



Water User Association (WUA) is the grassroots player engaging in water management



THA 2022 International Conference on

**Moving Towards a Sustainable Water and
Climate Change Management After COVID-19**

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26 - 28 January 2022



09.00 - 16.30 hrs. (GMT+7 Bangkok)

CONCEPTUAL FRAMEWORK



The diagram features a central green rounded rectangle labeled 'Indicators'. To its left is a large dark blue arrow pointing right, labeled 'water governance'. To its right is a large dark blue arrow pointing left, labeled 'sustainability transition'. Below the 'water governance' arrow is a dark blue box containing text about decision-making and stakeholder engagement. Below the 'sustainability transition' arrow is a dark blue box containing text about local innovations. The background is a light blue gradient with white lines on the right side.

water
governance

a decision-making process
and policy implementation
more efficient, effective and
bringing up stakeholders
more engaged

Indicators

sustainability
transition

Local innovations
-applicable
-sustainable





Efficiency



Equitable concerns



*Environmental
concerns*

3Es





Sustainability Transition for Water Management

01

*creating and
developing water
management
innovations at the
community/local
level.*

02

*encouraging multi-
level stakeholders
to engage in a
water policy
process.*

03

*creating effective,
equitable, and
sustainable water
management at
different levels.*



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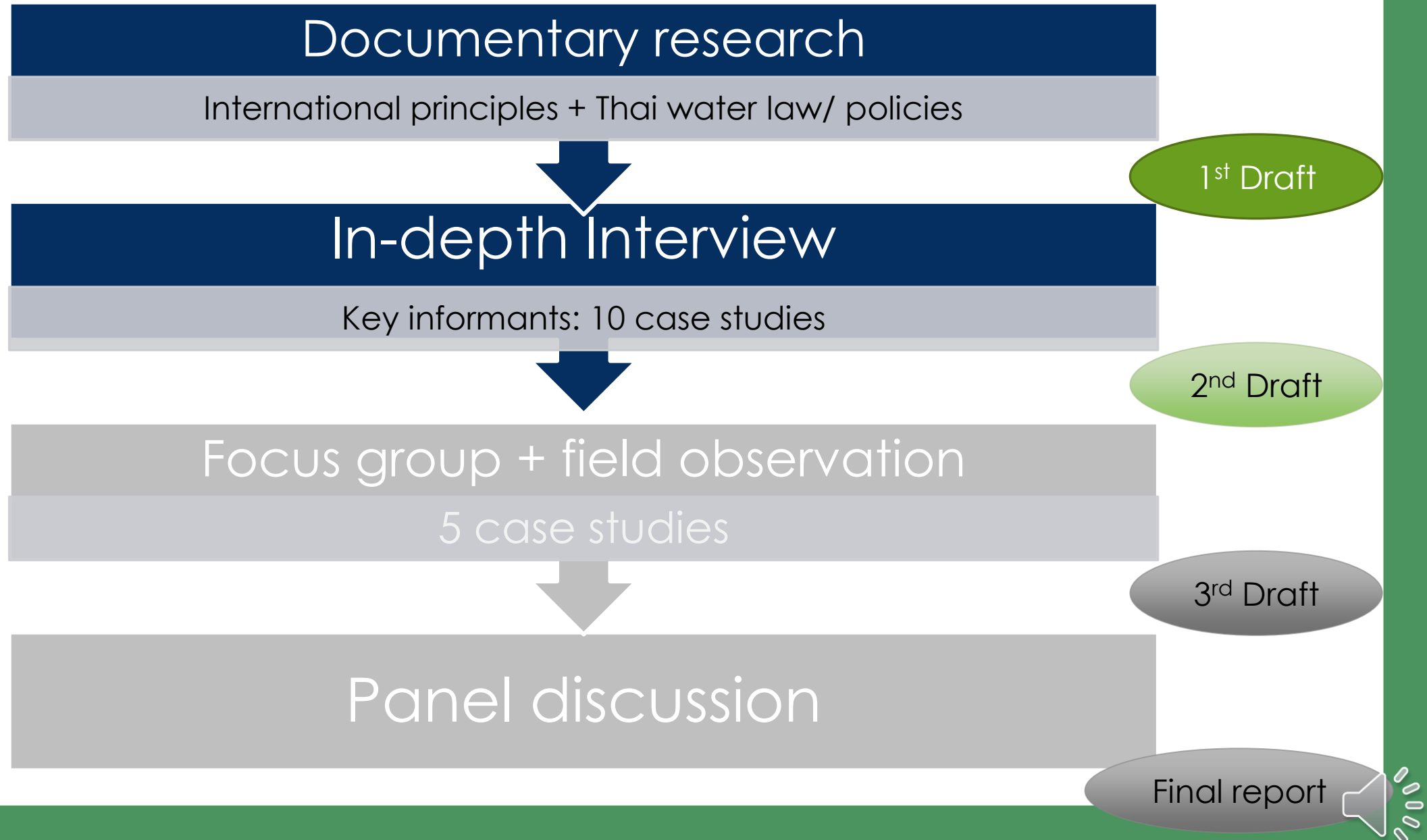


