

BANGKOK

Climate Resilience Pathways:

Water Security and WASH in Asia Pacific

Promising practices for strengthening climate resilient, inclusive WASH governance systems

WEDNESDAY 30 APRIL, 1330-1500



Session agenda

- **Scene setting** (5 mins)
- Strengthening climate resilient inclusive WASH governance case study **presentations and Q&A** (45 mins)
 - Ratan Bahadur Budhathoki, SNV Nepal
 - Kim Hor, Thrive Networks/East Meets West (EMW), Cambodia
 - Akhila Sivadas, Centre For Advocacy and Research, India
- **Table discussions** (15 mins)
- Climate financing and CRI WASH governance **presentation and panel** (20 mins)
- **Wrap up** (5 mins)

Climate resilient, inclusive WASH governance systems



Promising practices: Lessons from the Water for Women Fund

Fraser Goff

WaterAid Australia



Water for Women Fund learning agenda

1. How do **WASH governance systems** commonly **integrate** climate risk and resilience?
2. What lessons from **promising practices** can we share to support strengthened climate risk integration?

“Water governance is a combination of **functions**, performed with certain **attributes**, to achieve one or more **desired outcomes**, all shaped by the **values and aspirations** of individuals and organisations” (SIWI)

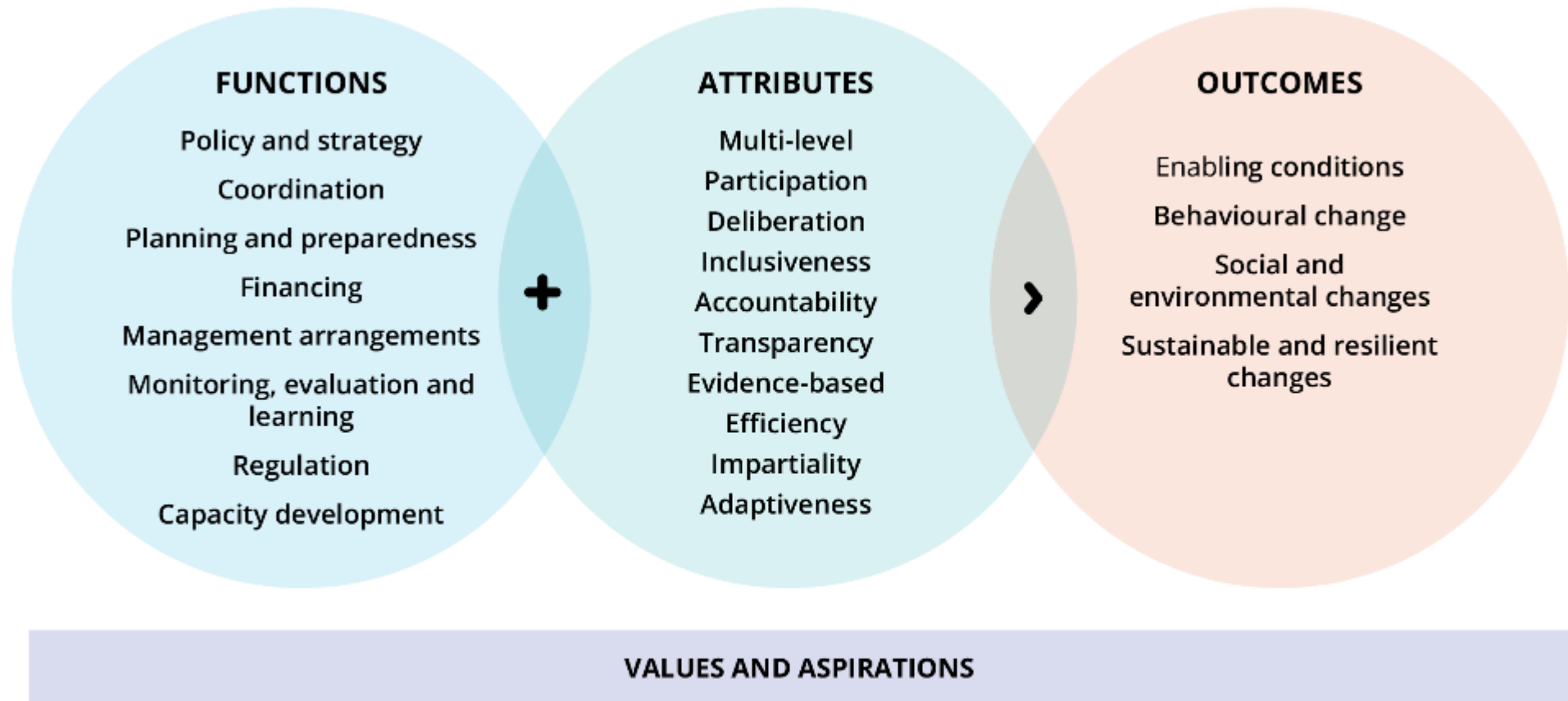


Figure 1. SIWI's Water Governance Framework for Practitioners (adapted from Jiménez et al., 2020)

How is climate risk and resilience commonly integrated into WASH governance?

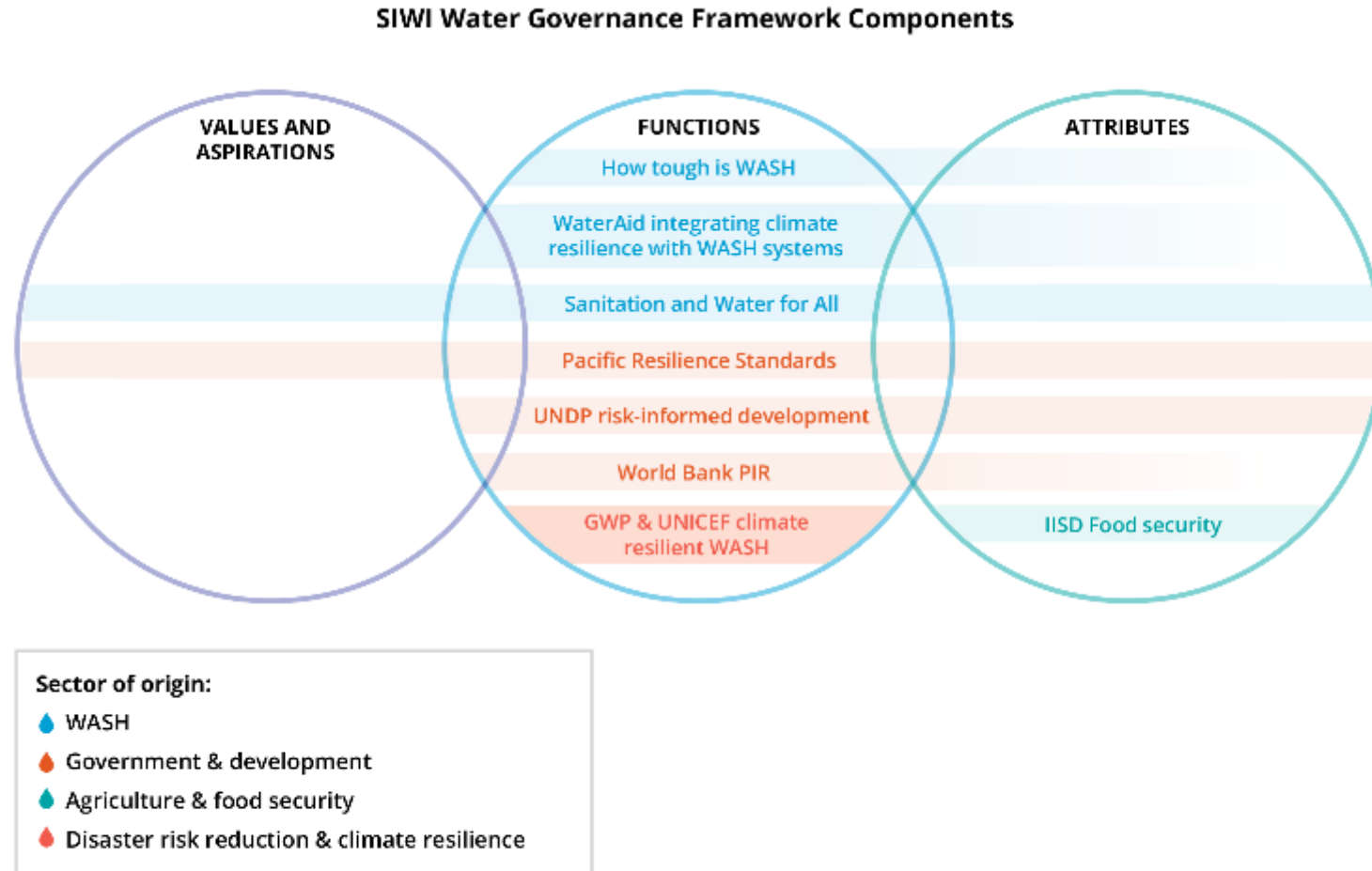
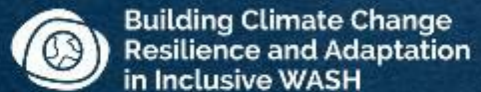


