

Disaster and adaptive capacity

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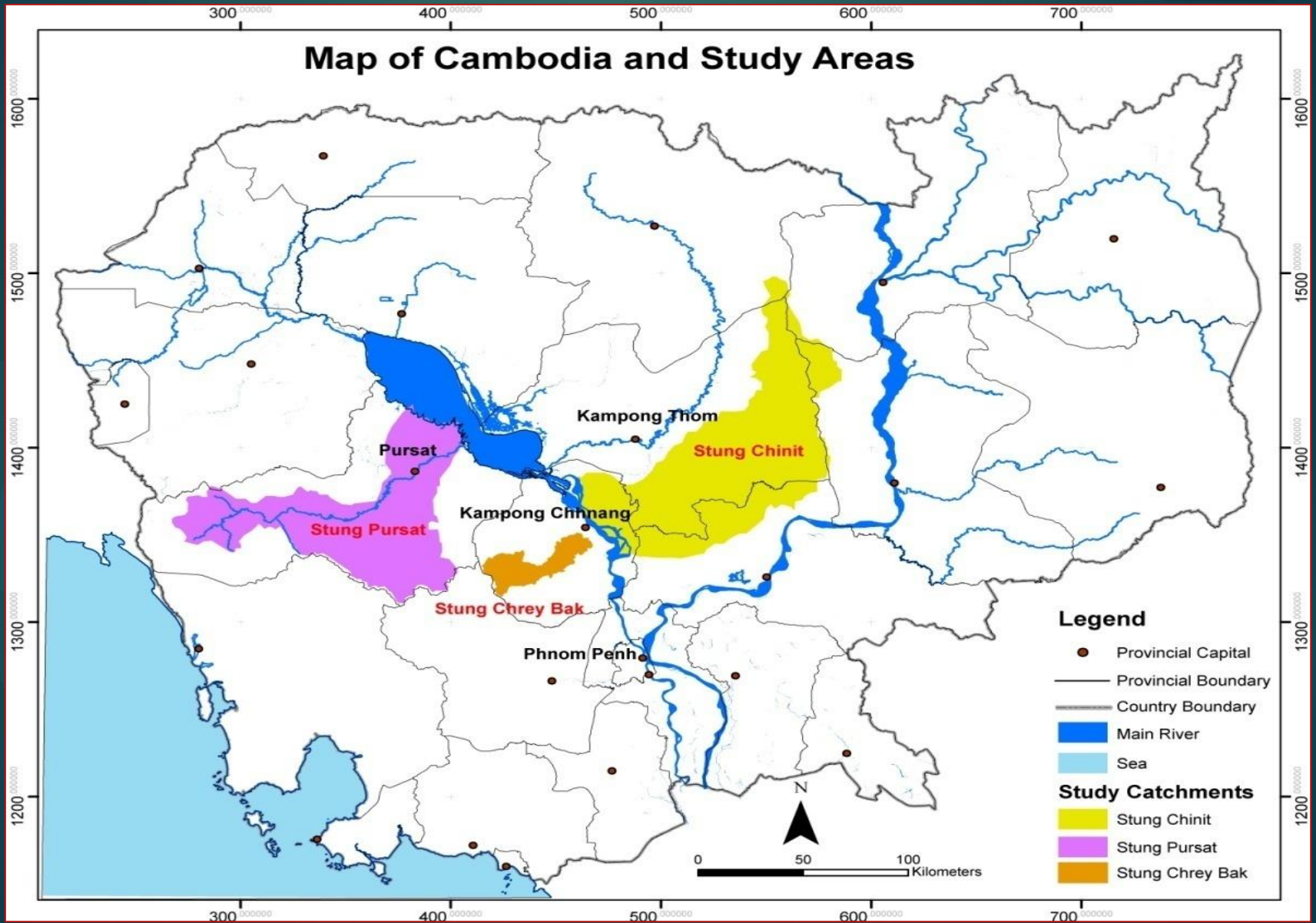
Content

- ▶ Introduction-Snapshot of disasters in Cambodia
- ▶ Studied areas
- ▶ Disasters in studied areas
- ▶ Institutional arrangement
- ▶ Preparedness and responses
- ▶ Adaptive capacity