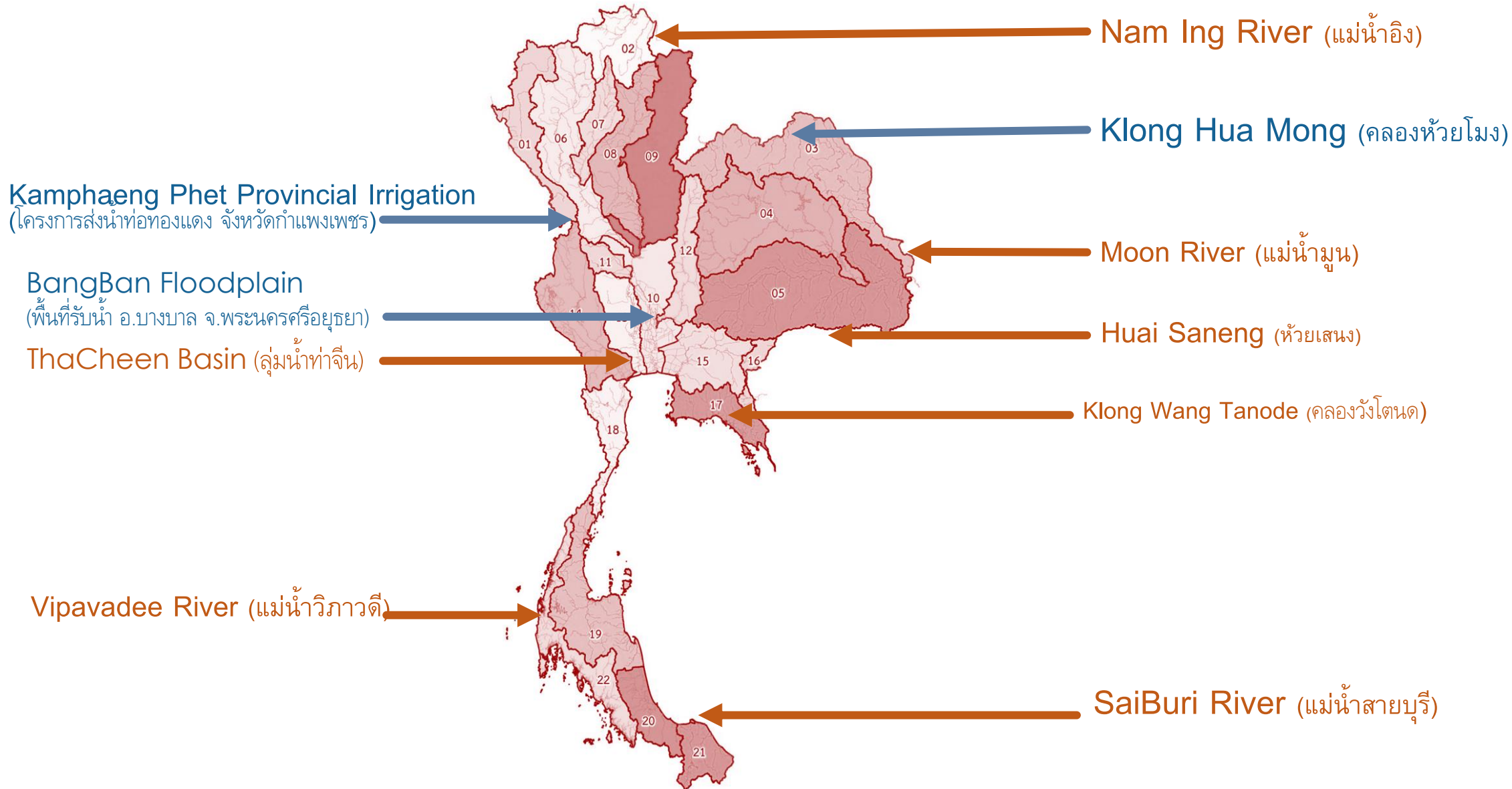
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RESEARCH METHODS AND DATA COLLECTION