Figure 2. Mapping of the relative emphasis of nine frameworks related to climate risk and resilience and water governance against selected elements of the SIWI framework

Promising practices

-  Integrating climate risk into existing WASH processes, not through standalone climate-oriented processes.
-  Building climate risk management capacities as part of broader WASH governance-strengthening efforts.
-  Pooling public climate finance with other sources of international development finance.
-  Adapting and strengthening existing tools – only creating new ones if clearly needed
-  Prioritising inclusive processes and tools.
-  Strengthening participation of community and rights holders to improve accountability in climate risk governance.
-  Utilising both scientific and customary climate data.
-  Linking up integration efforts.



Strengthening climate risk capacity within existing WASH governance in Nepal

Ratan Bahadur Budhathoki
Project Leader/Advisor
GEDSI & Climate Integration
SNV Nepal



BANGKOK

Climate Resilience Pathways:

Water Security and WASH in Asia Pacific



अरेष्ट क्लब, दालेक

Project Background



- Project implemented in 4 rural municipalities (RMs) in two districts of Nepal:
 - Dailekh District (hills)
 - Sarlahi District (plains)
- Part of extension phase of DFAT’s Water for Women Funded Project: 2023 – 2024 (Towards climate-resilient, inclusive water supply services in rural Nepal)
- Partners: UTS-ISF, CBM, IWMI, Everest Club, RWUA



