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**Southeast, South, and East Asia**

# **ADAPTATION PLAN REFERENCE**

**Nationally Determined Contributions (NDCs)  
& National Policies**

This reference is also available on the [APMDD Wiki](#).  
Please check it for more up-to-date information.

**Asian Peoples' Movement on Debt and Development (APMDD)**  
**2022**

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SECTION I

# Introduction



# Purpose

This packet is intended to serve as a reference to give APMDD members quick access to information about each country's adaptation Nationally Determined Contributions (NDCs) submitted under the Paris Agreement, as well as National Adaptation Plans (NAPs) to support those commitments, in preparation for COP27.

Included in this packet are (1) charts comparing countries' NDCs and NAPs, (2) checklists for each country showing whether certain indicators are present in their NDCs and NAPs, (3) lists of and links to policies cited in NDCs and additional climate change adaptation policies, and (4) other useful reference material.

# Key for Charts

- DISCUSSION:** Topic is mentioned in general
- DETAIL:** Topic is discussed in detail
- QUANTIFIABILITY:** Goals are quantifiable
- TECHNOLOGY:** Technology needs are discussed
- FINANCE:** Budget or specific funding plans are mentioned

Example:

NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	Bangladesh					India				
	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
Improving irrigation systems	Y	Y	Y	Y	Y	Y				
Setting national standards										
Uptake of solar irrigation	Y	Y	Y	Y	Y					
Disaster early-warning system						Y	Y		Y	



# Indicators: Agricultural Practices

## General Agricultural Practices

- Irrigation systems
- Disaster early warning systems
- General crop resilience
- Rice crop diversification/adjustment
- Agroecology/sustainable agriculture
- Harvesting techniques
- Sustainable resource management
- Sustainable pesticides/fertilisers

## Land Use

- Changing land use policies
- Response to sea level rise
- Watershed management
- Prevention of land erosion/degradation

## Trade

- Increased rice production
- Adjustment of production plans/infrastructure
- Diversification of agribusiness
- Diversification of food crops



# Indicators: Agricultural Development

## Agricultural Research/Development

- Research/development to improve capacity
- Loss and damage assessment
- Climate monitoring and knowledge sharing
- Institutional development
- Biodiversity conservation/restoration
- Plant genetic conservation
- Development of climate-smart farming systems
- Development of horticulture
- Development of climate-resilient infrastructure
- Development of technologies to increase yields
- Water resource management
- Rainwater harvesting

## Capacity Building

- Education/training on sustainable livelihood
- Education/training on adaptation/resilience
- Measures to safeguard food security
- Disaster preparedness programmes/capacity
- Strengthening capacities of vulnerable groups
  - Women, children, elders
  - Coastal communities
  - Smallholder farmers



# Indicators: Livestock/Fisheries

## Livestock

- Strengthening risk prevention/reduction capabilities
- Loss and damage assessment
- Climate-smart livestock
- Emergency preparedness
- Disease prevention
- Recovery and rehabilitation initiatives
- Development and breeding technology
- Animal vaccination
- Improvement of genetic research capacities
- Genetic conservation and upgrades
- Research/actions on animal feed

## Fisheries

- Promoting general resilience in fisheries sector
- Loss and damage assessment
- Climate-smart fisheries
- Sustainable use of fisheries resources
- Resilience building to marine pollution
- Management/protection of marine/coastal zones
- Development of fishery management
- Development of aquaculture



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SECTION II

# Adaptation Nationally Determined Contribution (NDC) Comparison

### Agricultural Practices (Southeast Asia NDCs)

KEY

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

NDC-Declared Adaptation Plans: Agriculture, Food, Land Use		Cambodia					Indonesia					Myanmar					Philippines					Thailand					Viet Nam				
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y	Y						Y			Y												Y	Y			Y
	Setting national standards	Y	Y	Y	Y	Y																									
	Uptake of solar irrigation	Y	Y	Y	Y	Y						Y																			
	Disaster early-warning system	Y	Y	Y	Y	Y	Y					Y										Y					Y	Y	Y	Y	
	Improving crop resilience (general)	Y	Y	Y	Y	Y	Y					Y	Y		Y												Y				
	...of specific major export crops	Y	Y	Y	Y	Y																					Y	Y			
	Rice crop diversification/adjustment	Y			Y	Y						Y	Y														Y	Y	Y		
	Shifting to agroecology / sustainable agriculture	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y		Y	Y						Y					Y	Y			
	Enhancement of harvesting techniques	Y	Y	Y	Y	Y																Y									
	Sustainable resource management	Y					Y	Y				Y	Y									Y					Y				
Sustainable pesticides (Mitigation)	Y										Y																				
Sustainable fertilisers (Mitigation)	Y	Y	Y	Y	Y						Y															Y	Y				
Land Use	Land use policy	Y	Y	Y	Y	Y	Y	Y				Y															Y	Y	Y		
	Response to sea level rise	Y										Y			Y												Y	Y		Y	
	Watershed management	Y					Y	Y				Y	Y		Y																
	Prevention of land erosion / degradation	Y				Y	Y					Y															Y				
Trade	Increased rice production	Y	Y	Y	Y	Y	Y	Y				Y																			
	Adjustment of production plans/infrastructure	Y	Y	Y	Y	Y	Y	Y				Y	Y		Y		Y										Y				
	Diversification of agribusiness	Y	Y	Y	Y	Y						Y	Y		Y																
	Diversification of food crops	Y	Y	Y	Y	Y						Y										Y									

## Agricultural Development (Southeast Asia NDCs)

### KEY

Topic is mentioned in general

Topic is discussed in detail

Goals are quantifiable

Technology needs are discussed

Budget or specific funding plans mentioned

	Cambodia					Indonesia					Myanmar					Philippines					Thailand					Viet Nam				
	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
<b>Research / Development</b>	Research/development to improve capacity	Y	Y	Y	Y	Y	Y		Y		Y	Y		Y	Y	Y					Y					Y	Y			
	Loss and damage assessment	Y	Y	Y	Y	Y					Y	Y	Y		Y	Y	Y	Y		Y						Y	Y	Y		Y
	Climate monitoring and knowledge sharing	Y	Y	Y	Y	Y					Y	Y									Y					Y	Y	Y	Y	
	Institutional development	Y	Y	Y	Y	Y	Y	Y			Y	Y									Y					Y	Y			
	Biodiversity conservation / restoration	Y	Y	Y	Y	Y	Y				Y										Y					Y				
	Plant genetic conservation	Y	Y	Y	Y	Y	Y														Y									
	Development of climate-smart farming systems	Y	Y	Y	Y	Y					Y	Y		Y												Y	Y			
	Development of horticulture	Y	Y	Y	Y	Y																								
	Development of climate-resilient infrastructure	Y	Y	Y	Y	Y	Y	Y			Y	Y			Y						Y	Y				Y				
	Development of technologies to increase yields	Y	Y	Y	Y	Y																								
	Water resource management	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y									Y	Y		Y		Y	Y			
	Rainwater harvesting	Y	Y		Y	Y					Y											Y	Y				Y	Y		
<b>Capacity-Building</b>	Education/training on sustainable livelihood	Y	Y	Y	Y	Y	Y			Y	Y									Y	Y				Y	Y				
	Education/training on adaptation/resilience	Y	Y	Y	Y	Y	Y			Y	Y			Y							Y	Y				Y	Y			
	Measures to safeguard food/nutritional security	Y	Y		Y	Y	Y	Y			Y				Y						Y					Y				
	Disaster preparedness programmes/capacities	Y	Y	Y	Y	Y	Y	Y			Y	Y		Y	Y	Y					Y					Y	Y		Y	
	Strengthening capacities of vulnerable groups	Y	Y	Y	Y	Y	Y	Y			Y	Y										Y					Y			
	Women, children, elders	Y	Y	Y	Y	Y	Y	Y			Y	Y										Y					Y			
Coastal communities	Y	Y	Y	Y	Y	Y				Y	Y										Y	Y				Y	Y			
Smallholder farmers	Y	Y	Y	Y	Y	Y				Y	Y																			

Note: Research/development and capacity-building for agriculture sector only.

## Livestock & Fisheries (Southeast Asia NDCs)

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

	Cambodia					Indonesia					Myanmar					Philippines					Thailand					Viet Nam					
	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	
<b>Livestock</b>	<b>NDC-Declared Adaptation Plans: Livestock/Fisheries</b>																														
	Strengthening risk prevention/reduction capacities	Y	Y	Y	Y	Y																									
	Loss and damage assessment											Y	Y	Y		Y															
	Climate-smart livestock	Y	Y	Y	Y	Y						Y	Y		Y	Y							Y								
	Emergency preparedness	Y	Y	Y	Y	Y																	Y								
	Disease prevention	Y	Y	Y	Y	Y																									
	Recovery and rehabilitation initiatives	Y	Y	Y	Y	Y																									
	Development of breeding technology	Y	Y	Y	Y	Y						Y			Y																
	Animal vaccination	Y	Y	Y	Y	Y																									
	Improvement of genetic research capacities	Y				Y																									
Genetic conservation and upgrades	Y	Y		Y	Y						Y																				
Research/actions on animal feed	Y	Y		Y	Y	Y		Y			Y	Y														Y	Y				
Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y						Y																				
<b>Marine/Fisheries</b>	Loss and damage assessment											Y	Y	Y		Y															
	Climate-smart fisheries	Y	Y									Y	Y			Y															
	Sustainable use of fisheries resources	Y	Y	Y	Y	Y						Y	Y													Y					
	Resilience building to marine pollution	Y	Y			Y	Y	Y																							
	Management/protection of marine/coastal zones	Y	Y		Y	Y	Y	Y				Y	Y														Y	Y		Y	
	Development of fishery management	Y										Y	Y																		
Development of aquaculture	Y	Y	Y	Y	Y						Y	Y														Y			Y		





## Livestock & Fisheries (South & East Asia NDCs)

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

NDC-Declared Adaptation Plans: Livestock/Fisheries	Bangladesh					India					Nepal					Pakistan					Sri Lanka					Japan					Korea									
	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance										
<b>Livestock</b>																																								
Strengthening risk prevention/reduction capacities																																								
Loss and damage assessment																																								
Climate-smart livestock	Y																																							
Emergency preparedness																																								
Disease prevention																																								
Recovery and rehabilitation initiatives																																								
Development of breeding technology	Y																																							
Animal vaccination																																								
Improvement of genetic research capacities																																								
Genetic conservation and upgrades	Y																																							
Research/actions on animal feed	Y	Y	Y																																					
Promoting general resilience in fisheries sector	Y	Y																																						
<b>Marine/Fisheries</b>																																								
Loss and damage assessment																																								
Climate-smart fisheries	Y	Y																																						
Sustainable use of fisheries resources																																								
Resilience building to marine pollution																																								
Management/protection of marine/coastal zones	Y	Y	Y																																					
Development of fishery management	Y																																							
Development of aquaculture	Y																																							



## Negative/Neutral Observable Trends in NDCs

- Most NDCs' adaptation goals are not quantifiable or tied to budgets.
- A few NDCs address building resilience of other major crops besides rice, but most do not.
  - Most NDCs lack goals for protecting/improving rice production.
- Most NDCs lack detailed solutions to sea level rise, although many do identify it as a problem.
  - Measures to respond to sea level rise are generally outside the agricultural context.
- Only Cambodia's NDC mentions setting national irrigation standards, but this info is missing from Cambodia's NAP.
- Very little discussion of sustainable pesticides.
- Most NDCs lack specific adaptation plans for livestock and fisheries.





## Positive Observable Trends in NDCs

- Most NDCs address strengthening capacities of vulnerable groups; the exceptions are NDCs that are particularly sparse (Philippines, Thailand) or those focused on mitigation (Japan).
- Most NDCs do contain specific actions regarding water resource management.

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SECTION III

# National Adaptation Plan (NAP) Comparison

## Agricultural Practices (Southeast Asia NAPs)

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

NDC-Declared Adaptation Plans: Agriculture, Food, Land Use		Cambodia					Indonesia					Myanmar					Philippines					Thailand					Viet Nam				
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y		Y	Y	Y	Y				Y	Y	Y	Y		Y	Y	Y	Y	Y
	Setting national standards																										Y				Y
	Uptake of solar irrigation						Y	Y																							
	Disaster early-warning system	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y		Y		Y	Y		Y		Y	Y		Y		Y	Y	Y	Y	
	Improving crop resilience (general)	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y	Y			Y	Y		Y		Y					Y	Y		Y	
	...of specific major export crops						Y	Y				Y	Y									Y	Y								Y
	Rice crop diversification/adjustment	Y	Y	Y	Y	Y						Y	Y	Y	Y																
	Shifting to agroecology / sustainable agriculture	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y				Y	Y		Y		Y	Y				Y	Y	Y	Y	Y
	Enhancement of harvesting techniques	Y	Y	Y	Y	Y											Y	Y				Y	Y				Y	Y	Y	Y	Y
	Sustainable resource management	Y					Y	Y				Y	Y				Y	Y				Y	Y				Y	Y	Y	Y	Y
Sustainable pesticides (Mitigation)																										Y	Y				
Sustainable fertilisers (Mitigation)	Y	Y				Y					Y	Y		Y												Y	Y			Y	
Land Use	Land use policy	Y	Y	Y	Y	Y	Y	Y				Y	Y	Y	Y		Y	Y		Y	Y	Y	Y				Y	Y	Y	Y	Y
	Response to sea level rise	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y	Y	Y		Y	Y		Y		Y					Y	Y	Y	Y	Y
	Watershed management	Y	Y	Y		Y	Y					Y	Y				Y	Y		Y		Y	Y				Y	Y			Y
	Prevention of land erosion / degradation	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y				Y					Y	Y				Y	Y	Y	Y	Y
Trade	Increased rice production	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y				Y	Y				Y	Y				Y	Y	Y	Y	Y
	Adjustment of production plans/infrastructure	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y		Y		Y					Y					Y	Y		Y	Y
	Diversification of agribusiness	Y	Y	Y	Y	Y	Y	Y				Y	Y		Y							Y					Y	Y			
	Diversification of food crops	Y	Y	Y	Y	Y	Y	Y				Y	Y									Y	Y				Y	Y		Y	