Research Methods





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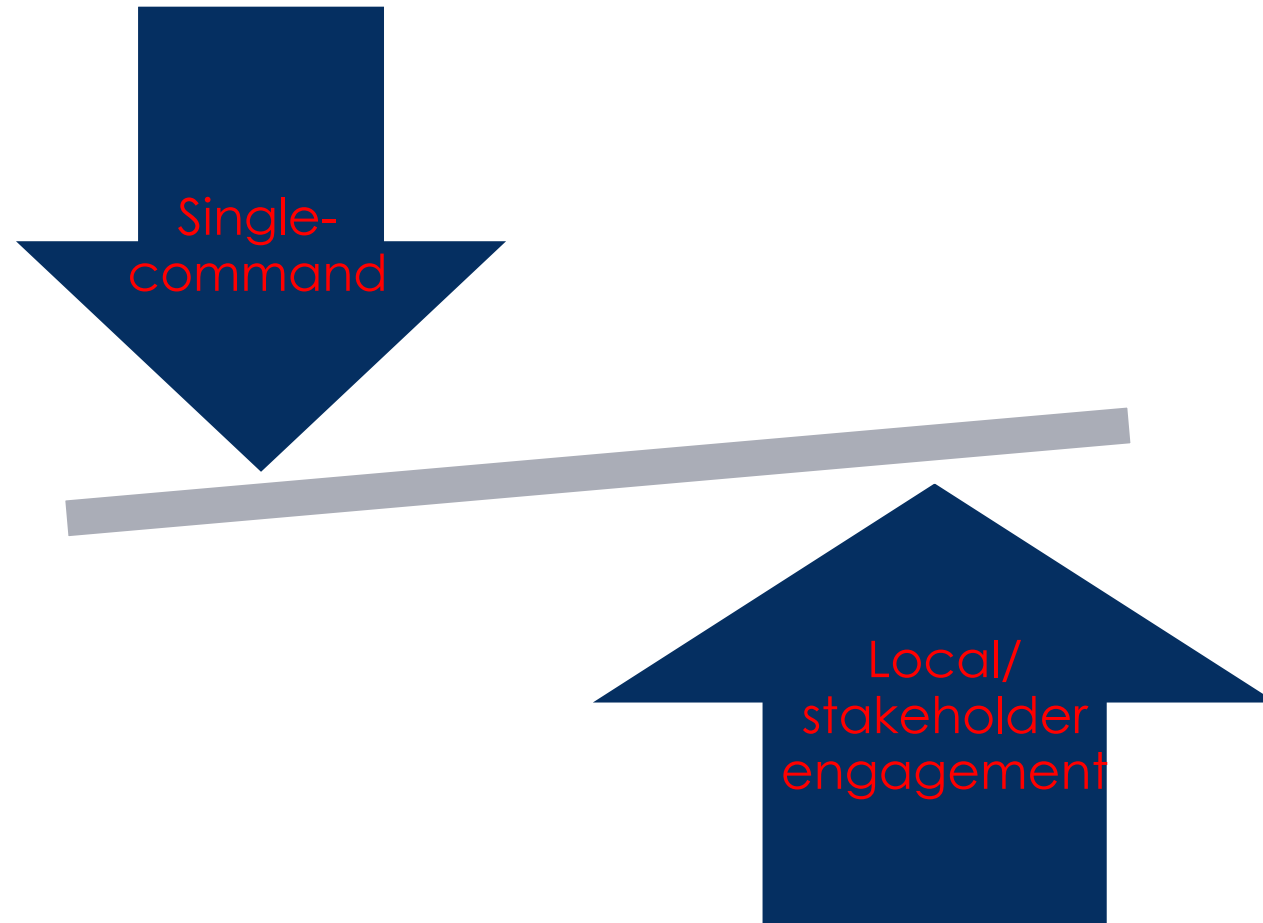
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