Integrating climate risk and resilience into existing WASH governance systems



Data

Strategic
WASH
planning

Leadership and
Coordination

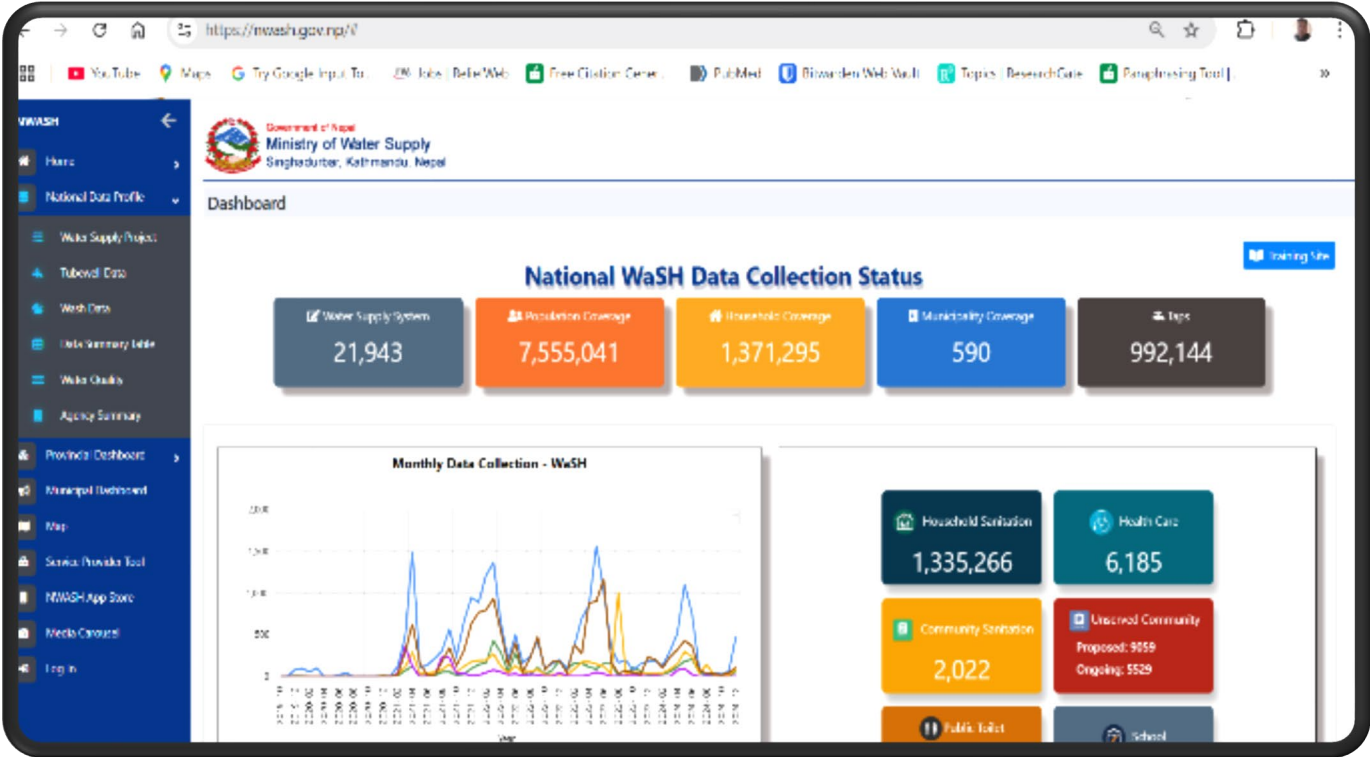
LG annual
planning

Implementation
procedures



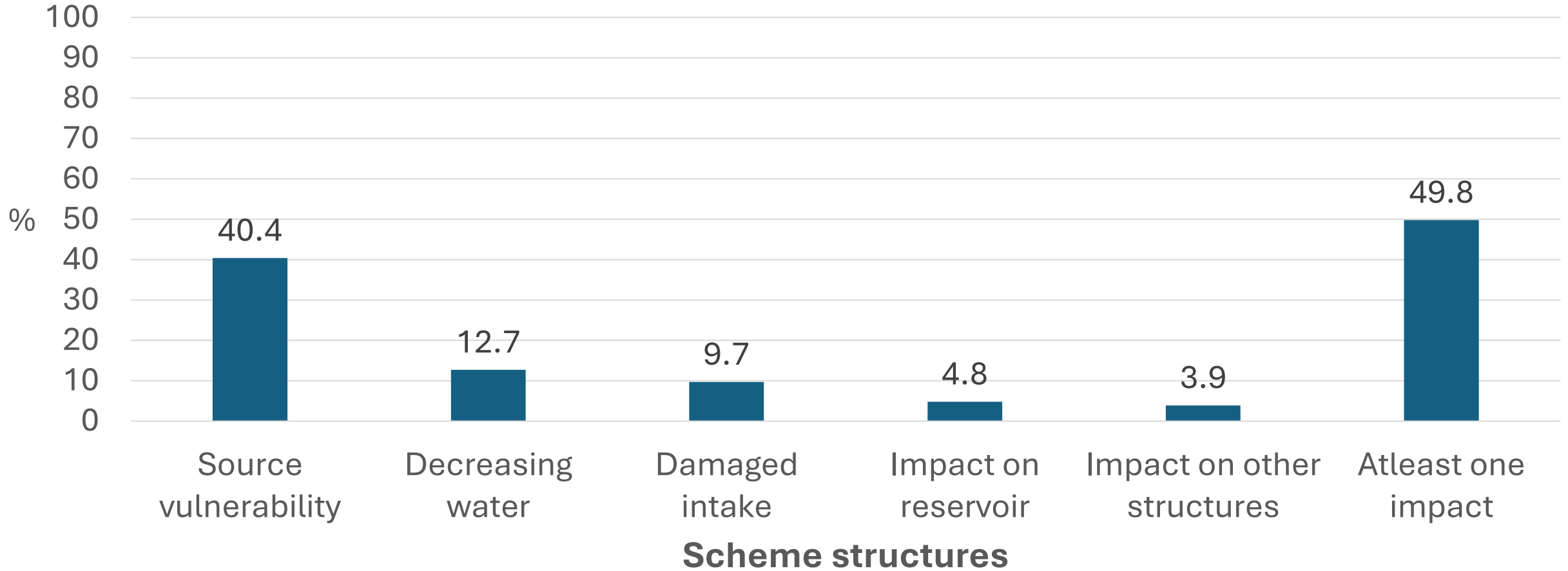
Climate risks & resilience in existing WASH data system

- RM capacitated to collect data on National WASH MIS system
- Available data analysed:
 - Climate impacts to existing WS systems
 - Outreach/unserved areas (Dalit hhs)
 - Asset condition and level of service
- Data used to calculate pre-feasibility level costs for enhancing climate-resilience of existing WS schemes



Source: National N-WASH MIS, 2025

Climate risk identification – N-WASH MIS



Source: Dungeshwor RM N-WASH MIS, 2025



Climate risk and resilience in strategic WASH planning

- Federal government has issued basic guideline for LG WASH Plans
- RMs supported to develop evidence-based WASH Plan by prioritising investments in reconstruction/ new WS systems based on criteria of:
 - climate impacts,
 - inclusion,
 - level of service.
- WASH plan provides costs of upgrading all existing systems with enhanced resilience, and safely managed LoS



Climate risk and resilience in LG annual planning

- RMs integrated priorities for climate resilience in annual budget policy (catchment protection, water safely planning, scheme upgrading)
- RMs are using the WASH Plans to allocate budget for CR-WS systems in their annual plan:
 - 12 CR-WS systems completed
 - Dailekh District (FY 24/25): RMs (AUD 35,983); community (AUD 17,677), benefited 295 HHs.
 - Sarlahi District (FY 24/25): RM (AUD 6,220), benefited 68 HHs.



Climate risk and resilience in WASH implementation procedures

- National CR-Water Safety Planning guideline → updated by project
- RMs capacitated on CR-WSP for enhancing resilience of WS systems
- RMs endorsed CR-WSP as part of RM's Standard Operating Procedures (SOP) for scheme management
- 6 WS service providers in hill district are actively applying CR-WSP in regular monitoring and preventive maintenance of catchment and schemes
- RMs are progressively capacitating all WS service providers in hill district on SOPs



Leadership and Coordination

Local stakeholders capacitated on and leading climate risk-informed WASH governance:

- RM political leadership
- RM technical staff
- WS service providers
- WASH Coordination Committees
- Climate heroes



Conclusion



Experiences from Nepal on strengthening and applying climate risk and resilience in existing tools and mechanisms for WASH governance, supports **ownership, leadership, and institutionalisation** of climate-risk informed processes, and **commitment** to continued progress in enhancing inclusive, resilient, safely managed water supply services.

→ Supports the *Promising practice* “***Integrating climate risk into existing WASH processes, not through standalone climate-oriented processes***”.



Community-Led Inclusive, Climate Resilient (CLICR) WASH

A promising model for Inclusive Climate Resilient WASH Governance



east meets west

A PROGRAM OF THRIVE NETWORKS

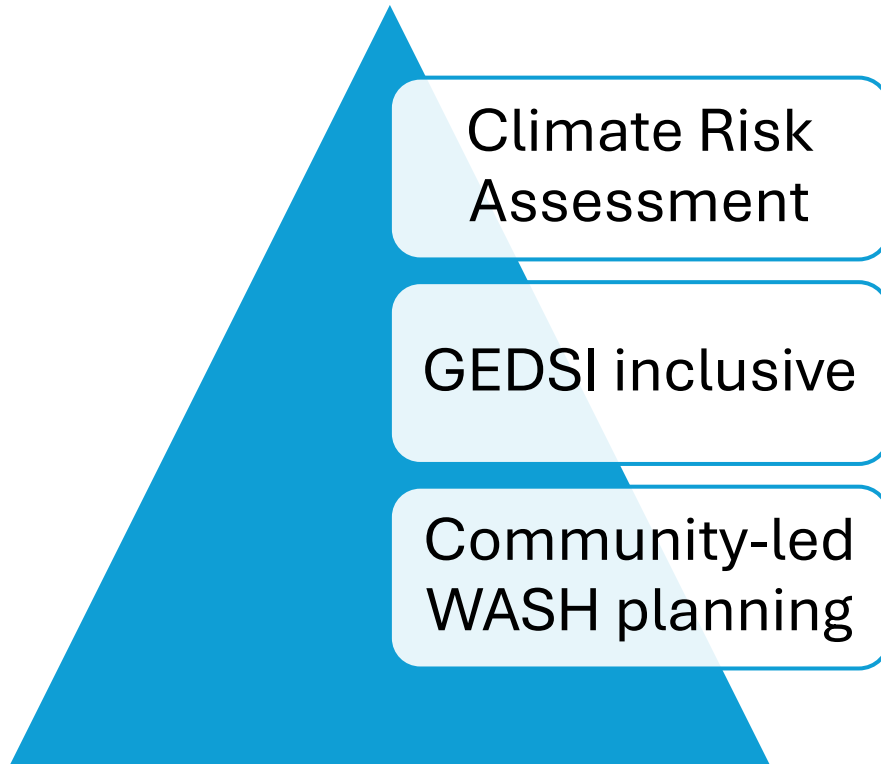
Kim Hor

Thrive Networks/East Meets West (EMW)



Why CLICR WASH Matters?

