Evaluation criteria elements and ranking conditions

Key criteria	Factor	Weight	Criteria	Score	Sources and comments
1 Risk & vulnerability profile					
Hazard exposure	No. of different hazards	0,5	>2 different hazards	4	GISTDA; Area-based
			2 different hazards	3	analyses
			1 hazard	2	
			no significant hazards	1	
	Topography: basin relief (Bh)	0,5	Bh > 2000m	4	Ozdemir & Bird (2009)
			Bh 1500-2000m	3	
			Bh 1000-1500m	2	
			Bh < 1000m	1	
Disaster and climate risk	Flood risk: dominant category	0,5	high flood risk	4	DDPM, DWR
			medium flood risk	3	
			low flood risk	2	
			no flood risk	1	
	Drought risk: dominant category	0,5	high drought risk	4	DDPM, DWR
			medium drought risk	3	
			low drought risk	2	
			no drought risk	1	
Future climate trends	Change of av. rainfall in May-Oct (reference: 1990-2009 to 2050-2069)	0,5	> +25% / < -15%	4	Limsakul et al. 2017;
			> +15-25% / < -15 - -5%	3	CCRS & MOHC, 2014
			+ 5-15%	2	
			-5% - 5%	1	
	Change of max. temperature in May-Oct (reference: 1990-2009 to 2050-2069)	0,5	>3.0°C	4	Limsakul et al. 2017;
			2.0 - 3.0°C	3	CCRS & MOHC, 2014
			1.0 - 2.0°C	2	
			< 1.0 °C	1	

Sensitivity / area-based	Area-based analysis zone	0,2	>1 area-based plans approved	4	DDPM, DWR
			1 area-based plan approved	3	
			no area-based plans	1	
	Water quality	0,3	high relevance	4	PCD 2018; HAII 2012;
			medium relevance	3	scoping missions
			low relevance	2	
			not relevant	1	
	Deforestation / land use issues	0,3	high relevance	4	scoping missions
			medium relevance	3	
			low relevance	2	
			not relevant	1	
Risk related issues	Early Warning System evaluation	1	full op., full coverage, multi-haz	4	TMD, RID, DWR systems
			full op., full coverage, main haz.	3	scoping missions
			full op., some coverage, main haz.	2	
			not operational	1	

2 Urban setting					
Urban population	Urban population	1	>100.000 pax	4	DOPA, HAII basin report
			50.000-100.000 pax	3	
			20.000-50.000 pax	2	
			<20.000 pax	1	

3 Socio-economic developments					
Socio-economic value	Gross product per capita	0,5	>200.000 THB	4	NESDB, 2016: Gross Prov.
			150.000-200.000 THB	3	Product CVMs
			100.000-150.000 THB	2	Average GPP per capita in
			<100.000 THB	1	2016: THB 215'455
	Labour force: pop. in working age	0,5	>1.000.000 pax	4	HAII basin report
			500.000-1.000.000 pax	3	
			100.000-500.000 pax	2	
			<100.000 pax	1	

Critical infrastructure [#]	Power plants	0,2	1+ power station(s) >420 MW	4	Per power threshold
			no critical power station	1	
	Water supply	0,2	1+ supply facility >22m m^3/yr	4	Per water prod. capacity
			no critical water supply facility	1	
	Waste water treatment	0,2	1+ treatment facility >22m m^3/yr	4	Per treated capacity
			no critical water treatment facility	1	
	Health facilities	0,2	1+ hospital(s) with >90 beds	4	Per hospital capacity
			no critical hospital	1	
	Transport network & hubs	0,2	1+ transport hubs	4	e.g. airport, seaport, GMS
			no critical transport unit	1	corridor (road, train)
Public and private investments	Special Economic Zones	0,4	>1 SEZ of high econ. relevance	4	high = nat. to reg. relevance
			1 SEZ of medium econ. relevance	3	med. = prov. to nat. relevance
			No special economic zone	1	
	Industrial parks (planned)	0,2	1+ industrial parks	4	scoping missions
			No industrial parks	1	
	Large infrastructure projects	0,2	1+ large projects	4	BoI
			No large projects	1	
	No. of universities (present+planned)	0,2	1+ universities	4	scoping missions
			No universities	1	

4 Institutional and information landscape					
Cooperation with key partners	Number of key partners present	0,5	3+ key partners	4	scoping missions
			2 key partners	3	
			1 key partner	2	
			no key partners	1	
	Synergies with partner projects	0,5	>5 projects by >2 partners	4	scoping missions
			2-5 projects by >1 partners	3	
			1-2 projects	2	
			no related projects	1	
Budget allocation	Budget allocated for IWRM and EbA by partners	1	THB >10m	4	scoping missions
			THB 10m - 1m	3	
			THB <1m	2	
			no budget allocated	1	

Engagement with private sector	No. of cooperate partners in RBC	1	>4 coop. partners	4	scoping missions
			3-4 coop. partners	3	
			1-2 cooperative partners	2	
			No cooperate partners	1	
Adaptive capacity	Institutional capacity	0,5	high capacity for IWRM impl.	4	scoping missions
			generally good capacity	3	
			strongly varying capacity	2	
			low capacity	1	
	Technical knowledge of IWRM, CCA and EbA	0,5	long-term, profound knowledge	4	scoping missions
			good knowledge	3	
			some knowledge	2	
			limited knowledge	1	
Data availability & monitoring	No. of monitoring stations (functional)	0,25	>10 stations	4	TMD, RID, DWR systems:
			6-10 stations	3	data: meteo, groundw,
			3-5 stations	2	surfacew, quality
			<3 stations	1	
	Water data time series [years]	0,25	up to 25 years and greater	4	dominant time series at
			10-25 years	3	majority of gauges
			5-10 years	2	
			0-5 years	1	
	Gauge types	0,25	2+ gauge types	4	TMD, RID, DWR systems:
			2 gauge types	3	data: meteo, groundw,
			1 gauge type	2	surfacew, quality
			no data / unknown	1	
	Data sharing between partners	0,25	common platform to share	4	scoping missions
			good sharing	3	
			some sharing	2	
			no sharing	1	

5 Environment of change					
Concerned provinces	Number of provinces	1	1-3 provinces	4	
			4-5 provinces	3	
			6-8 provinces	2	
			> 8 provinces	1	
Basin planning	River Basin Development Plan (RBDP)	0,2	RBDP exists	4	scoping missions
			no RBDP	1	
	RBDP considers IWRM EbA DRR CCA	0,2	3+ topics considered	4	scoping missions
			2 topics considered	3	
			1 topic considered	2	
			no consideration	1	
	Water user competition & conflicts	0,6	no conflict but good cooperation	4	scoping missions
			some competition but cooperation	3	
			high competition & conflict	1	
Implementation	Operational Plan in place	0,2	Operational plan exists	4	scoping missions
			no operational plan	1	
	Diversity of implemented measures	0,8	IWRM, EbA, DRR, CCA impl.	4	scoping missions
			IWRM measures +2 topics	3	
			IWRM measures +1 topic	2	
			only IWRM measures	1	