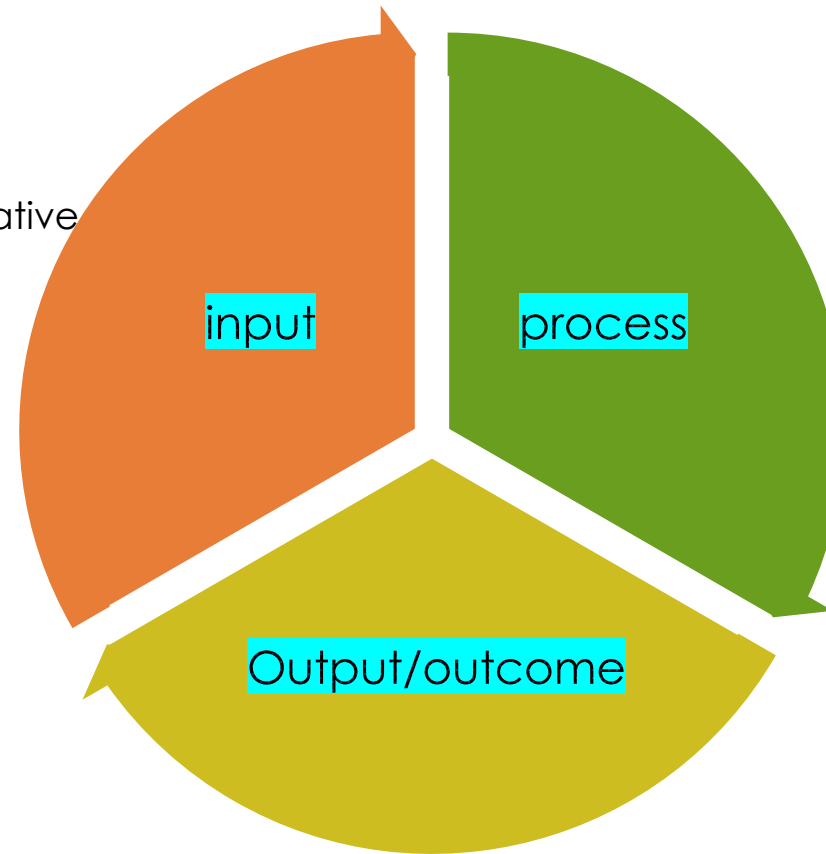
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OUTLINE OF THE INDICATORS