- Cambodia is **highly vulnerable to climate shocks**: floods, droughts, and storms.
- Rural WASH systems are under pressure from poor infrastructure and limited inclusive governance.
- **CLICR WASH addresses these gaps by integrating:**



Pilot Areas

- **30** communes across **6** provinces (piped & non-piped systems)
- Focused on **GEDSI poor/poor households**
- **Inclusive engagement of:**



Commune councils



Female community leaders & volunteers



Local private actors (water operators, suppliers/masons)

A promising model for Climate Resilient WASH

Systemic Capacity Strengthening

- Training on MRD/MISTI-aligned Climate-Resilient WSP
- GEDSI-SAT used for inclusive governance analysis
- Refresher & on-the-job training embedded for local partners

Community-Driven Implementation

- Participatory risk assessment & planning
- Co-financing from commune funds and private actors
- Women-led hygiene and MHH outreach

Scalable Results

- 1,006 piped water connections
- 1,690 bio-sand filters & safe storage
- 2,006 built/upgraded latrines (FSM-ready)
- 50 wells fenced
- 5 river/stream areas protected

CLICR WASH Challenges and Solutions



Challenges

- Implementation of the project at commune level is new for local partners (commune councils and village leaders).
- The level of receiving capacity development is limited.
- Local partners are very busy with many sectors.

Solutions

- Additional refresher training is required for local partners.
- Local partners need on the-job-training.
- Implementation of the project is required to be flexible to adjust schedule and time with local partners.

Key Results

✓ Inclusive Governance

- CCWCs, DWGs, PWGs actively lead planning & monitoring

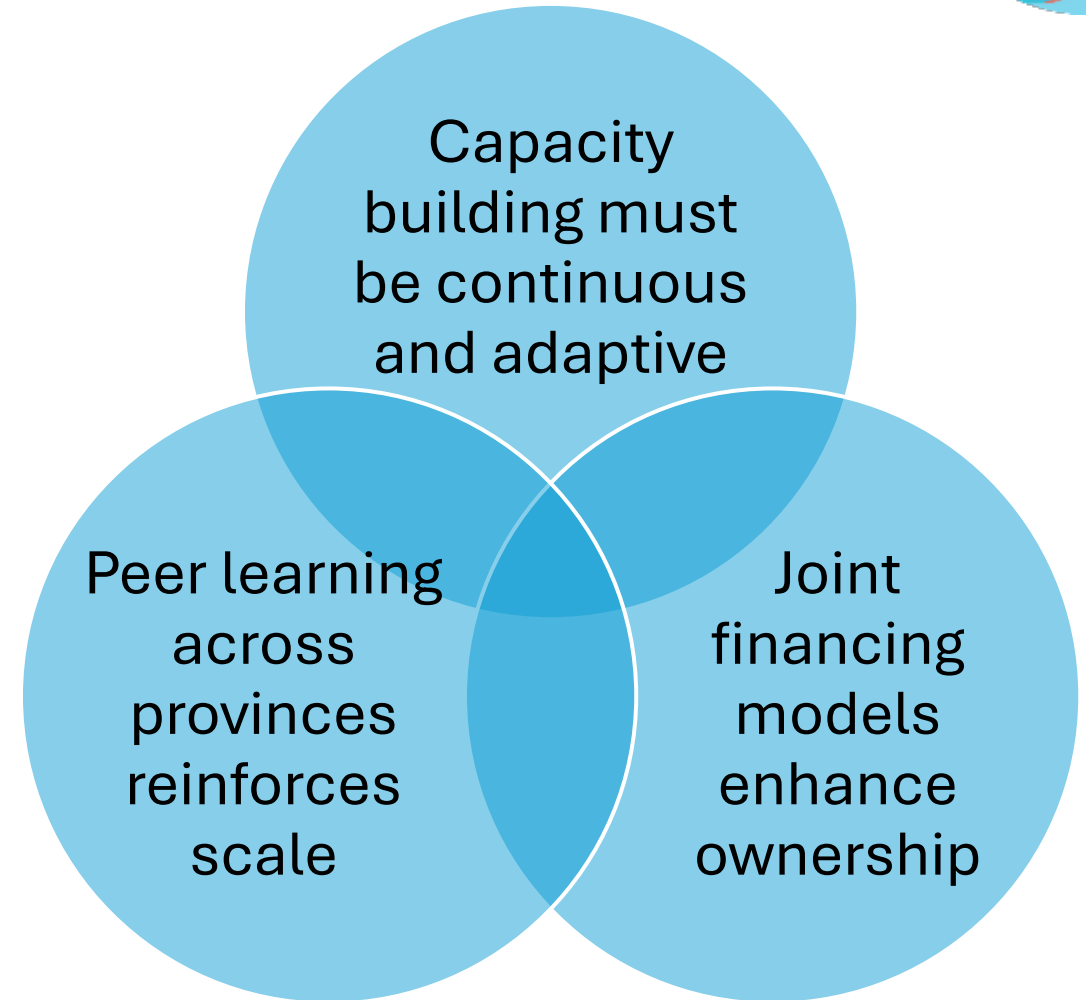
✓ Improved Resilience

- Local actors implement WSPs with climate risk lens

✓ Equity & Access

- GEDSI households prioritized in infrastructure support

Key Lessons



CLICR WASH Conclusion



CLICR WASH demonstrates that **climate resilience + inclusive governance** can be locally driven, technically sound, and scalable.



It is a replicable model for achieving **SDG 6.1 and 6.2** in climate-vulnerable, low-resource settings.

CLICR WASH Assessment

Top provinces that ranked highly and quite vulnerable to climate hazards from 2019 - 2021

