

## **ADAPTATION PLAN REFERENCE**

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

This reference is also available on the <u>APMDD Wiki</u>. Please check it for more up-to-date information.

Asian Peoples' Movement on Debt and Development (APMDD)

2022

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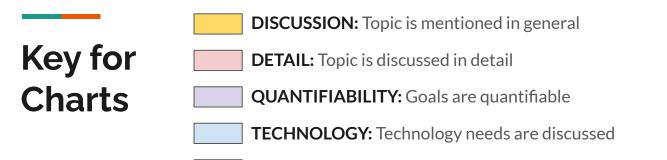
## **SECTION I**

# 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.



**FINANCE:** Budget or specific funding plans are mentioned

Example:			Ban	glad	lesh				ndia	1	
	NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
	Improving irrigation systems	Y	Υ	Υ	Y	Y	Y				
	Setting national standards										
	Uptake of solar irrigation	Υ	Υ	Υ	Υ	Υ					
	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

## **SECTION II**

# Adaptation Nationally Determined Contribution (NDC) Comparison

#### Agricultural Practices (Southeast Asia NDCs)

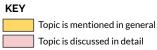


Goals are quantifiable

Technology needs are discussed

			Ca	mbo	dia			Ind	lone	sia			My	/anm	nar			Phil	ippi	nes			Th	aila	nd			Vie	et Na	m	
	NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	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
	Improving irrigation systems	Υ	Y	Y	Y	Υ						Y			Y		·										Y	Υ		Υ	
S	Setting national standards	Υ	Υ	Υ	Υ	Υ																									
General Agricultural Practices	Uptake of solar irrigation	Υ	Y	Υ	Υ	Υ						Y																			
rac	Disaster early-warning system	Υ	Y	Υ	Υ	Υ	Υ					Υ										Υ					Υ	Υ	Υ	Υ	
alF	Improving crop resilience (general)	Υ	Υ	Υ	Υ	Υ	Υ					Υ	Υ		Υ												Υ				
Itur	of specific major export crops	Y	Y	Υ	Υ	Υ																					Y	Υ			
licu	Rice crop diversification/adjustment	Υ			Υ	Υ						Υ	Υ														Υ	Υ	Υ		
Agi	Shifting to agroecology / sustainable agriculture	Υ	Υ	Υ	Υ	Υ	Υ	Υ		Υ		Y	Y		Υ	Y						Y					Υ	Υ			
a	Enhancement of harvesting techniques	Υ	Υ	Υ	Υ	Υ																									
ene	Sustainable resource management	Υ					Υ	Υ				Υ	Υ									Υ					Υ				
ឲ	Sustainable pesticides (Mitigation)	Y										Υ																			
	Sustainable fertilisers (Mitigation)	Υ	Υ	Υ	Υ	Y						Υ															Υ	Υ			
e	Land use policy	Υ	Y	Υ	Υ	Υ	Υ	Υ				Υ															Υ	Υ	Y		
Land Use	Response to sea level rise	Υ										Υ			Υ												Y	Υ		Υ	
anc	Watershed management	Υ					Υ	Υ				Y	Υ		Υ																
-	Prevention of land erosion / degradation	Υ				Υ	Υ					Υ															Υ				
	Increased rice production	Υ	Y	Υ	Υ	Υ	Υ	Υ				Υ																			
Trade	Adjustment of production plans/infrastructure	Υ	Υ	Υ	Υ	Υ	Υ	Υ				Υ	Υ		Υ		Y										Υ				
Tra	Diversification of agribusiness	Υ	Υ	Υ	Υ	Υ						Υ	Υ		Υ																
	Diversification of food crops	Y	Υ	Υ	Υ	Υ						Υ										Y					Υ				

#### Agricultural Development (Southeast Asia NDCs)



Goals are quantifiable

Technology needs are discussed

Budget or specific funding plans mentioned

				Ca	mbo	dia	
A		NDC-Declared Adaptation Plans: Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance
		Research/development to improve capacity	Υ	Υ	Υ	Y	Y
		Loss and damage assessment	Υ	Υ	Υ	Y	Y
	ŧ	Climate monitoring and knowledge sharing	Υ	Υ	Υ	Y	Y
SOUTHEAST ASIA	Research / Development	Institutional development	Y	Υ	Υ	Υ	Y
S	log	Biodiversity conservation / restoration	Υ	Υ	Υ	Υ	Y
A	)eve	Plant genetic conservation	Υ	Y	Υ	Υ	Y
ш		Development of climate-smart farming systems	Υ	Υ	Υ	Υ	Y
<b>T</b>	lict	Development of horticulture	Υ	Υ	Υ	Υ	Y
	sea	Development of climate-resilient infrastructure	Υ	Υ	Υ	Υ	Y
5	Re	Development of technologies to increase yields	Y	Υ	Υ	Y	Y
		Water resource management	Υ	Y	Y	Y	Y
0		Rainwater harvesting	Υ	Y		Y	Y
S S		Education/training on sustainable livelihood	Υ	Y	Υ	Υ	Y
	Ð	Education/training on adaptation/resilience	Υ	Υ	Υ	Υ	Y
	y-Building	Measures to safeguard food/nutritional security	Υ	Y		Υ	Y
	- A	Disaster preparedness programmes/capacities	Υ	Υ	Υ	Υ	Y
	i i i	Other with a start and start a fear large black and a	V	V	V	V	V

				Ca	mbo	dia			Ind	one	sia			Му	/ann	nar			Phi	lippi	nes			Th	ailaı	nd			Vie	et Na	m	
		Declared Adaptation Plans: ricultural Development	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
	Researc	h/development to improve capacity	Υ	Υ	Y	Y	Υ	Y	Υ		Υ		Y	Υ		Υ	Υ	Y					Y					Υ	Υ			
	Loss and	d damage assessment	Υ	Υ	Υ	Υ	Υ						Υ	Υ	Y		Υ	Y	Y	Υ		Υ						Υ	Υ	Υ		Υ
int	Climate	monitoring and knowledge sharing	Υ	Υ	Υ	Υ	Υ						Y	Υ									Υ					Υ	Υ	Y	Υ	
Research / Development	Institutio	onal development	Υ	Υ	Υ	Υ	Y	Y	Υ				Υ	Υ									Υ					Υ	Υ			
elop	Biodiver	sity conservation / restoration	Υ	Υ	Υ	Υ	Y	Υ					Υ										Υ					Υ				
Jevi	Plant ge	netic conservation	Υ	Υ	Υ	Υ	Υ	Υ																								
2	Develop	ment of climate-smart farming systems	Υ	Υ	Υ	Υ	Υ						Υ	Υ		Υ												Υ	Υ			
arch	Develop	ment of horticulture	Y	Υ	Υ	Y	Υ																									
Sec	Develop	ment of climate-resilient infrastructure	Y	Υ	Υ	Υ	Υ	Υ	Υ				Y	Υ				Y					Y	Υ				Υ				
œّ	Develop	ment of technologies to increase yields	Y	Y	Y	Y	Y																									
	Water re	source management	Υ	Υ	Y	Υ	Υ	Υ	Υ	Υ			Y	Y									Υ	Υ		Υ		Y	Υ			
	Rainwate	er harvesting	Υ	Y		Υ	Υ						Y																			
	Educatio	on/training on sustainable livelihood	Y	Y	Υ	Y	Υ	Y	Υ				Υ	Υ									Υ	Υ				Y	Υ			
ng	Educatio	on/training on adaptation/resilience	Y	Υ	Υ	Y	Υ	Y	Y				Y	Υ				Y										Υ	Υ			
ildi	Measure	s to safeguard food/nutritional security	Y	Υ		Y	Υ	Υ	Υ				Y					Y					Υ									
- Pa	Disaster	preparedness programmes/capacities	Y	Y	Υ	Υ	Υ	Υ	Υ				Υ	Υ		Υ	Υ	Y					Υ					Υ	Υ		Y	
Capacity-Building	Strength	ening capacities of vulnerable groups	Υ	Υ	Υ	Υ	Υ	Υ	Υ				Υ	Υ														Υ				
apa		Women, children, elders	Y	Y	Υ	Υ	Υ	Υ	Υ				Υ	Υ														Υ				
ပိ		Coastal communities	Y	Υ	Υ	Υ	Υ	Υ					Υ	Y														Υ	Υ			
		Smallholder farmers	Υ	Y	Υ	Υ	Υ	Υ					Υ	Υ																		

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

#### Livestock & Fisheries (Southeast Asia NDCs)



Goals are quantifiable

Technology needs are discussed

			Ca	mbo	dia			Ind	one	sia			My	anm	nar			Phi	lippi	nes			Th	ailaı	nd			Vie	et Na	m	
	NDC-Declared Adaptation Plans: Livestock/Fisheries	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
	Strengthening risk prevention/reduction capacities	Y	Y	Y	Y	Υ																									
	Loss and damage assessment											Υ	Υ	Y		Υ															
	Climate-smart livestock	Υ	Υ	Υ	Υ	Υ						Y	Υ		Υ	Υ						Υ									
~	Emergency preparedness	Y	Υ	Y	Y	Υ																Υ									
Livestock	Disease prevention	Y	Υ	Υ	Y	Υ																									
/est	Recovery and rehabilitation initiatives	Υ	Υ	Υ	Y	Υ																									
÷	Development of breeding technology	Y	Υ	Υ	Y	Υ						Y			Υ																
	Animal vaccination	Υ	Υ	Υ	Υ	Υ																									
	Improvement of genetic research capacities	Υ				Υ																									
	Genetic conservation and upgrades	Y	Υ		Υ	Y						Y																			
	Research/actions on animal feed	Υ	Υ		Y	Y	Υ		Y			Υ	Υ														Y	Υ			
	Promoting general resilience in fisheries sector	Y	Υ	Υ	Y	Y						Υ																			
ş	Loss and damage assessment											Υ	Y	Y		Y															
erie	Climate-smart fisheries	Υ	Υ									Υ	Υ			Y															
lsh	Sustainable use of fisheries resources	Υ	Υ	Υ	Y	Y						Y	Y														Υ				
le/F	Resilience building to marine pollution	Υ	Υ			Y	Υ																								
Marine/Fisheries	Management/protection of marine/coastal zones	Υ	Υ		Υ	Y	Υ	Υ				Y	Υ														Υ	Υ		Y	
Σ	Development of fishery management	Υ										Υ	Υ																		
	Development of aquaculture	Y	Υ	Υ	Y	Υ						Y	Υ														Υ			Υ	

#### Agricultural Practices (South & East Asia NDCs)



KEY

Goals are quantifiable

Technology needs are discussed

			Ban	nglac	lesh	Ê.			India	1			N	lepa	l.			Pa	ıkist	an			Sri	Lan	ka			J	apar	n			K	orea	Ĺ	
	NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	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
	Improving irrigation systems	Υ	Υ	Υ	Υ	Υ	Y										Υ	Υ		Υ		Υ	Υ	Υ	Υ							Υ				
ŝ	Setting national standards																									-										
itic	Uptake of solar irrigation	Υ	Υ	Υ	Υ	Υ																														
rac	Disaster early-warning system						Υ	Y		Υ		Υ					Υ	Υ	Υ	Υ		Υ	Υ		Υ											
alF	Improving crop resilience (general)						Y					Υ	Υ				Υ	Υ				Υ	Υ									Υ				
Agricultural Practices	of specific major export crops																					Υ	Υ													
icu	Rice crop diversification/adjustment	Υ	Y	Υ	Υ																	Υ	Υ	Y												
Agı	Shifting to agroecology / sustainable agriculture	Y	Υ				Y	Υ		Υ		Υ	Υ				Υ			Υ		Υ	Y		Υ		Υ	Υ				Υ				
a	Enhancement of harvesting techniques																					Υ	Y													
General	Sustainable resource management	Y	Υ				Υ	Υ				Υ					Υ	Υ				Υ	Υ													
Q	Sustainable pesticides (Mitigation)																																			
	Sustainable fertilisers (Mitigation)											Υ	Υ	Υ	Υ		Υ	Υ				Υ														
Ð	Land use policy	Y				Υ											Υ	Υ	Y			Υ														
Land Use	Response to sea level rise						Y	Y									Υ	Υ	Y			Υ	Y		Υ											
and	Watershed management						Y					Υ	Υ	Υ								Υ	Y													
<u> </u>	Prevention of land erosion / degradation																Υ	Υ	Y			Υ	Υ		Y											
	Increased rice production																					Υ	Υ	Y												
Trade	Adjustment of production plans/infrastructure	Y					Y										Υ	Υ				Υ	Υ													
Tra	Diversification of agribusiness	Y															Υ																			
	Diversification of food crops	Y				Y						Υ	Υ				Υ	Υ	Y			Υ	Y													