## Agricultural Development (Southeast Asia NAPs)

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

NDC-Declared Adaptation Plans: Agricultural Development		Cambodia					Indonesia					Myanmar					Philippines					Thailand					Viet Nam				
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
Research / Development	Research/development to improve capacity	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y				Y	Y	Y	Y	Y	
	Loss and damage assessment	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y			Y	Y	Y		Y		Y	Y									
	Climate monitoring and knowledge sharing	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y		Y	Y		Y		Y	Y		Y		Y	Y	Y	Y	Y	
	Institutional development	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y	Y		Y	Y									Y	Y	Y	Y	Y	
	Biodiversity conservation / restoration	Y	Y			Y	Y	Y		Y	Y					Y	Y		Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	
	Plant genetic conservation						Y	Y		Y	Y	Y		Y	Y						Y	Y		Y		Y					
	Development of climate-smart farming systems	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y				Y	Y		Y		Y	Y		Y		
	Development of horticulture										Y	Y																			
	Development of climate-resilient infrastructure	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y				Y	Y		Y		
	Development of technologies to increase yields	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y		Y	Y											Y	Y		Y		
	Water resource management	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y											Y	Y	Y	Y	Y	
	Rainwater harvesting	Y				Y	Y	Y			Y	Y																			
Capacity-Building	Education/training on sustainable livelihood	Y	Y	Y		Y	Y	Y			Y	Y	Y	Y	Y	Y				Y	Y				Y	Y					
	Education/training on adaptation/resilience	Y	Y	Y	Y	Y	Y	Y			Y	Y		Y	Y	Y				Y	Y		Y		Y	Y		Y	Y		
	Measures to safeguard food/nutritional security	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y				Y		Y	Y				Y	Y	Y	Y	Y		
	Disaster preparedness programmes/capacities	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y		Y	Y				Y	Y	Y	Y	Y	Y	Y		
	Strengthening capacities of vulnerable groups	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y				Y	Y		Y		Y	Y		Y	Y		
	Women, children, elders	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y					Y	Y										
Coastal communities	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y		Y							Y	Y		Y				
Smallholder farmers	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y					Y	Y		Y	Y	Y	Y			Y			

Note: Research/development and capacity-building for agriculture sector only.

# Livestock & Fisheries (Southeast Asia NAPs)

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

NDC-Declared Adaptation Plans: Livestock/Fisheries		Cambodia					Indonesia					Myanmar					Philippines					Thailand					Viet Nam				
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
Livestock	Strengthening risk prevention/reduction capacities	Y	Y		Y	Y	Y				Y	Y	Y	Y	Y	Y	Y		Y		Y	Y	Y		Y	Y		Y			
	Loss and damage assessment														Y	Y		Y		Y	Y										
	Climate-smart livestock	Y			Y	Y	Y				Y	Y	Y	Y	Y	Y	Y		Y						Y	Y		Y			
	Emergency preparedness										Y	Y							Y	Y											
	Disease prevention	Y				Y					Y	Y		Y	Y				Y	Y		Y			Y						
	Recovery and rehabilitation initiatives																		Y				Y								
	Development of breeding technology										Y	Y		Y	Y	Y	Y		Y	Y		Y			Y	Y		Y			
	Animal vaccination										Y	Y			Y																
	Improvement of genetic research capacities					Y					Y	Y	Y		Y				Y	Y		Y									
	Genetic conservation and upgrades	Y				Y	Y	Y			Y	Y	Y		Y				Y	Y		Y									
	Research/actions on animal feed	Y				Y	Y	Y			Y	Y		Y	Y										Y	Y					
	Marine/Fisheries	Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y				Y	Y	Y	Y	Y		
Loss and damage assessment						Y	Y	Y							Y	Y		Y		Y	Y				Y	Y	Y	Y	Y		
Climate-smart fisheries		Y	Y			Y	Y	Y		Y	Y	Y	Y	Y	Y	Y		Y	Y		Y	Y		Y	Y	Y	Y	Y			
Sustainable use of fisheries resources		Y	Y			Y	Y	Y			Y	Y		Y					Y	Y		Y	Y		Y	Y	Y	Y	Y		
Resilience building to marine pollution															Y	Y		Y						Y	Y	Y	Y	Y			
Management/protection of marine/coastal zones		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y					Y	Y	Y	Y	Y	Y			
Development of fishery management		Y	Y				Y	Y			Y	Y	Y	Y	Y				Y	Y				Y	Y	Y	Y	Y			
Development of aquaculture		Y	Y	Y	Y	Y	Y	Y			Y	Y		Y	Y				Y	Y				Y	Y			Y			

# Agricultural Practices (South & East Asia NAPs)

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

	Bangladesh					India					Nepal					Pakistan					Sri Lanka					Japan					Korea				
	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance					
<b>General Agricultural Practices</b>	Improving irrigation systems	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y											
	Setting national standards																																		
	Uptake of solar irrigation															Y	Y		Y		Y	Y	Y	Y											
	Disaster early-warning system	Y	Y			Y	Y		Y		Y	Y			Y	Y					Y	Y				Y	Y		Y						
	Improving crop resilience (general)	Y	Y		Y	Y	Y		Y	Y	Y	Y		Y	Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y			
	...of specific major export crops	Y	Y													Y	Y					Y	Y		Y										
	Rice crop diversification/adjustment	Y	Y													Y	Y		Y		Y	Y		Y											
	Shifting to agroecology / sustainable agriculture	Y	Y	Y			Y	Y	Y	Y		Y	Y		Y	Y					Y	Y	Y	Y					Y	Y		Y			
	Enhancement of harvesting techniques					Y																Y													
	Sustainable resource management	Y				Y	Y									Y	Y		Y		Y	Y	Y	Y		Y									
Sustainable pesticides (Mitigation)															Y	Y																			
Sustainable fertilisers (Mitigation)					Y										Y	Y				Y	Y	Y	Y												
<b>Land Use</b>	Land use policy	Y	Y			Y	Y	Y	Y		Y	Y		Y	Y	Y	Y		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Response to sea level rise	Y	Y		Y	Y		Y							Y	Y		Y		Y	Y	Y	Y	Y					Y	Y	Y	Y	Y	Y	
	Watershed management				Y	Y		Y		Y	Y			Y	Y	Y		Y		Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Prevention of land erosion / degradation	Y	Y			Y	Y	Y	Y						Y	Y	Y		Y		Y	Y	Y	Y		Y			Y							
<b>Trade</b>	Increased rice production														Y	Y					Y	Y				Y	Y								
	Adjustment of production plans/infrastructure	Y				Y	Y		Y		Y	Y		Y	Y	Y		Y		Y	Y	Y		Y		Y	Y		Y	Y	Y	Y	Y	Y	Y
	Diversification of agribusiness									Y	Y		Y								Y	Y	Y												
Diversification of food crops	Y	Y			Y	Y				Y	Y		Y	Y	Y	Y		Y		Y	Y		Y												

### Agricultural Development (South & East Asia NAPs)

KEY

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

NDC-Declared Adaptation Plans: Agriculture, Food, Land Use		Bangladesh					India					Nepal					Pakistan					Sri Lanka					Japan					Korea				
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
Research / Development	Research/development to improve capacity	Y	Y				Y	Y		Y		Y	Y		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y				Y	Y		Y	
	Loss and damage assessment	Y	Y	Y			Y	Y	Y								Y	Y									Y	Y				Y	Y	Y		
	Climate monitoring and knowledge sharing	Y	Y		Y		Y	Y		Y		Y	Y				Y	Y				Y	Y		Y		Y	Y			Y	Y	Y			
	Institutional development	Y	Y		Y		Y	Y		Y	Y	Y	Y				Y	Y		Y		Y	Y	Y	Y	Y	Y	Y				Y	Y			
	Biodiversity conservation / restoration	Y	Y				Y	Y		Y		Y	Y				Y	Y		Y		Y	Y		Y	Y	Y	Y								
	Plant genetic conservation						Y	Y		Y		Y	Y		Y	Y	Y	Y		Y		Y	Y	Y	Y	Y										
	Development of climate-smart farming systems	Y	Y				Y	Y		Y		Y	Y		Y	Y						Y	Y									Y	Y		Y	
	Development of horticulture						Y	Y														Y	Y		Y		Y	Y								
	Development of climate-resilient infrastructure	Y					Y	Y	Y	Y		Y	Y		Y	Y				Y	Y	Y	Y	Y								Y	Y		Y	
	Development of technologies to increase yields	Y					Y	Y		Y		Y	Y		Y	Y	Y	Y		Y		Y	Y		Y		Y	Y				Y	Y		Y	
	Water resource management	Y	Y				Y	Y	Y	Y							Y	Y		Y		Y	Y	Y	Y	Y										
	Improvement of rainwater harvesting	Y	Y		Y		Y	Y		Y							Y	Y				Y	Y	Y	Y	Y										
Capacity-Building	Education/training on sustainable livelihood	Y					Y	Y				Y	Y				Y	Y				Y	Y				Y	Y				Y	Y			
	Education/training on adaptation/resilience	Y					Y	Y				Y	Y				Y	Y		Y		Y	Y	Y		Y	Y	Y				Y	Y		Y	
	Measures to safeguard food/nutritional security	Y	Y				Y					Y	Y				Y	Y				Y	Y	Y		Y	Y	Y				Y	Y		Y	
	Disaster preparedness programmes/capacities						Y	Y				Y	Y				Y	Y		Y		Y	Y	Y	Y	Y	Y	Y				Y	Y		Y	
	Strengthening capacities of vulnerable groups	Y	Y		Y		Y	Y		Y		Y	Y		Y		Y	Y		Y		Y	Y	Y	Y	Y	Y	Y				Y	Y			
	Women, children, elders	Y	Y				Y	Y		Y		Y	Y				Y	Y		Y		Y	Y	Y	Y	Y	Y	Y				Y	Y			
Coastal communities	Y	Y				Y	Y		Y							Y	Y		Y		Y	Y	Y	Y	Y	Y	Y									
Smallholder farmers	Y					Y	Y		Y		Y	Y		Y		Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y				Y	Y				

Note: Research/development and capacity-building for agriculture sector only.

# Livestock & Fisheries (South & East Asia NAPs)

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

	Bangladesh					India					Nepal					Pakistan					Sri Lanka					Japan					Korea				
	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance					
<b>Livestock</b>	Strengthening risk prevention/reduction capacities	Y	Y			Y	Y		Y		Y	Y		Y	Y			Y	Y		Y	Y			Y	Y		Y							
	Loss and damage assessment	Y	Y	Y							Y			Y		Y	Y									Y	Y	Y							
	Climate-smart livestock	Y	Y			Y					Y	Y		Y	Y	Y	Y		Y	Y	Y				Y	Y	Y		Y						
	Emergency preparedness	Y				Y	Y		Y		Y	Y	Y	Y		Y	Y					Y				Y	Y								
	Disease prevention													Y	Y				Y								Y	Y							
	Recovery and rehabilitation initiatives																																		
	Development of breeding technology	Y				Y	Y							Y						Y	Y					Y									
	Animal vaccination					Y	Y									Y	Y			Y															
	Improvement of genetic research capacities					Y	Y				Y	Y		Y	Y	Y	Y					Y	Y	Y											
	Genetic conservation and upgrades	Y				Y	Y				Y	Y		Y	Y	Y	Y					Y	Y	Y	Y										
Research/actions on animal feed	Y	Y			Y	Y							Y	Y		Y					Y	Y	Y	Y	Y	Y	Y		Y						
Promoting general resilience in fisheries sector	Y	Y		Y				Y					Y	Y		Y	Y	Y	Y	Y	Y	Y			Y	Y	Y		Y						
<b>Marine/Fisheries</b>	Loss and damage assessment	Y	Y	Y										Y							Y	Y	Y			Y	Y	Y							
	Climate-smart fisheries	Y	Y		Y	Y		Y					Y	Y		Y			Y	Y	Y	Y				Y	Y		Y						
	Sustainable use of fisheries resources	Y	Y			Y										Y	Y	Y	Y	Y		Y				Y	Y		Y						
	Resilience building to marine pollution												Y	Y		Y			Y	Y	Y	Y	Y			Y	Y		Y						
	Management/protection of marine/coastal zones					Y	Y		Y				Y	Y		Y	Y		Y	Y	Y	Y	Y	Y		Y	Y		Y						
	Development of fishery management	Y	Y			Y	Y		Y				Y			Y	Y	Y	Y	Y		Y				Y	Y		Y						
	Development of aquaculture	Y	Y			Y	Y		Y				Y			Y	Y					Y	Y		Y		Y	Y		Y					





## Negative/Neutral Observable Trends in NAPs

- Most NAPs do not address pesticides.
- Only about half of the countries address measures to increase rice production.
- Only about half discuss disease prevention in livestock.
  - Most do not contain measures for animal vaccination.
- Only three countries mention solar irrigation uptake and modification of harvesting techniques.
- NAPs tend to either contain detailed budgets or no discussion of finance at all.



## Positive Observable Trends in NAPs

- Measures regarding coastal zones are generally well discussed and detailed.
- All NAPs discuss social programs such as education, training, knowledge-sharing, or other forms of support for vulnerable communities.
- Most NAPs contain actions for preserving biodiversity including habitat management, the use of gene banks, etc.
- NAPs are generally comprehensive.

