

Quantity & Quality-Related Water Risks

Risk factor	Drought									
Impact forecast	Water shortage and limited volume of usable water									
	 Insufficient volume of usable water, affecting production and revenue 									
Impact period	Short and medium terms									
	Australia's drought timescale tends to lengthen the most under Scenario RCP2.6									
Assessment result	(8%) in 2030 and 2050. A similar result is established under Scenario RCP 8.5.									
Evennles of	1) Small power plants' THB 0.6 million investment in reservoir construction									
Examples of	2) Small power plants' THB 12 million investment in water quality improvement									
financial impacts	system									
		Base years RCP2.6 (1.6°C) RCP8.5 (4.3°C) No impact								
Change in maximum		1995-2014	2030	2050	2030	2050	Low imp	act		
drought period	😑 Thailand						Medium			
(versus the	🗳 Australia						impact			
base period	😠 Vietnam						impact			
1995–2014)	e Indonesia						_			
	Sources: CCKP. World Bank Group, Climate Change Knowledge Portal									
Response measure	More investment to secure supplementary water sources									

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Risk factor	Flooding								
Impact forecast	• Damage to high-value assets and machinery, pushing financial damages								
	beyond the maintenance cost								
	In case of severe flooding, damage to the transmission grid which is an integral								
	part of the electricity system as well as suppliers' major parts								
Impact period	Short and medium terms								
Assessment result	The maximum number of days with heavy rainfall in Thailand, Vietnam and								
	Indonesia tend to increase the most under Scenario RCP 8.5 in 2050.								
Examples of					tio fleed and				
financial impacts	Small power plants' THB 50 million investment in flood preventing foundation								
		Base years	2030	5 (1.6°C) 2050	2030	(4.3°C) 2050	 No impact Low impact 		
Change in maximum	Thailand	1995-2014	2030	2050	2030	2050	Medium		
heavy rainfall period	-						impact		
(versus the base	S Australia						High impact		
period 1995-2014)	😡 Vietnam						-		
	- Indonesia						-		
	Sources: CCKP. World Bank Group, Climate Change Knowledge Portal								
	Connection with water-level monitoring networks								
Response measure	Construction of rain reservoirs and water-retention system to deal with heavy								
	rainfall or flooding (usable during shortage periods)								

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