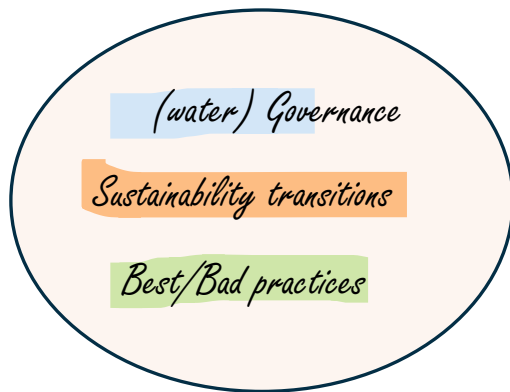




- Member: quantitative and qualitative
- (Past) water user plans
- Internal rules/ regulations
- Basic area water database
- Infrastructure



- Autonomy
- Levels of Participation in the decision process
- Various knowledge, technologies, and innovation utilization
- Full-loop of action (self-assessment)
- Information and knowledge sharing
- Networking and partnership



- Efficiency in Water Use (Saving)
- Capacity
 - Solving water problems in an area
 - Conflict resolution
 - Innovation
 - Policy participation and engagement, including mobilization of resource
 - Expansion of stakeholder (learning) networks



Indicator	Indicator Name	Description	Level
Input			
Member			
(Quantitative)	1. Number of members	The law determined at least 30 members minimum	1- minimum 30 members
			2- 31-50 members
			3- 51 members above
(Qualitative)	2. Proportion of marginalized member	the inclusion of the marginalized group to guarantee the equality of water management	1- none
			2- few marginalized members
			3- 1/3 of members are marginalized
	3. Proportion of members in a management position	It should include the marginalized group in the management position, e.g., female, the poor, younger generation	1-restrict to an old power/elite group, e.g., sub-district/village headman, local politicians
			2- the old group of the elite with at least one of the marginalized
			3-all-inclusive group
	4. informed member	informed member considering their related knowledge and access to the knowledge	1-lack of knowledge and cannot access the knowledge
			2- having some basic knowledge but still lacking access to more knowledge
			3- having some basic knowledge and being able to access more knowledge



Indicator	Indicator Name	Description	Level
(previous) plan	5. water use plan	the water user groups write the plan themselves and present it to the local governments or relevant authority	1-no water use plan
			2- having a previous plan without an update
			3- having a plan with continually updating
	6. Infrastructure plan	1) this includes the maintenance and rebuilding plan 2) logistic (dredging) organizational plan - capacity development - making current information (3)	1-none
			2-had old data (but not updated)
			3-having and always updated
Rule and Regulation	7. (internal) rule and regulation	Groups are adaptable in order to integrate themselves into the shared values or common laws (16) and (Lukman, A. M., Thaha, A. W., & Rachman, A. 2011)	1- no draft or agreement of water usage among the member
			2- using the traditional (or customary) rule/regulations as an agreement among member
			3- integrating traditional (customary) regulation with the rule of the Royal Irrigation Department and used as the community regulation



Indicator	Indicator Name	Description	Level
Data and Information	8. Water supplydatabase	The data was ready to use forwater management, i.e., surface water, groundwater, underground water	1-none
			2-had old data (but not updated)
			3-having and always updated
	9. water balancedatabase	Loss is calculated (water discharged from the system without being used). There is also agriculture that uses much water. A lemon orchard pumps water up to collect andthen releases it like a village water supply (2). Kamphangphet has other areas that are not in the irrigation system. It uses themethod of drilling shallow wells. which it also absorbs into the water system	1-none
			2-had old data (but not updated)
			3-having and always updated
	10. water (route) map	GIS Spatial data or handwriting plot of water-map / water diagram	1-none
			2-had old data (but not updated)
			3-having and always updated
	11. cultivation map	The data displays what each family grows and the size of the plantation from the agricultural council, from thesubdistrict administrative organization	1-none
			2-had old data (but notupdated)
			3-having and always updated
	12. calculation of waterfor cultivation	using the data from the crop map to calculate, including the handwriting data also used at the community level are developing applications to the information system for	1-none
			2-had old data (but not updated)
			3-having and always updated



Indicator	Indicator Name	Description	Level
Infrastructure	13. well and enough infrastructure	* If measured, it should be noted that the water user groups are considered to have no authority to provide infrastructure. but maybe responsible for maintenance	1- none or not distributed thoroughly
			2- existing but not distributed thoroughly and not well maintenance
			3- existing but distributed thoroughly with regular maintenance
	14. sense of ownership	a sense of ownership	1- no sense of ownership
			2- a sense of joint ownership
			3- a full sense of ownership



Indicator	Indicator Name	Description	Level
Process			
Level of Participation in operation	1. Autonomy	degree of self-determination and freedom	1- no power at all (strictly follow the government order)
			2- having some power to negotiate with the government agency and other organization
			3- having full power in decision-making
	2. chairman/ group leader selection	the process for leader selection could identify the level and quality of participation in the group	1- being designed by the government agency
			2- Voting only
			3- Deliberation with voting
	3. decision-making process in the preparation of water use plan	levels of the participatory process. However, the young generations have no room to decide or discuss.	1- no joint decision; follow the (plan) which is predetermined (as instructed by the authorities).
			2- collective decision-making effort
			3- full consultation and mutual decision-making in a policy process



Indicator	Indicator Name	Description	Level
Various knowledge, technologies, and innovation utilization	4. utilization of knowledge and database	It includes both modern and indigenous knowledge and database	1- none or but has never been used
			2- exist and take advantage (but not up-to-date) or used but not very useful.
			3- continuously exist and utilize
	5. utilization of technology in water assessment and decision-making process	Indigenous technology such as the construction of a sluice gate, Water diversion area, water retention, and digging the well by themselves (8)	1- no technology used
			2- some technology, information technology, hydraulics utilization
			3- technology, information, hydraulics is fully used in the decision-making process.
	6. utilization of economic tools	Water fee is a kind of tool to raise the sense of ownership and responsibility (18).	1- no water fee
			2- A water fee to use the water, but not a clear implementation plan
			3- collect water usage fees for maintenance and operation management of the irrigation system.