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SECTION IV

# South East Asia Country Profiles



# Cambodia



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> International Trade Administration (trade.gov)

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Exporter:

- Exports in 2020: \$558M
- Imports in 2020: \$9.41M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 99.8%
- From imports: 0.2%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Cassava & Other Roots (1.48%)
- Nuts (1.01%)

### Major Crops Produced (Domestic)<sup>3</sup>:

- Rice
- Other (cassava, maize, mung bean, soybean)



# Cambodia: Adaptation NDCs

[\(View NDC\)](#)

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y	Y	Research / Development	Research/development to improve capacity	Y	Y	Y	Y	Y	Livestock	Strengthening risk prevention/reduction capacities	Y	Y	Y	Y	Y
	Setting national standards	Y	Y	Y	Y	Y		Loss and damage assessment	Y	Y	Y	Y	Y		Loss and damage assessment					
	Uptake of solar irrigation	Y	Y	Y	Y	Y		Climate monitoring and knowledge sharing	Y	Y	Y	Y	Y		Climate-smart livestock	Y	Y	Y	Y	Y
	Disaster early-warning system	Y	Y	Y	Y	Y		Institutional development	Y	Y	Y	Y	Y		Emergency preparedness	Y	Y	Y	Y	Y
	Improving crop resilience (general)	Y	Y	Y	Y	Y		Biodiversity conservation / restoration	Y	Y	Y	Y	Y		Disease prevention	Y	Y	Y	Y	Y
	...of specific major export crops	Y	Y	Y	Y	Y		Plant genetic conservation	Y	Y	Y	Y	Y		Recovery and rehabilitation initiatives	Y	Y	Y	Y	Y
	Rice crop diversification/adjustment	Y			Y	Y		Development of climate-smart farming systems	Y	Y	Y	Y	Y		Development of breeding technology	Y	Y	Y	Y	Y
	Shifting to agroecology / sustainable agriculture	Y	Y	Y	Y	Y		Development of horticulture	Y	Y	Y	Y	Y		Animal vaccination	Y	Y	Y	Y	Y
	Enhancement of harvesting techniques	Y	Y	Y	Y	Y		Development of climate-resilient infrastructure	Y	Y	Y	Y	Y		Improvement of genetic research capacities	Y				Y
	Sustainable resource management	Y						Development of technologies to increase yields	Y	Y	Y	Y	Y		Genetic conservation and upgrades	Y	Y		Y	Y
Land Use	Sustainable pesticides (Mitigation)	Y					Water resource management	Y	Y	Y	Y	Y	Research/actions on animal feed	Y	Y		Y	Y		
	Sustainable fertilisers (Mitigation)	Y	Y	Y	Y	Y	Rainwater harvesting	Y	Y		Y	Y	Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y		
	Land use policy	Y	Y	Y	Y	Y	Education/training on sustainable livelihood	Y	Y	Y	Y	Y	Loss and damage assessment							
	Response to sea level rise	Y					Education/training on adaptation/resilience	Y	Y	Y	Y	Y	Climate-smart fisheries	Y	Y					
Trade	Watershed management	Y					Measures to safeguard food/nutritional security	Y	Y		Y	Y	Sustainable use of fisheries resources	Y	Y	Y	Y	Y		
	Prevention of land erosion / degradation	Y				Y	Disaster preparedness programmes/capacities	Y	Y	Y	Y	Y	Resilience building to marine pollution	Y	Y			Y		
	Increased rice production	Y	Y	Y	Y	Y	Strengthening capacities of vulnerable groups	Y	Y	Y	Y	Y	Management/protection of marine/coastal zones	Y	Y		Y	Y		
	Adjustment of production plans/infrastructure	Y	Y	Y	Y	Y	Women, children, elders	Y	Y	Y	Y	Y	Development of fishery management	Y						
	Diversification of agribusiness	Y	Y	Y	Y	Y	Coastal communities	Y	Y	Y	Y	Y	Development of aquaculture	Y	Y	Y	Y	Y		
Diversification of food crops	Y	Y	Y	Y	Y	Smallholder farmers	Y	Y	Y	Y	Y									

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



# Cambodia: National Adaptation Policies

		Agriculture, Food, Land Use					Agricultural Development					Livestock/Fisheries					
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	
	Setting national standards						Y	Y	Y	Y	Y						
	Uptake of solar irrigation						Y	Y	Y	Y	Y				Y	Y	
	Disaster early-warning system	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Improving crop resilience (general)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	...of specific major export crops																
	Rice crop diversification/adjustment	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Shifting to agroecology / sustainable agriculture	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Enhancement of harvesting techniques	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Sustainable resource management	Y					Y	Y	Y	Y	Y						
Land Use	Sustainable pesticides (Mitigation)	Y					Y	Y	Y	Y	Y						
	Sustainable fertilisers (Mitigation)	Y	Y				Y	Y			Y						
	Land use policy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Response to sea level rise	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Watershed management	Y	Y	Y		Y	Y	Y	Y	Y	Y						
	Prevention of land erosion / degradation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Increased rice production	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Adjustment of production plans/infrastructure	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Diversification of agribusiness	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Diversification of food crops	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
Trade	Research/development to improve capacity	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Loss and damage assessment	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Climate monitoring and knowledge sharing	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Institutional development	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Biodiversity conservation / restoration	Y	Y			Y	Y	Y			Y						
	Plant genetic conservation																
	Development of climate-smart farming systems	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Development of horticulture						Y	Y	Y	Y	Y						
	Development of climate-resilient infrastructure	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Development of technologies to increase yields	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
Research / Development	Water resource management	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Rainwater harvesting	Y				Y				Y							
	Education/training on sustainable livelihood	Y	Y	Y		Y	Y	Y		Y							
	Education/training on adaptation/resilience	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Measures to safeguard food/nutritional security	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Disaster preparedness programmes/capacities	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Strengthening capacities of vulnerable groups	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Women, children, elders	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Coastal communities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
	Smallholder farmers	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
Capacity-Building	Strengthening risk prevention/reduction capacities	Y	Y			Y	Y			Y	Y						
	Loss and damage assessment																
	Climate-smart livestock	Y								Y	Y						
	Emergency preparedness																
	Disease prevention	Y													Y		
	Recovery and rehabilitation initiatives																
	Development of breeding technology																
	Animal vaccination																
	Improvement of genetic research capacities																
	Genetic conservation and upgrades	Y										Y				Y	
Livestock	Research/actions on animal feed	Y									Y					Y	
	Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Loss and damage assessment																
	Climate-smart fisheries	Y	Y													Y	
	Sustainable use of fisheries resources	Y	Y														
	Resilience building to marine pollution																
	Management/protection of marine/coastal zones	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Development of fishery management	Y	Y														
	Development of aquaculture	Y	Y	Y	Y	Y	Y	Y	Y	Y							
	Marine/Fisheries	Research/development to improve capacity	Y	Y	Y	Y	Y	Y	Y	Y	Y						
Loss and damage assessment		Y	Y	Y	Y	Y	Y	Y	Y	Y							
Climate monitoring and knowledge sharing		Y	Y	Y	Y	Y	Y	Y	Y	Y							
Institutional development		Y	Y	Y	Y	Y	Y	Y	Y	Y							
Biodiversity conservation / restoration		Y	Y			Y	Y	Y			Y						
Plant genetic conservation																	
Development of climate-smart farming systems		Y	Y	Y	Y	Y	Y	Y	Y	Y							
Development of horticulture							Y	Y	Y	Y	Y						
Development of climate-resilient infrastructure		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
Development of technologies to increase yields		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



# Notes on Cambodia's Adaptation Plan

- Cambodia is a rare case where the NDC seems to be more detailed than the NAP documents.

<sup>1</sup> <https://www.climate-laws.org/geographies/cambodia/policies/cambodia-national-adaptation-plan-financing-framework-and-implementation-plan-2017>

<sup>2</sup> NAP document submitted to UNFCCC: <https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx>



# Cambodia: Adaptation Policy Documents

- National Adaptation Plan (NAP)
  - Cambodia National Adaptation Plan (NAP) Financing Framework and Implementation Plan<sup>1</sup>: [View](#)
  - Cambodia Climate Change Strategic Plan 2014-2023<sup>2</sup>: [View PDF](#)
  - National Adaptation Plan Process in Cambodia: [View PDF](#)
- Based on National Adaptation Programme of Action to Climate Change (NAPA): [View PDF](#)
- Policy Paper on the Promotion of Paddy Production and Rice Export (2010–outdated): [View PDF](#)
- Climate Change Action Plan for Water Resources and Meteorology 2014-2018 (2014): [View](#)
- Climate Change Priorities Action Plan for Agriculture, Forestry and Fisheries Sector 2014-2018 (2014): [View](#)

<sup>1</sup> <https://www.climate-laws.org/geographies/cambodia/policies/cambodia-national-adaptation-plan-financing-framework-and-implementation-plan-2017>

<sup>2</sup> NAP document submitted to UNFCCC: <https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx>





# Indonesia



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> FAO (<https://www.fao.org/3/y4632e/y4632e0l.htm>)

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Importer:

- Exports in 2020: \$1.57M
- Imports in 2020: \$249M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 98.3%
- From imports: 1.7%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Palm Oil (10%)
- Rubber (1.86%)
- Stearic Acid (1.73%)
- Coconut Oil (1.13%)

### Major Crops Produced<sup>3</sup>:

- Rice, corn, cassava, soybeans, peanuts

# Indonesia: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems						Research / Development	Research/development to improve capacity	Y	Y		Y		Livestock	Strengthening risk prevention/reduction capacities						
	Setting national standards							Loss and damage assessment								Loss and damage assessment					
	Uptake of solar irrigation							Climate monitoring and knowledge sharing								Climate-smart livestock					
	Disaster early-warning system	Y						Institutional development	Y	Y						Emergency preparedness					
	Improving crop resilience (general)	Y						Biodiversity conservation / restoration	Y							Disease prevention					
	...of specific major export crops							Plant genetic conservation	Y							Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment							Development of climate-smart farming systems								Development of breeding technology					
	Shifting to agroecology / sustainable agriculture	Y	Y		Y			Development of horticulture								Animal vaccination					
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y						Improvement of genetic research capacities					
	Sustainable resource management	Y	Y					Development of technologies to increase yields								Genetic conservation and upgrades					
	Sustainable pesticides (Mitigation)							Water resource management	Y	Y	Y					Research/actions on animal feed	Y		Y		
	Sustainable fertilisers (Mitigation)							Rainwater harvesting								Promoting general resilience in fisheries sector					
Land Use	Land use policy	Y	Y				Capacity-Building	Education/training on sustainable livelihood	Y	Y				Marine/Fisheries	Loss and damage assessment						
	Response to sea level rise							Education/training on adaptation/resilience	Y	Y					Climate-smart fisheries						
	Watershed management	Y	Y					Measures to safeguard food/nutritional security	Y	Y					Sustainable use of fisheries resources						
	Prevention of land erosion / degradation	Y						Disaster preparedness programmes/capacities	Y	Y					Resilience building to marine pollution	Y					
Trade	Increased rice production	Y	Y				Capacity-Building	Strengthening capacities of vulnerable groups	Y	Y				Marine/Fisheries	Management/protection of marine/coastal zones	Y	Y				
	Adjustment of production plans/infrastructure	Y	Y					Women, children, elders	Y	Y					Development of fishery management						
	Diversification of agribusiness							Coastal communities	Y						Development of aquaculture						
	Diversification of food crops							Smallholder farmers	Y												

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



# Indonesia: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y
General Agricultural Practices	Improving irrigation systems	Y	Y		Y	Y	Research/development to improve capacity	Y	Y		Y		Strengthening risk prevention/reduction capacities	Y				
	Setting national standards						Loss and damage assessment	Y	Y	Y			Loss and damage assessment					
	Uptake of solar irrigation	Y	Y				Climate monitoring and knowledge sharing	Y	Y		Y		Climate-smart livestock	Y				
	Disaster early-warning system	Y	Y		Y		Institutional development	Y	Y				Emergency preparedness					
	Improving crop resilience (general)	Y	Y		Y		Biodiversity conservation / restoration	Y	Y		Y		Disease prevention					
	...of specific major export crops	Y	Y				Plant genetic conservation	Y	Y		Y		Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment						Development of climate-smart farming systems	Y	Y		Y		Development of breeding technology					
	Shifting to agroecology / sustainable agriculture	Y	Y		Y		Development of horticulture						Animal vaccination					
	Enhancement of harvesting techniques						Development of climate-resilient infrastructure	Y	Y		Y		Improvement of genetic research capacities	Y				
	Sustainable resource management	Y	Y				Development of technologies to increase yields	Y	Y		Y		Genetic conservation and upgrades	Y	Y			
Land Use	Sustainable pesticides (Mitigation)						Water resource management	Y	Y	Y	Y		Research/actions on animal feed	Y	Y			
	Sustainable fertilisers (Mitigation)	Y					Rainwater harvesting	Y	Y				Promoting general resilience in fisheries sector	Y	Y	Y	Y	
	Land use policy	Y	Y				Education/training on sustainable livelihood	Y	Y				Loss and damage assessment	Y	Y	Y		
	Response to sea level rise	Y	Y		Y		Education/training on adaptation/resilience	Y	Y				Climate-smart fisheries	Y	Y		Y	
	Watershed management	Y					Measures to safeguard food/nutritional security	Y	Y		Y		Sustainable use of fisheries resources	Y	Y	Y		
	Prevention of land erosion / degradation	Y	Y		Y		Disaster preparedness programmes/capacities	Y	Y		Y		Resilience building to marine pollution					
	Increased rice production	Y	Y		Y		Strengthening capacities of vulnerable groups	Y	Y		Y		Management/protection of marine/coastal zones	Y	Y	Y	Y	
	Adjustment of production plans/infrastructure	Y	Y		Y		Women, children, elders	Y	Y				Development of fishery management	Y	Y		Y	
	Diversification of agribusiness	Y	Y				Coastal communities	Y	Y		Y		Development of aquaculture	Y	Y			
	Diversification of food crops	Y	Y				Smallholder farmers	Y	Y									

KEY

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



## Notes on Indonesia's Adaptation Plan

- RAN-API contains detailed analyses of declining rice production estimates in response to climate change but no clearly stated plans on increasing rice production; it seems that Indonesia's action plan is to diversify food crops to reduce dependence on rice and maintain rice production levels.
- There is very little mention of livestock.
- Specific budget is stated for the [Heart of Borneo](#) declaration only.
- Actions stated in the listed documents are not quantifiable and not tied to budgets.