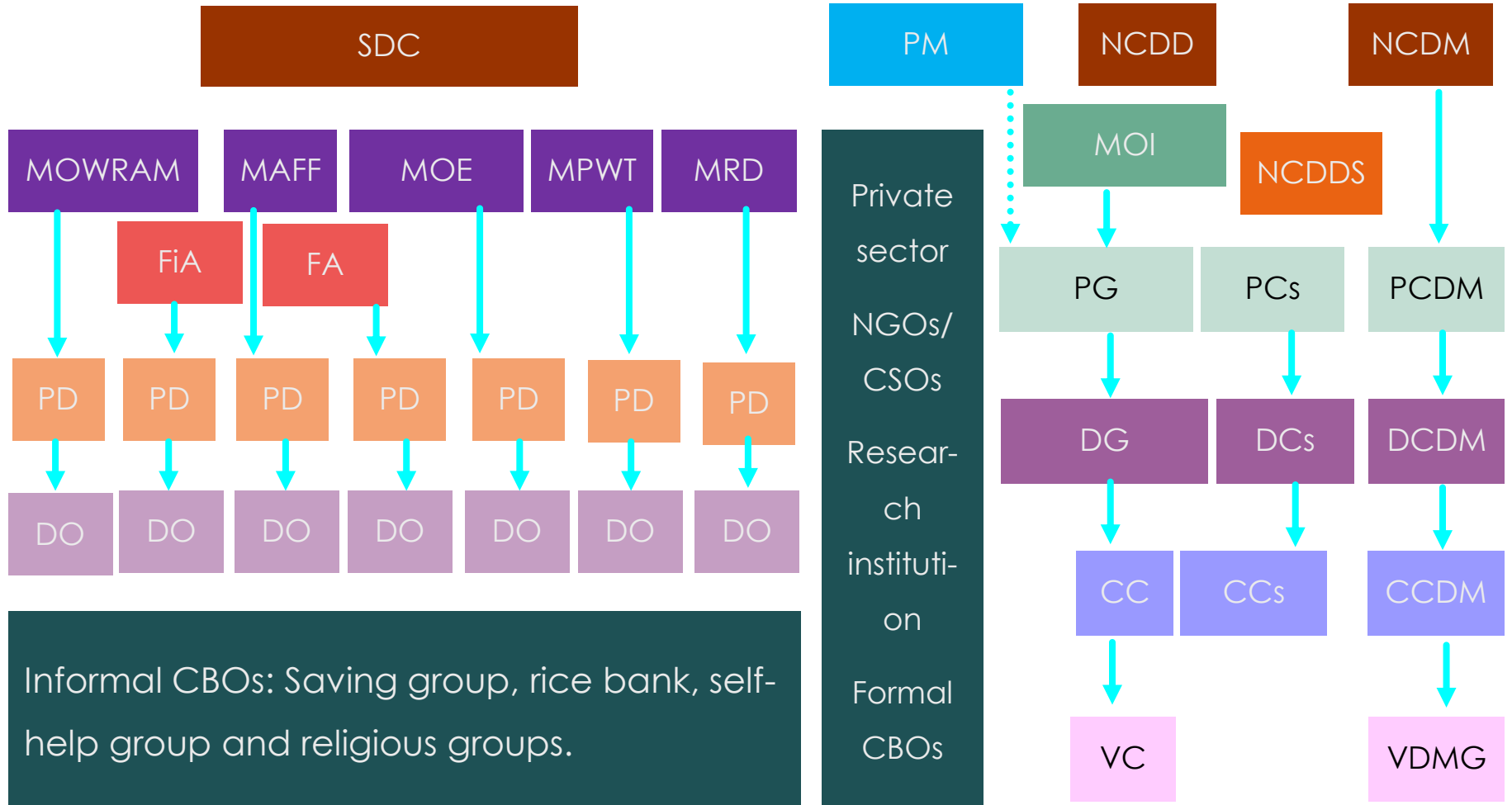
Snapshot of disasters in Cambodia

- ▶ Between 1998 and 2002, as much as 70% of rice production loss was attributed to floods, and another 20% to drought.
- ▶ Severe floods in 2000-2002 caused 438 casualties and approximately US \$205 million in damages (MOE, 2013);
- ▶ Typhoon Ketsana in 2009 affected 14 out of 24 provinces (about 180,000 people) and cost the Cambodian economy USD \$132 million in lost production and damage to infrastructure;
- ▶ Floods in 2011 affected 354,217 households in Cambodia and cost between US\$ 521 million to \$624 million in lost assets;
- ▶ In 2012, droughts affected many communities in Cambodia;
- ▶ 2013 flooding caused significant economic damage, estimated at US \$700 to 750 million (MOE, 2014).
- ▶ An estimated 1.7 million people were affected by flooding in 2013 in 20 out of 24 provinces and municipalities (MOE, 2014).
- ▶ In 2011 and 2013, Cambodia was impacted by the worst floods in at least 10 years (World Bank 2012).