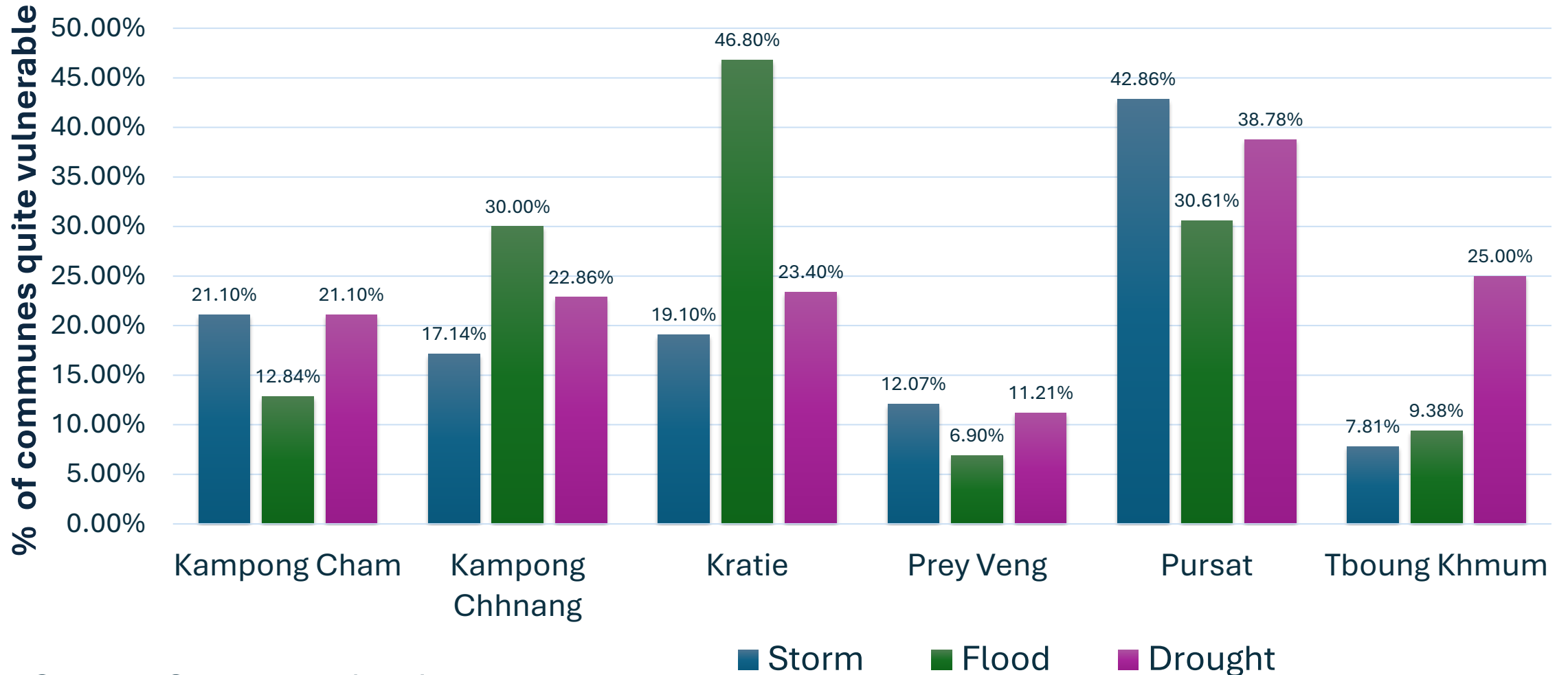
No	Province	2021			2020			2019		
		Storm	Floods	Floods	Storm	Floods	Droughts	Storm	Floods	Droughts
1	Kampong Cham			Quite vulnerable						
2	Kampong Chhnang	Quite vulnerable			Quite vulnerable			Quite vulnerable		Quite vulnerable
3	Kratie			Quite vulnerable	Quite vulnerable	Quite vulnerable	Quite vulnerable	Quite vulnerable		Quite vulnerable
4	Prey Veng									
5	Pursat	Highly vulnerable	Quite vulnerable	Quite vulnerable	Highly vulnerable		Quite vulnerable			Quite vulnerable
6	Tboung Khmum									

Highly vulnerable
Quite vulnerable

CLICR WASH Assessment (Con't)



Communes that are 'quite vulnerable' to climate hazards in 6 provinces, by hazard type



Source: Commune data base, 2021

CLICR WASH Field Assessment

Vulnerability index at 3 communes where the assessments took place by EMW

Province	District	Commune	Storm	Rank	Floods	Rank	Floods	Rank	Floods	Rank
Commune level vulnerability index in 2021										
Kampong Chhnang	Rolea B's ier	Svay Chrum	-1.4985	28	-1.8621	28	-1.3719	28	-0.303	14
Prey Veng	Sithor Kandal	Ampil Krau	-2.7639	16	-2.6397	16	-0.3471	33	-3.4439	14
Tboung Khmum	Kroch Chhmar	Kampong Treas	-0.1935	63	-0.4629	54	-0.9508	53	-0.3336	54
Commune level vulnerability index in 2020										
Kampong Chhnang	Rolea B's ier	Svay Chrum	-0.2978	19	-1.5451	24	-1.8118	25	-1.4309	24
Prey Veng	Sithor Kandal	Ampil Krau	-2.9697	21	-0.3044	67	-2.2303	27	-2.0938	29
Tboung Khmum	Kroch Chhmar	Kampong Treas	-0.3336	64	-2.4984	11	-2.7842	11	-2.3605	12
Commune level vulnerability index in 2020										
Kampong Chhnang	Rolea B's ier	Svay Chrum	-0.2703	37	-0.5464	38	-1.7159	21	-0.7423	32
Prey Veng	Sithor Kandal	Ampil Krau	-2.2583	17	-3.025	16	-2.1363	49	-0.3188	47
Tboung Khmum	Kroch Chhmar	Kampong Treas	-0.1995	59	-0.768	34	-0.9517	48	-0.616	37

CLICR WASH Field Assessment (Con't)

Commune level vulnerability index with ranked from high to least

Year	Province	District	Commune	Storm	Floods	Droughts
2021	Kampong Chhnang	Rolea B's ier	Svay Chrum	-1.4985	-1.8621	-1.3719
	Prey Veng	Sithor Kandal	Ampil Krau	-2.7639	-2.6397	-0.3471
	Tboung Khmum	Kroch Chhmar	Kampong Treas	-0.1935	-0.4629	-0.9508
2020	Kampong Chhnang	Rolea B's ier	Svay Chrum	-0.2978	-1.5451	-1.8118
	Prey Veng	Sithor Kandal	Ampil Krau	-2.9697	-0.3044	-2.2303
	Tboung Khmum	Kroch Chhmar	Kampong Treas	-0.3336	-2.4984	-2.7842
2019	Kampong Chhnang	Rolea B's ier	Svay Chrum	-0.2703	-0.5464	-1.7159
	Prey Veng	Sithor Kandal	Ampil Krau	-2.2583	-3.025	-2.1363
	Tboung Khmum	Kroch Chhmar	Kampong Treas	-0.1995	-0.768	-0.9517

	Index	Storm	Flood	Drought
	High	>-0.162	>-0.407	>-0.678
	Quite	-0.229 to -0.162	-0.38 to 0.407	-1200 to -0.687
	Less	-0.296 to -0.229	-1.182 to -0.38	-1722 to -1200
	Least	<-0.296	< - 1.182	<-1722

THANK YOU

A Promising Model for Inclusive Climate Resilient WASH Governance

 <https://thrivenetworks.org>

 info@thrivenetworks.org

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Climate Resilience Pathways:

Water Security and WASH in Asia Pacific

Integrating Climate Risks and Resilience into WASH Governance Systems



Akhila Sivadas

Executive Director

Centre For Advocacy and Research



To strengthen accountability through active participation and representation of rights holders and especially those most impacted by climate change, the key entry point to integrating climate risk and resilience into WASH governance system was presentation of conclusive or clinching evidence

- **In 2018-2019**, baseline study showed that in Bhubaneswar (69%) and Jaipur (38%) families had no access to reliable water connections.
- **In 2023**, Risk and Vulnerability Assessment indicated that the SeVI and WASH-SeVI analyses had identified 68 % of slum settlements in Bhubaneswar and 51 % in Jaipur lie in low-lying areas; during extreme weather events, government piped water supply drops by 15 % in Bhubaneswar and by a huge 45 % in Jaipur.