NDC

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



Goals are quantifiable

Technology needs are discussed

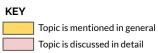
Budget or specific funding plans mentioned

			Ban	glac	lesh	<u> </u>			India	1				Vepa	ıl			Pa	kista	an			Sri	Lan	ka			J	lapar	h i			K	orea		
	NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	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 to improve capacity	Υ	Y				Y	Υ				Υ			-		Y	Υ		Υ	Υ	Υ	Υ									Υ				_
	Loss and damage assessment						Υ				Y						Y	Υ		Υ		Υ	Υ		Υ											
IJ	Climate monitoring and knowledge sharing						Υ	Υ				Y					Y	Υ				Υ	Υ		Y							Υ	Υ		Υ	
Research / Development	Institutional development	Υ	Υ				Υ	Υ				Υ	Υ				Y	Υ				Υ	Υ		Υ		Υ					Υ	Υ			
alog	Biodiversity conservation / restoration						Υ	Υ	Υ	Υ		Υ					Y	Υ			Y	Υ	Υ	Y	Υ							Υ				
Jevi	Plant genetic conservation						Υ	Υ				Υ	Υ									Υ	Υ		Υ											
1	Development of climate-smart farming systems						Υ					Υ	Υ	Υ			Y	Υ			Y	Υ	Υ	Υ	Υ							Υ	Υ			
arch	Development of horticulture						Υ										Υ																			
Se	Development of climate-resilient infrastructure	Υ				Υ	Υ										Y	Υ			Y	Υ	Υ		Υ							Υ	Υ			
Å	Development of technologies to increase yields						Υ										Y					Υ	Υ	Y			Υ									
	Water resource management	Υ	Υ		Υ		Υ	Υ	Υ	Υ		Υ	Y	Υ			Y	Υ	Y	Υ		Υ	Y	Y	Υ							Y				
	Improvement of rainwater harvesting	Υ	Y		Υ		Υ	Y	Y								Y	Y	Y	Y		Y	Υ		Υ											
	Education/training on sustainable livelihood	Υ	Y				Υ	Υ									Υ	Υ				Υ	Υ													
DG	Education/training on adaptation/resilience	Υ	Υ				Υ					Υ	Υ	Υ			Υ	Υ				Υ	Υ									Υ				
ildi	Measures to safeguard food/nutritional security	Υ	Υ			Υ	Υ	Υ	Υ	Υ		Υ					Y	Υ		Υ		Y	Υ		Υ		Υ									
ġ.	Disaster preparedness programmes/capacities	Υ	Υ			Υ	Υ	Y		Υ	Υ	Y					Y	Υ				Υ	Υ													
Capacity-Building	Strengthening capacities of vulnerable groups	Υ	Υ	Υ			Y	Υ	Y		Υ	Υ					Υ	Υ	Y			Υ	Υ		Υ							Υ	Υ		Y	Y
apa	Women, children, elders	Υ	Υ	Υ			Υ	Υ	Υ		Υ	Υ					Υ	Υ	Υ			Υ	Υ		Υ							Υ	Υ		Y	Y
ő	Coastal communities	Υ	Υ	Υ			Υ	Υ		Υ												Υ	Υ		Y											
	Smallholder farmers						Υ	Υ		Υ		Y					Y	Υ	Y	Υ	Y	Υ	Υ		Y											

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

NDC

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



Goals are quantifiable

Technology needs are discussed

ASIA		NDC-Declared Adaptation Plans: Livestock/Fisheries
S		Strengthening risk prevention/reduction capacities
V		Loss and damage assessment
		Climate-smart livestock
EAST		Emergency preparedness
	Livestock	Disease prevention
<b>V</b>	/est	Recovery and rehabilitation initiatives
<b>—</b>	È	Development of breeding technology
~*		Animal vaccination
8		Improvement of genetic research capacities
		Genetic conservation and upgrades
		Research/actions on animal feed
ASIA		Promoting general resilience in fisheries sector
	es	Loss and damage assessment
	leri	Climate-smart fisheries
_ <b>I</b>	Fist	Sustainable use of fisheries resources
OUTH	Marine/Fisheries	Resilience building to marine pollution
· ·	Aari	Management/protection of marine/coastal zone:
	<	Development of fishery management
0		Development of aquaculture
S		

		Ban	glac	lesh			India						lepa	ıl			Pa	akist	an			Sri	Lan	ka			J	apai	n			K	orea	1	
NDC-Declared Adaptation Plans: Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance		Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	Technology	Finance
Strengthening risk prevention/reduction capacities						Y															Y	Y		Y											
Loss and damage assessment																Υ					Υ														
Climate-smart livestock	Υ															Υ					Υ	Υ		Υ							Υ				
Emergency preparedness						Υ															Υ	Υ		Υ											
Disease prevention																					Υ	Υ		Υ											
Recovery and rehabilitation initiatives																																			
Development of breeding technology	Υ				Y											Υ					Υ			Υ											
Animal vaccination																																			
Improvement of genetic research capacities																																			
Genetic conservation and upgrades	Υ				Y																Υ	Υ													
Research/actions on animal feed	Υ	Υ	Υ		Y																Υ	Υ													
Promoting general resilience in fisheries sector	Υ	Υ				Υ										Υ					Υ	Υ	Y	Υ		Υ					Υ				
Loss and damage assessment																					Υ	Υ													
Climate-smart fisheries	Υ	γ																			Υ	Υ	Y			Y					Υ				
Sustainable use of fisheries resources																					Υ	Υ				Υ									
Resilience building to marine pollution																					Υ		Y												
Management/protection of marine/coastal zones	Υ	Υ	Υ		Y	Υ	Υ		Y							Υ	Υ	Υ			Υ	Υ	Y	Υ							Υ				
Development of fishery management	Υ															Υ					Y	Y	Y	Υ											
Development of aquaculture	Υ																				Υ	Υ	Υ	Υ											

## 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.

## **SECTION III**

# National Adaptation Plan (NAP) Comparison

Trade

#### Agricultural Practices (Southeast Asia NAPs)



Goals are quantifiable

Technology needs are discussed

				Ca	mbo	dia		
SOUTHEAST ASIA		NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Discussion
S		Improving irrigation systems	Y	Υ	Y	Υ	Υ	Υ
	s	Setting national standards						
	tic	Uptake of solar irrigation						Υ
	rad	Disaster early-warning system	Y	Υ	Y	Y	Υ	Υ
	al F	Improving crop resilience (general)	Y	Υ	Y	Y	Y	Υ
	Ita	of specific major export crops						Y
<u> </u>	icu	Rice crop diversification/adjustment	Y	Y	Y	Y	Y	
	Agr	Shifting to agroecology / sustainable agriculture	Y	Υ	Y	Y	Y	Y
	a	Enhancement of harvesting techniques	Y	Y	Y	Y	Y	
	General Agricultural Practices	Sustainable resource management	Y					Y
5	Q	Sustainable pesticides (Mitigation)						
	_	Sustainable fertilisers (Mitigation)	Y	Y				Y
0)	a)	Land use policy	Y	Y	Y	Y	Y	Y
	Land Use	Response to sea level rise	Y	Y	Y	Y	Y	Y
	and	Watershed management	Y	Y	Y		Y	Y
	Ľ	Prevention of land erosion / degradation	Y	Y	Y	Y	Y	Y
	-							-

			Ca	mbo	dia			Inc	lone	sia			Му	anm	nar			Phil	lippi	nes			Th	nailaı	nd			Vie	et Na	im	
	NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	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
	mproving irrigation systems	Y	Υ	Y	Υ	Υ	Y	Υ		Y	Y	Y	Υ		Υ	Υ	Υ	Y				Y	Υ	Y	Υ		Y	Y	Υ	Υ	Y
ŝ	Setting national standards																										Y				Y
	Uptake of solar irrigation						Y	Υ																							
	Disaster early-warning system	Y	Y	Y	Υ	Υ	Y	Υ		Υ		Υ	Υ		Υ		Υ	Υ		Y		Y	Υ		Υ		Y	Υ	Υ	Υ	
	mproving crop resilience (general)	Y	Υ	Y	Y	Y	Y	Υ		Y		Y	Υ	Y			Y	Υ		Y		Y					Y	Υ		Y	
	of specific major export crops						Y	Υ				Y	Υ														Y	Υ			Y
	Rice crop diversification/adjustment	Y	Y	Υ	Y	Υ						Y	Υ	Y	Y																
2	Shifting to agroecology / sustainable agriculture	Υ	Y	Υ	Υ	Υ	Y	Υ		Y		Y	Y				Y	Υ		Υ		Y	Υ				Υ	Υ	Υ	Υ	Y
5	Enhancement of harvesting techniques	Υ	Y	Υ	Y	Υ																									
	Sustainable resource management	Y					Y	Υ				Y	Υ				Y	Y				Y	Υ				Υ	Υ	Υ	Υ	Y
2	Sustainable pesticides (Mitigation)																										Υ	Υ			
-	Sustainable fertilisers (Mitigation)	Y	Υ				Y					Y	Υ		Y												Υ	Y			Y
y I	and use policy	Y	Y	Υ	Y	Υ	Υ	Υ				Y	Υ	Y	Y		Y	Υ		Υ	Y	Y	Υ				Υ	Y	Y	Υ	Y
5	Response to sea level rise	Y	Y	Υ	Y	Υ	Y	Y		Y		Y	Υ	Y	Y		Y	Y		Υ		Y					Y	Υ	Y	Υ	Y
	Natershed management	Y	Υ	Υ		Υ	Y					Y	Y				Y	Y		Υ		Υ					Υ	Y			Y
- I	Prevention of land erosion / degradation	Y	Υ	Υ	Y	Υ	Y	Υ		Υ		Y	Υ				Y					Υ	Υ				Υ	Υ	Υ	Υ	Y
	ncreased rice production	Y	Y	Υ	Y	Y	Y	Y		Υ		Y	Υ									Y	Υ				Υ	Y	Y		Y
ane	Adjustment of production plans/infrastructure	Y	Y	Υ	Y	Υ	Y	Υ		Y		Y	Υ		Y		Y					Υ					Υ	Y		Υ	Y
	Diversification of agribusiness	Y	Y	Υ	Y	Υ	Y	Υ				Y	Υ		Y							Y					Υ	Y			
	Diversification of food crops	Y	Y	Y	Y	Y	Υ	Υ				Y	Υ														Y	Y		Y	

#### Agricultural Development (Southeast Asia NAPs)

Topic is mentioned in general Topic is discussed in detail Goals are quantifiable

Technology needs are discussed

Budget or specific funding plans mentioned

				Ca	mbo	dia			Ind	lone	sia			My	anm	ar			Phil	lippiı	nes			Th	ailaı	nd			Vie	et Na	im	
		Declared Adaptation Plans: ricultural Development	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
	Researc	h/development to improve capacity	Υ	Υ	Y	Y	Υ	Y	Υ		Υ		Y	Υ	Y	Y	Υ	Y	Y		Y	Y	Y	Υ				Y	Υ	Y	Y	Y
	Loss and	d damage assessment	Y	Y	Y	Y	Y	Y	Y	Y			Y	Υ			Y	Y	Y		Y		Y	Y								
ant	Climate	monitoring and knowledge sharing	Y	Υ	Υ	Υ	Y	Υ	Υ		Y		Y	Υ	Y	Y		Y	Υ		Υ		Y	Υ		Υ		Y	Y	Y	Y	Y
Research / Development	Institutio	onal development	Υ	Υ	Υ	Y	Y	Υ	Υ				Y	Υ	Y	Y		Y	Y									Υ	Υ	Υ	Y	Υ
elop	Biodiver	sity conservation / restoration	Y	Y			Y	Y	Υ		Y		Y					Y	Υ		Υ	Y	Y	Υ		Y		Y	Y	Y	Y	Y
)eV	Plant ge	netic conservation						Y	Υ		Υ		Y	Υ		Y	Υ						Y	Υ		Υ		Y				
1	Develop	ment of climate-smart farming systems	Υ	Υ	Υ	Υ	Y	Y	Υ		Υ		Y	Υ	Y	Υ	Y	Y	Y				Y	Υ		Y		Y	Υ		Y	
arcl	Develop	ment of horticulture											Y	Υ																		
Se	Develop	ment of climate-resilient infrastructure	Υ	Υ	Υ	Υ	Y	Y	Υ		Υ		Y	Υ	Υ	Υ	Y	Y	Υ		Υ		Υ	Υ				Υ	Υ		Y	
ž	Develop	ment of technologies to increase yields	Υ	Υ	Υ	Υ	Y	Υ	Υ		Υ		Y	Υ		Υ	Y											Y	Υ		Y	
	Water re	source management	Υ	Υ	Υ	Υ	Y	Υ	Υ	Y	Υ		Υ	Υ		Υ	Y											Y	Υ	Υ	Y	Υ
	Rainwate	er harvesting	Y				Y	Y	Υ				Y	Υ																	_	
	Educatio	on/training on sustainable livelihood	Υ	Υ	Υ		Y	Υ	Υ				Y	Υ	Y	Y		Y	Υ				Υ	Υ				Υ	Υ			
bu	Educatio	on/training on adaptation/resilience	Υ	Υ	Υ	Υ	Y	Υ	Υ				Y	Υ		Υ		Y	Υ				Υ	Υ		Υ		Υ	Υ		Y	Y
ildi	Measure	es to safeguard food/nutritional security	Y	Υ	Υ	Υ	Y	Y	Υ		Υ		Y	Υ	Υ	Y		Y	Υ		Υ		Y	Υ				Υ	Υ	Υ	Υ	Υ
Capacity-Building	Disaster	preparedness programmes/capacities	Y	Υ	Υ	Υ	Y	Υ	Υ		Υ		Y	Υ	Υ	Υ		Y	Υ		Υ	Υ						Υ	Υ	Υ	Υ	Υ
city	Strength	ening capacities of vulnerable groups	Υ	Υ	Υ	Υ	Υ	Υ	Υ		Υ		Y	Υ	Υ	Υ	Υ	Υ	Υ				Υ	Υ		Υ		Υ	Y		Υ	Υ
apa		Women, children, elders	Υ	Υ	Υ	Υ	Y	Υ	Υ				Y	Υ	Υ	Υ		Y					Υ	Υ								
Ü		Coastal communities	Υ	Υ	Υ	Υ	Y	Υ	Υ		Y		Y	Υ	Υ	Υ		Υ	Υ		Υ		Υ					Υ	Υ		Υ	
		Smallholder farmers	Y	Υ	Υ	Y	Y	Y	Υ				Y	Y	Y	Y	Y						Υ	Υ		Υ	Y	Y	Υ			Y