# Indonesia: Adaptation Policy Documents

- National Action Plan on Climate Change Adaptation (RAN-API) (2014): [View PDF](#)
- National Action Plan Addressing Climate Change (2007): [View PDF](#)
- National Adaptation Plan Executive Summary (2019): [View PDF](#)



# Myanmar



<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> FAO; Statista

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Exporter:

- Exports in 2020: \$1.15B
- Imports in 2020: \$2.33M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 99.99%
- From imports: 0.01%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Rice (5.95%)
- Dried Legumes (4.6%)
- Corn (2.19%)
- Rubber (1.56%)
- Non-fillet Fresh Fish (1.03%)

### Major Crops Produced<sup>3</sup>:

- Rice
- Sugar
- Maize

# Myanmar: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y			Y		Research / Development	Research/development to improve capacity	Y	Y		Y	Y	Livestock	Strengthening risk prevention/reduction capacities						
	Setting national standards							Loss and damage assessment	Y	Y	Y		Y			Loss and damage assessment	Y	Y	Y		Y
	Uptake of solar irrigation	Y						Climate monitoring and knowledge sharing	Y	Y						Climate-smart livestock	Y	Y		Y	Y
	Disaster early-warning system	Y						Institutional development	Y	Y						Emergency preparedness					
	Improving crop resilience (general)	Y	Y		Y			Biodiversity conservation / restoration	Y							Disease prevention					
	...of specific major export crops							Plant genetic conservation								Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment	Y	Y					Development of climate-smart farming systems	Y	Y		Y				Development of breeding technology	Y			Y	
	Shifting to agroecology / sustainable agriculture	Y	Y		Y	Y		Development of horticulture								Animal vaccination					
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y						Improvement of genetic research capacities					
	Sustainable resource management	Y	Y					Development of technologies to increase yields	Y							Genetic conservation and upgrades	Y				
	Sustainable pesticides (Mitigation)	Y						Water resource management	Y	Y						Research/actions on animal feed	Y	Y			
	Sustainable fertilisers (Mitigation)	Y						Rainwater harvesting	Y							Promoting general resilience in fisheries sector	Y				
	Land Use	Land use policy	Y			Y			Capacity-Building	Education/training on sustainable livelihood	Y	Y					Marine/Fisheries	Loss and damage assessment	Y	Y	Y
Response to sea level rise		Y			Y		Education/training on adaptation/resilience	Y		Y				Climate-smart fisheries	Y	Y				Y	
Watershed management		Y	Y		Y		Measures to safeguard food/nutritional security	Y						Sustainable use of fisheries resources	Y	Y					
Prevention of land erosion / degradation		Y					Disaster preparedness programmes/capacities	Y		Y		Y	Y	Resilience building to marine pollution							
Trade	Increased rice production	Y					Strengthening capacities of vulnerable groups	Y	Y				Management/protection of marine/coastal zones	Y	Y						
	Adjustment of production plans/infrastructure	Y	Y				Women, children, elders	Y	Y				Development of fishery management	Y	Y						
	Diversification of agribusiness	Y	Y		Y		Coastal communities	Y	Y				Development of aquaculture	Y	Y						
	Diversification of food crops	Y					Smallholder farmers	Y	Y												

**KEY**

- Topic is mentioned in general
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# Myanmar: National Adaptation Policies

Agriculture, Food, Land Use		Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development		Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries		Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y	Y		Y	Y	Research / Development	Research/development to improve capacity	Y	Y	Y	Y	Y	Livestock	Strengthening risk prevention/reduction capacities	Y	Y	Y	Y	Y	
	Setting national standards							Loss and damage assessment	Y	Y			Y			Loss and damage assessment					
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y	Y	Y				Climate-smart livestock	Y	Y	Y	Y	Y
	Disaster early-warning system	Y	Y		Y			Institutional development	Y	Y	Y	Y				Emergency preparedness	Y	Y			
	Improving crop resilience (general)	Y	Y	Y				Biodiversity conservation / restoration	Y							Disease prevention	Y	Y		Y	Y
	...of specific major export crops	Y	Y					Plant genetic conservation	Y	Y		Y	Y			Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment	Y	Y	Y	Y			Development of climate-smart farming systems	Y	Y	Y	Y	Y			Development of breeding technology	Y	Y		Y	Y
	Shifting to agroecology / sustainable agriculture	Y	Y					Development of horticulture	Y	Y						Animal vaccination	Y	Y			Y
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y	Y	Y	Y			Improvement of genetic research capacities	Y	Y	Y		Y
	Sustainable resource management	Y	Y					Development of technologies to increase yields	Y	Y		Y	Y			Genetic conservation and upgrades	Y	Y	Y		Y
Land Use	Sustainable pesticides (Mitigation)	Y	Y				Water resource management	Y	Y		Y	Y		Research/actions on animal feed	Y	Y		Y	Y		
	Sustainable fertilisers (Mitigation)	Y	Y		Y		Rainwater harvesting	Y	Y					Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y		
	Land use policy	Y	Y	Y	Y		Education/training on sustainable livelihood	Y	Y	Y	Y			Loss and damage assessment							
	Response to sea level rise	Y	Y	Y	Y		Education/training on adaptation/resilience	Y	Y		Y			Climate-smart fisheries	Y	Y	Y	Y	Y		
Trade	Watershed management	Y	Y				Measures to safeguard food/nutritional security	Y	Y	Y	Y			Sustainable use of fisheries resources	Y	Y		Y	Y		
	Prevention of land erosion / degradation	Y	Y				Disaster preparedness programmes/capacities	Y	Y	Y	Y			Resilience building to marine pollution							
	Increased rice production	Y	Y				Strengthening capacities of vulnerable groups	Y	Y	Y	Y	Y		Management/protection of marine/coastal zones	Y	Y	Y		Y		
	Adjustment of production plans/infrastructure	Y	Y		Y		Women, children, elders	Y	Y	Y	Y			Development of fishery management	Y	Y	Y	Y	Y		
Diversification of agribusiness	Y	Y		Y		Coastal communities	Y	Y	Y	Y			Development of aquaculture	Y	Y		Y	Y			
Diversification of food crops	Y	Y				Smallholder farmers	Y	Y	Y	Y	Y										

KEY

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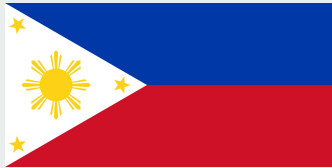


## Myanmar: Adaptation Policy Documents

- Myanmar Climate Change Master Plan (MCCMP) (2018-2030): [View PDF](#)
- Myanmar Climate Change Strategy (2018-2030): [View PDF](#)
- Myanmar Climate-Smart Agriculture Strategy (2015): [View](#)
- Myanmar Agriculture Development Strategy and Investment Plan (2018-2023): [View](#)



# Philippines



## [WB/ADB Climate Risk Profile](#)

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> Statista

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Importer:

- Exports in 2020: \$889K
- Imports in 2020: \$1.21B

### % of rice consumption in Market Year 2021/2022<sup>1</sup>:

- From domestic production: 79%
- From imports: 21%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Bananas (2.09%)

### Major Crops Produced<sup>3</sup>:

- Sugarcane (24,398.2 mt)
- Palay (rice) (19,294.9 mt)
- Coconut (14,490.9 mt)
- Banana (9,056.1 mt)
- Corn (8,118.5 mt)

# Philippines: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems						Research/development to improve capacity	Y					Strengthening risk prevention/reduction capacities					
	Setting national standards						Loss and damage assessment	Y	Y	Y			Loss and damage assessment					
	Uptake of solar irrigation						Climate monitoring and knowledge sharing						Climate-smart livestock					
	Disaster early-warning system						Institutional development						Emergency preparedness					
	Improving crop resilience (general)						Biodiversity conservation / restoration						Disease prevention					
	...of specific major export crops						Plant genetic conservation						Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment						Development of climate-smart farming systems						Development of breeding technology					
	Shifting to agroecology / sustainable agriculture						Development of horticulture						Animal vaccination					
	Enhancement of harvesting techniques						Development of climate-resilient infrastructure	Y					Improvement of genetic research capacities					
	Sustainable resource management						Development of technologies to increase yields						Genetic conservation and upgrades					
	Sustainable pesticides (Mitigation)						Water resource management						Research/actions on animal feed					
	Sustainable fertilisers (Mitigation)						Rainwater harvesting						Promoting general resilience in fisheries sector					
	Land Use	Land use policy						Education/training on sustainable livelihood						Loss and damage assessment				
Response to sea level rise							Education/training on adaptation/resilience	Y					Climate-smart fisheries					
Watershed management							Measures to safeguard food/nutritional security	Y					Sustainable use of fisheries resources					
Prevention of land erosion / degradation							Disaster preparedness programmes/capacities	Y					Resilience building to marine pollution					
Trade	Increased rice production						Strengthening capacities of vulnerable groups						Management/protection of marine/coastal zones					
	Adjustment of production plans/infrastructure	Y					Women, children, elders						Development of fishery management					
	Diversification of agribusiness						Coastal communities						Development of aquaculture					
	Diversification of food crops						Smallholder farmers											

**KEY**

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# Philippines: National Adaptation Policies

		Agriculture, Food, Land Use					Agricultural Development					Livestock/Fisheries					
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y	Y				Y	Y		Y	Y	Y	Y				
	Setting national standards						Y	Y		Y		Y	Y				
	Uptake of solar irrigation						Y	Y		Y		Y	Y				
	Disaster early-warning system	Y	Y		Y		Y	Y									
	Improving crop resilience (general)	Y	Y		Y		Y	Y									
	...of specific major export crops						Y	Y		Y	Y						
	Rice crop diversification/adjustment						Y	Y									
	Shifting to agroecology / sustainable agriculture	Y	Y		Y												
	Enhancement of harvesting techniques						Y	Y		Y							
	Sustainable resource management	Y	Y														
Land Use	Sustainable pesticides (Mitigation)																
	Sustainable fertilisers (Mitigation)																
	Land use policy	Y	Y		Y	Y	Y	Y				Y	Y		Y	Y	
	Response to sea level rise	Y	Y		Y		Y	Y				Y	Y		Y		
	Watershed management	Y	Y		Y		Y	Y				Y	Y		Y		
	Prevention of land erosion / degradation	Y					Y	Y		Y	Y	Y	Y		Y		
	Trade	Increased rice production						Y	Y				Y	Y		Y	
		Adjustment of production plans/infrastructure	Y					Y					Y	Y		Y	
		Diversification of agribusiness						Y	Y		Y		Y	Y			
		Diversification of food crops											Y	Y			
Research / Development	Research/development to improve capacity	Y	Y				Y	Y		Y	Y	Y	Y				
	Loss and damage assessment	Y	Y				Y	Y		Y		Y	Y				
	Climate monitoring and knowledge sharing	Y	Y				Y	Y		Y		Y	Y				
	Institutional development	Y	Y				Y	Y				Y	Y				
	Biodiversity conservation / restoration	Y	Y				Y	Y		Y	Y						
	Plant genetic conservation																
	Development of climate-smart farming systems	Y	Y				Y	Y									
	Development of horticulture						Y	Y		Y							
	Development of climate-resilient infrastructure	Y	Y				Y	Y		Y							
	Development of technologies to increase yields																
Capacity-Building	Water resource management																
	Rainwater harvesting																
	Education/training on sustainable livelihood	Y	Y				Y	Y				Y	Y		Y		
	Education/training on adaptation/resilience	Y	Y				Y	Y				Y	Y		Y		
	Measures to safeguard food/nutritional security	Y	Y				Y	Y		Y							
	Disaster preparedness programmes/capacities	Y	Y				Y	Y		Y	Y						
	Strengthening capacities of vulnerable groups	Y	Y				Y	Y									
	Women, children, elders	Y					Y										
	Coastal communities	Y	Y				Y	Y		Y							
	Smallholder farmers																
Livestock	Strengthening risk prevention/reduction capacities	Y	Y				Y	Y				Y	Y		Y		
	Loss and damage assessment	Y	Y				Y	Y				Y	Y		Y		
	Climate-smart livestock	Y	Y				Y	Y				Y	Y		Y		
	Emergency preparedness																
	Disease prevention																
	Recovery and rehabilitation initiatives																
	Development of breeding technology	Y	Y									Y	Y				
	Animal vaccination																
	Improvement of genetic research capacities																
	Genetic conservation and upgrades																
Marine/Fisheries	Research/actions on animal feed																
	Promoting general resilience in fisheries sector	Y	Y				Y	Y				Y	Y		Y	Y	
	Loss and damage assessment	Y	Y				Y	Y				Y	Y		Y		
	Climate-smart fisheries	Y	Y				Y	Y				Y	Y		Y		
	Sustainable use of fisheries resources																
	Resilience building to marine pollution	Y	Y				Y	Y		Y	Y	Y	Y		Y		
	Management/protection of marine/coastal zones	Y	Y				Y	Y				Y	Y		Y		
	Development of fishery management																
	Development of aquaculture	Y	Y				Y	Y				Y	Y				

**KEY**

- Topic is mentioned in general
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# Philippines: Adaptation Policy Documents

## Laws:

- Climate Change Act of 2009 (RA 9729): [View](#)
  - Amended by People's Survival Fund Act (RA 10174): [View](#)

## Policy Frameworks:

- National Framework Strategy on Climate Change (2010-2022): [View PDF](#)
- National Climate Change Action Plan (2011-2028): [View PDF](#)
  - Executive Brief: [View PDF](#)



# Thailand



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> Statista

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Exporter:

- Exports in 2020: \$3.88B
- Imports in 2020: \$22.3M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 98.4%
- From imports: 1.6%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Rice (1.6%)
- Rubber (1.5%)
- Processed Fish (1.29%)
- Other Fruits (1.18%)
- Other Prepared Meat (1.1%)

### Major Crops Produced<sup>3</sup>:

- Sugarcane
- Cassava
- Shallot

# Thailand: Adaptation NDCs

[\(View NDC\)](#)