Both assessments indicated that WASH infrastructure and service gaps can be directly attributed it to:

- a) Lack of voice of the most excluded**, with no decision-making power in local governance structures.
- b) Inability of government to prioritize and address special needs of marginalized groups** - women, transgender, PwD and elderly
- c) Uneven distribution of resources** bordering on neglect of informal settlements
- d) Compounded by **rising incidence of droughts, cyclones and floods** severely affecting the most vulnerable

Translating Evidence into Decisive Action

Develop a social compact between WASH systems and community by:

- **Empowering community-led governance mechanisms** such as Community Management Committees (CMC), Single Window Forums (SWF), and Multi-Stakeholder Forums (MSF).
- **Building capacity** of both communities and local governments
- Enabling local **governments and communities to work together** in shaping sustainable WASH
- Ensuring urban **local bodies provide technical expertise**, infrastructure and policy support
- Facilitating **community to share local knowledge**, help in co-designing and maintenance
- Enabling **community operating structures to facilitate structured dialogue**, joint planning; integrating community feedback to align WASH system with people's priorities

Key Learning from the Participatory Approach

In Ward 38, in 346 HHs and 1157 populations, this participatory approach, resulted in:



Household pipeline connection



Drain covered with slab



Toilet being constructed



Roofs made of straw replaced with asbestos



Pruning trees

Secured climate-resilient water infrastructure and service:

97.3% (337 HHs/346HHs) and 98% (1157/1175) populations

Reduced the risks and impact of cyclone: 97.3% (337 HHs/346 HHs) and 98% (1157/1176) Population

Building Buy-in through Alignment with the National Urban Sanitation Policy (NUSP) for Systemic Change

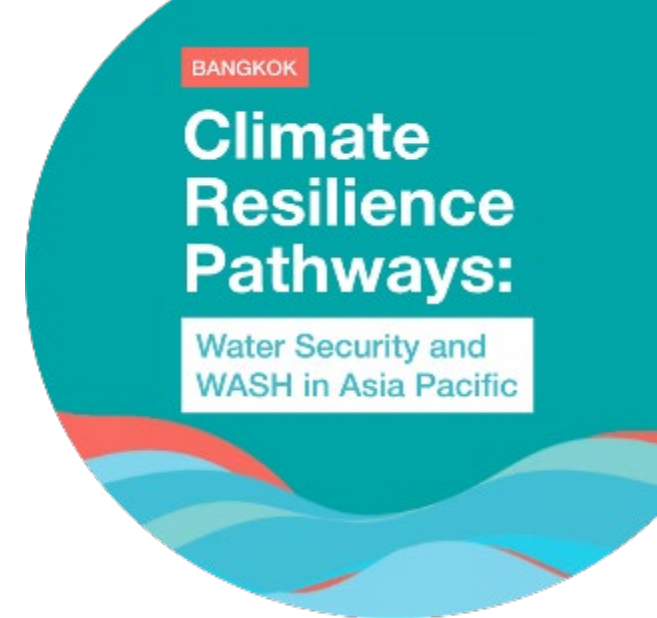
Backed by Evidence, an independent evaluation by IPE Global of CFAR's 7-year WASH project confirmed that:

- ***NUSP provided the policy bedrock as it - Envisions “community-driven, totally sanitised, healthy and liveable cities.”***
- ***Communities brought the lived experience backed by the Project. Together, they reshaped urban sanitation governance***

CFAR's NUSP-Aligned Approach:

- **Institutional Roles & Responsibilities:** Enabled community institutions to be first responders for WASH access and service delivery in informal settlements.
- **Awareness & Rights Education:** Promoted awareness on WASH rights and responsibilities, especially with adolescent girls and men on MHM and on WASH-health-livelihood linkages.
- **Citywide, Inclusive Coverage:** Ensured 100% settlement coverage and institutionalised WASH at the community level.
- **Inclusive Tech Choices:** Enabled co-design of infrastructure by vulnerable groups, ensuring accessibility and appropriateness.
- **Sustained Improvement and Accountability:** Tools like *Saniclimiwall*, *IVRS* and regular community-government interfaces sustained improvements and accountability

Climate resilient, inclusive WASH governance systems

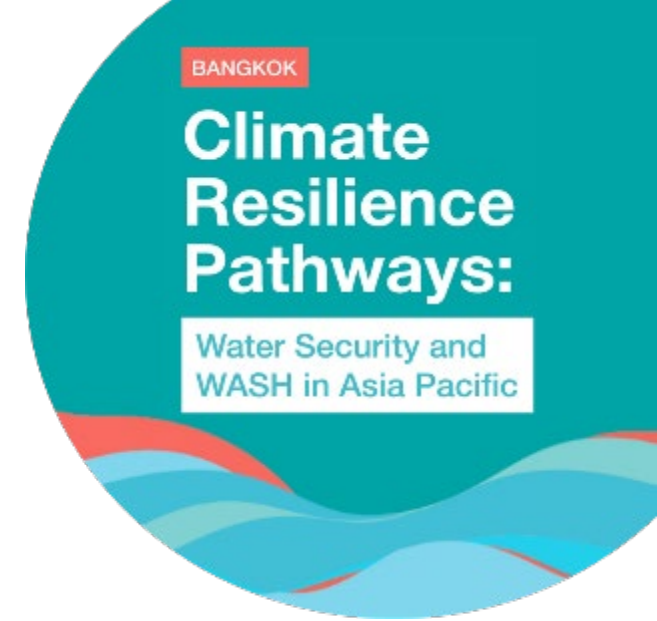


Questions and Answers

Climate resilient, inclusive WASH governance systems

Table discussions

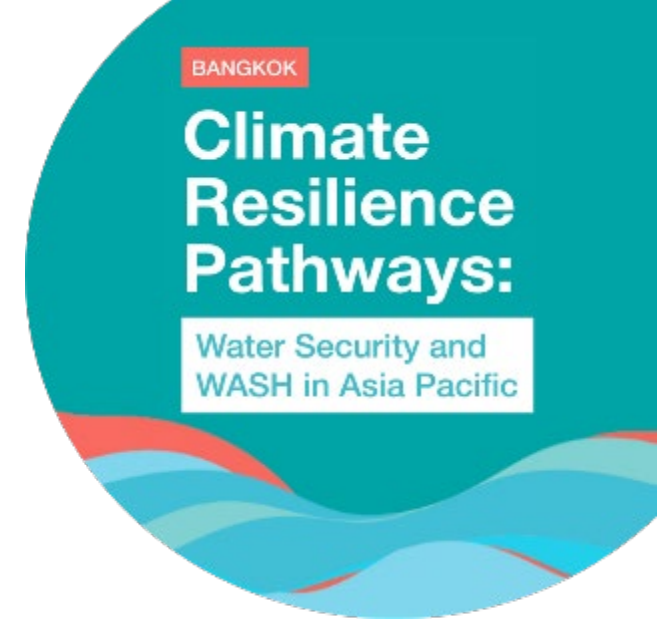
1. What have been your entry points for integrating climate risk and resilience into WASH governance systems?
2. How do you ensure inclusion and human rights are central to climate risk and resilience considerations in WASH governance systems?
3. How do you build buy-in of political and technical leaders to address climate risk and resilience in WASH systems?



Climate resilient, inclusive WASH governance systems

Climate financing and climate resilient inclusive WASH governance

Alison Baker – Water for Women Fund



Promising practices

-  Integrating climate risk into existing WASH processes, not through standalone climate-oriented processes.
-  Building climate risk management capacities as part of broader WASH governance-strengthening efforts.
-  Pooling public climate finance with other sources of international development finance.
-  Adapting and strengthening existing tools – only creating new ones if clearly needed
-  Prioritising inclusive processes and tools.
-  Strengthening participation of community and rights holders to improve accountability in climate risk governance.
-  Utilising both scientific and customary climate data.
- Linking up integration efforts.