KEY

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

#### Livestock & Fisheries (Southeast Asia NAPs)



Goals are quantifiable

Technology needs are discussed

			Ca	mbo	dia			Ind	one	sia			Му	anm	ar			Phil	lippi	nes			Th	ailar	nd			Vie	et Na	m	
	NDC-Declared Adaptation Plans: Livestock/Fisheries	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
	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																Υ	Y		Y		Υ	Υ								
	Climate-smart livestock	Y			Y	Υ	Υ					Υ	Υ	Y	Y	Y	Y	Υ		Y		Υ					Y	Υ		Y	
~	Emergency preparedness											Υ	Υ									Υ	Υ								
Livestock	Disease prevention	Y				Y						Υ	Υ		Y	Y						Y	Y		Y		Y				
/est	Recovery and rehabilitation initiatives																					Y				Y					
È	Development of breeding technology											Y	Y		Y	Y	Y	Y				Υ	Y		Y		Y	Y		Y	
	Animal vaccination											Y	Υ			Y															
	Improvement of genetic research capacities						Y					Y	Υ	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			
	Promoting general resilience in fisheries sector	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Υ	Y	Y	Y	Y	Y		Y	Y	Y	Y				Y	Y	Y	Y	Y
ŝ	Loss and damage assessment						Y	Y	Y								Y	Y		Y		Y	Y								
erie	Climate-smart fisheries	Y	Y			Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y		Y		Y	Y				Y	Y	Y	Y	Y
ish	Sustainable use of fisheries resources	Y	Y				Y	Y	Y			Y	Y		Y	Y						Y	Y				Y	Y	Y	Y	Y
le/F	Resilience building to marine pollution																Y	Y		Y							Y	Y	Y	Y	
Marine/Fisheries	Management/protection of marine/coastal zones	Y	Υ	Y	Υ	Y	Y	Υ	Y	Υ		Y	Υ	Y		Y	Y	Y		Y							Y	Y	Y	Υ	Y
Z	Development of fishery management	Y	Y				Y	Y		Y		Y	Y	Y	Y	Y						Y	Υ				Y	Y	Y	Y	Y
	Development of aquaculture	Y	Υ	Υ	Υ	Y	Y	Y				Y	Y		Y	Y	Y	Y				Y	Y				Y	Y		Y	Y

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



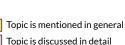
KEY

Goals are quantifiable

Technology needs are discussed

		Bar	nglad	desh	<u>(</u>			India	1				Nepa	l I			Pa	kista	In	_		Sri	Lan	ka				Japai	n			k	Kore	ea
NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	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	
Improving irrigation systems	Y	Y		Υ		Y	Y	Y	Y		Y	Y		Υ	Υ	Y	Υ		Υ		Y	Υ	Υ	Υ	Y	Y	Y		Y					
Setting national standards																																		
Uptake of solar irrigation																Y	Υ		Y		Y	Y	Y	Y										
Disaster early-warning system	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	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	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	Y				Y	Y		
Enhancement of harvesting techniques						Y																				Y								
Sustainable resource management	Y					Y	Υ									Y	Y		Y		Y	Y	Y	Y		Y								
Sustainable pesticides (Mitigation)																Y	Y																	
Sustainable fertilisers (Mitigation)						Y										Y	Y				Y	Y	Y	Y										
Land use policy	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		
Watershed management						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		Y	Y		1
Increased rice production																					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		
Diversification of agribusiness		1									Y	Y			Y						Y	Y	Y											
Diversification of food crops	Y	Y				Y	Y				Y	Y		Y	Y	Y	Y		Y		Y	Y	Y		Y	Y	Y							

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



Y

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Goals are quantifiable

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Technology needs are discussed

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Budget or specific funding plans mentioned

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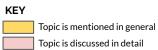
Y

		Bar	nglac	lesh				India	a
NDC-Declared Adaptation Plans: Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	Discussion	Detail	Quantifiability	
Research/development to improve capacit	y Y	Y				Y	Y		1
Loss and damage assessment	Y	Y	Y			Y	Υ	Y	
Climate monitoring and knowledge sharin	y Y	Y		Y		Y	Υ		,
Institutional development	Y	Y		Υ		Y	Υ		,
Biodiversity conservation / restoration	Y	Y				Y	Υ		
Climate monitoring and knowledge sharin Institutional development Biodiversity conservation / restoration Plant genetic conservation Development of climate-smart farming sys Development of horticulture Development of climate-resilient infrastru- Development of technologies to increase						Y	Υ		
Development of climate-smart farming sys	tems Y	Y				Y	Y		
Development of horticulture						Y	Υ		
Development of climate-resilient infrastru	ture Y					Y	Υ	Υ	
Development of technologies to increase	vields Y					Y	Υ		
Water resource management	Y	Y				Y	Υ	Υ	
Improvement of rainwater harvesting	Y	Y		Υ		Y	Υ		
Education/training on sustainable liveliho	od Y					Υ	Υ		
Education/training on adaptation/resilienc	e Y					Y	Υ		
Measures to safeguard food/nutritional se	curity Y	Υ				Y			
Disaster preparedness programmes/capa	ities					Y	Υ		
Education/training on adaptation/resilience Measures to safeguard food/nutritional se Disaster preparedness programmes/capac Strengthening capacities of vulnerable gro Women, children, elders	ups Y	Y			Υ	Y	Υ		,
Women, children, elders	Y	Y				Y	Υ		
Coastal communities	Y	Y				Υ	Υ		,
Smallholder farmers	Y					Y	Y		

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

NAP

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



Goals are quantifiable

Technology needs are discussed

	8	
A		NDC-Declared Adaptation Pl Livestock/Fisheries
EAST ASIA		Strengthening risk prevention/reduc capacities
A		Loss and damage assessment
		Climate-smart livestock
		Emergency preparedness
	oc	Disease prevention
V	-ivestock	Recovery and rehabilitation initiative
ш	È	Development of breeding technolog
		Animal vaccination
Š		Improvement of genetic research ca
		Genetic conservation and upgrades
		Research/actions on animal feed
S		Promoting general resilience in fish
ASIA	S	Loss and damage assessment
	leri	Climate-smart fisheries
I	Fist	Sustainable use of fisheries resourc
	ne/I	Resilience building to marine polluti
<b>.</b>	Marine/Fisheries	Management/protection of marine/co
		Development of fishery managemen
0		Development of aquaculture
SOUTH		

	2	Bar	ngla	desh	1			India	1				Nepa	ıl			Pa	ikist	an			Sri	Lan	ka			J	apa	n			K	ore	a	
NDC-Declared Adaptation Plans: Livestock/Fisheries	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
Strengthening risk prevention/reduction capacities	Y	Y				Y	Y		Y		Y	Y		Y	Y	Y	Y		Y		Y	Y			Y	Y	Y				Y	Y		Y	
Loss and damage assessment	Υ	Υ	Υ													Υ			Υ		Υ	Υ									Υ	Υ	Y		
Climate-smart livestock	Υ	Y				Υ					Y	Υ			Υ	Υ	Υ		Y		Υ	Y			Υ	Y	Y				γ	Υ		Υ	
Emergency preparedness	Υ					Υ	Υ		Υ		Υ	Υ			Y	Υ	Υ		Y							Y					Υ	Υ			
Disease prevention																Υ	Υ		Y		Y	Y			Y						Y	Υ			
Recovery and rehabilitation initiatives																																			
Development of breeding technology	Y					Y	Y									Υ					Υ	Y			Y	Y					Y				
Animal vaccination						Y	Υ														Υ	Y			Y										
Improvement of genetic research capacities						Y	Y				Y	Y		Y	Y	Υ	Υ				Y	Υ	Y												
Genetic conservation and upgrades	Y					Υ	Υ				Y	Υ			Y	Y	Y				Y	Υ	Y	Υ	Y										
Research/actions on animal feed	Y	Y				Υ	Y									Υ	Y		Y		Y	Y			Υ	Y	Υ				Y	Y		Y	
Promoting general resilience in fisheries sector	Y	Y		Υ		Υ	Y		Y							Y	Υ		Y		Υ	Y	Y	Υ	Y	Y	Υ		Υ		Υ	Υ		Y	
Loss and damage assessment	Y	Y	Y													Υ															Y	Y	Y		
Climate-smart fisheries	Y	Y		Υ		Υ	Υ		Υ							Υ	Υ		Y		Υ	Y	Y	Υ							γ	Υ		Y	
Sustainable use of fisheries resources	Y	Y				Υ															Y	Y	Y	Υ		Y					Υ	Y		Y	
Resilience building to marine pollution																Υ	Υ		Y		Υ	Y	Y	Y							Υ	Y		Y	
Management/protection of marine/coastal zones						Υ	Υ		Y							Y	Υ		Y		Υ	Y	Y	Υ	Y	Y	Y				Υ	Y		Y	
Development of fishery management	Y	Υ				Y	Υ		Y							Υ					Υ	Y	Y	Υ		Y					Y	Y		Υ	
Development of aquaculture	Y	Υ				Υ	Υ		Y							Y					Y	Y				Y	Y		Υ		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.

## **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 Deve
	Improving irrigation systems	Y	Y	Y	γ	Υ		Research/development to imp
es	Setting national standards	Υ	Y	Y	Y	Y		Loss and damage assessmen
General Agricultural Practices	Uptake of solar irrigation	Υ	Y	Y	Y	Y	ät	Climate monitoring and know
Pra	Disaster early-warning system	Υ	Υ	Y	Y	Y	Development	Institutional development
ra	Improving crop resilience (general)	Υ	Υ	Υ	Υ	Υ	elo	Biodiversity conservation / re
- It	of specific major export crops	Y	Y	Y	Υ	Y	Dev	Plant genetic conservation
rict	Rice crop diversification/adjustment	Υ			Υ	Υ	<b>P</b>	Development of climate-smart
Ag	Shifting to agroecology / sustainable agriculture	Υ	Υ	Y	Υ	Υ	Research /	Development of horticulture
era	Enhancement of harvesting techniques	Υ	Υ	Y	Υ	Υ	ese	Development of climate-resilie
ien	Sustainable resource management	Υ					e ce	Development of technologies
0	Sustainable pesticides (Mitigation)	Y						Water resource management
	Sustainable fertilisers (Mitigation)	Υ	Υ	Υ	Υ	Υ		Rainwater harvesting
Ð	Land use policy	Υ	Υ	Y	Y	Y		Education/training on sustain
Land Use	Response to sea level rise	Υ					Ð	Education/training on adaptat
and	Watershed management	Υ					ig	Measures to safeguard food/n
Ľ	Prevention of land erosion / degradation	Υ				Y	ġ	Disaster preparedness progra
	Increased rice production	Υ	Υ	Y	Υ	Υ	÷.	Strengthening capacities of v
Trade	Adjustment of production plans/infrastructure	Υ	Y	Y	Y	Y	Capacity-Building	Women, children, eld
Tra	Diversification of agribusiness	Υ	Υ	Y	Υ	Υ	ပီ	Coastal communities
	Diversification of food crops	Υ	Υ	Υ	Y	Y		Smallholder farmers

ricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		
evelopment to improve capacity	Y	Υ	Y	Y	Y		Streng capaci
image assessment	Υ	Υ	Υ	Y	Υ		Loss a
nitoring and knowledge sharing	Υ	Υ	Υ	Υ	Υ		Climat
development	Υ	Υ	Υ	Y	Υ		Emerg
conservation / restoration	Υ	Υ	Υ	Υ	Υ	Livestock	Diseas
c conservation	Υ	Υ	Υ	Υ	Υ	/est	Recov
nt of climate-smart farming systems	Υ	Υ	Υ	Υ	Υ	È	Develo
nt of horticulture	Υ	Υ	Υ	Υ	Υ		Anima
nt of climate-resilient infrastructure	Υ	Υ	Υ	Υ	Υ		Improv
nt of technologies to increase yields	Υ	Υ	Υ	Υ	Υ		Geneti
rce management	Υ	Υ	Υ	Υ	Y		Resea
arvesting	Υ	Υ		Υ	Y		Promo
raining on sustainable livelihood	Υ	Υ	Y	Υ	Y	s	Loss a
raining on adaptation/resilience	Υ	γ	Υ	Υ	Υ	Marine/Fisheries	Climat
safeguard food/nutritional security	Υ	Υ		Υ	Υ	lish	Sustai
paredness programmes/capacities	Υ	Υ	Y	Υ	Y	le/F	Resilie
ng capacities of vulnerable groups	Υ	Υ	Y	Υ	Υ	arir	Manag
omen, children, elders	Υ	Υ	Υ	Υ	Υ	Σ	Develo
pastal communities	Υ	Υ	Υ	Υ	Υ		Develo
nallholder farmers	Υ	Υ	Υ	Υ	Y		