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems						Research/development to improve capacity	Y					Strengthening risk prevention/reduction capacities					
	Setting national standards						Loss and damage assessment						Loss and damage assessment					
	Uptake of solar irrigation						Climate monitoring and knowledge sharing	Y					Climate-smart livestock	Y				
	Disaster early-warning system	Y					Institutional development	Y					Emergency preparedness	Y				
	Improving crop resilience (general)						Biodiversity conservation / restoration	Y					Disease prevention					
	...of specific major export crops						Plant genetic conservation						Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment						Development of climate-smart farming systems						Development of breeding technology					
	Shifting to agroecology / sustainable agriculture	Y					Development of horticulture						Animal vaccination					
	Enhancement of harvesting techniques	Y					Development of climate-resilient infrastructure	Y	Y				Improvement of genetic research capacities					
	Sustainable resource management	Y					Development of technologies to increase yields						Genetic conservation and upgrades					
Land Use	Sustainable pesticides (Mitigation)						Water resource management	Y	Y		Y		Research/actions on animal feed					
	Sustainable fertilisers (Mitigation)						Rainwater harvesting						Promoting general resilience in fisheries sector					
	Land use policy						Education/training on sustainable livelihood	Y	Y				Loss and damage assessment					
	Response to sea level rise						Education/training on adaptation/resilience						Climate-smart fisheries					
	Watershed management						Measures to safeguard food/nutritional security	Y					Sustainable use of fisheries resources					
	Prevention of land erosion / degradation						Disaster preparedness programmes/capacities	Y					Resilience building to marine pollution					
	Increased rice production						Strengthening capacities of vulnerable groups						Management/protection of marine/coastal zones					
	Adjustment of production plans/infrastructure						Women, children, elders						Development of fishery management					
	Diversification of agribusiness						Coastal communities						Development of aquaculture					
	Diversification of food crops	Y					Smallholder farmers											

**KEY**

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# Thailand: National Adaptation Policies

		Agriculture, Food, Land Use					Agricultural Development					Livestock/Fisheries				
		Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y		Research/development to improve capacity	Y	Y			Strengthening risk prevention/reduction capacities	Y	Y		Y
	Setting national standards						Loss and damage assessment	Y	Y			Loss and damage assessment	Y	Y		
	Uptake of solar irrigation						Climate monitoring and knowledge sharing	Y	Y		Y	Climate-smart livestock	Y			
	Disaster early-warning system	Y	Y		Y		Institutional development					Emergency preparedness	Y	Y		
	Improving crop resilience (general)	Y					Biodiversity conservation / restoration	Y	Y		Y	Disease prevention	Y	Y		Y
	...of specific major export crops						Plant genetic conservation	Y	Y		Y	Recovery and rehabilitation initiatives	Y	Y		Y
	Rice crop diversification/adjustment						Development of climate-smart farming systems	Y	Y		Y	Development of breeding technology	Y	Y		Y
	Shifting to agroecology / sustainable agriculture	Y	Y				Development of horticulture					Animal vaccination				
	Enhancement of harvesting techniques						Development of climate-resilient infrastructure	Y	Y			Improvement of genetic research capacities	Y	Y		Y
	Sustainable resource management	Y	Y				Development of technologies to increase yields					Genetic conservation and upgrades	Y	Y		Y
	Sustainable pesticides (Mitigation)						Water resource management					Research/actions on animal feed				
	Sustainable fertilisers (Mitigation)						Rainwater harvesting					Promoting general resilience in fisheries sector	Y	Y		
Land Use	Land use policy	Y	Y				Education/training on sustainable livelihood	Y	Y			Loss and damage assessment	Y	Y		
	Response to sea level rise	Y					Education/training on adaptation/resilience	Y	Y		Y	Climate-smart fisheries	Y	Y		
	Watershed management	Y					Measures to safeguard food/nutritional security	Y	Y		Y	Sustainable use of fisheries resources	Y	Y		
	Prevention of land erosion / degradation	Y	Y				Disaster preparedness programmes/capacities					Resilience building to marine pollution				
Trade	Increased rice production		Y	Y			Strengthening capacities of vulnerable groups	Y	Y		Y	Management/protection of marine/coastal zones				
	Adjustment of production plans/infrastructure	Y					Women, children, elders	Y	Y			Development of fishery management	Y	Y		
	Diversification of agribusiness	Y					Coastal communities	Y				Development of aquaculture	Y	Y		
	Diversification of food crops						Smallholder farmers	Y	Y		Y	Y				

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# Thailand: Adaptation Policy Documents

- National Adaptation Plan (NAP): [View PDF](#) (Thai only)
  - Fact Sheet: [View PDF](#)
- Climate Change Master Plan 2015-2050: [View PDF](#)
- Agriculture Strategic Plan on Climate Change (ASPCC) (2017-2021)
  - Presentation: [View PDF](#)



# Viet Nam



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> Statista

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Exporter:

- Exports in 2020: \$2.74B
- Imports in 2020: \$137M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 91.6%
- From imports: 8.4%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Coconuts, Brazil Nuts, and Cashews (1.02%)
- Rice (0.91%)

### Major Crops Produced<sup>3</sup>:

- Rice
- Cassava
- Vegetables
- Sugarcane

# Viet Nam: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance		
General Agricultural Practices	Improving irrigation systems	Y	Y		Y		Research / Development	Research/development to improve capacity	Y	Y				Livestock	Strengthening risk prevention/reduction capacities							
	Setting national standards							Loss and damage assessment	Y	Y	Y		Y		Loss and damage assessment							
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y	Y	Y			Climate-smart livestock							
	Disaster early-warning system	Y	Y	Y	Y			Institutional development	Y	Y					Emergency preparedness							
	Improving crop resilience (general)	Y						Biodiversity conservation / restoration	Y						Disease prevention							
	...of specific major export crops	Y	Y					Plant genetic conservation							Recovery and rehabilitation initiatives							
	Rice crop diversification/adjustment	Y	Y	Y				Development of climate-smart farming systems	Y	Y					Development of breeding technology							
	Shifting to agroecology / sustainable agriculture	Y	Y					Development of horticulture							Animal vaccination							
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y						Improvement of genetic research capacities							
	Sustainable resource management	Y						Development of technologies to increase yields							Genetic conservation and upgrades							
	Sustainable pesticides (Mitigation)							Water resource management	Y	Y					Research/actions on animal feed	Y	Y					
	Sustainable fertilisers (Mitigation)	Y	Y					Rainwater harvesting							Promoting general resilience in fisheries sector							
	Land Use	Land use policy	Y	Y	Y				Education/training on sustainable livelihood	Y	Y					Loss and damage assessment						
		Response to sea level rise	Y	Y		Y			Education/training on adaptation/resilience	Y	Y					Climate-smart fisheries						
Watershed management							Measures to safeguard food/nutritional security						Sustainable use of fisheries resources	Y								
Prevention of land erosion / degradation		Y					Disaster preparedness programmes/capacities	Y	Y		Y		Resilience building to marine pollution									
Trade	Increased rice production						Strengthening capacities of vulnerable groups	Y					Management/protection of marine/coastal zones	Y	Y		Y					
	Adjustment of production plans/infrastructure	Y					Women, children, elders	Y					Development of fishery management									
	Diversification of agribusiness						Coastal communities	Y	Y				Development of aquaculture	Y			Y					
	Diversification of food crops	Y					Smallholder farmers															

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- Budget or specific funding plans mentioned



# Viet Nam: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y	Y	Research / Development	Research/development to improve capacity	Y	Y	Y	Y	Y	Livestock	Strengthening risk prevention/reduction capacities	Y	Y		Y		
	Setting national standards	Y				Y		Loss and damage assessment								Loss and damage assessment					
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y	Y	Y	Y			Climate-smart livestock	Y	Y		Y	
	Disaster early-warning system	Y	Y	Y	Y			Institutional development	Y	Y	Y	Y	Y			Emergency preparedness					
	Improving crop resilience (general)	Y	Y		Y			Biodiversity conservation / restoration	Y	Y	Y	Y	Y			Disease prevention	Y				
	...of specific major export crops	Y	Y			Y		Plant genetic conservation	Y							Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment							Development of climate-smart farming systems	Y	Y		Y				Development of breeding technology	Y	Y		Y	
	Shifting to agroecology / sustainable agriculture	Y	Y	Y	Y	Y		Development of horticulture								Animal vaccination					
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y		Y				Improvement of genetic research capacities					
	Sustainable resource management	Y	Y	Y	Y	Y		Development of technologies to increase yields	Y	Y		Y				Genetic conservation and upgrades					
	Sustainable pesticides (Mitigation)	Y	Y					Water resource management	Y	Y	Y	Y	Y			Research/actions on animal feed	Y	Y			
	Sustainable fertilisers (Mitigation)	Y	Y			Y		Rainwater harvesting								Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y
	Land Use	Land use policy	Y	Y	Y	Y		Y	Capacity-Building	Education/training on sustainable livelihood	Y	Y					Marine/Fisheries	Loss and damage assessment			
Response to sea level rise		Y	Y	Y	Y	Y	Education/training on adaptation/resilience	Y		Y		Y	Y	Climate-smart fisheries	Y	Y		Y	Y	Y	
Watershed management		Y	Y				Measures to safeguard food/nutritional security	Y		Y	Y	Y	Y	Sustainable use of fisheries resources	Y	Y		Y	Y	Y	
Trade	Prevention of land erosion / degradation	Y	Y	Y	Y	Y	Disaster preparedness programmes/capacities	Y	Y	Y	Y	Y	Resilience building to marine pollution	Y	Y	Y	Y				
	Increased rice production	Y	Y	Y		Y	Strengthening capacities of vulnerable groups	Y	Y		Y	Y	Management/protection of marine/coastal zones	Y	Y	Y	Y	Y			
	Adjustment of production plans/infrastructure	Y	Y		Y	Y	Women, children, elders						Development of fishery management	Y	Y	Y	Y	Y			
	Diversification of agribusiness	Y	Y				Coastal communities	Y	Y		Y		Development of aquaculture	Y	Y		Y	Y			
Diversification of food crops	Y	Y		Y		Smallholder farmers	Y	Y			Y										

KEY

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



## Notes on Viet Nam's Adaptation Policies

- Especially detailed and quantifiable policies concerning coastal forests, environmental resource management and monitoring, irrigation, and response to sea level rise.
- Some policies with quantifiable goals and budgets (e.g. Decision No. 543) indicate timeframes that have already passed. Have not verified whether the actions were executed as stated.

### Access issues:

- Documents concerning agricultural resilience development are unavailable, so Viet Nam's policies in that area may be more extensive than represented in the chart.
- Plan regarding Mekong Delta that involves adaptation measures is in Vietnamese only. Information gleaned using cursory translation app reading, but could not keyword search.



## Viet Nam: Adaptation Policy Documents

- Socio-economic development plan for 2021-2025: [View](#)
  - Includes plans for developing agricultural climate resilience; links to documents are available but vietnam.gov.vn website times out
- Decision No. 417/QD-TTg (2019): [View](#) (Vietnamese only)
  - Plan to implement sustainable and climate-resilient development of Mekong Delta
- Policies on Sustainable Management, Protection and Development of Coastal Forests: [View](#)
  - Decree 119/2016/ND-CP and PM Decision 120/2015
- Decision No. 90/QD-TTg approving master plan for natural resources/environment monitoring networks: [View](#) (unofficial translation on external website)

All linked documents sourced from: <https://www.climate-laws.org/geographies/vietnam/policies/>



## Viet Nam: Adaptation Policy Documents Cont'd

- Resolution 24/NQ-TW: Active response to climate change, improvement of natural resource management and environmental protection: [View](#)
- PM Decision No. 1474/2012 issuing the National Action Plan on Climate Change 2012-2020: [View](#)
- Decision No. 543/QD-BNN-KHCN: Action Plan on Climate Change Response of Agriculture and Rural Development Sector in the Period 2011-2015 and vision to 2050: [View](#)
- National Climate Change Strategy approved by Decision No. 2139/QD-TTg: [View](#)
- Decision No. 158/2008/QD-TTg on the Approval of the National Target Programme to Respond to Climate Change (Target Year 2015 - Outdated): [View](#)
- Decision No. 2730/QH-BNN-KHCN: Climate Change Adaptation Framework (Outdated): [View](#)

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SECTION V

# South Asia Country Profiles





# Bangladesh



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> International Trade Administration (trade.gov)

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Importer:

- Exports in 2020: \$14.7M
- Imports in 2020: \$22.6M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 96.1%
- From imports: 3.9%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- None - most agricultural production is for domestic consumption

### Major Crops Produced<sup>3</sup>:

- Rice
- Other (wheat, corn, legumes, fruits, vegetables, meat, fish, seafood, and dairy products)

# Bangladesh: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance		
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y	Y	Research / Development	Research/development to improve capacity	Y	Y			Livestock	Strengthening risk prevention/reduction capacities						
	Setting national standards							Loss and damage assessment							Loss and damage assessment					
	Uptake of solar irrigation	Y	Y	Y	Y	Y		Climate monitoring and knowledge sharing							Climate-smart livestock	Y				
	Disaster early-warning system							Institutional development	Y	Y					Emergency preparedness					
	Improving crop resilience (general)							Biodiversity conservation / restoration							Disease prevention					
	...of specific major export crops							Plant genetic conservation							Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment	Y	Y	Y	Y			Development of climate-smart farming systems							Development of breeding technology	Y				Y
	Shifting to agroecology / sustainable agriculture	Y	Y					Development of horticulture							Animal vaccination					
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y					Y	Improvement of genetic research capacities					
	Sustainable resource management	Y	Y					Development of technologies to increase yields							Genetic conservation and upgrades	Y				Y
Land Use	Sustainable pesticides (Mitigation)						Water resource management	Y	Y		Y		Research/actions on animal feed	Y	Y	Y		Y		
	Sustainable fertilisers (Mitigation)						Rainwater harvesting	Y	Y		Y		Promoting general resilience in fisheries sector	Y	Y					
	Land use policy	Y				Y	Education/training on sustainable livelihood	Y	Y				Loss and damage assessment							
	Response to sea level rise						Education/training on adaptation/resilience	Y	Y				Climate-smart fisheries	Y	Y					
Trade	Watershed management						Measures to safeguard food/nutritional security	Y	Y			Y	Sustainable use of fisheries resources							
	Prevention of land erosion / degradation						Disaster preparedness programmes/capacities	Y	Y			Y	Resilience building to marine pollution							
	Increased rice production						Strengthening capacities of vulnerable groups	Y	Y	Y			Management/protection of marine/coastal zones	Y	Y	Y		Y		
	Adjustment of production plans/infrastructure	Y					Women, children, elders	Y	Y	Y			Development of fishery management	Y						
	Diversification of agribusiness	Y					Coastal communities	Y	Y	Y			Development of aquaculture	Y						
	Diversification of food crops	Y				Y	Smallholder farmers													