Indicator	Indicator Name	Description	Level
Full-loop of action	7. follow-up and self-assessment process	metrics for success have been set, i.e.; there is a significant increase in water efficiency	1- no planned evaluation
			2- an occasional follow-up evaluation
			3- continuous and up-to-date monitoring and evaluation
Information and knowledge sharing among member	8. disclosure of information	transparency of the working group	1- never published or exchanged information at all
			2- published but exchanged information only with the leaders or certain groups of people.
			3- disseminated and exchanged information to diversified groups of people
	9. knowledge management with vulnerable member	knowledge improvement activities and public relations	1- never had any activities with vulnerable groups
			2- have activities with the poor and the disadvantaged groups
			3- have routine activities with the poor and the underprivileged
	10. network and partnership	networking Partnership, such as the Royal Government Irrigation Office (10)	1- has never been a cross- agency relationship or inter- organization
			2- has a formal and vertical relationship with the authorities
			3- has been network/partner with multi-level sectors horizontally and vertically



Indicator	Indicator Name	Description	Level
Output/Outcome			
Effectiveness	1. water-saving and effective using	change to plants that use less water, such as changing from lemon to lemongrass - planting value-added plants and process the value-added products	1- No measurement and improvement of water use
			2- Water Utilization might be measured and adjusted but not consistent.
			3- Water utilization might be measured and improved regularly
Capacity	2. Solving problems at the community level	awareness and initiative to solve the community problem	1- no attempt to solve any problems
			2- addressing problems and asking others to solve problems
			3- addressing problems and trying to solve their own problems
	3. conflict resolution	fair water distribution from Upstream - Downstream conflict Resolution becomes JMC Copper Pipe (Water Management Group) Joint Management Committee for Irrigation-JMC	1- no mechanism for resolving disputes between areas/groups
			2- a mechanism established whereby conflict mediators are clearly identified but not functioning
			3- a mechanism established whereby conflict mediators are clearly identified and able to settle conflicts

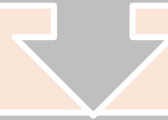


Indicator	Indicator Name	Description	Level
Capacity	4. creating community innovations and transfers to other groups	e.g., watergate, ladder rice field, irrigation liner, any technique had to be created and disseminated to other groups as lessons learned.	1- None
			2- existing, but with limited/specific groups/ areas
			3- existing, and applicable to multi-level and multi-scale groups
	5. participation in policy decisions at the local level	the willingness of the WUA and the acceptance of local authority for participating in policy decision making	1- not participate in the decision-making process
			2- occasionally participate in the decision-making process
			3- regularly participate in the decision-making process
	6. participation in policy decisions at a higher level	the willingness of the WUA and the acceptance of higher authority for participating in policy decision making, e.g., the basin committee	1- not participate in the decision-making process
			2- occasionally participate in the decision-making process
			3- regularly participate in the decision-making process
	7. policy engagement	voice and requirements from water user groups or community can approach the policy advocacy within the community	1- None
			2- the local authority accepted and implemented the proposal at the local level
			3- higher authority accepted and implemented the proposal at a higher level (e.g., provincial or regional level)

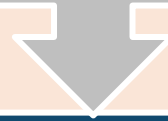
Indicator	Indicator Name	Description	Level
Partnership	8. sharing among partner	WUA is a very small unit, partnership and sharing the information/knowledge is the way for strengthening its capacity	1- no network
			2- having and sharing with a limited network in the surrounding area
			3- having and sharing with broader network cross-sectors/areas

Next steps

Documentary research



In-depth Interview



Focus group + field observation

5 case studies



Panel discussion

- Chiang Rai/Payao
- Nongkhai
- Khonkaen
- Kamphangph et
- Surat thani



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For further discussion or comments, please contact

Khun KrongKan :

k.krongkan@gmail.com