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



Topic is mentioned in general Topic is discussed in detail

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

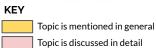
## **Cambodia: National Adaptation Policies**



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Developme
	Improving irrigation systems	Y	Y	Y	Y	Y		Research/development to improve cap
es	Setting national standards							Loss and damage assessment
General Agricultural Practices	Uptake of solar irrigation						ant	Climate monitoring and knowledge sh
Pra	Disaster early-warning system	Υ	Υ	Υ	Υ	Υ	Research / Development	Institutional development
ral	Improving crop resilience (general)	Υ	Υ	Υ	Υ	Υ	elo	Biodiversity conservation / restoration
릒	of specific major export crops						Dev	Plant genetic conservation
rict	Rice crop diversification/adjustment	Υ	Y	Υ	Υ	Y	1 A	Development of climate-smart farming
Ag	Shifting to agroecology / sustainable agriculture	Υ	Υ	Υ	Υ	Υ	arc	Development of horticulture
eral	Enhancement of harvesting techniques	Υ	Υ	Υ	Υ	Υ	ese	Development of climate-resilient infras
iene	Sustainable resource management	Υ					e c	Development of technologies to increa
U	Sustainable pesticides (Mitigation)							Water resource management
	Sustainable fertilisers (Mitigation)	Y	Y					Rainwater harvesting
۵	Land use policy	Y	Y	Y	Y	Υ		Education/training on sustainable live
Land Use	Response to sea level rise	Y	Y	Υ	Y	Y	p	Education/training on adaptation/resili
and	Watershed management	Υ	Y	Υ		Y	idi	Measures to safeguard food/nutritiona
Ľ	Prevention of land erosion / degradation	Y	Y	Υ	Y	Y	Bu	Disaster preparedness programmes/ca
	Increased rice production	Y	Y	Υ	Y	Y	÷.	Strengthening capacities of vulnerable
de	Adjustment of production plans/infrastructure	Y	Y	Y	Y	Y	Capacity-Building	Women, children, elders
Trade	Diversification of agribusiness	Y	Y	Υ	Υ	Y	S	Coastal communities
	Diversification of food crops	Y	Y	Y	Y	Y		Smallholder farmers

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

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



Marine/Fisl

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

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

<sup>&</sup>lt;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
	Improving irrigation systems							Research/development to improve capacity	Y	Y		Y	
ŝ	Setting national standards							Loss and damage assessment					
ctic	Uptake of solar irrigation						ent	Climate monitoring and knowledge sharing					
General Agricultural Practices	Disaster early-warning system Improving crop resilience (general)						Development	Institutional development	Υ	Υ			
2							elo	Biodiversity conservation / restoration					
- Fi	of specific major export crops						Dev	Plant genetic conservation					
Lic.	Rice crop diversification/adjustment						h l	Development of climate-smart farming systems					
Ag	Shifting to agroecology / sustainable agriculture		Υ		Υ		Research /	Development of horticulture					
eral	Enhancement of harvesting techniques						ese	Development of climate-resilient infrastructure	Υ	Υ			
jen	Sustainable resource management		Υ				<b>~</b>	Development of technologies to increase yields					
	Sustainable pesticides (Mitigation)							Water resource management	Υ	Υ	Υ		
	Sustainable fertilisers (Mitigation)							Rainwater harvesting					
ø	Land use policy		Υ					Education/training on sustainable livelihood	Υ	Υ			
Land Use	Response to sea level rise						Ð	Education/training on adaptation/resilience	Υ	Υ			
and	Watershed management Prevention of land erosion / degradation		Υ				ildi	Measures to safeguard food/nutritional security	Υ	Υ			
ت							Bu	Disaster preparedness programmes/capacities		Υ			
	Increased rice production	Υ	Υ				Capacity-Building	Strengthening capacities of vulnerable groups		Y			
Trade	Adjustment of production plans/infrastructure	Υ	Υ				pad	Women, children, elders	Υ	Y			
Tra	Diversification of agribusiness						Coastal communities		Υ				
	Diversification of food crops							Smallholder farmers	Υ				

#### Livestock/Fisheries

Strengthening risk prevention/reduction capacities Loss and damage assessment Climate-smart livestock Emergency preparedness Disease prevention **Recovery and rehabilitation initiatives** Development of breeding technology Animal vaccination Improvement of genetic research capacities Genetic conservation and upgrades Y Y Research/actions on animal feed Promoting general resilience in fisheries sector Loss and damage assessment **Climate-smart fisheries** Sustainable use of fisheries resources Y Resilience building to marine pollution Management/protection of marine/coastal zones YY Development of fishery management **Development of aquaculture** 



Topic is discussed in detail

Livestock

Marine/Fisheries

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		
	Improving irrigation systems	Y	Y		Y	γ		Resear
es	Setting national standards							Loss a
General Agricultural Practices	Uptake of solar irrigation	Y	Υ				ent	Climate
Pra	Disaster early-warning system	Υ	Υ		Y		Research / Development	Institut
ral	Improving crop resilience (general)	Υ	Υ		Υ		/elo	Biodive
nfn	of specific major export crops	Y	Υ				Dev	Plant g
lric	Rice crop diversification/adjustment						/4	Develo
ΙĄ	Shifting to agroecology / sustainable agriculture	Y	Υ		Y		arc	Develo
era	Enhancement of harvesting techniques						ese	Develo
3en	Sustainable resource management	Y	Υ					Develo
0	Sustainable pesticides (Mitigation)							Water r
	Sustainable fertilisers (Mitigation)	Υ						Rainwa
e	Land use policy	Y	Υ					Educat
Land Use	Response to sea level rise	Υ	Υ		Υ		D0	Educat
and	Watershed management	Υ					ildi	Measu
	Prevention of land erosion / degradation	Υ	Υ		Υ		- Pa	Disaste
	Increased rice production	Y	Υ		Υ		ity	Strengt
Trade	Adjustment of production plans/infrastructure	Υ	Υ		Y		Capacity-Building	
Tra	Diversification of agribusiness	Υ	Υ				ပဳ	
	Diversification of food crops	Υ	Υ					

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

	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
	Strengthening risk prevention/reduction capacities	Y				
	Loss and damage assessment					
	Climate-smart livestock	Υ				
~	Emergency preparedness					
Livestock	Disease prevention					
/esi	Recovery and rehabilitation initiatives					
5	Development of breeding technology					
	Animal vaccination					
	Improvement of genetic research capacities	Υ				
	Genetic conservation and upgrades	Υ	Υ			
	Research/actions on animal feed	Υ	Υ			
	Promoting general resilience in fisheries sector	Υ	Υ	Υ	Y	
S	Loss and damage assessment	γ	Υ	Y		
erie	Climate-smart fisheries	γ	Υ		Υ	
lsh	Sustainable use of fisheries resources	Υ	Υ	Y		
le/F	Resilience building to marine pollution					
Marine/Fisheries	Management/protection of marine/coastal zones	Υ	Υ	Υ	Υ	
Σ	Development of fishery management	Υ	Υ		Y	
	Development of aquaculture	Υ	Υ			



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 <u>Heart of Borneo</u> 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): <u>View PDF</u>
- 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%)

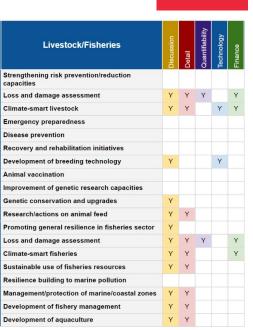
- Rice
- Sugar
- Maize

## **Myanmar: Adaptation NDCs**

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		
	Improving irrigation systems	Υ			Y			Researc
es	Setting national standards							Loss an
ctic	Uptake of solar irrigation	Υ					ent	Climate
Pra	Disaster early-warning system	Υ					Research / Development	Instituti
a	Improving crop resilience (general)	Υ	Υ		Υ		le lo	Biodiver
- Pin	of specific major export crops						Dev	Plant ge
General Agricultural Practices	Rice crop diversification/adjustment	Υ	Υ				14	Develop
	Shifting to agroecology / sustainable agriculture	Y	Y		Υ	Υ	arc	Develop
era	Enhancement of harvesting techniques						ese	Develop
jen	Sustainable resource management	Υ	Υ				œ	Develop
0	Sustainable pesticides (Mitigation)	Υ						Water re
	Sustainable fertilisers (Mitigation)	Υ						Rainwat
ē,	Land use policy	Υ			Y			Education
Land Use	Response to sea level rise	Y			Υ		Ð	Educatio
and	Watershed management	Y	Υ		Υ		ildi	Measure
٦	Prevention of land erosion / degradation	Υ					B	Disaster
	Increased rice production	Υ					it.	Strength
Trade	Adjustment of production plans/infrastructure	Y	Υ				Capacity-Building	
	Diversification of agribusiness	Υ	Υ		Υ		ပဳ	
	Diversification of food crops	Υ						

Agricultural Development	Discussion	Detail	Quantifiability	Technology
Research/development to improve capacity	Υ	Υ		Y
Loss and damage assessment	Y	Y	Y	
Climate monitoring and knowledge sharing	Υ	Υ		
Institutional development	Υ	Υ		
Biodiversity conservation / restoration	Υ			
Plant genetic conservation				
Development of climate-smart farming systems	Υ	Υ		Υ
Development of horticulture				
Development of climate-resilient infrastructure	Υ	Υ		
Development of technologies to increase yields	1			
Water resource management	Y	Υ		
Rainwater harvesting	Y			
Education/training on sustainable livelihood	Υ	Y		
Education/training on adaptation/resilience	Υ	Υ		
Measures to safeguard food/nutritional security	Υ			
Disaster preparedness programmes/capacities	Υ	Υ		Υ
Strengthening capacities of vulnerable groups	Υ	Υ		
Women, children, elders	Υ	Υ		
Coastal communities	Υ	Υ		
Smallholder farmers	Υ	Υ		

## (View NDC)





Topic is mentioned in general Topic is discussed in detail

Y

Y

Livestock

Marine/Fisheries

Y

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



## **Myanmar: National Adaptation Policies**



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricult
	Improving irrigation systems	Y	Y		Y	γ		Research/developr
es	Setting national standards							Loss and damage a
General Agricultural Practices	Uptake of solar irrigation						ant	Climate monitoring
Pra	Disaster early-warning system	Y	Υ		Y		Research / Development	Institutional develo
a	Improving crop resilience (general)	Υ	Υ	Y			elo	Biodiversity conse
Ę	of specific major export crops	Υ				Dev	Plant genetic cons	
rict	Rice crop diversification/adjustment	Y	Υ	Υ	Υ		1	Development of cli
Ag	Shifting to agroecology / sustainable agriculture	Υ	Υ				arc	Development of ho
eral	Enhancement of harvesting techniques						ese	Development of cli
ene	Sustainable resource management	Υ	Υ				e c	Development of teo
U	Sustainable pesticides (Mitigation)							Water resource ma
	Sustainable fertilisers (Mitigation)	Y	Υ		Y			Rainwater harvesti
ø	Land use policy	Y	Υ	Υ	Υ			Education/training
Land Use	Response to sea level rise	Y	Y	Y	Y		ğ	Education/training
and	Watershed management	Υ	Υ				ildir	Measures to safeg
Ľ	Prevention of land erosion / degradation	Y	Υ				Capacity-Building	Disaster prepared
	Increased rice production	Y	Υ				ij.	Strengthening cap
de de	Adjustment of production plans/infrastructure	Y	Y		Y		pac	Women, o
Trade	Diversification of agribusiness	Y	Υ		Y		ပိ	Coastal c
	Diversification of food crops	Y	Υ					Smallhold