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



# Bangladesh: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y	Y		Y		Research / Development	Research/development to improve capacity	Y	Y				Livestock	Strengthening risk prevention/reduction capacities	Y	Y				
	Setting national standards							Loss and damage assessment	Y	Y	Y				Loss and damage assessment	Y	Y	Y			
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y		Y			Climate-smart livestock	Y	Y				
	Disaster early-warning system	Y	Y					Institutional development	Y	Y		Y			Emergency preparedness	Y					
	Improving crop resilience (general)	Y	Y		Y			Biodiversity conservation / restoration	Y	Y					Disease prevention						
	...of specific major export crops	Y	Y					Plant genetic conservation							Recovery and rehabilitation initiatives						
	Rice crop diversification/adjustment	Y	Y					Development of climate-smart farming systems	Y	Y					Development of breeding technology	Y					
	Shifting to agroecology / sustainable agriculture	Y	Y	Y				Development of horticulture							Animal vaccination						
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y						Improvement of genetic research capacities						
	Sustainable resource management	Y						Development of technologies to increase yields	Y						Genetic conservation and upgrades	Y					
	Sustainable pesticides (Mitigation)							Water resource management	Y	Y					Research/actions on animal feed	Y	Y				
	Sustainable fertilisers (Mitigation)							Rainwater harvesting	Y	Y		Y			Promoting general resilience in fisheries sector	Y	Y		Y		
	Land Use	Land use policy	Y	Y					Education/training on sustainable livelihood	Y						Loss and damage assessment	Y	Y	Y		
		Response to sea level rise	Y	Y		Y			Education/training on adaptation/resilience	Y						Climate-smart fisheries	Y	Y		Y	
Watershed management							Measures to safeguard food/nutritional security	Y	Y				Sustainable use of fisheries resources	Y	Y						
Prevention of land erosion / degradation		Y	Y				Disaster preparedness programmes/capacities						Resilience building to marine pollution								
Trade	Increased rice production						Strengthening capacities of vulnerable groups	Y	Y			Y	Management/protection of marine/coastal zones								
	Adjustment of production plans/infrastructure	Y					Women, children, elders	Y	Y				Development of fishery management	Y	Y						
	Diversification of agribusiness						Coastal communities	Y	Y				Development of aquaculture	Y	Y						
	Diversification of food crops	Y	Y				Smallholder farmers	Y													

KEY

- Topic is mentioned in general
- Topic is discussed in detail

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# Bangladesh: Adaptation Policy Documents

- National Adaptation Plan (NAP): Under Development; scheduled to end Dec. 2022 ([UNDP Info](#))
- National Adaptation Programme of Action (NAPA) (2005, updated 2009): [View PDF](#)
- Bangladesh Climate Change Strategy and Action Plan (BCCSAP) (2009): [View](#)



# India



<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> FAO

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Exporter:

- Exports in 2020: \$8.21B
- Imports in 2020: \$5.96M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 100%
- From imports: 0%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Rice (2.89%)
- Crustaceans (1.39%)

### Major Crops Produced<sup>3</sup>:

- Rice
- Wheat
- Pulses
- Sugarcane

# India: Adaptation NDCs

[\(View NDC\)](#)



Agriculture, Food, Land Use		Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development		Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries		Discussion	Detail	Quantifiability	Technology	Finance		
General Agricultural Practices	Improving irrigation systems	Y					Research / Development	Research/development to improve capacity	Y	Y				Livestock	Strengthening risk prevention/reduction capacities	Y						
	Setting national standards							Loss and damage assessment	Y				Y				Loss and damage assessment					
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y							Climate-smart livestock					
	Disaster early-warning system	Y	Y			Y		Institutional development	Y	Y							Emergency preparedness	Y				
	Improving crop resilience (general)	Y						Biodiversity conservation / restoration	Y	Y	Y	Y					Disease prevention					
	...of specific major export crops							Plant genetic conservation	Y	Y							Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment							Development of climate-smart farming systems	Y								Development of breeding technology					
	Shifting to agroecology / sustainable agriculture	Y	Y			Y		Development of horticulture	Y								Animal vaccination					
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y								Improvement of genetic research capacities					
	Sustainable resource management	Y	Y					Development of technologies to increase yields	Y								Genetic conservation and upgrades					
	Sustainable pesticides (Mitigation)							Water resource management	Y	Y	Y	Y					Research/actions on animal feed					
	Sustainable fertilisers (Mitigation)							Rainwater harvesting	Y	Y							Promoting general resilience in fisheries sector	Y				
Land Use	Land use policy						Capacity-Building	Education/training on sustainable livelihood	Y	Y				Marine/Fisheries	Loss and damage assessment							
	Response to sea level rise	Y	Y					Education/training on adaptation/resilience	Y							Climate-smart fisheries						
	Watershed management	Y						Measures to safeguard food/nutritional security	Y	Y	Y	Y				Sustainable use of fisheries resources						
Trade	Prevention of land erosion / degradation						Disaster preparedness programmes/capacities	Y	Y		Y	Y		Resilience building to marine pollution								
	Increased rice production						Strengthening capacities of vulnerable groups	Y	Y	Y		Y		Management/protection of marine/coastal zones	Y	Y		Y				
	Adjustment of production plans/infrastructure	Y					Women, children, elders	Y	Y	Y		Y		Development of fishery management								
	Diversification of agribusiness						Coastal communities	Y	Y			Y		Development of aquaculture								
Diversification of food crops						Smallholder farmers	Y	Y			Y											

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



# India: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y		Research/development to improve capacity	Y	Y		Y		Strengthening risk prevention/reduction capacities	Y	Y		Y	
	Setting national standards						Loss and damage assessment	Y	Y	Y			Loss and damage assessment					
	Uptake of solar irrigation						Climate monitoring and knowledge sharing	Y	Y		Y		Climate-smart livestock	Y				
	Disaster early-warning system	Y	Y		Y		Institutional development	Y	Y		Y	Y	Emergency preparedness	Y	Y		Y	
	Improving crop resilience (general)	Y	Y		Y	Y	Biodiversity conservation / restoration	Y	Y		Y		Disease prevention					
	...of specific major export crops						Plant genetic conservation	Y	Y		Y		Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment						Development of climate-smart farming systems	Y	Y		Y		Development of breeding technology	Y	Y			
	Shifting to agroecology / sustainable agriculture	Y	Y	Y	Y		Development of horticulture	Y	Y				Animal vaccination	Y	Y			
	Enhancement of harvesting techniques	Y					Development of climate-resilient infrastructure	Y	Y	Y	Y		Improvement of genetic research capacities	Y	Y			
	Sustainable resource management	Y	Y				Development of technologies to increase yields	Y	Y		Y		Genetic conservation and upgrades	Y	Y			
Land Use	Sustainable pesticides (Mitigation)						Water resource management	Y	Y	Y	Y		Research/actions on animal feed	Y	Y			
	Sustainable fertilisers (Mitigation)	Y					Rainwater harvesting	Y	Y		Y		Promoting general resilience in fisheries sector	Y	Y		Y	
	Land use policy	Y	Y	Y	Y		Education/training on sustainable livelihood	Y	Y				Loss and damage assessment					
	Response to sea level rise	Y	Y		Y		Education/training on adaptation/resilience	Y	Y				Climate-smart fisheries	Y	Y		Y	
	Watershed management	Y	Y		Y		Measures to safeguard food/nutritional security	Y					Sustainable use of fisheries resources	Y				
	Prevention of land erosion / degradation	Y	Y	Y			Disaster preparedness programmes/capacities	Y	Y				Resilience building to marine pollution					
	Increased rice production						Strengthening capacities of vulnerable groups	Y	Y		Y		Management/protection of marine/coastal zones	Y	Y		Y	
	Adjustment of production plans/infrastructure	Y	Y		Y		Women, children, elders	Y	Y				Development of fishery management	Y	Y		Y	
	Diversification of agribusiness						Coastal communities	Y	Y		Y		Development of aquaculture	Y	Y		Y	
	Diversification of food crops	Y	Y				Smallholder farmers	Y	Y			Y						

KEY

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



# India: Adaptation Policy Documents

- National Action Plan on Climate Change (2008): [View](#)
- State Action Plans on Climate Change: [SAPCC Analysis Report](#)<sup>1</sup>
  - Each of 32 States and Union Territories has formulated or is formulating SAPCCs
  - Report contains information about focus and budget of each state's SAPCC
- National Policy for Farmers (2007): [View PDF](#)

<sup>1</sup> Centre for Science and Environment, [www.cseindia.org](http://www.cseindia.org)





# Nepal



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> Federation of Nepalese Chambers of Commerce & Industry (FNCCI)

**Note:** "Major exports" account for those over 3% of total exports.

## BACKGROUND INFORMATION

### Net Rice Importer:

- Exports in 2020: \$70.8K
- Imports in 2020: \$331M

### % of rice consumption in Trade Year 2020/2021<sup>1</sup>:

- From domestic production: 75%
- From imports: 25%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Soybean Oil (22.6%)
- Nutmeg, mace, and cardamoms (5.54%)
- Palm Oil (5.14%)
- Tea (3.79%)
- Flavored Water (3.08%)

### Major Crops Produced<sup>3</sup>:

- **Cash Crops:** oilseed, potato, tobacco, sugarcane, jute, cotton, and rubber
- **Cereal Crops:** paddy, maize, millet, wheat, barley, and buckwheat

# Nepal: Adaptation NDCs

[\(View NDC\)](#)



Agriculture, Food, Land Use		Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development		Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries		Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems						Research / Development	Research/development to improve capacity	Y					Livestock	Strengthening risk prevention/reduction capacities						
	Setting national standards							Loss and damage assessment							Loss and damage assessment						
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y						Climate-smart livestock						
	Disaster early-warning system	Y						Institutional development	Y	Y					Emergency preparedness						
	Improving crop resilience (general)	Y	Y					Biodiversity conservation / restoration	Y						Disease prevention						
	...of specific major export crops							Plant genetic conservation	Y	Y					Recovery and rehabilitation initiatives						
	Rice crop diversification/adjustment							Development of climate-smart farming systems	Y	Y	Y				Development of breeding technology						
	Shifting to agroecology / sustainable agriculture	Y	Y					Development of horticulture							Animal vaccination						
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure							Improvement of genetic research capacities						
	Sustainable resource management	Y						Development of technologies to increase yields							Genetic conservation and upgrades						
Land Use	Sustainable pesticides (Mitigation)	Y					Water resource management	Y	Y	Y			Research/actions on animal feed								
	Sustainable fertilisers (Mitigation)	Y	Y	Y	Y		Rainwater harvesting						Promoting general resilience in fisheries sector								
	Land use policy						Education/training on sustainable livelihood						Loss and damage assessment								
	Response to sea level rise						Education/training on adaptation/resilience	Y	Y	Y			Climate-smart fisheries								
Trade	Watershed management	Y	Y	Y			Measures to safeguard food/nutritional security	Y					Sustainable use of fisheries resources								
	Prevention of land erosion / degradation						Disaster preparedness programmes/capacities	Y					Resilience building to marine pollution								
	Increased rice production						Strengthening capacities of vulnerable groups	Y					Management/protection of marine/coastal zones								
	Adjustment of production plans/infrastructure						Women, children, elders	Y					Development of fishery management								
Trade	Diversification of agribusiness						Coastal communities						Development of aquaculture								
	Diversification of food crops	Y	Y				Smallholder farmers	Y													

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned

# Nepal: National Adaptation Policies



	Agriculture, Food, Land Use						Agricultural Development						Livestock/Fisheries							
		Discussion	Detail	Quantifiability	Technology	Finance		Discussion	Detail	Quantifiability	Technology	Finance		Discussion	Detail	Quantifiability	Technology	Finance		
General Agricultural Practices	Improving irrigation systems	Y	Y		Y	Y	Research/development to improve capacity	Y	Y			Y	Y	Strengthening risk prevention/reduction capacities	Y	Y			Y	Y
	Setting national standards						Loss and damage assessment							Loss and damage assessment						
	Uptake of solar irrigation						Climate monitoring and knowledge sharing	Y	Y			Y		Climate-smart livestock	Y	Y				Y
	Disaster early-warning system	Y	Y			Y	Institutional development	Y	Y			Y		Emergency preparedness	Y	Y				Y
	Improving crop resilience (general)	Y	Y		Y	Y	Biodiversity conservation / restoration	Y	Y			Y		Disease prevention						
	...of specific major export crops						Plant genetic conservation	Y	Y		Y	Y		Recovery and rehabilitation initiatives						
	Rice crop diversification/adjustment						Development of climate-smart farming systems	Y	Y		Y	Y		Development of breeding technology						
	Shifting to agroecology / sustainable agriculture	Y	Y		Y	Y	Development of horticulture							Animal vaccination						
	Enhancement of harvesting techniques						Development of climate-resilient infrastructure	Y	Y		Y	Y		Improvement of genetic research capacities	Y	Y		Y	Y	
	Sustainable resource management						Development of technologies to increase yields	Y	Y		Y	Y		Genetic conservation and upgrades	Y	Y				Y
	Sustainable pesticides (Mitigation)						Water resource management							Research/actions on animal feed						
	Sustainable fertilisers (Mitigation)						Rainwater harvesting							Promoting general resilience in fisheries sector						
	Land Use	Land use policy	Y	Y			Y	Education/training on sustainable livelihood	Y	Y			Y		Loss and damage assessment					
Response to sea level rise							Education/training on adaptation/resilience	Y	Y			Y		Climate-smart fisheries						
Watershed management		Y	Y			Y	Measures to safeguard food/nutritional security	Y	Y		Y	Y		Sustainable use of fisheries resources						
Prevention of land erosion / degradation							Disaster preparedness programmes/capacities	Y	Y			Y		Resilience building to marine pollution						
Trade	Increased rice production						Strengthening capacities of vulnerable groups	Y	Y			Y		Management/protection of marine/coastal zones						
	Adjustment of production plans/infrastructure	Y	Y		Y	Y	Women, children, elders	Y	Y			Y		Development of fishery management						
	Diversification of agribusiness	Y	Y			Y	Coastal communities							Development of aquaculture						
	Diversification of food crops	Y	Y		Y	Y	Smallholder farmers	Y	Y			Y								

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



## Notes on Nepal's Adaptation Policies

- No discussion of measures related to rice crops.
- Other gaps are for measures related to fisheries and water resource management, which is understandable for Nepal as a land-locked country, but still a notable blind spot.