Building Blocks – Sanitation and Water for All

Systems Thinking

OUR TOTEMS ARE SIGNIFICANT ASPECTS OF OUR LIVES



- WISDOM
- STRENGTH
- PROTECTION

WE ARE SUSTAINABLE PEOPLE WE LIVE IN SYSTEMS

WE THINK TEMPORALLY AND SPATIALLY
DOWNSTREAM & UPSTREAM
WE NEED TO THINK ABOUT THE NEXT GENERATIONS

UNDERSTANDING • RESPECT

PARTNERSHIP

COLLABORATION

MANAGEMENT OF LAND, WATER + EMERGENCY RESPONSE

• Language •
COMMUNICATION
• timing • **4** year cycle

LEADERSHIP
• INFLUENCE •

RECIPROCITY
EDUCATION
INTEGRITY

FOR and WITH ABORIGINAL COMMUNITY GROUPS

PROTECTION

FOR THE WHOLE BODY TO WORK EFFICIENTLY WE NEED ALL OUR VITAL ORGANS TO BE CONNECTED

OUR WETLANDS ARE STILL OUR SUPERMARKETS

YOU'D NEVER KNOW THEY WERE THERE

THERE ARE MANY SACRED SITES TO US...

WE HAVE A symbiotic CONNECTION TO COUNTRY

THE ONLY THING YOU CAN HEAR IS THE SOUND OF your own HEARTBEAT



MY PLACE

WE ARE NOT JUST TIED TO what our feet touch WE ALSO NEED TO LOOK ABOVE... to the intangible

Sacred TIME eternal

40,000 YEARS



THERE ARE MANY PATHWAYS



ABORIGINAL VOICES IN RIVER SYSTEMS

DON'T BE AFRAID to SHARE your KNOWLEDGE

HAVE the CONFIDENCE to ASK HOW would you LIKE to BE IDENTIFIED?

HOW WE CAME TO BE

NOTHING ABOUT US WITHOUT US...

Emerging Practice from Water for Women

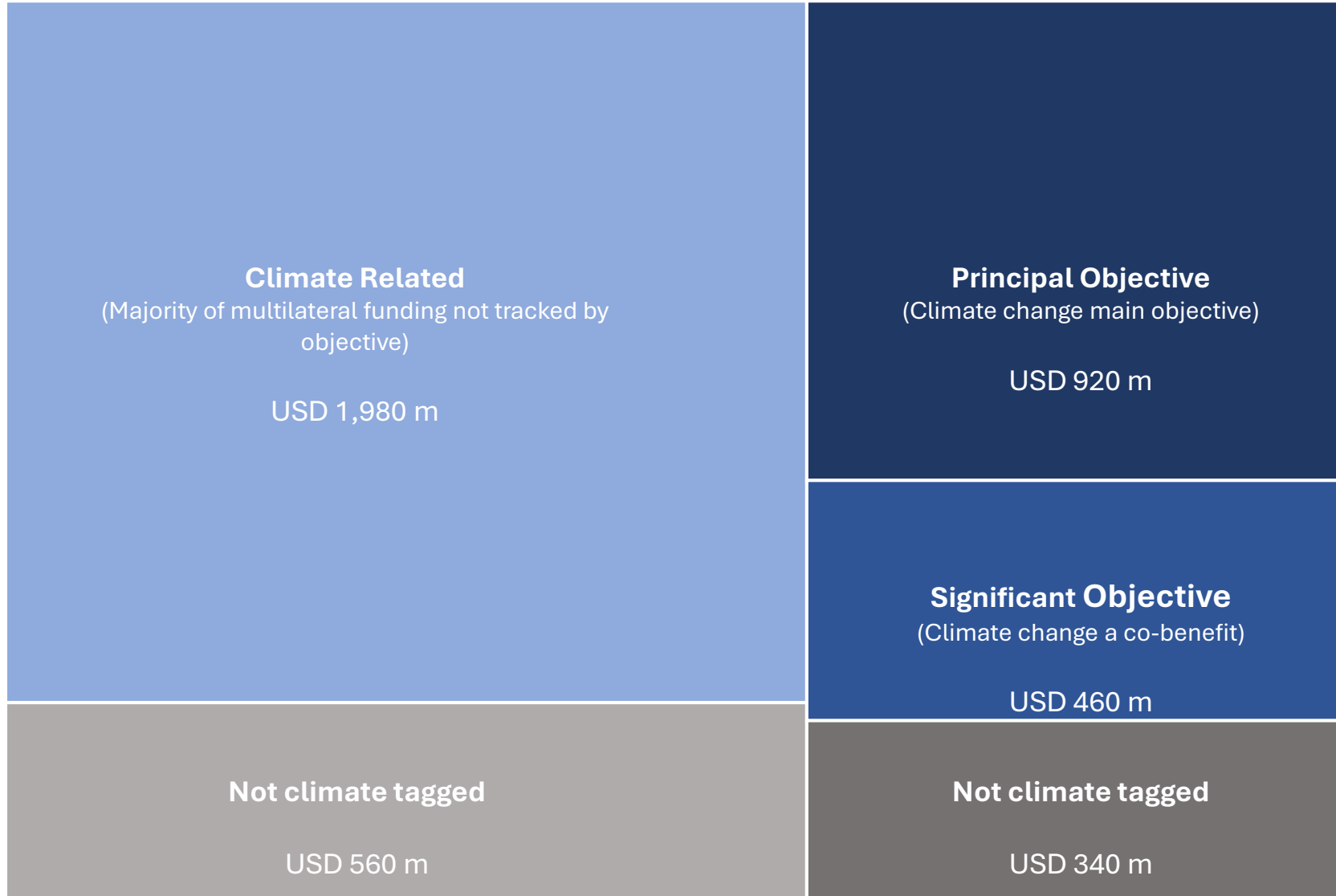


Climate Finance

Climate finance refers to local, national or transnational financing drawn from public, private or alternative sources (such as funds or multilateral banks) to support diverse climate change mitigation and adaptation activities

- Community based initiatives
- Catalyse early stage innovation
- Underpin large-scale innovation and infrastructure development

Asia Pacific



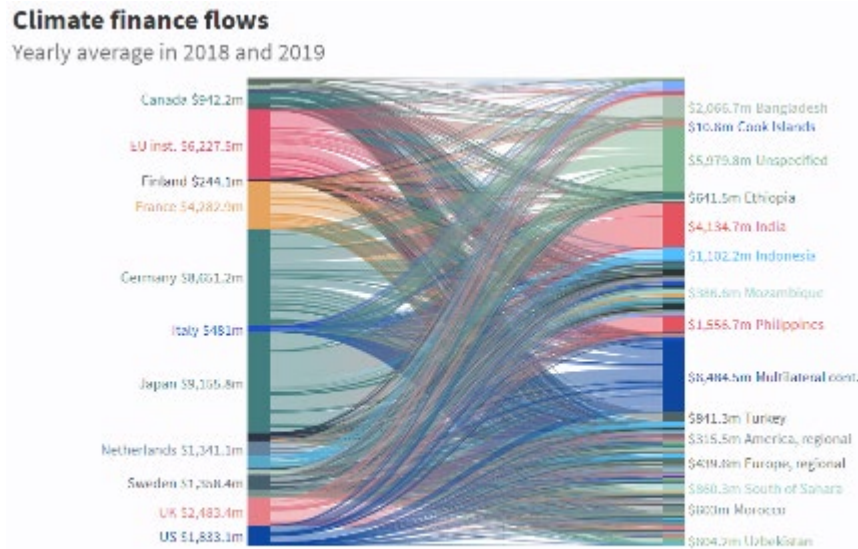
Multilateral

Bilateral ODA

Overview of climate finance by classification, (SAGANA, 2024)