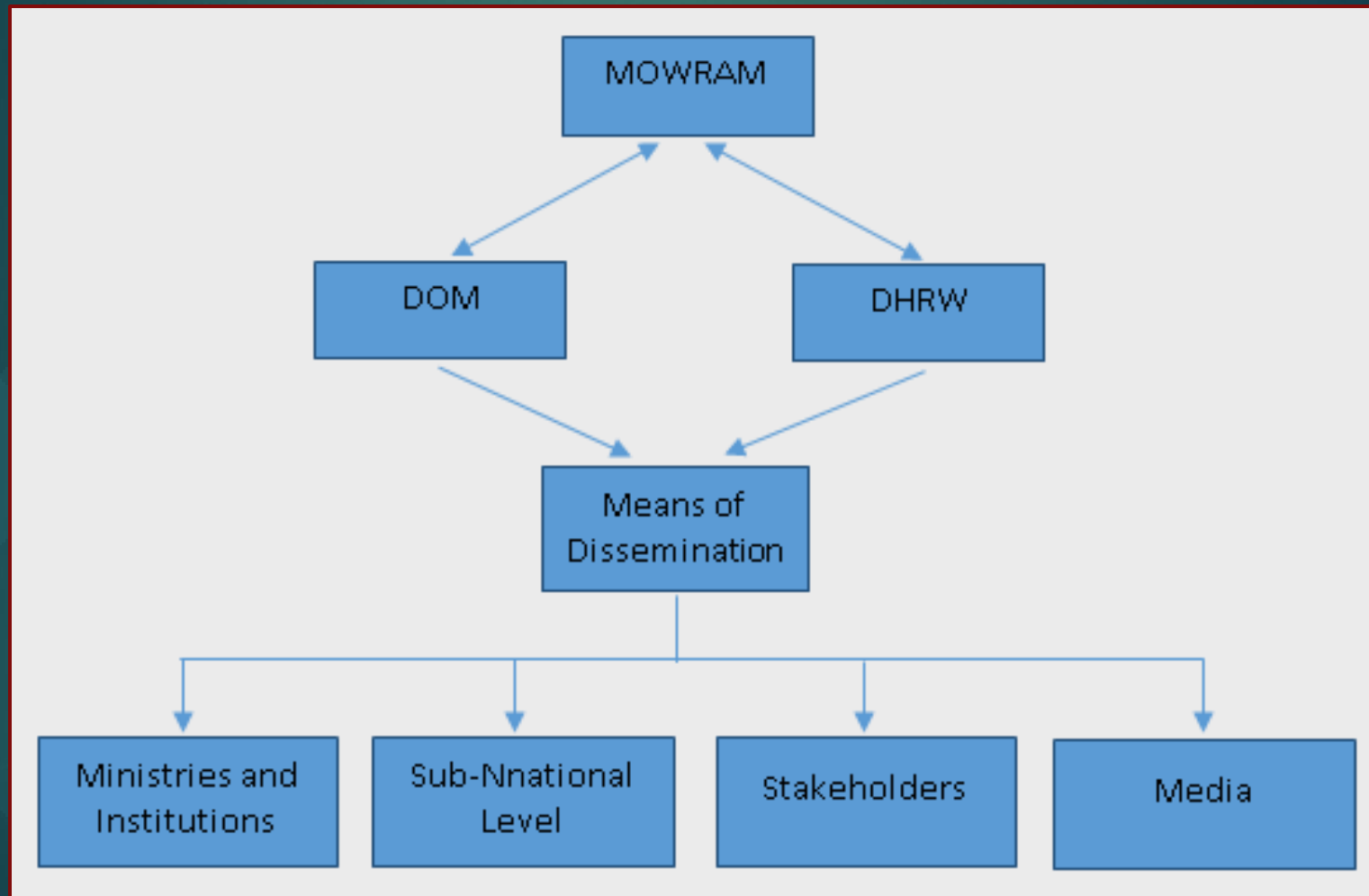
Studied areas



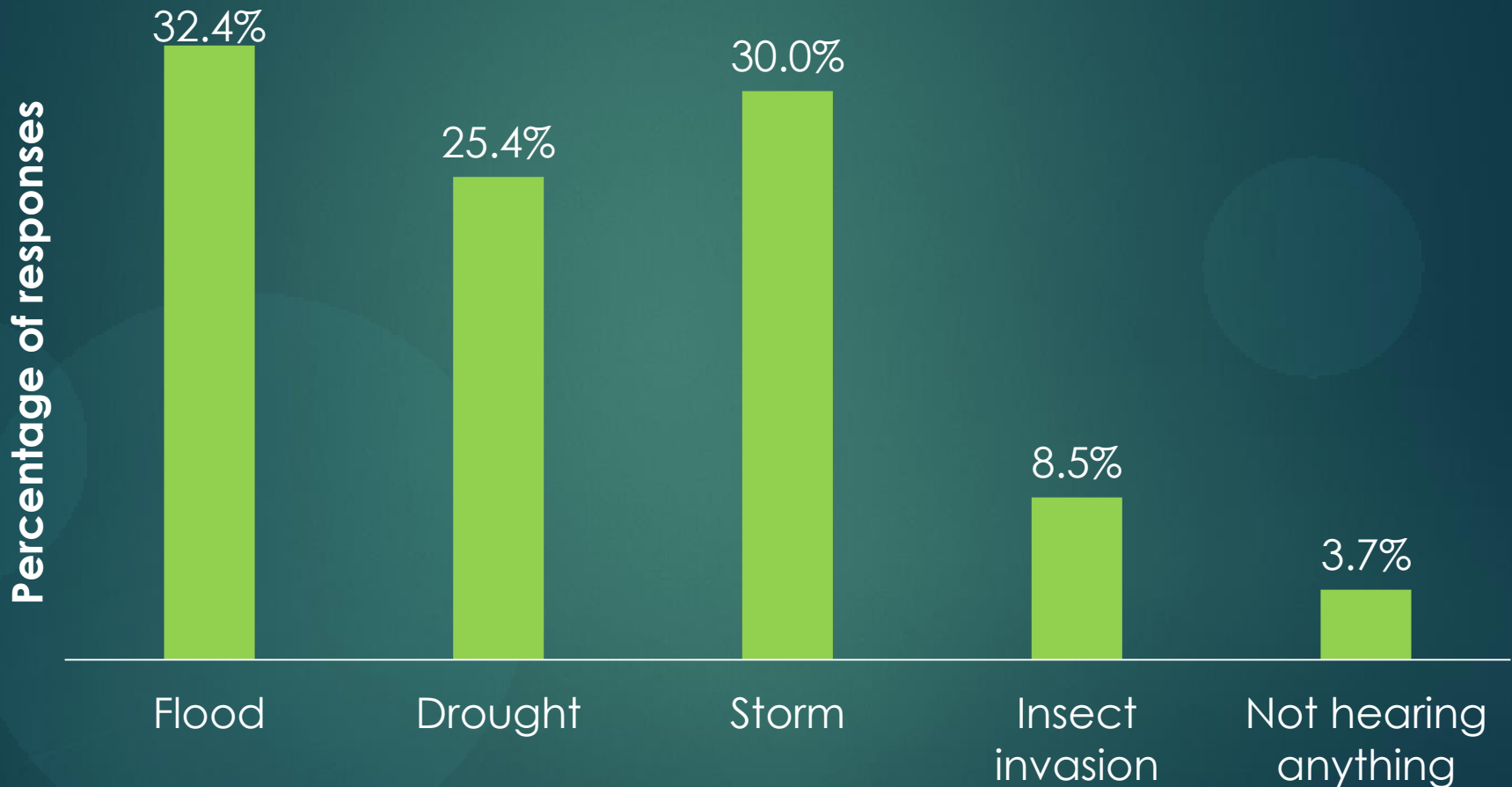
Institutional arrangement



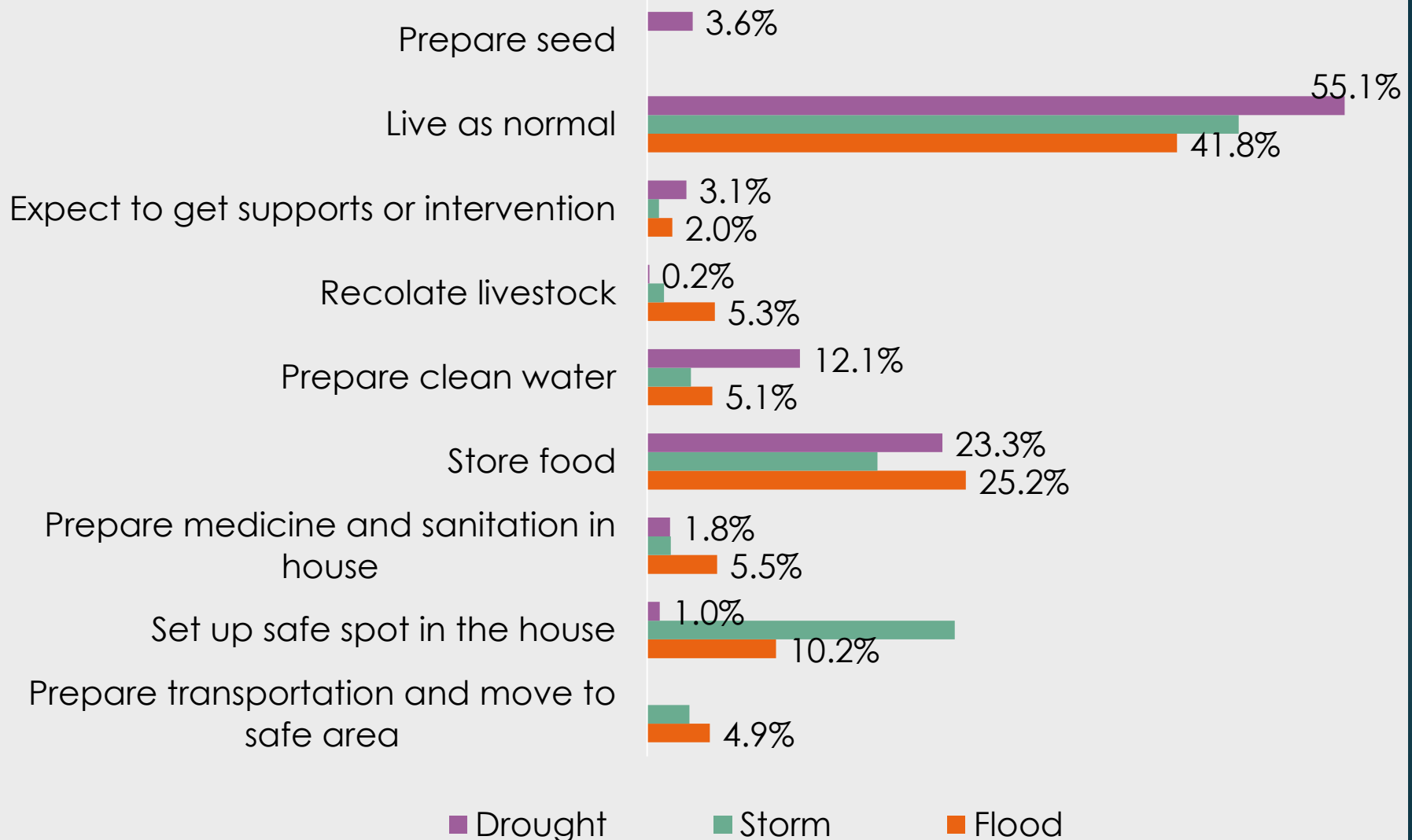
Early Warning System



Receiving information on disasters



Preparedness and responses



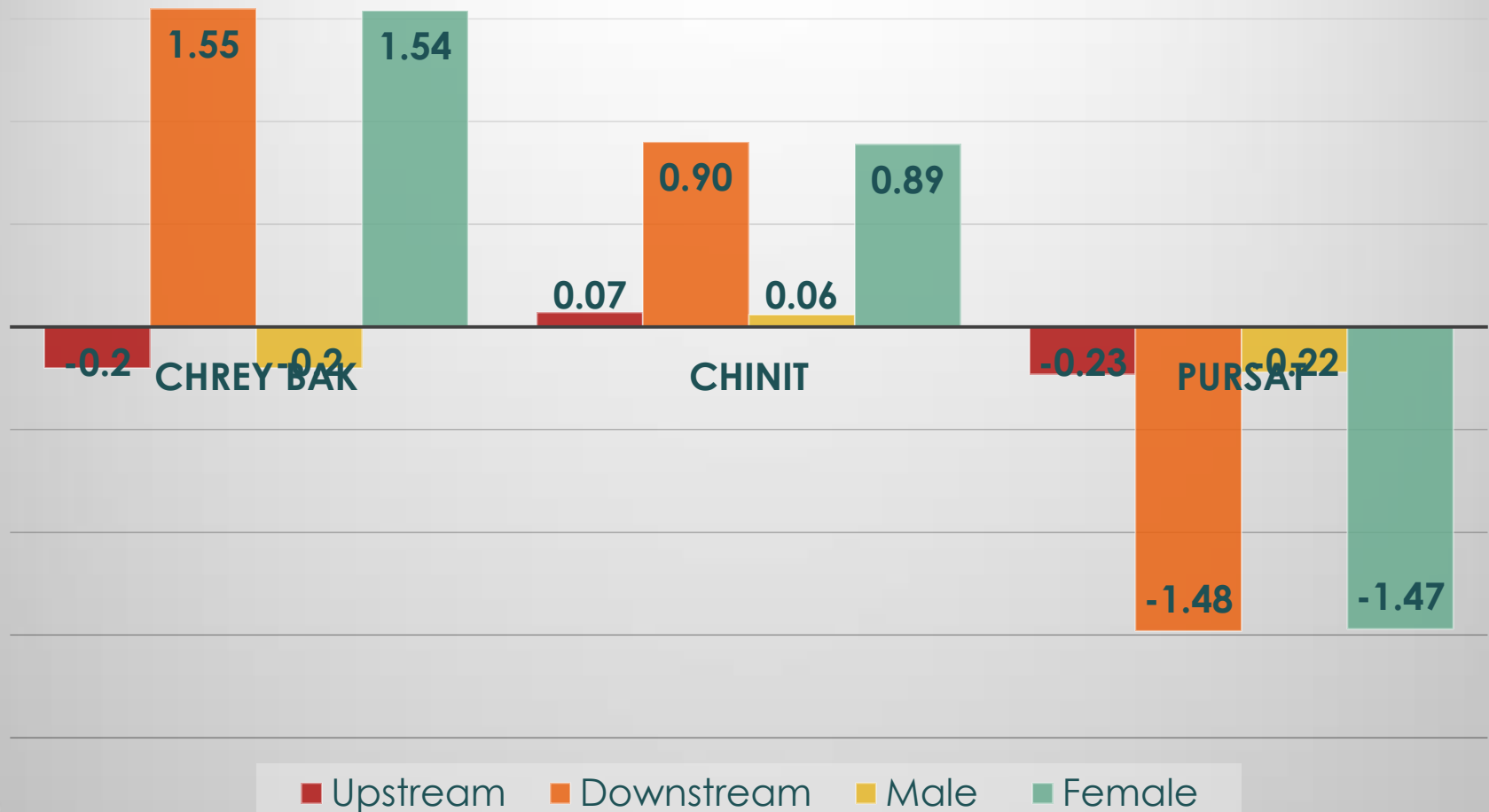
Ranking of alternative livelihoods once current ones are destroyed by disasters

	1 st	2 nd	3 rd
Shift to another natural resource activity	4.99	0	4