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

	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
	Strengthening risk prevention/reduction capacities	Y	Y	Y	Y	Y
	Loss and damage assessment					
	Climate-smart livestock	Υ	Y	Υ	Υ	Υ
	Emergency preparedness	Υ	Υ			
	Disease prevention	Υ	Υ		Υ	Υ
8	Recovery and rehabilitation initiatives					
	Development of breeding technology	Υ	Υ		Υ	Υ
	Animal vaccination	Υ	Υ			Υ
	Improvement of genetic research capacities	Υ	Υ	Y		Y
	Genetic conservation and upgrades	Υ	Υ	Υ		Υ
	Research/actions on animal feed	Υ	Υ		Υ	Υ
Ĩ	Promoting general resilience in fisheries sector	Y	Υ	Y	Y	Y
n	Loss and damage assessment					
	Climate-smart fisheries	Y	Y	Y	Y	Y
2	Sustainable use of fisheries resources	Υ	Υ		Υ	Υ
	Resilience building to marine pollution					
	Management/protection of marine/coastal zones	Υ	Υ	Υ		Y
2	Development of fishery management	Υ	Υ	Y	Υ	Y
	Development of aquaculture	Y	Υ		Y	Y



Topic is mentioned in general Topic is discussed in detail

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



# **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): <u>View</u>
- Myanmar Agriculture Development Strategy and Investment Plan (2018-2023): <u>View</u>

# 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%)

- 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**

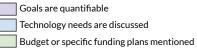




	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance		Livestock/Fisheries
	Improving irrigation systems							Research/development to improve capacity	Y						Strengthening risk prevention/reduction capacities
es	Setting national standards							Loss and damage assessment	Υ	Υ	Y		Y		Loss and damage assessment
Practices	Uptake of solar irrigation						ent	Climate monitoring and knowledge sharing							Climate-smart livestock
Pra	Disaster early-warning system						Development	Institutional development							Emergency preparedness
a	Improving crop resilience (general)						elo	Biodiversity conservation / restoration						Livestock	Disease prevention
Agricultural	of specific major export crops						Dev	Plant genetic conservation						/est	Recovery and rehabilitation initiatives
rici	Rice crop diversification/adjustment							Development of climate-smart farming systems						È	Development of breeding technology
	Shifting to agroecology / sustainable agriculture						Research /	Development of horticulture							Animal vaccination
General	Enhancement of harvesting techniques						ese	Development of climate-resilient infrastructure	Y						Improvement of genetic research capacities
ien	Sustainable resource management						œ	Development of technologies to increase yields	1						Genetic conservation and upgrades
0	Sustainable pesticides (Mitigation)							Water resource management							Research/actions on animal feed
	Sustainable fertilisers (Mitigation)							Rainwater harvesting							Promoting general resilience in fisheries sector
نە س	Land use policy							Education/training on sustainable livelihood						ŝ	Loss and damage assessment
Use	Response to sea level rise	1					ğ	Education/training on adaptation/resilience	Υ					Marine/Fisheries	Climate-smart fisheries
Land	Watershed management						Building-	Measures to safeguard food/nutritional security	Υ					lsh	Sustainable use of fisheries resources
Ľ	Prevention of land erosion / degradation						-Bu	Disaster preparedness programmes/capacities	Υ					le/F	Resilience building to marine pollution
1	Increased rice production						È	Strengthening capacities of vulnerable groups						arin	Management/protection of marine/coastal zones
Trade	Adjustment of production plans/infrastructure	Y					Capacity	Women, children, elders						Z	Development of fishery management
Tra	Diversification of agribusiness						ပ္မ	Coastal communities							Development of aquaculture
	Diversification of food crops							Smallholder farmers							_



Topic is mentioned in general Topic is discussed in detail



## **Philippines: National Adaptation Policies**



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development
	Improving irrigation systems	Y	Y					Research/development to improve capacity
es	Setting national standards							Loss and damage assessment
ctic	Uptake of solar irrigation						ent	Climate monitoring and knowledge sharing
General Agricultural Practices	Disaster early-warning system	Υ	Y		Υ		Research / Development	Institutional development
ral	Improving crop resilience (general)	Υ	Y		Υ		elo	Biodiversity conservation / restoration
ultu	of specific major export crops						Dev	Plant genetic conservation
lrict	Rice crop diversification/adjustment						P I	Development of climate-smart farming systems
Ag	Shifting to agroecology / sustainable agriculture	Υ	Y		Υ		arc	Development of horticulture
eral	Enhancement of harvesting techniques						ese	Development of climate-resilient infrastructure
ien	Sustainable resource management	Υ	Y				œ	Development of technologies to increase yields
0	Sustainable pesticides (Mitigation)							Water resource management
	Sustainable fertilisers (Mitigation)							Rainwater harvesting
a	Land use policy	Υ	Y		Υ	Y		Education/training on sustainable livelihood
Land Use	Response to sea level rise	Y	Υ		Υ		Ð	Education/training on adaptation/resilience
and	Watershed management	Υ	Y		Y		ildi	Measures to safeguard food/nutritional security
1	Prevention of land erosion / degradation	Υ					Bu	Disaster preparedness programmes/capacities
	Increased rice production						Capacity-Building	Strengthening capacities of vulnerable groups
Trade	Adjustment of production plans/infrastructure	Υ					pad	Women, children, elders
Tra	Diversification of agribusiness						ပဳ	Coastal communities
	Diversification of food crops							Smallholder farmers

Finance		Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
Y		Strengthening risk prevention/reduction capacities	Y	Y		Y	
		Loss and damage assessment	Υ	Υ		Y	
		Climate-smart livestock	Υ	Υ		Υ	
	×	Emergency preparedness					
Y	Livestock	Disease prevention					
	ves	Recovery and rehabilitation initiatives					
	Ē	Development of breeding technology	Y	Υ			
		Animal vaccination					
		Improvement of genetic research capacities					
		Genetic conservation and upgrades					
		Research/actions on animal feed					
		Promoting general resilience in fisheries sector	Y	Υ		Υ	Y
	s	Loss and damage assessment	Y	Y		Y	
	leri	Climate-smart fisheries	Υ	Υ		Υ	
	lsi-	Sustainable use of fisheries resources					
Y	Marine/Fisheries	Resilience building to marine pollution	Υ	Υ		Υ	
	ari	Management/protection of marine/coastal zones	Υ	Y		Υ	
	Σ	Development of fishery management					
		Development of aquaculture	Υ	Υ			



Topic is mentioned in general Topic is discussed in detail

Y

Y Y Y Y Y Y

YY

YY

Y Y Y Y

YY

Y Y Y Y

Y Y Y Y

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



# **Philippines: Adaptation Policy Documents**

Laws:

- Climate Change Act of 2009 (RA 9729): View
  - Amended by People's Survival Fund Act (RA 10174): <u>View</u>

**Policy Frameworks:** 

- National Framework Strategy on Climate Change (2010-2022): View PDF
- National Climate Change Action Plan (2011-2028): View PDF
  - Executive Brief: <u>View PDF</u>

# Thailand



## WB/ADB Climate Risk Profile

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

<sup>3</sup> Statista

## **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%)

- Sugarcane
- Cassava
- Shallot

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

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

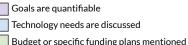
## **Thailand: Adaptation NDCs**

## (<u>View NDC</u>)





Topic is mentioned in general Topic is discussed in detail



## **Thailand: National Adaptation Policies**

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Ag
	Improving irrigation systems	Y	Y	Y	Y			Research/de
es	Setting national standards							Loss and da
ctic	Uptake of solar irrigation						ent	Climate mo
Pra	Disaster early-warning system	Υ	Υ		Υ		Research / Development	Institutional
a	Improving crop resilience (general)	Υ					elo	Biodiversity
nlta	of specific major export crops						Dev	Plant geneti
General Agricultural Practices	Rice crop diversification/adjustment						h	Developmen
	Shifting to agroecology / sustainable agriculture	Y	Y				arc	Developmen
	Enhancement of harvesting techniques						ese	Developmen
jen	Sustainable resource management	Υ	Y				°≃	Developmen
0	Sustainable pesticides (Mitigation)							Water resou
	Sustainable fertilisers (Mitigation)							Rainwater h
Ð	Land use policy	Y	Y					Education/t
Land Use	Response to sea level rise	Y					Ð	Education/t
and	Watershed management	Υ					ildi	Measures to
-	Prevention of land erosion / degradation	Υ	Υ				-Bu	Disaster pre
	Increased rice production	Υ	Υ				Capacity-Building	Strengtheni
Trade	Adjustment of production plans/infrastructure	Υ					Ipa	W
Tra	Diversification of agribusiness	Υ					ပဳ	C
	Diversification of food crops							Si

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

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



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

# **Thailand: Adaptation Policy Documents**

- National Adaptation Plan (NAP): <u>View PDF</u> (Thai only)
  - Fact Sheet: <u>View PDF</u>
- Climate Change Master Plan 2015-2050: <u>View PDF</u>
- Agriculture Strategic Plan on Climate Change (ASPCC) (2017-2021)
  - Presentation: <u>View PDF</u>

# Viet Nam



WB/ADB Climate Risk Profile

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

<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%)

- Rice
- Cassava
- Vegetables
- Sugarcane

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

## Viet Nam: Adaptation NDCs

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	
	Improving irrigation systems	Y	Υ		Y		
es	Setting national standards						
ctic	Uptake of solar irrigation						ent
Pra	Disaster early-warning system	Υ	Υ	Υ	Υ		Research / Development
a	Improving crop resilience (general)	Υ					elo
- III	of specific major export crops	Y	Υ				Dev
lici	Rice crop diversification/adjustment	Υ	Υ	Υ			Y
General Agricultural Practices	Shifting to agroecology / sustainable agriculture	Υ	Υ				arc
	Enhancement of harvesting techniques						ese
jen	Sustainable resource management	Υ					Ľ
0	Sustainable pesticides (Mitigation)						
	Sustainable fertilisers (Mitigation)	Υ	Υ				
e	Land use policy	Υ	Υ	Y			
Land Use	Response to sea level rise	Υ	Υ		Υ		B
and	Watershed management						ildi
-	Prevention of land erosion / degradation	Υ					Capacity-Building
	Increased rice production						city
Trade	Adjustment of production plans/infrastructure	Υ					apa
Tra	Diversification of agribusiness						ပိ
	Diversification of food crops	Υ					

	Agricultural Development	Discussion	Detail	Quantifiability	Technology
	Research/development to improve capacity	Y	Y		
	Loss and damage assessment	Υ	Y	Y	
	Climate monitoring and knowledge sharing	Υ	Y	γ	Υ
	Institutional development	Υ	Y		
	Biodiversity conservation / restoration	Υ			
	Plant genetic conservation				
	Development of climate-smart farming systems	Υ	Υ		
	Development of horticulture				
	Development of climate-resilient infrastructure	Υ			
2	Development of technologies to increase yields				
	Water resource management	Υ	Y		
	Rainwater harvesting				
	Education/training on sustainable livelihood	Υ	Υ		
2	Education/training on adaptation/resilience	Υ	Υ		
	Measures to safeguard food/nutritional security				
	Disaster preparedness programmes/capacities	Υ	Υ		Υ
	Strengthening capacities of vulnerable groups	Υ			
	Women, children, elders	Υ			
5	Coastal communities	Υ	Y		
	Smallholder farmers				