# Nepal: Adaptation Policy Documents

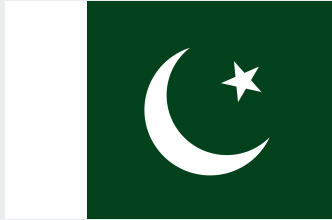
- National Adaptation Plan (NAP) 2021-2050: [View PDF](#)
  - NAP Process Report (2018): [View PDF](#)
- National Adaptation Programme of Action (NAPA) (2010): [View PDF](#)
- Climate Change Adaptation and Disaster Risk Management in Agriculture (2011-2020)<sup>1</sup>: [View](#)
- National Framework on Local Adaptation Plans for Action (LAPAs) (2011)<sup>2</sup>: [View](#)

<sup>1</sup> <https://www.climate-laws.org/geographies/nepal/policies/priority-framework-for-action-climate-change-adaptation-and-disaster-risk-management-in-agriculture-2011-2020>

<sup>2</sup> <https://www.climate-laws.org/geographies/nepal/policies/national-framework-for-local-adaptation-plans-for-action-lapas>



# Pakistan



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> Government of Pakistan: Finance Division ([www.finance.gov.pk](http://www.finance.gov.pk))

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Exporter:

- Exports in 2020: \$2.14B
- Imports in 2020: \$33.7M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 99.9%
- From imports: 0.1%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Rice (8.38%)
- Alcohol > 80% ABV (1.48%)
- Bovine Meat (1.01%)

### Major Crops Produced<sup>3</sup>:

- Wheat
- Rice
- Sugarcane
- Maize
- Cotton

# Pakistan: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems	Y	Y		Y		Research / Development	Research/development to improve capacity	Y	Y		Y	Y	Livestock	Strengthening risk prevention/reduction capacities					
	Setting national standards							Loss and damage assessment	Y	Y		Y			Loss and damage assessment	Y				
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y					Climate-smart livestock	Y				
	Disaster early-warning system	Y	Y	Y	Y			Institutional development	Y	Y					Emergency preparedness					
	Improving crop resilience (general)	Y	Y					Biodiversity conservation / restoration	Y	Y			Y		Disease prevention					
	...of specific major export crops							Plant genetic conservation							Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment							Development of climate-smart farming systems	Y	Y			Y		Development of breeding technology	Y				
	Shifting to agroecology / sustainable agriculture	Y			Y			Development of horticulture	Y						Animal vaccination					
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y			Y		Improvement of genetic research capacities					
	Sustainable resource management	Y	Y					Development of technologies to increase yields	Y						Genetic conservation and upgrades					
	Sustainable pesticides (Mitigation)							Water resource management	Y	Y	Y	Y			Research/actions on animal feed					
	Sustainable fertilisers (Mitigation)	Y	Y					Rainwater harvesting	Y	Y	Y	Y			Promoting general resilience in fisheries sector	Y				
	Land Use	Land use policy	Y	Y	Y				Education/training on sustainable livelihood	Y	Y					Loss and damage assessment				
Response to sea level rise		Y	Y	Y			Education/training on adaptation/resilience	Y	Y				Climate-smart fisheries							
Watershed management							Measures to safeguard food/nutritional security	Y	Y		Y		Sustainable use of fisheries resources							
Trade	Prevention of land erosion / degradation	Y	Y	Y			Disaster preparedness programmes/capacities	Y	Y				Resilience building to marine pollution							
	Increased rice production						Strengthening capacities of vulnerable groups	Y	Y	Y			Management/protection of marine/coastal zones	Y	Y	Y				
	Adjustment of production plans/infrastructure	Y	Y				Women, children, elders	Y	Y	Y			Development of fishery management	Y						
	Diversification of agribusiness	Y					Coastal communities						Development of aquaculture							
	Diversification of food crops	Y	Y	Y			Smallholder farmers	Y	Y	Y	Y	Y								

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



# Pakistan: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y	Y		Y		Research / Development	Research/development to improve capacity	Y	Y				Livestock	Strengthening risk prevention/reduction capacities	Y	Y		Y		
	Setting national standards							Loss and damage assessment	Y	Y		Y			Loss and damage assessment	Y				Y	
	Uptake of solar irrigation	Y	Y		Y			Climate monitoring and knowledge sharing	Y	Y					Climate-smart livestock	Y	Y			Y	
	Disaster early-warning system	Y	Y					Institutional development	Y	Y		Y			Emergency preparedness	Y	Y			Y	
	Improving crop resilience (general)	Y	Y		Y			Biodiversity conservation / restoration	Y	Y		Y			Disease prevention	Y	Y			Y	
	...of specific major export crops	Y	Y					Plant genetic conservation	Y	Y		Y			Recovery and rehabilitation initiatives						
	Rice crop diversification/adjustment	Y	Y		Y			Development of climate-smart farming systems							Development of breeding technology	Y					
	Shifting to agroecology / sustainable agriculture	Y	Y		Y			Development of horticulture							Animal vaccination						
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure							Improvement of genetic research capacities	Y	Y				
	Sustainable resource management	Y	Y		Y			Development of technologies to increase yields	Y	Y		Y			Genetic conservation and upgrades	Y	Y				
	Sustainable pesticides (Mitigation)	Y	Y					Water resource management	Y	Y		Y			Research/actions on animal feed	Y	Y			Y	
	Sustainable fertilisers (Mitigation)	Y	Y					Rainwater harvesting	Y	Y					Promoting general resilience in fisheries sector	Y	Y			Y	
Land Use	Land use policy	Y	Y				Capacity-Building	Education/training on sustainable livelihood	Y	Y				Marine/Fisheries	Loss and damage assessment	Y					
	Response to sea level rise	Y	Y		Y			Education/training on adaptation/resilience	Y	Y		Y			Climate-smart fisheries	Y	Y			Y	
	Watershed management	Y	Y					Measures to safeguard food/nutritional security	Y						Sustainable use of fisheries resources						
	Prevention of land erosion / degradation	Y	Y		Y			Disaster preparedness programmes/capacities	Y	Y					Resilience building to marine pollution	Y	Y			Y	
Trade	Increased rice production						Strengthening capacities of vulnerable groups	Y	Y		Y		Management/protection of marine/coastal zones	Y	Y			Y			
	Adjustment of production plans/infrastructure	Y	Y		Y		Women, children, elders	Y	Y		Y		Development of fishery management	Y							
	Diversification of agribusiness						Coastal communities	Y	Y		Y		Development of aquaculture	Y							
	Diversification of food crops	Y	Y		Y		Smallholder farmers	Y	Y		Y	Y									

KEY

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned





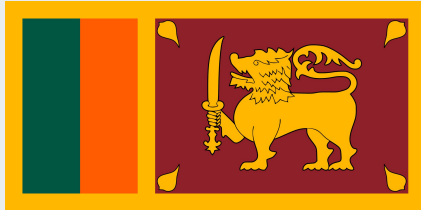
# Pakistan: Adaptation Policy Documents

- National Climate Change Policy (NCCP): [View](#)
- National Adaptation Plan: Under Development
- National Action Plan on Sustainable Consumption and Production (2017)<sup>1</sup>: [View PDF](#)
  - Contains plan on sustainable food systems
- Technology Needs Assessment for Climate Change Adaptation: [View PDF](#)
  - Agriculture and Water sectors

<sup>1</sup> <https://www.climate-laws.org/geographies/pakistan/policies/pakistan-national-action-plan-on-sdg-12-sustainable-consumption-and-production>



# Sri Lanka



## WB/ADB Climate Risk Profile

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC)

<sup>3</sup> International Trade Administration (trade.gov)

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Importer:

- Exports in 2020: \$8.41M
- Imports in 2020: \$10.1M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 99.4%
- From imports: 0.6%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- Tea (11.3%)
- Cinnamon (1.82%)
- Other Processed Fruits and Nuts (1.26%)

### Major Crops Produced<sup>3</sup>:

- Rice
- Tea
- Other (fruits, vegetables, oilseed)

# Sri Lanka: Adaptation NDCs

[\(View NDC\)](#)

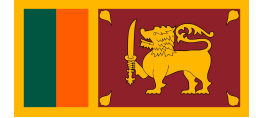


	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y		Research / Development	Research/development to improve capacity	Y	Y				Livestock	Strengthening risk prevention/reduction capacities	Y	Y		Y	
	Setting national standards							Loss and damage assessment	Y	Y		Y			Loss and damage assessment	Y				
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y		Y			Climate-smart livestock	Y	Y		Y	
	Disaster early-warning system	Y	Y		Y			Institutional development	Y	Y		Y			Emergency preparedness	Y	Y		Y	
	Improving crop resilience (general)	Y	Y					Biodiversity conservation / restoration	Y	Y	Y	Y			Disease prevention	Y	Y		Y	
	...of specific major export crops	Y	Y					Plant genetic conservation	Y	Y		Y			Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment	Y	Y	Y				Development of climate-smart farming systems	Y	Y	Y	Y			Development of breeding technology	Y			Y	
	Shifting to agroecology / sustainable agriculture	Y	Y		Y			Development of horticulture							Animal vaccination					
	Enhancement of harvesting techniques	Y	Y					Development of climate-resilient infrastructure	Y	Y		Y			Improvement of genetic research capacities					
	Sustainable resource management	Y	Y					Development of technologies to increase yields	Y	Y	Y				Genetic conservation and upgrades	Y	Y			
Land Use	Sustainable pesticides (Mitigation)						Water resource management	Y	Y	Y	Y		Research/actions on animal feed	Y	Y					
	Sustainable fertilisers (Mitigation)	Y					Rainwater harvesting	Y	Y		Y		Promoting general resilience in fisheries sector	Y	Y	Y	Y			
	Land use policy	Y					Education/training on sustainable livelihood	Y	Y				Loss and damage assessment	Y	Y					
	Response to sea level rise	Y	Y		Y		Education/training on adaptation/resilience	Y	Y				Climate-smart fisheries	Y	Y	Y				
Trade	Watershed management	Y	Y				Measures to safeguard food/nutritional security	Y	Y		Y		Sustainable use of fisheries resources	Y	Y					
	Prevention of land erosion / degradation	Y	Y		Y		Disaster preparedness programmes/capacities	Y	Y				Resilience building to marine pollution	Y		Y				
	Increased rice production	Y	Y	Y			Strengthening capacities of vulnerable groups	Y	Y		Y		Management/protection of marine/coastal zones	Y	Y	Y	Y			
	Adjustment of production plans/infrastructure	Y	Y				Women, children, elders	Y	Y		Y		Development of fishery management	Y	Y	Y	Y			
	Diversification of agribusiness						Coastal communities	Y	Y		Y		Development of aquaculture	Y	Y	Y	Y			
	Diversification of food crops	Y	Y				Smallholder farmers	Y	Y		Y									

**KEY**

- Topic is mentioned in general
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# Sri Lanka: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance		
General Agricultural Practices	Improving irrigation systems	Y	Y	Y	Y	Y	Research / Development	Research/development to improve capacity	Y	Y	Y	Y	Y	Livestock	Strengthening risk prevention/reduction capacities	Y	Y			Y
	Setting national standards							Loss and damage assessment	Y	Y					Loss and damage assessment	Y	Y			
	Uptake of solar irrigation	Y	Y	Y	Y			Climate monitoring and knowledge sharing	Y	Y			Y		Climate-smart livestock	Y	Y			Y
	Disaster early-warning system	Y	Y			Y		Institutional development	Y	Y	Y	Y	Y		Emergency preparedness					
	Improving crop resilience (general)	Y	Y	Y	Y	Y		Biodiversity conservation / restoration	Y	Y	Y	Y			Disease prevention	Y	Y			Y
	...of specific major export crops							Plant genetic conservation	Y	Y	Y	Y	Y		Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment	Y	Y	Y				Development of climate-smart farming systems	Y	Y			Y		Development of breeding technology	Y	Y			Y
	Shifting to agroecology / sustainable agriculture	Y	Y	Y	Y	Y		Development of horticulture	Y	Y			Y		Animal vaccination	Y	Y			Y
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y	Y		Y		Improvement of genetic research capacities	Y	Y	Y		
	Sustainable resource management	Y	Y	Y	Y			Development of technologies to increase yields	Y	Y			Y		Genetic conservation and upgrades	Y	Y	Y	Y	Y
	Sustainable pesticides (Mitigation)							Water resource management	Y	Y	Y	Y	Y		Research/actions on animal feed	Y	Y			Y
	Sustainable fertilisers (Mitigation)	Y	Y	Y	Y			Rainwater harvesting	Y	Y	Y	Y	Y		Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y
Land Use	Land use policy	Y	Y	Y	Y		Capacity-Building	Education/training on sustainable livelihood	Y	Y			Marine/Fisheries	Loss and damage assessment						
	Response to sea level rise	Y	Y	Y	Y	Y		Education/training on adaptation/resilience	Y	Y	Y			Y	Climate-smart fisheries	Y	Y	Y	Y	
	Watershed management	Y	Y	Y	Y			Measures to safeguard food/nutritional security	Y	Y	Y			Y	Sustainable use of fisheries resources	Y	Y	Y	Y	
	Prevention of land erosion / degradation	Y	Y	Y	Y	Y		Disaster preparedness programmes/capacities	Y	Y		Y		Y	Resilience building to marine pollution	Y	Y	Y	Y	
Trade	Increased rice production	Y	Y				Capacity-Building	Strengthening capacities of vulnerable groups	Y	Y	Y	Y	Y	Management/protection of marine/coastal zones	Y	Y	Y	Y	Y	
	Adjustment of production plans/infrastructure	Y	Y	Y				Women, children, elders	Y	Y	Y			Development of fishery management	Y	Y	Y	Y		
	Diversification of agribusiness	Y	Y	Y				Coastal communities	Y	Y	Y	Y	Y	Development of aquaculture	Y	Y				
	Diversification of food crops	Y	Y	Y				Smallholder farmers	Y	Y	Y	Y	Y							