Shift to livestock cultivation	5.49	1.28	4
Shift to farming	1.37	1.28	0
Seek employment locally	12.97	10.26	0
Migrate	6.73	15.38	8
Start own business	3.49	9.62	8
Borrow money/food from others	4.74	37.82	24
Depend on help from others	2.24	9.62	44
Not sure what we would do	40.4	5.13	0
Other	17.58	9.62	8
	100%	100%	100%

Adaptive capacity: assets

Physical Assets (0.55)	Type of house (0.42)
	Mobile +Radio (0.39)
	Land with water supply (0.21)
Human assets (0.59)	Education (0.47)
	Dependency ratio (-0.03)
	training (0.28)
Natural assets (0.07)	Less productive land (-0.12)
	Natural water source supply (0.04)
Financial assets (0.51)	Household annual income (0.39)
	Livestock standard unit (0.33)
	Saving (0.022)
Social assets (0.27)	Membership in CBOs (0.10)
	Access to credit (0.18)

Adaptive capacity by topography and gender



Emergence of local informal institutions and local people

If there weren't those [saving group and rice bank], some of the local farmers would be in difficult time . When crop fails we don't know where to turn to. Luckily we have them, and we can borrow from them, take the rice seed and pay later.

Village chief, Pursat

- ▶ Two roles of local people:
 - ▶ Responding to extreme events on their own and helping their kin and friends, revealing reciprocal/collective action still exist.
 - ▶ Asking for help from local authorities.