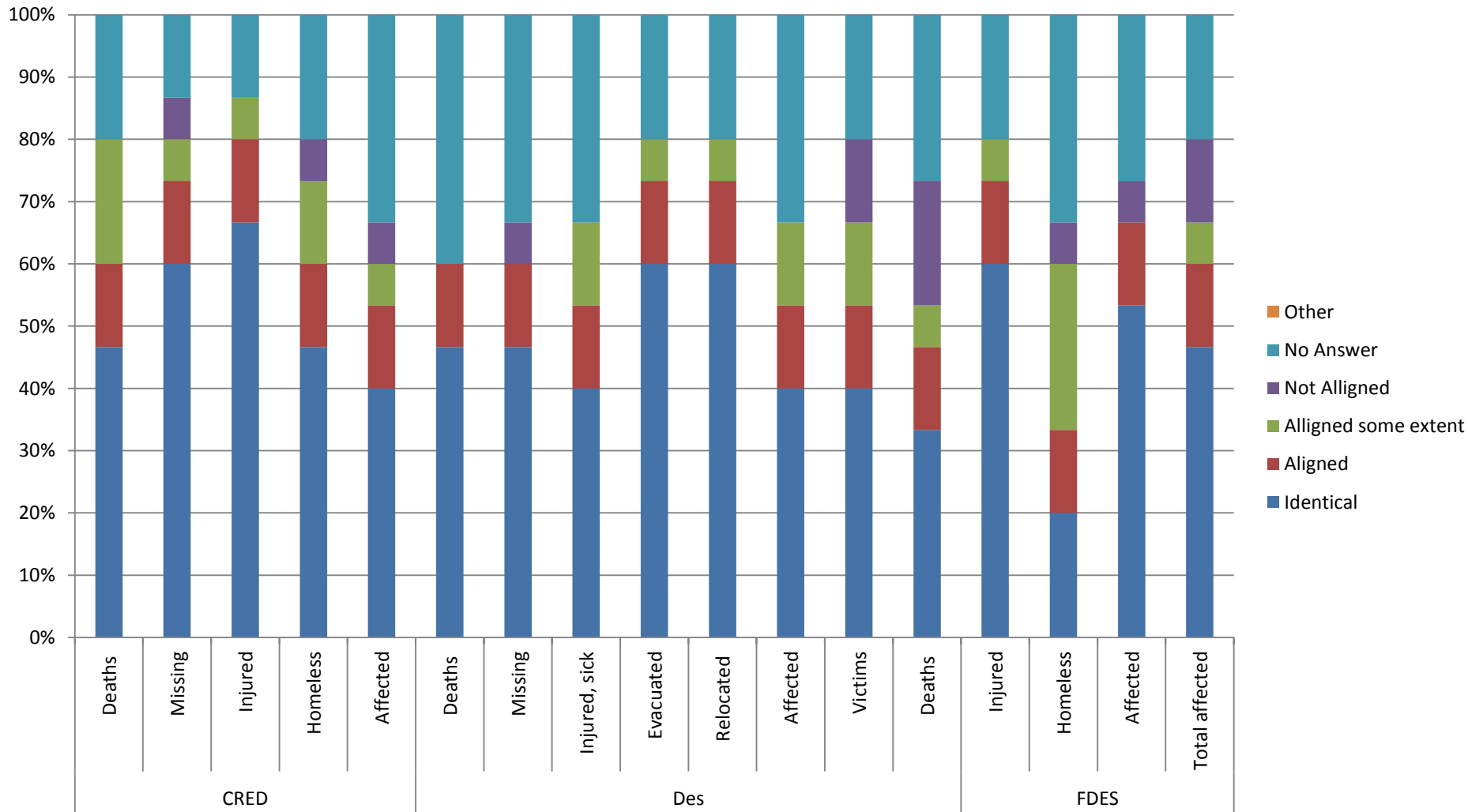
Immediate Impacts of Disasters

- There are 3 reference from
 - DesInventar website (DES),
 - The Centre for Research on the Epidemiology of Disasters (CRED),
 - UN Framework for the Development of Environment Statistics (FDES)
- There are 3 immediate impact refer here:
 - Human impact
 - Asset impact
 - Asset by sector impact

- General Result:
 - **The results suggest that countries responding to the survey are not consistently aligned with any single international reference for immediate impacts of disaster statistics cited in the survey**
 - **DesInventar website for human impacts, particularly deaths and injured, are more likely to be used in countries as compared to CRED or FDES definitions.**
 - **On the other hand, the FDES use of the term "affected" persons scored slightly higher than the definition for "affected" cited from the DesInventar website.**