KEY

- Topic is mentioned in general
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- Budget or specific funding plans mentioned



## Sri Lanka: Adaptation Plan Documents

- National Adaptation Plan (NAP) 2016-2025: [View](#)
  - National Climate Change Adaptation Strategy 2011-2016 (outdated): [View](#)
- National Policy on Sustainable Consumption & Production (2019): [View PDF](#)
  - Contains policy information on agriculture / food security
- National Action Plan for Haritha Lanka Programme (2019): [View](#)
- National Climate Change Policy of Sri Lanka (2012): [View](#)
  - Not very detailed
- Coastal Zone and Coastal Resource Management Plan (2018): [View PDF](#)
  - Includes info about response to sea level rise
- National Biodiversity Strategic Action Plan (2016-2022): [View PDF](#)

All linked documents sourced from: <https://www.climate-laws.org/geographies/sri-lanka/policies/>

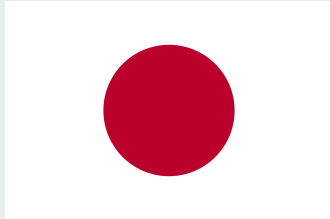
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SECTION VI

# East Asia Country Profiles



# Japan



## BACKGROUND INFORMATION

### Net Rice Importer:

- Exports in 2020: \$64.7M
- Imports in 2020: \$463M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 92.2%
- From imports: 7.8%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- None—Japan relies on agricultural imports

### Major Crops Produced<sup>3</sup>:

- Rice, soybeans, wheat, barley, various fruits and vegetables

<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC); Statista

<sup>3</sup> USDA-FAS (<https://ipad.fas.usda.gov/highlights/2012/08/Japantrip/>)

**Note:** “Major exports” account for those over 1% of total exports.

# Japan: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance		
General Agricultural Practices	Improving irrigation systems						Research / Development	Research/development to improve capacity						Livestock	Strengthening risk prevention/reduction capacities							
	Setting national standards							Loss and damage assessment							Loss and damage assessment							
	Uptake of solar irrigation							Climate monitoring and knowledge sharing							Climate-smart livestock							
	Disaster early-warning system							Institutional development	Y						Emergency preparedness							
	Improving crop resilience (general)							Biodiversity conservation / restoration							Disease prevention							
	...of specific major export crops							Plant genetic conservation							Recovery and rehabilitation initiatives							
	Rice crop diversification/adjustment							Development of climate-smart farming systems							Development of breeding technology							
	Shifting to agroecology / sustainable agriculture	Y	Y					Development of horticulture							Animal vaccination							
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure							Improvement of genetic research capacities							
	Sustainable resource management							Development of technologies to increase yields	Y						Genetic conservation and upgrades							
Land Use	Sustainable pesticides (Mitigation)						Water resource management						Research/actions on animal feed									
	Sustainable fertilisers (Mitigation)						Rainwater harvesting						Promoting general resilience in fisheries sector	Y								
	Land use policy					Capacity-Building	Education/training on sustainable livelihood						Loss and damage assessment									
	Response to sea level rise						Education/training on adaptation/resilience						Climate-smart fisheries	Y								
Watershed management					Measures to safeguard food/nutritional security		Y					Sustainable use of fisheries resources	Y									
Prevention of land erosion / degradation					Disaster preparedness programmes/capacities							Resilience building to marine pollution										
Trade	Increased rice production						Strengthening capacities of vulnerable groups						Management/protection of marine/coastal zones									
	Adjustment of production plans/infrastructure						Women, children, elders						Development of fishery management									
	Diversification of agribusiness						Coastal communities						Development of aquaculture									
	Diversification of food crops						Smallholder farmers															

**KEY**

- Topic is mentioned in general
- Topic is discussed in detail

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# Japan: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y	Y		Y		Research / Development	Research/development to improve capacity	Y	Y				Livestock	Strengthening risk prevention/reduction capacities	Y	Y				
	Setting national standards							Loss and damage assessment								Loss and damage assessment					
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y		Y				Climate-smart livestock	Y	Y			
	Disaster early-warning system	Y	Y					Institutional development	Y							Emergency preparedness	Y				
	Improving crop resilience (general)	Y	Y		Y			Biodiversity conservation / restoration	Y	Y						Disease prevention					
	...of specific major export/domestic crops	Y	Y		Y			Plant genetic conservation								Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment	Y	Y		Y			Development of climate-smart farming systems								Development of breeding technology	Y				
	Shifting to agroecology / sustainable agriculture	Y	Y					Development of horticulture	Y	Y						Animal vaccination					
	Enhancement of harvesting techniques	Y						Development of climate-resilient infrastructure								Improvement of genetic research capacities					
	Sustainable resource management	Y						Development of technologies to increase yields	Y	Y						Genetic conservation and upgrades					
	Sustainable pesticides (Mitigation)							Water resource management								Research/actions on animal feed	Y	Y			
	Sustainable fertilisers (Mitigation)							Rainwater harvesting								Promoting general resilience in fisheries sector	Y	Y		Y	
Land Use	Land use policy	Y	Y		Y		Capacity-Building	Education/training on sustainable livelihood	Y	Y				Marine/Fisheries	Loss and damage assessment						
	Response to sea level rise							Education/training on adaptation/resilience	Y	Y					Climate-smart fisheries						
	Watershed management	Y	Y					Measures to safeguard food/nutritional security	Y	Y		Y			Sustainable use of fisheries resources	Y					
	Prevention of land erosion / degradation	Y	Y		Y			Disaster preparedness programmes/capacities	Y	Y					Resilience building to marine pollution						
Trade	Increased rice production						Capacity-Building	Strengthening capacities of vulnerable groups	Y					Marine/Fisheries	Management/protection of marine/coastal zones	Y	Y				
	Adjustment of production plans/infrastructure	Y	Y					Women, children, elders	Y						Development of fishery management	Y					
	Diversification of agribusiness							Coastal communities	Y						Development of aquaculture	Y	Y		Y		
	Diversification of food crops	Y	Y					Smallholder farmers	Y	Y											

KEY

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## Japan: Adaptation Policy Documents

- Ministry of Agriculture, Forestry, and Fisheries (MAFF) Climate Change Adaptation Plan: [View PDF](#)
- Ministry of Land, Infrastructure, Transport and Tourism Climate Change Adaptation Plan: [View PDF](#) (Japanese only)
- National Plan for Adaptation to the Impacts of Climate Change: [View PDF](#) / [Assessment Report](#)
- Basic Environment Plan: [View PDF](#)
- Fundamental Plan for National Resilience: [View PDF](#)
- Disaster Prevention Basic Plan: [View PDF](#) (Japanese only)
- Strategy for Sustainable Food Systems (MeaDRI): [View Website](#) / [Info PDF](#) / [Summary](#)



# South Korea



<sup>1</sup> USDA Foreign Agricultural Service (USDA-FAS)

<sup>2</sup> Observatory of Economic Complexity (OEC); Statista

<sup>3</sup> FAOSTAT (<https://www.fao.org/faostat/en/#data/QCL>)

**Note:** "Major exports" account for those over 1% of total exports.

## BACKGROUND INFORMATION

### Net Rice Importer:

- Exports in 2020: \$28.7M
- Imports in 2020: \$369M

### % of rice consumption in Market Year 2020/2021<sup>1</sup>:

- From domestic production: 89.3%
- From imports: 10.7%

### Major Agriculture/Food Exports in 2020<sup>2</sup>:

- None

### Major Crops Produced<sup>3</sup>:

- Rice
- Vegetables
- Cabbages
- Onions

# South Korea: Adaptation NDCs

[\(View NDC\)](#)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems	Y					Research / Development	Research/development to improve capacity	Y					Livestock	Strengthening risk prevention/reduction capacities						
	Setting national standards							Loss and damage assessment								Loss and damage assessment					
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y		Y				Climate-smart livestock	Y				
	Disaster early-warning system							Institutional development	Y	Y						Emergency preparedness					
	Improving crop resilience (general)	Y						Biodiversity conservation / restoration	Y							Disease prevention					
	...of specific major export crops							Plant genetic conservation								Recovery and rehabilitation initiatives					
	Rice crop diversification/adjustment							Development of climate-smart farming systems	Y	Y						Development of breeding technology					
	Shifting to agroecology / sustainable agriculture	Y						Development of horticulture								Animal vaccination					
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y						Improvement of genetic research capacities					
	Sustainable resource management							Development of technologies to increase yields								Genetic conservation and upgrades					
	Sustainable pesticides (Mitigation)							Water resource management	Y							Research/actions on animal feed					
	Sustainable fertilisers (Mitigation)							Rainwater harvesting								Promoting general resilience in fisheries sector	Y				
Land Use	Land use policy						Capacity-Building	Education/training on sustainable livelihood						Marine/Fisheries	Loss and damage assessment						
	Response to sea level rise							Education/training on adaptation/resilience	Y							Climate-smart fisheries	Y				
	Watershed management							Measures to safeguard food/nutritional security								Sustainable use of fisheries resources					
	Prevention of land erosion / degradation							Disaster preparedness programmes/capacities								Resilience building to marine pollution					
Trade	Increased rice production						Capacity-Building	Strengthening capacities of vulnerable groups	Y	Y		Y	Y	Marine/Fisheries	Management/protection of marine/coastal zones	Y					
	Adjustment of production plans/infrastructure							Women, children, elders	Y	Y		Y	Y			Development of fishery management					
	Diversification of agribusiness							Coastal communities								Development of aquaculture					
	Diversification of food crops							Smallholder farmers													

**KEY**

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- Topic is discussed in detail

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- Technology needs are discussed
- Budget or specific funding plans mentioned



# South Korea: National Adaptation Policies

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	
General Agricultural Practices	Improving irrigation systems						Research / Development	Research/development to improve capacity	Y	Y		Y		Livestock	Strengthening risk prevention/reduction capacities	Y	Y		Y		
	Setting national standards							Loss and damage assessment	Y	Y	Y				Loss and damage assessment	Y	Y	Y			
	Uptake of solar irrigation							Climate monitoring and knowledge sharing	Y	Y		Y			Climate-smart livestock	Y	Y		Y		
	Disaster early-warning system	Y	Y		Y			Institutional development							Emergency preparedness	Y	Y				
	Improving crop resilience (general)	Y	Y		Y			Biodiversity conservation / restoration							Disease prevention	Y	Y				
	...of specific major export crops							Plant genetic conservation							Recovery and rehabilitation initiatives						
	Rice crop diversification/adjustment							Development of climate-smart farming systems	Y	Y		Y			Development of breeding technology	Y					
	Shifting to agroecology / sustainable agriculture	Y	Y		Y			Development of horticulture							Animal vaccination						
	Enhancement of harvesting techniques							Development of climate-resilient infrastructure	Y	Y		Y			Improvement of genetic research capacities						
	Sustainable resource management							Development of technologies to increase yields	Y	Y		Y			Genetic conservation and upgrades						
	Sustainable pesticides (Mitigation)							Water resource management							Research/actions on animal feed	Y	Y		Y		
	Sustainable fertilisers (Mitigation)							Rainwater harvesting							Promoting general resilience in fisheries sector	Y	Y	Y	Y		
Land Use	Land use policy	Y	Y	Y	Y		Capacity-Building	Education/training on sustainable livelihood						Marine/Fisheries	Loss and damage assessment	Y	Y	Y			
	Response to sea level rise	Y	Y		Y			Education/training on adaptation/resilience							Climate-smart fisheries	Y	Y		Y		
	Watershed management	Y	Y	Y				Measures to safeguard food/nutritional security	Y	Y		Y			Sustainable use of fisheries resources	Y	Y		Y		
	Prevention of land erosion / degradation	Y	Y					Disaster preparedness programmes/capacities	Y	Y		Y			Resilience building to marine pollution	Y	Y		Y		
Trade	Increased rice production	Y	Y				Strengthening capacities of vulnerable groups	Y	Y				Management/protection of marine/coastal zones	Y	Y		Y	Y			
	Adjustment of production plans/infrastructure	Y	Y		Y		Women, children, elders						Development of fishery management	Y	Y		Y	Y			
	Diversification of agribusiness						Coastal communities						Development of aquaculture	Y	Y		Y				
	Diversification of food crops						Smallholder farmers	Y	Y												

KEY

- Topic is mentioned in general
- Topic is discussed in detail

- Goals are quantifiable
- Technology needs are discussed
- Budget or specific funding plans mentioned



## South Korea: Adaptation Policy Documents

- 3rd National Climate Change Adaptation Plan (NAP) 2021-2025: [View PDF](#) (Korean only)
  - **3 key policy pillars:** i) improving climate resilience; ii) strengthening monitoring, forecasting, and assessment; iii) mainstreaming adaptation in all corners of society
  - [General Summary/Analysis in English](#) / [PDF About 1st Adaptation Plan](#) (outdated)
- Climate Change Assessment Report (2020): [View PDF](#)
  - Comprehensive survey of climate impacts, including adaptation options

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SECTION VII

# References



## General Resources

- Database of Global Climate Laws/Policies: <https://www.climate-laws.org>
- Database of National Adaptation Plans from developing countries submitted to UNFCCC: <https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx>
- Database of Climate Risk Country Profiles: <https://climateknowledgeportal.worldbank.org/country-profiles>
- UNFCCC National Adaptation Plans 2020 Progress Report: [View PDF](#)
  - Contains information about projects approved for GCF funding, NAPs submitted to UNFCCC Secretariat, technical support, trends regarding progress in implementing adaptation measures, etc.



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