OECD DAC Rio Markers for Climate

- A system to monitor official development assistance (ODA) flows that target the objectives of the Rio Convention on Climate Change.
 - Operating since 1993, adaptation-related flows from 2010*
- Evolved to also be the methodology used by many OECD countries to measure and report on climate finance commitments (e.g. UNFCCC 1992a, Copenhagen Accord 2009, Paris Agreement 2015)
- Sets out definitions and criteria for what activities, and what proportion of activities, can be counted as adaptation



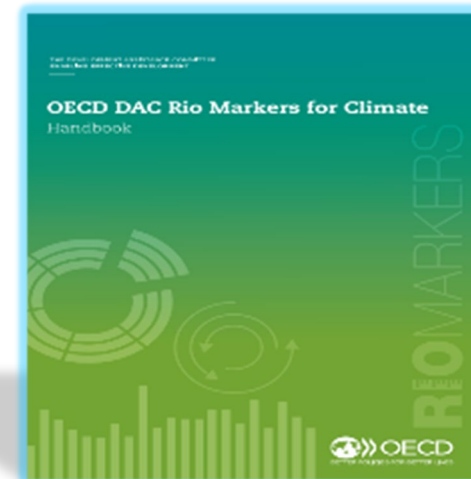
Source: [OECD 2019](#) • Climate finance flows from donor countries to recipient countries. Figures represent the yearly average over 2018 and 2019. Values are rounded to the nearest \$100k. Where values are below \$50k but above \$0 they will appear as \$0.1m in the Sankey. Figures are calculated as an average of country spending and may not combine to give the same total average spending in each chart.

OECD DAC Rio Markers for Climate



HOW DOES IT WORK?

- Assign marks to ODA flows according to category of activities:
 - ‘**principal** (2)’: main motivation for the activity is to adapt to climate change, and would not have been undertaken – or designed that way – but for that motivation
 - ‘**significant** (1)’: some other development-related objective as the fundamental motivation, and activity has been modified or adjusted – as a secondary consideration – to account for climate change risks
- Do this by assessing activity design against three key eligibility criteria – broadly around (i) problem analysis, (ii) objectives, and (iii) theory or change**



Case Study: Water for Women Fund Application of the Rio markers



- Consistent with best practice approach outlined in Revised OECD Rio Markers for Climate Handbook
- Sets out {3} three headline criteria to establish eligibility and categorization:
 1. Informed by analysis of (climate change) risks [*problem analysis*]
 2. Objectives address risks, or component parts of risk [*objectives*]
 3. Clear *how* and *why* project activities are expected to achieve intended (risk-related) objectives [*theory of change*]



Water for Women Fund

Lessons Learned During Implementation of Climate Finance

During implementation a mix of different adaptation activities occurred:

1. Adapted ('secondary')
2. Shared ('secondary')
3. climate-specific ('principal')

In many cases, not all of the costs of 'shared' and 'adapted' types of adaptation should be counted as climate finance even though one of the final results is improved climate resilience.

Water for Women Fund

Lessons Learned During Implementation of Climate Finance

- For WASH systems, core governance functions and climate risk-oriented functions are closely inter-dependent and in many cases integrated.
- Gaps and weaknesses in the core functions of WASH governance in most contexts; important to build climate risk management capacities as part of broader reforms to strengthen WASH governance.
- That is, ‘shared’ type activities are critically important activities at the systems level - alongside climate-specific activities.

Water for Women Fund Lessons Learned During Implementation of Climate Finance

- Climate resilient inclusive WASH system development consists of a broad range of interacting activities – not just climate specific (principal) activities.
- For improved climate resilience and depending on the guidelines around different form of finance may need to consider both:
 - (1) climate finance, and
 - (2) development finance

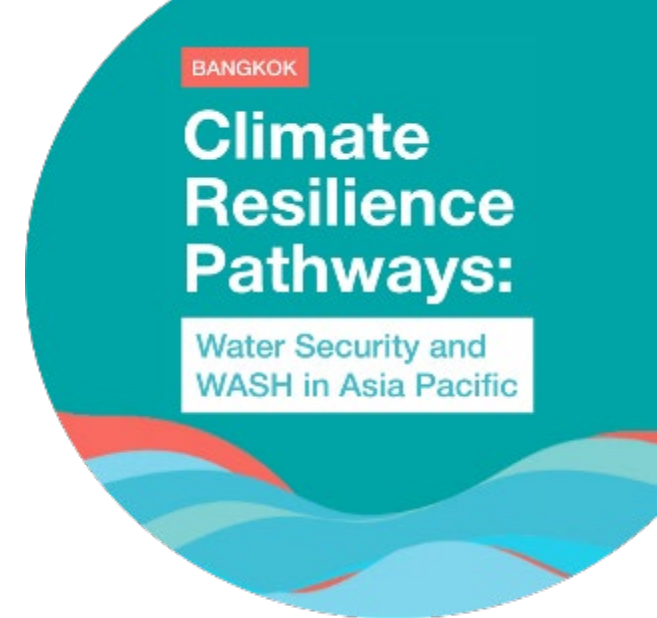


Tarawa, Kiribati

Key Lessons

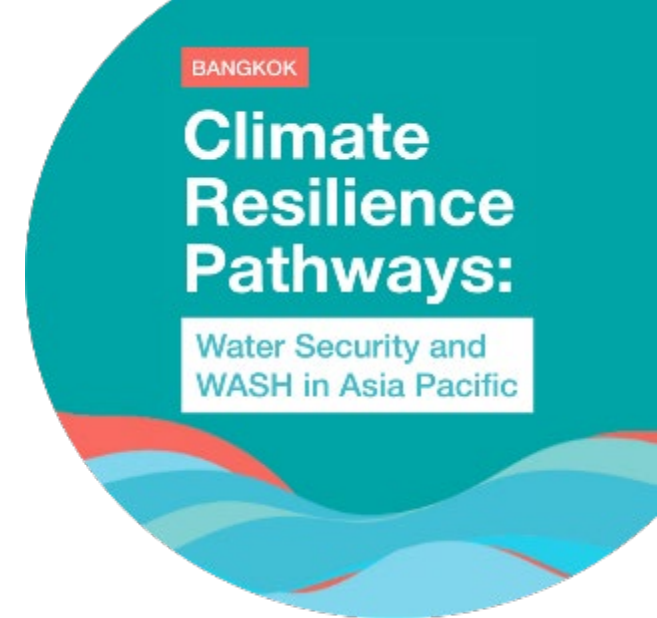
- Integrating climate change risks and building resilience into WASH systems is challenging – it takes time, understanding, and new ways of working
- People remain at the heart of climate resilient inclusive WASH systems, services and infrastructure
- Importance of building on existing systems and applying multi-sectoral approaches
- Inclusion remains central – women’s leadership, diverse voices, Rights Holder Organisations
- Mobilising stakeholders with vested interest in WASH systems, services and infrastructure is important
- Climate finance is an important part of the climate resilient development system, but careful consideration is required to ensure development needs are not overlooked

Climate resilient, inclusive WASH governance systems



Q&A

Climate resilient, inclusive WASH governance systems



Closing remarks

Sonam Pelzom – National Council of Bhutan

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Promising practices for strengthening climate resilient, inclusive WASH governance systems

WEDNESDAY 30 APRIL, 1330-1500