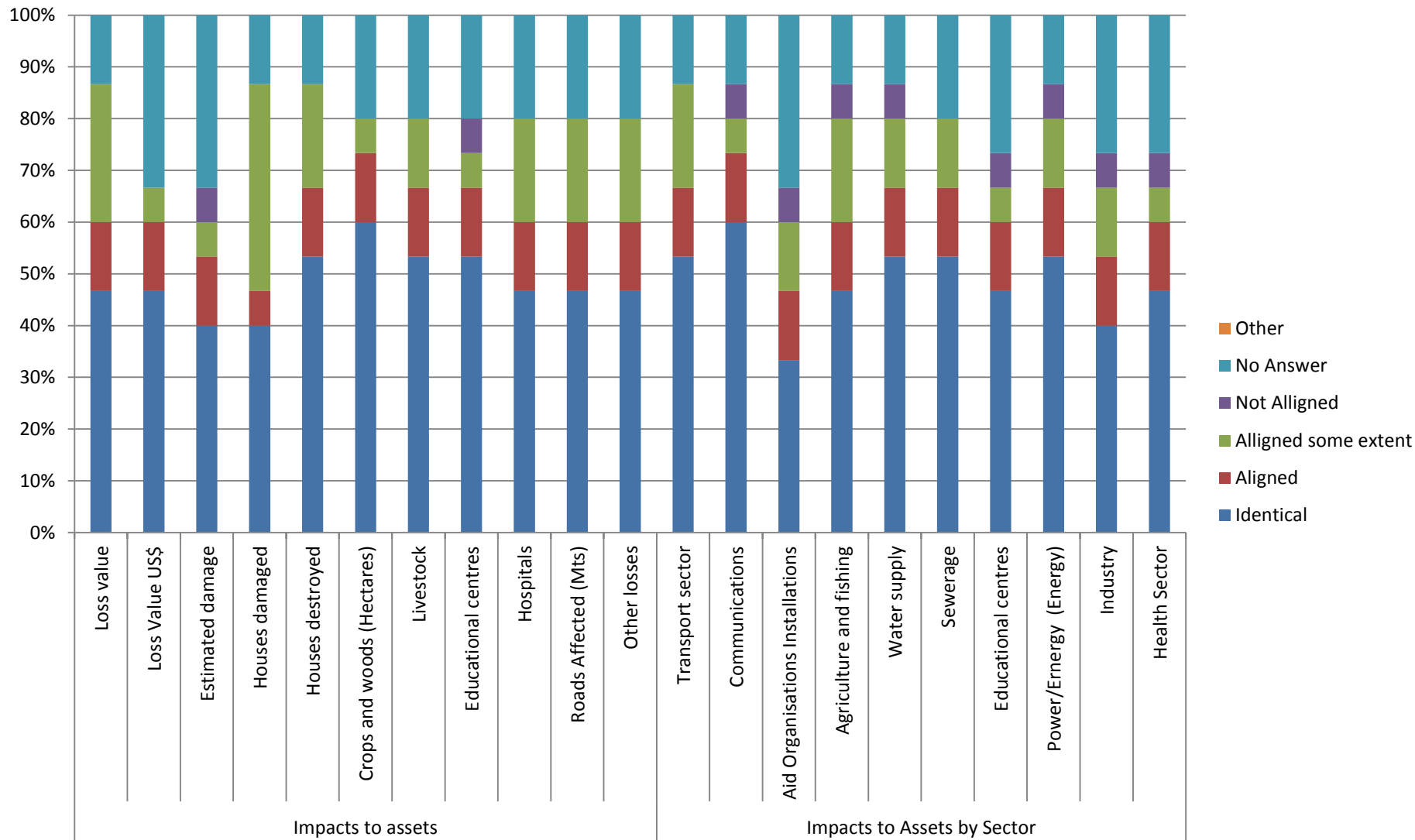
Immediate or Direct Impacts

- For human impacts, there appears to be a slight proportionate preference for definition cited from DesInventar as compared to CRED and FDES.
 - An exception can be made for use of the term “affected population”
 - FDES defines "affected persons" as: "Sum of injured, homeless, and affected (including “people requiring immediate assistance” but excluding number of people killed)".
- Few country practices are aligned with the CRED use of terminology for estimated economic damages; yet, the majority of respondents indicated some degree of alignment with DesInventar definitions for impacts to assets by type and by sector, although this section received a number of detailed comments on choice of terminology
- In general, definitional alignment for categories of immediate or direct impacts seems unlikely to be problematic in the guideline, however:
 - Guideline will take into account comments received on use of terminologies (e.g. household instead of families)