## (View NDC)

capacities

Y

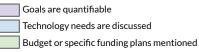
Livestock

Marine/Fisheries



### KEY Topic is mentioned in general

Topic is discussed in detail



## Viet Nam: National Adaptation Policies



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural
	Improving irrigation systems	Y	Y	Y	Y	Y		Research/development to
es	Setting national standards	Y				Y		Loss and damage assess
General Agricultural Practices	Uptake of solar irrigation						ent	Climate monitoring and I
Pra	Disaster early-warning system	Υ	Υ	Υ	Υ		Research / Development	Institutional developmen
ra	Improving crop resilience (general)	Υ	Υ		Υ		elo	Biodiversity conservatio
ultu	of specific major export crops	Y	Y			Υ	Dev	Plant genetic conservation
lrici	Rice crop diversification/adjustment						4	Development of climate-
ΙĄĝ	Shifting to agroecology / sustainable agriculture	Υ	Υ	Υ	Υ	Υ	arc	Development of horticult
era	Enhancement of harvesting techniques						ese	Development of climate-
jen	Sustainable resource management	Υ	Y	Υ	Y	Y	₩.	Development of technolo
0	Sustainable pesticides (Mitigation)	Υ	Υ					Water resource managen
	Sustainable fertilisers (Mitigation)	Υ	Y			Υ		Rainwater harvesting
e,	Land use policy	Υ	Υ	Y	Υ	Y		Education/training on su
Land Use	Response to sea level rise	Υ	Υ	Υ	Υ	Υ	bu	Education/training on ad
and	Watershed management	Υ	Υ			Υ	ildi	Measures to safeguard for
-	Prevention of land erosion / degradation	Υ	Υ	Υ	Υ	Υ	-Bu	Disaster preparedness p
	Increased rice production	Υ	Υ	Υ		Y	Capacity-Building	Strengthening capacities
Trade	Adjustment of production plans/infrastructure	Υ	Y		Υ	Y	Ipa	Women, childre
Tra	Diversification of agribusiness	Υ	Υ				ပိ	Coastal commu
	Diversification of food crops	Υ	Y		Y			Smallholder farr

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

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



Topic is mentioned in general Topic is discussed in detail

Marine/Fishe



# **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): <u>View</u> (Vietnamese only)
  - Plan to implement sustainable and climate-resilient development of Mekong Delta
- Policies on Sustainable Management, Protection and Development of Coastal Forests: <u>View</u>
  - Decree 119/2016/ND-CP and PM Decision 120/2015
- Decision No. 90/QD-TTg approving master plan for natural resources/environment monitoring networks: <u>View</u> (unofficial translation on external website)



# Viet Nam: Adaptation Policy Documents Cont'd

- Resolution 24/NQ-TW: Active response to climate change, improvement of natural resource management and environmental protection: <u>View</u>
- 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: <u>View</u>
- National Climate Change Strategy approved by Decision No. 2139/QD-TTg: <u>View</u>
- Decision No. 158/2008/QD-TTg on the Approval of the National Target Programme to Respond to Climate Change (Target Year 2015 Outdated): <u>View</u>
- Decision No. 2730/QH-BNN-KHCN: Climate Change Adaptation Framework (Outdated): <u>View</u>

## **SECTION V**

# South Asia Country Profiles

# Bangladesh



## WB/ADB Climate Risk Profile

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

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

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

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

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

## Bangladesh: Adaptation NDCs

## (View NDC)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agri
	Improving irrigation systems	Y	Y	Υ	Y	Y		Research/deve
es	Setting national standards							Loss and dam
General Agricultural Practices	Uptake of solar irrigation	Y	Y	Υ	Υ	Y	ent	Climate monit
	Disaster early-warning system						Research / Development	Institutional de
ral	Improving crop resilience (general)						elo	Biodiversity c
ultu	of specific major export crops						Dev	Plant genetic o
Irici	Rice crop diversification/adjustment	Υ	Υ	Υ	Υ		ł	Development
I Ag	Shifting to agroecology / sustainable agriculture	Υ	Υ				arc	Development
eral	Enhancement of harvesting techniques Sustainable resource management						ese	Development
jen			Υ				œ	Development
0	Sustainable pesticides (Mitigation)							Water resourc
	Sustainable fertilisers (Mitigation)							Rainwater har
ė	Land use policy	Υ				Y		Education/trai
Land Use	Response to sea level rise						Ð	Education/trai
and	Watershed management						ildi	Measures to s
ت	Prevention of land erosion / degradation						Bu	Disaster prepa
	Increased rice production						Capacity-Building	Strengthening
Trade	Adjustment of production plans/infrastructure	Υ					Ipac	Wom
Tra	Diversification of agribusiness	Y					ပဳ	Coas
	Diversification of food crops	Υ				Y		Sma

	Agricultural Development	Discussion	Detail	Quantifiability	Technology
	Research/development to improve capacity	Y	Y		
Research / Development	Loss and damage assessment				
	Climate monitoring and knowledge sharing				
	Institutional development	Υ	Y		
lelo	Biodiversity conservation / restoration				
Dev	Plant genetic conservation				
Ì	Development of climate-smart farming systems				
arc	Development of horticulture				
esea	Development of climate-resilient infrastructure	Υ			
œ	Development of technologies to increase yields				
	Water resource management	Υ	Υ		Υ
	Rainwater harvesting	Υ	Υ		Υ
	Education/training on sustainable livelihood	Υ	Y		
g	Education/training on adaptation/resilience	Υ	Υ		
P	Measures to safeguard food/nutritional security	Υ	Υ		
ag	Disaster preparedness programmes/capacities	Υ	Υ		
Capacity-Building	Strengthening capacities of vulnerable groups	Υ	Υ	Υ	
Ipac	Women, children, elders	Υ	Y	Υ	
Cal	Coastal communities	Υ	Υ	Υ	
	Smallholder farmers				

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



Topic is mentioned in general Topic is discussed in detail

Livestock

≺ ≺ Marine/Fisherie

Y

## Bangladesh: National Adaptation Policies



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability	Technology	
	Improving irrigation systems	In systems Y Y Y Research/development to improve capacity					Y	Y					
s	Setting national standards							Loss and damage assessment	Y	Y	Y		
cti	Uptake of solar irrigation    Image: Solar irrigre: Solar irrigation    Image: S		Υ	Υ		Υ							
General Agricultural Practices	Disaster early-warning system	Υ	Υ				ŭ	Institutional development	Υ	Υ		Υ	
ral	Improving crop resilience (general)	Υ	Υ		Υ		elo	Biodiversity conservation / restoration	Υ	Υ			
n fr	of specific major export crops	Υ	Υ				Dev	Plant genetic conservation					
lic	Rice crop diversification/adjustment	Υ	Υ				4	Development of climate-smart farming systems	Υ	Υ			
Ag	Shifting to agroecology / sustainable agriculture	Υ	Υ	Υ			arc	Development of horticulture					
era	Enhancement of harvesting techniques						ese	Development of climate-resilient infrastructure	Υ				
3en	Sustainable resource management	Υ					er er	Development of technologies to increase yields	Y				
0	Sustainable pesticides (Mitigation)							Water resource management	Υ	Υ			
	Sustainable fertilisers (Mitigation)							Rainwater harvesting	Υ	Υ		Υ	
e,	Land use policy	Υ	Υ					Education/training on sustainable livelihood	Υ				
Land Use	Response to sea level rise	Y	Υ		Υ		Ð	Education/training on adaptation/resilience	Υ				
and	Watershed management						ildi	Measures to safeguard food/nutritional security	Υ	Υ			
_	Prevention of land erosion / degradation	Υ	Υ				- Pa	Disaster preparedness programmes/capacities					
	Increased rice production						ity	Strengthening capacities of vulnerable groups	Υ	Y			
Trade	Response to sea level rise    Y    Y    Y    Y    Education/training on adaptation/resilience      Watershed management    Image: Second					Υ	Υ						
Tra	Diversification of agribusiness						ပိ	Coastal communities					
	Diversification of food crops	Υ	Υ					Smallholder farmers	Υ				

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



Topic is mentioned in general

Topic is discussed in detail

Marine

Technology needs are discussed Budget or specific funding plans mentioned

Goals are quantifiable



# **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): <u>View</u>

# India



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

<sup>3</sup> FAO

## **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%)

- Rice
- Wheat
- Pulses
- Sugarcane

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

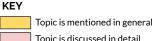
Note: "Major exports" account for those over 1% of total exports.

## India: Adaptation NDCs

### (View NDC)



Livestock/Fisheries	Discussi	Detail	Quantifi	Technold	Finance
engthening risk prevention/reduction acities	Y				
s and damage assessment					
nate-smart livestock					
ergency preparedness	Υ				
ease prevention					
overy and rehabilitation initiatives					
elopment of breeding technology					
mal vaccination					
rovement of genetic research capacities					
netic conservation and upgrades					
earch/actions on animal feed					
moting general resilience in fisheries sector	Υ				
s and damage assessment					
nate-smart fisheries					
tainable use of fisheries resources					
ilience building to marine pollution					
nagement/protection of marine/coastal zones	Υ	Υ		Υ	
elopment of fishery management					
elopment of aquaculture					



Topic is discussed in detail



## India: National Adaptation Policies



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		
	Improving irrigation systems	Y	Y	Y	Y			Resear
General Agricultural Practices	Setting national standards							Loss ar
	Uptake of solar irrigation						ant	Climate
	Disaster early-warning system	Υ	Υ		Υ		Research / Development	Instituti
	Improving crop resilience (general)	Υ	Υ		Υ	Υ	elo	Biodive
	of specific major export crops						Dev	Plant ge
	Rice crop diversification/adjustment						4	Develop
	Shifting to agroecology / sustainable agriculture	Υ	Υ	Υ	Υ		arc	Develop
	Enhancement of harvesting techniques	Υ					ese	Develop
jen	Sustainable resource management	Υ	Υ				°≃	Develop
0	Sustainable pesticides (Mitigation)							Water r
	Sustainable fertilisers (Mitigation)	Υ						Rainwa
e,	Land use policy	Υ	Y	Υ	Υ			Educati
Land Use	Response to sea level rise	Υ	Υ		Υ		Ð	Educati
and	Watershed management	Υ	Υ		Y		ildi	Measur
	Prevention of land erosion / degradation	Υ	Υ	Υ			-B	Disaste
	Increased rice production						city	Strengt
de	Adjustment of production plans/infrastructure	Y	Y		Υ		Capacity-Building	
Trade	Diversification of agribusiness						ပိ	
	Diversification of food crops	Y	Y					

	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance
	Research/development to improve capacity	Υ	Y		Y	
	Loss and damage assessment	Y	Y	Y		
	Climate monitoring and knowledge sharing	Υ	Υ		Υ	
	Institutional development	Υ	Υ		Υ	Y
	Biodiversity conservation / restoration	Υ	Υ		Υ	
	Plant genetic conservation	Υ	Υ		Υ	
	Development of climate-smart farming systems	Υ	Y		Υ	
	Development of horticulture	Υ	Υ			
2268	Development of climate-resilient infrastructure	Υ	Υ	Υ	Υ	
2	Development of technologies to increase yields	Υ	Υ		Υ	
	Water resource management	Υ	Υ	Υ	Υ	
	Rainwater harvesting	Υ	Y		Y	
	Education/training on sustainable livelihood	Υ	Y			
ກ	Education/training on adaptation/resilience	Υ	Υ			
	Measures to safeguard food/nutritional security	Υ				
	Disaster preparedness programmes/capacities	Υ	Υ			
	Strengthening capacities of vulnerable groups	Υ	Y		Υ	
	Women, children, elders	Υ	Υ			
5	Coastal communities	Υ	Υ		Υ	
	Smallholder farmers	Υ	Υ			Y

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



Topic is mentioned in general Topic is discussed in detail

Livestock

**Marine/Fisheries** 

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



# **India: Adaptation Policy Documents**

- National Action Plan on Climate Change (2008): <u>View</u>
- State Action Plans on Climate Change: <u>SAPCC Analysis Report</u><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): <u>View PDF</u>

# 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%)

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

## **Nepal: Adaptation NDCs**

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		A
	Improving irrigation systems							Research/c
General Agricultural Practices	Setting national standards							Loss and d
ctic	Uptake of solar irrigation						ent	Climate mo
Pra	Disaster early-warning system	Υ					Research / Development	Institutiona
ral	Improving crop resilience (general)	Υ	Υ				elo	Biodiversit
nfte	of specific major export crops						Dev	Plant gener
Irici	Rice crop diversification/adjustment						h l	Developme
IAG	Shifting to agroecology / sustainable agriculture	Υ	Y				arc	Developme
era	Enhancement of harvesting techniques						ese	Developme
jen	Sustainable resource management	Υ					°≃	Developme
0	Sustainable pesticides (Mitigation)							Water reso
	Sustainable fertilisers (Mitigation)	Υ	Y	Υ	Y			Rainwater
e	Land use policy							Education/
Š	Response to sea level rise						D	Education/
Land Use	Watershed management	Υ	Υ	Υ			ildi	Measures 1
-	Prevention of land erosion / degradation						B	Disaster pr
	Increased rice production						Capacity-Building	Strengthen
Trade	Adjustment of production plans/infrastructure						Ipac	V
Tra	Diversification of agribusiness						ပိ	C
	Diversification of food crops	Υ	Υ					S