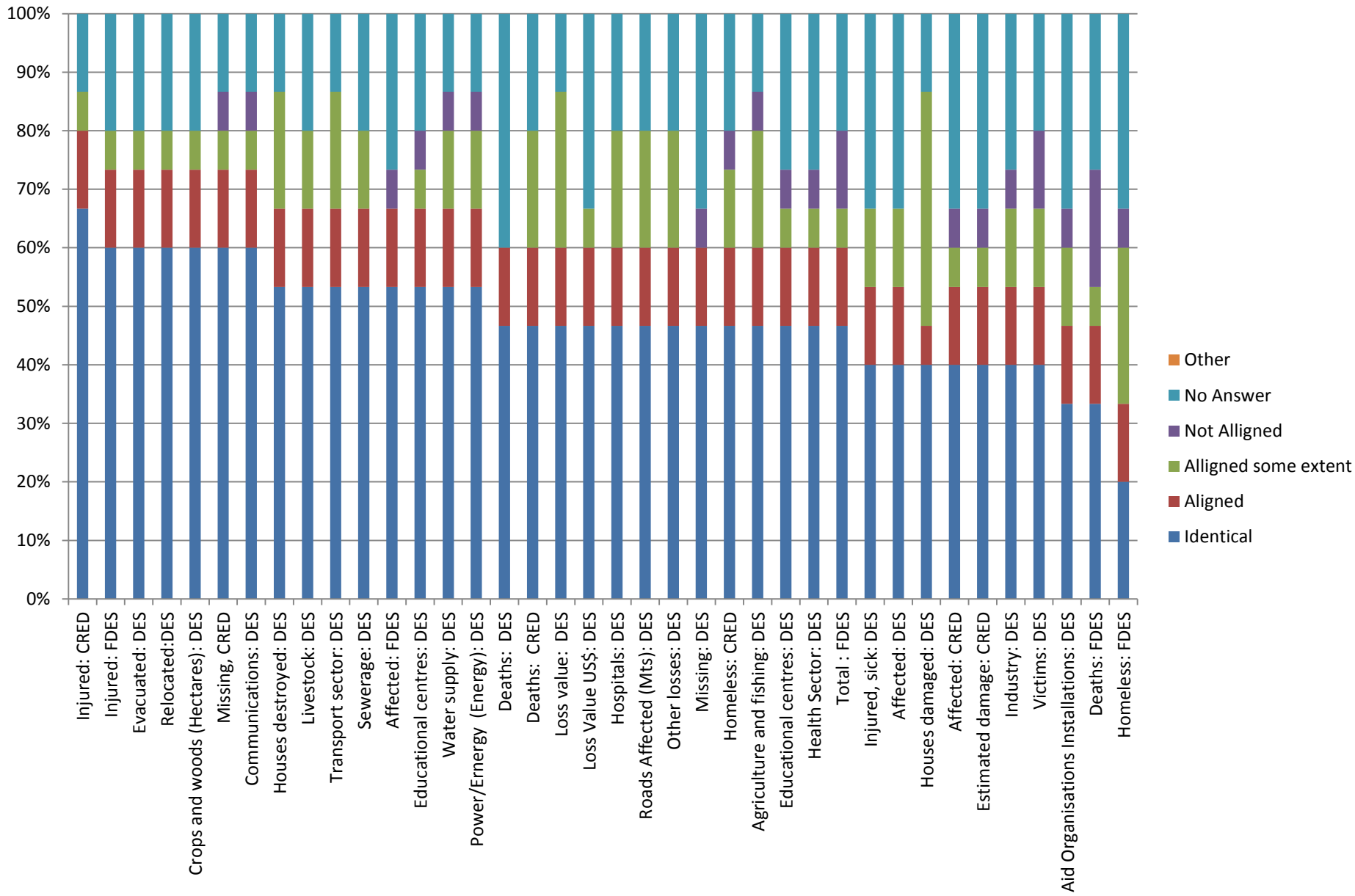


FDES defines "affected persons" as: "Sum of injured, homeless, and affected (including "people requiring immediate assistance" but excluding number of people killed)"

The definitions for deaths or missing persons from DesInventar are more specific and more explicit about a direct link to a disaster as compared to FDES and CRED



Use "households" instead of "family" and to refer to specifically defined industries, e.g. agriculture and fishing, instead of a generic undefined category such as "industry".



Spatial and temporal approach in Disaster

- Temporal methods in disaster are in place for only few categories of disaster types (notably: earthquakes and tropical cyclones)
- The results seem to confirm that the possibility for explicit and consistent methodologies for identifying a temporal scale for disaster occurrences will vary according to the varying natures of the different types of disasters.

Geographic & Temporal Scale of Disaster Occurrence

- On recording geographic information of disasters, could be useful to gather more information about compilation practices in countries from sub-national, to national, to international levels.
- May be varying practices (or availability of standard rules) for temporal scale according to disaster type; however could be useful to develop a generic framework for defining temporal scale according to definition of direct impacts

Points for Discussion

- Utilize IRDR Peril terminologies and definitions for a classification of disaster types at to 2 levels: family and main event levels
- Need to improve and provide clear standards for categories of types of impacts
 - Adopt category of human impacts (deaths, missing, injured, relocated) using DesInventar definitions; also adopt category of “affected” based on FDES definitions
 - Economic damages needs further work in terms of categorization and definitions; need for alignment with other key international statistical standards (e.g. for definition of assets) and need to propose clear list with definition of assets for recording of damage or losses as direct impacts
 - Sectoral categorization of assets is problematic
 - Should consider yo broaden scope of assets, such as environmental/ecological assets
- Guideline should propose a specific framework for identification and relationships with temporal and geographical scale of disasters that can be aligned with current national practices (pilot testing may be needed) and generally relevant to different disaster types, in relation to impacts and definition of occurrences