	Agricultural Development	Discussion	Detail	Quantifiability	
	Research/development to improve capacity	Y			
	Loss and damage assessment				
	Climate monitoring and knowledge sharing	Υ			
	Institutional development	Υ	Y		
	Biodiversity conservation / restoration	Υ			
research / nevelopillen	Plant genetic conservation	Υ	Y		
	Development of climate-smart farming systems	Υ	Υ	Υ	
	Development of horticulture				
	Development of climate-resilient infrastructure				
2	Development of technologies to increase yields				
	Water resource management	Υ	Υ	Υ	
	Rainwater harvesting				
	Education/training on sustainable livelihood				
ື	Education/training on adaptation/resilience	Υ	Υ	Υ	
	Measures to safeguard food/nutritional security	Υ			
ģ	Disaster preparedness programmes/capacities	Υ			
	Strengthening capacities of vulnerable groups	Υ			
vapacıty-pulluliy	Women, children, elders	Υ			
5	Coastal communities				
	Smallholder farmers	Υ			

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

(View NDC)



Topic is mentioned in general Topic is discussed in detail

**Technolog** 

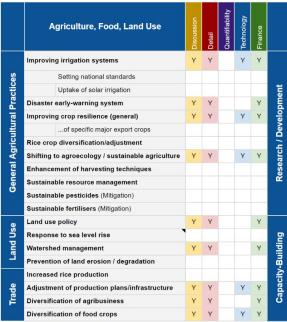
Livestock

Marine/Fisheries

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



## **Nepal: National Adaptation Policies**



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

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



Topic is discussed in detail

Livestock

Marine/Fisheries

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): <u>View PDF</u>
- National Adaptation Programme of Action (NAPA) (2010): View PDF
- Climate Change Adaptation and Disaster Risk Management in Agriculture (2011-2020)<sup>1</sup>: <u>View</u>
- National Framework on Local Adaptation Plans for Action (LAPAs) (2011)<sup>2</sup>: <u>View</u>

<sup>&</sup>lt;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>3</sup> Government of Pakistan: Finance Division (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%)

- Wheat
- Rice
- Sugarcane
- Maize
- Cotton

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

## **Pakistan: Adaptation NDCs**

	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	
	Improving irrigation systems	Y	Υ		Y		
es	Setting national standards						
General Agricultural Practices	Uptake of solar irrigation						ent
Pra	Disaster early-warning system	Υ	Υ	Υ	Υ		Ъй
a	Improving crop resilience (general)	Υ	Υ				elo
III	of specific major export crops						Research / Development
lrici	Rice crop diversification/adjustment						
Ag	Shifting to agroecology / sustainable agriculture	Υ			Υ		arc
eral	Enhancement of harvesting techniques						ese
ien	Sustainable resource management	Υ	Υ				ež
0	Sustainable pesticides (Mitigation)						
	Sustainable fertilisers (Mitigation)	Υ	Υ				
e	Land use policy	Υ	Υ	Y			
Land Use	Response to sea level rise	Υ	Υ	Υ			g
and	Watershed management						ildi
-	Prevention of land erosion / degradation	Υ	Υ	Υ			Ba
	Increased rice production						ity
Trade	Adjustment of production plans/infrastructure	Υ	Υ				Capacity-Building
Tra	Diversification of agribusiness	Υ					ပိ
	Diversification of food crops	Υ	Υ	Υ			

	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance	
	Research/development to improve capacity	Y	Y		Y	Y	
	Loss and damage assessment	Y	Y		Y		
	Climate monitoring and knowledge sharing	Υ	Y				
	Institutional development	Υ	Υ				
	Biodiversity conservation / restoration	Υ	Y			Υ	
	Plant genetic conservation						
	Development of climate-smart farming systems	Υ	Y			Υ	
	Development of horticulture	Υ					
	Development of climate-resilient infrastructure	Υ	Υ			Υ	
	Development of technologies to increase yields	Υ					
	Water resource management	Υ	Y	Y	Υ		
	Rainwater harvesting	Υ	Υ	Υ	Υ		
ĺ	Education/training on sustainable livelihood	Υ	Y				
2	Education/training on adaptation/resilience	Υ	Υ				
7	Measures to safeguard food/nutritional security	Υ	Υ		Υ		
	Disaster preparedness programmes/capacities	Υ	Υ				
2	Strengthening capacities of vulnerable groups	Υ	Υ	Y			
	Women, children, elders	Υ	Υ	Υ			
5	Coastal communities						
	Smallholder farmers	Υ	Y	γ	Υ	Υ	ĺ

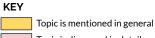
## (View NDC)

Livestock

Marine/Fisherie

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

(



Topic is discussed in detail

## **Pakistan: National Adaptation Policies**



	А	griculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	
	Improvin	g irrigation systems	Y	Y		Y		
es		Setting national standards						
ctic		Uptake of solar irrigation	Υ	Υ		Υ		ent
Pra	Disaster	early-warning system	Υ	Υ				Research / Development
ra B	Improvin	g crop resilience (general)	Υ	Υ		Υ		elo
General Agricultural Practices		of specific major export crops	Υ	Υ				Dev
	Rice cro	p diversification/adjustment	Υ	Y		Υ		4
	Shifting 1	to agroecology / sustainable agriculture	Υ	Y		Υ		arc
	Enhance	ment of harvesting techniques						ese
	Sustaina	ble resource management	Υ	Υ		Υ		<b>∝</b>
0	Sustaina	ble pesticides (Mitigation)	Υ	Υ				
	Sustaina	ble fertilisers (Mitigation)	Υ	Υ				
ė	Land use	policy	Υ	Υ				
Land Use	Respons	e to sea level rise	Y	Υ		Υ		Ð
and	Watershe	ed management	Υ	Υ				ildi
-	Preventio	on of land erosion / degradation	Υ	Υ		Υ		ä
	Increase	d rice production						Capacity-Building
Trade	Adjustm	ent of production plans/infrastructure	Υ	Υ		Y		apa
Ĕ	Diversifie	cation of agribusiness						ပိ
	Diversifie	cation of food crops	Υ	Y		Υ		

	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance
	Research/development to improve capacity	Y	Y			
	Loss and damage assessment	Y	Y		Y	
ant	Climate monitoring and knowledge sharing	Υ	Y			
Research / Development	Institutional development	Υ	Υ		Υ	
elo	Biodiversity conservation / restoration	Υ	Υ		Υ	
Dev	Plant genetic conservation	Υ	Υ		Υ	
P	Development of climate-smart farming systems					
arc	Development of horticulture					
ese	Development of climate-resilient infrastructure					
œ	Development of technologies to increase yields	Υ	Υ		Υ	
	Water resource management	Υ	Υ		Υ	
	Rainwater harvesting	Υ	Υ			
	Education/training on sustainable livelihood	Υ	Υ			
Ð	Education/training on adaptation/resilience	Υ	Υ		Υ	
Capacity-Building	Measures to safeguard food/nutritional security	Υ				
	Disaster preparedness programmes/capacities	Υ	Υ			
city	Strengthening capacities of vulnerable groups	Υ	Υ		Υ	
apa	Women, children, elders	Υ	Υ		Υ	
Ö	Coastal communities	Υ	Υ		Υ	
	Smallholder farmers	Υ	Υ		Υ	Υ

Livestock/Fisheries    Angeoretical						
capacitiesYYYLoss and damage assessmentYYYClimate-smart livestockYYYEmergency preparednessYYYDisease preventionYYYRecovery and rehabilitation initiativesIIYDevelopment of breeding technologyYIIAnimal vaccinationIYYIImprovement of genetic research capacitiesYYIGenetic conservation and upgradesYYIResearch/actions on animal feedYYYPromoting general resilience in fisheries sectorYYY	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
Climate-smart livestock  Y  Y  Y    Emergency preparedness  Y  Y  Y    Disease prevention  Y  Y  Y    Recovery and rehabilitation initiatives  Improvement of breeding technology  Y  Y    Animal vaccination  Improvement of genetic research capacities  Y  Y  Improvement of genetic research capacities    Research/actions on animal feed  Y  Y  Improvement of y    Promoting general resilience in fisheries sector  Y  Y		Y	Y		Y	
Emergency preparednessYYYDisease preventionYYYRecovery and rehabilitation initiativesDevelopment of breeding technologyYY-Animal vaccinationImprovement of genetic research capacitiesYY-Genetic conservation and upgradesYY-Research/actions on animal feedYYYPromoting general resilience in fisheries sectorYYY	Loss and damage assessment	Υ			Υ	
Disease prevention  Y  Y  Y    Recovery and rehabilitation initiatives  -  -  -    Development of breeding technology  Y  Y  -    Animal vaccination  -  -  -    Improvement of genetic research capacities  Y  Y  -    Genetic conservation and upgrades  Y  Y  -    Promoting general resilience in fisheries sector  Y  Y  Y	Climate-smart livestock	Υ	Υ		Υ	
Recovery and rehabilitation initiatives    Image: Comparison of the eding technology    Image: Comparison of technology    Image: Com	Emergency preparedness	Υ	Υ		Υ	
Development of breeding technology  Y  Y    Animal vaccination  Improvement of genetic research capacities  Y  Y    Genetic conservation and upgrades  Y  Y  Y    Research/actions on animal feed  Y  Y  Y    Promoting general resilience in fisheries sector  Y  Y  Y	Disease prevention	Υ	Υ		Υ	
Animal vaccination    Improvement of genetic research capacities    Y    Y    Improvement of genetic research capacities      Genetic conservation and upgrades    Y    Y    Y    Y      Research/actions on animal feed    Y    Y    Y    Y      Promoting general resilience in fisheries sector    Y    Y    Y    Y	Recovery and rehabilitation initiatives					
Improvement of genetic research capacities  Y  Y    Genetic conservation and upgrades  Y  Y    Research/actions on animal feed  Y  Y    Promoting general resilience in fisheries sector  Y  Y	Development of breeding technology	Υ				
Genetic conservation and upgrades  Y  Y    Research/actions on animal feed  Y  Y    Promoting general resilience in fisheries sector  Y  Y	Animal vaccination					
Research/actions on animal feed  Y  Y    Promoting general resilience in fisheries sector  Y  Y	Improvement of genetic research capacities	Υ	Υ			
Promoting general resilience in fisheries sector Y Y Y	Genetic conservation and upgrades	Υ	Υ			
	Research/actions on animal feed	Υ	Υ		Υ	
Loss and damage assessment Y	Promoting general resilience in fisheries sector	Υ	Υ		Υ	
	Loss and damage assessment	Υ				
Climate-smart fisheries Y Y Y	Climate-smart fisheries	Υ	Υ		Υ	
Sustainable use of fisheries resources	Sustainable use of fisheries resources					
Resilience building to marine pollution Y Y Y	Resilience building to marine pollution	Υ	Υ		Υ	
Management/protection of marine/coastal zones Y Y Y	Management/protection of marine/coastal zones	Υ	Y		Y	
Development of fishery management Y	Development of fishery management	Y				
Development of aquaculture Y	Development of aquaculture	Υ				



Topic is mentioned in general Topic is discussed in detail

Marine/Fisherie

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



## Pakistan: Adaptation Policy Documents

- National Climate Change Policy (NCCP): <u>View</u>
- National Adaptation Plan: Under Development
- National Action Plan on Sustainable Consumption and Production (2017)<sup>1</sup>: <u>View PDF</u>
  - 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)

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)

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

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

#### Sri Lanka: Adaptation NDCs

#### (<u>View NDC</u>)



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance	
	Improving irrigation systems	Υ	Y	Y	Y		
es	Setting national standards						
ctic	Uptake of solar irrigation						ent
Pra	Disaster early-warning system	Υ	Υ		Υ		Research / Development
ral	Improving crop resilience (general)	Υ	Υ				elo
Iltu	of specific major export crops	Υ	Υ				Pe
Irici	Rice crop diversification/adjustment	Υ	Y	Y			Ţ
General Agricultural Practices	Shifting to agroecology / sustainable agriculture	Υ	Υ		Υ		arc
	Enhancement of harvesting techniques	Υ	Υ				ese
jen	Sustainable resource management	Υ	Υ				<u>e</u>
Ö	Sustainable pesticides (Mitigation)						
	Sustainable fertilisers (Mitigation)	Υ					
a	Land use policy	Υ					
Land Use	Response to sea level rise	Υ	Υ		Υ		p
and	Watershed management	Υ	Υ				ig
7	Prevention of land erosion / degradation	Υ	Υ		Υ		ığ
	Increased rice production	Υ	Υ	Υ			iţ
Trade	Adjustment of production plans/infrastructure	Υ	Υ				Capacity-Building
Tra	Diversification of agribusiness						ပဳ
	Diversification of food crops	Υ	Υ				

	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance
	Research/development to improve capacity	Y	Y			
	Loss and damage assessment	Y	Y		Y	
	Climate monitoring and knowledge sharing	Υ	γ		Y	
	Institutional development	Υ	Υ		Υ	
	Biodiversity conservation / restoration	Υ	Υ	Y	Υ	
	Plant genetic conservation	Υ	Υ		Υ	
	Development of climate-smart farming systems	Υ	Υ	Υ	Υ	
	Development of horticulture					
	Development of climate-resilient infrastructure	Υ	Υ		Υ	
	Development of technologies to increase yields	Υ	Υ	Υ		
	Water resource management	Υ	Υ	Y	Υ	
	Rainwater harvesting	Υ	Υ		Υ	
	Education/training on sustainable livelihood	Υ	Y			
ח	Education/training on adaptation/resilience	Υ	Υ			
5	Measures to safeguard food/nutritional security	Υ	Υ		Υ	
i	Disaster preparedness programmes/capacities	Υ	Υ			
	Strengthening capacities of vulnerable groups	Υ	Υ		Υ	
fair and no	Women, children, elders	Υ	Υ		Υ	
5	Coastal communities	Υ	Υ		Υ	
	Smallholder farmers	Υ	Υ		Υ	

				lity	1	
	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
	Strengthening risk prevention/reduction capacities	Y	Y		Y	
	Loss and damage assessment	Υ				
	Climate-smart livestock	Υ	Υ		Υ	
5	Emergency preparedness	Υ	Υ		Υ	
Livestock	Disease prevention	Υ	Υ		Υ	
/est	Recovery and rehabilitation initiatives					
È	Development of breeding technology	Υ			Υ	
	Animal vaccination					
	Improvement of genetic research capacities					
	Genetic conservation and upgrades	Υ	Υ			
	Research/actions on animal feed	Υ	Υ			
	Promoting general resilience in fisheries sector	Υ	Υ	Y	Υ	
S	Loss and damage assessment	Υ	Υ			
eric	Climate-smart fisheries	Υ	Υ	Υ		
lish	Sustainable use of fisheries resources	Υ	Υ			
le/F	Resilience building to marine pollution	Υ		Y		
Marine/Fisheries	Management/protection of marine/coastal zones	Υ	Υ	Y	Υ	
Σ	Development of fishery management	Υ	Υ	Y	Υ	
	Development of aquaculture	Υ	Υ	Υ	Υ	



Topic is mentioned in general Topic is discussed in detail

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

#### Sri Lanka: National Adaptation Policies



	Agricultural Development	Discussion	Detail	Quantifiability	Technology	Finance
	Research/development to improve capacity	γ	Y	Y	γ	Y
	Loss and damage assessment	Υ	Y			
aut	Climate monitoring and knowledge sharing	Υ	Υ			Y
кезеагси / цеvelopment	Institutional development	Υ	Υ	Υ	Υ	Y
elo	Biodiversity conservation / restoration	Υ	Y	Υ	Υ	
Nan	Plant genetic conservation	Υ	Y	Y	Υ	Y
	Development of climate-smart farming systems	Υ	Υ			Y
alc	Development of horticulture	Υ	Υ			Y
ese	Development of climate-resilient infrastructure	Υ	Υ	Υ		Y
Ľ	Development of technologies to increase yields	Υ	Υ			Y
	Water resource management	Υ	Υ	Y	Υ	Y
	Rainwater harvesting	Υ	Υ	Y	Υ	Y
	Education/training on sustainable livelihood	Υ	Υ			
9	Education/training on adaptation/resilience	Υ	Υ	Υ		Y
•	Measures to safeguard food/nutritional security	Υ	Υ	Υ		Y
ġ.	Disaster preparedness programmes/capacities	Υ	Υ		Υ	Y
	Strengthening capacities of vulnerable groups	Υ	Υ	Υ	Υ	Y
oapacıry-building	Women, children, elders	Υ	Υ	Y		
د	Coastal communities	Υ	Υ	Υ	Υ	Y
	Smallholder farmers	Υ	Υ	Υ	Υ	Y

Livestock/Fisheries	Finance
Livestock/Fisheries	ίΞ.
Strengthening risk prevention/reduction Y Y	Y
Loss and damage assessment Y Y	
Climate-smart livestock Y Y	Y
Emergency preparedness	
Disease prevention Y Y Recovery and rehabilitation initiatives Development of breeding technology Y Y	Y
Recovery and rehabilitation initiatives	
Development of breeding technology Y Y	Y
Animal vaccination Y Y	Y
Improvement of genetic research capacities Y Y Y	
Genetic conservation and upgrades Y Y Y Y	Y
Research/actions on animal feed Y Y	Y
Promoting general resilience in fisheries sector Y Y Y Y	Υ
Loss and damage assessment	
Climate-smart fisheries Y Y Y Y	
Sustainable use of fisheries resources Y Y Y Y	
Resilience building to marine pollution Y Y Y Y	
Climate-smart fisheries  Y  Y  Y    Sustainable use of fisheries resources  Y  Y  Y    Resilience building to marine pollution  Y  Y  Y    Management/protection of marine/coastal zones  Y  Y  Y	Y
Development of fishery management	
Development of aquaculture Y Y	



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





## Sri Lanka: Adaptation Plan Documents

- National Adaptation Plan (NAP) 2016-2025: <u>View</u>
  - 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): <u>View</u>
- National Climate Change Policy of Sri Lanka (2012): View
  - Not very detailed
- Coastal Zone and Coastal Resource Management Plan (2018): <u>View PDF</u>
  - Includes info about response to sea level rise
- National Biodiversity Strategic Action Plan (2016-2022): View PDF

### **SECTION VI**

# East Asia Country Profiles

# Japan

<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.

#### **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

## Japan: Adaptation NDCs

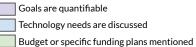
#### (View NDC)



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



Topic is mentioned in general Topic is discussed in detail



#### Japan: National Adaptation Policies



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		
	Improving irrigation systems	Y	Y		Y			Resear
S	Setting national standards							Loss a
ctic	Uptake of solar irrigation						ent	Climate
Pra	Disaster early-warning system	Υ	Υ				Research / Development	Institut
a	Improving crop resilience (general)	Υ	Υ		Y		elo	Biodive
ntr	of specific major export/domestic crops	Υ	Υ		Υ		Dev	Plant g
lrici	Rice crop diversification/adjustment	Υ	Υ		Υ		4	Develo
General Agricultural Practices	Shifting to agroecology / sustainable agriculture	Υ	Y				arc	Develo
eral	Enhancement of harvesting techniques	Υ					ese	Develo
jen	Sustainable resource management	Υ					₩.	Develo
0	Sustainable pesticides (Mitigation)							Water I
	Sustainable fertilisers (Mitigation)							Rainwa
e	Land use policy	Y	Υ		Υ			Educat
Land Use	Response to sea level rise						Ð	Educat
anc	Watershed management	Υ	Υ				ildi	Measu
-	Prevention of land erosion / degradation	Υ	Υ		Υ		ġ	Disast
	Increased rice production						Capacity-Building	Streng
Trade	Adjustment of production plans/infrastructure	Y	Υ				apa	
Ĕ	Diversification of agribusiness						Ű	
	Diversification of food crops	Υ	Y					

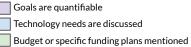
Agricultural Development	Discussion	Detail	Quantifiability	Technology
Research/development to improve capacity	Υ	Y		
Loss and damage assessment				
Climate monitoring and knowledge sharing	Υ	Υ		Y
Institutional development	Υ			
Biodiversity conservation / restoration	Υ	Υ		
Plant genetic conservation	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

	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
	Strengthening risk prevention/reduction capacities	Y	Y			
	Loss and damage assessment					
	Climate-smart livestock	Υ	Υ			
	Emergency preparedness	Υ				
	Disease prevention					
8	Recovery and rehabilitation initiatives					
1	Development of breeding technology	Υ				
	Animal vaccination					
	Improvement of genetic research capacities					
	Genetic conservation and upgrades					
	Research/actions on animal feed	Υ	Υ			
	Promoting general resilience in fisheries sector	Υ	Υ		Y	
0	Loss and damage assessment					
5	Climate-smart fisheries					
2	Sustainable use of fisheries resources	Υ				
5	Resilience building to marine pollution					
	Management/protection of marine/coastal zones	Υ	Υ			
	Development of fishery management	Υ				
	Development of aquaculture	Υ	Υ		Y	



Topic is mentioned in general Topic is discussed in detail

Fish





## 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: <u>View PDF</u> (Japanese only)
- National Plan for Adaptation to the Impacts of Climate Change: <u>View PDF</u> / <u>Assessment Report</u>
- Basic Environment Plan: <u>View PDF</u>
- Fundamental Plan for National Resilience: View PDF
- Disaster Prevention Basic Plan: <u>View PDF</u> (Japanese only)
- Strategy for Sustainable Food Systems (MeaDRI): <u>View Website</u> / <u>Info PDF</u> / <u>Summary</u>

## 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

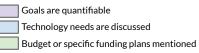
#### South Korea: Adaptation NDCs

#### (View NDC)



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

Topic is discussed in detail



#### South Korea: National Adaptation Policies



	Agriculture, Food, Land Use	Discussion	Detail	Quantifiability	Technology	Finance		Agricultural Development	Discussion	Detail	Quantifiability
	Improving irrigation systems							Research/development to improve capacity	Y	Y	
s	Setting national standards							Loss and damage assessment	Y	Y	Y
ctic	Uptake of solar irrigation						ant	Climate monitoring and knowledge sharing	Υ	Y	
Practices	Disaster early-warning system	Υ	Υ		Υ		Development	Institutional development			
	Improving crop resilience (general)	Υ	Υ		Υ		elo	Biodiversity conservation / restoration			
General Agricultural	of specific major export crops						Dev	Plant genetic conservation			
Lici	Rice crop diversification/adjustment							Development of climate-smart farming systems	Υ	Υ	
Ag	Shifting to agroecology / sustainable agriculture	Y	Υ		Y		Research /	Development of horticulture			
eral	Enhancement of harvesting techniques						ese	Development of climate-resilient infrastructure	Υ	Υ	
jen	Sustainable resource management						e e	Development of technologies to increase yields	Υ	Υ	
0	Sustainable pesticides (Mitigation)							Water resource management			
	Sustainable fertilisers (Mitigation)							Rainwater harvesting			
ڻ ف	Land use policy	Υ	Υ	Υ	Y			Education/training on sustainable livelihood			
Use	Response to sea level rise	Υ	Υ		Υ		g	Education/training on adaptation/resilience			
Land	Watershed management	Υ	Υ	Υ			ig	Measures to safeguard food/nutritional security	Υ	Υ	
ت	Prevention of land erosion / degradation	Υ	Υ				B	Disaster preparedness programmes/capacities	Υ	Υ	
	Increased rice production	Υ	Υ				Capacity-Building	Strengthening capacities of vulnerable groups	Υ	Υ	
Trade	Adjustment of production plans/infrastructure	Υ	Υ		Y		ipac	Women, children, elders			
Tra	Diversification of agribusiness						ပိ	Coastal communities			
	Diversification of food crops							Smallholder farmers	Y	Y	

	Livestock/Fisheries	Discussion	Detail	Quantifiability	Technology	Finance
	Strengthening risk prevention/reduction capacities	Y	Y		Y	
	Loss and damage assessment	Y	Υ	Υ		
	Climate-smart livestock	Υ	Υ		Υ	
~	Emergency preparedness	Υ	Υ			
Livestock	Disease prevention	Υ	Υ			
/est	Recovery and rehabilitation initiatives					
Ľ,	Development of breeding technology	Υ				
	Animal vaccination					
	Improvement of genetic research capacities					
	Genetic conservation and upgrades					
	Research/actions on animal feed	Υ	γ		Υ	
	Promoting general resilience in fisheries sector	Υ	Υ		Υ	
ŝ	Loss and damage assessment	Y	Υ	Y		
erie	Climate-smart fisheries	Υ	Υ		Υ	
lish	Sustainable use of fisheries resources	Υ	Υ		Y	
le/F	Resilience building to marine pollution	Υ	Υ		Υ	
arir	Management/protection of marine/coastal zones	Υ	Υ		Y	
Σ	Development of fishery management	Y	Υ		Y	
	Development of aquaculture	Υ	Υ		Υ	
Marine/Fisheries	Resilience building to marine pollution Management/protection of marine/coastal zones Development of fishery management	Y Y Y	Y Y Y		Y Y Y	



Topic is mentioned in general Topic is discussed in detail

Y

Y

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

## **SECTION VII**

## References

## **General Resources**

- Database of Global Climate Laws/Policies: <u>https://www.climate-laws.org</u>
- Database of National Adaptation Plans from developing countries submitted to UNFCCC: <u>https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx</u>
- Database of Climate Risk Country Profiles: <u>https://climateknowledgeportal.worldbank.org/country-profiles</u>
- UNFCCC National Adaptation Plans 2020 Progress Report: <u>View PDF</u>
  - 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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