



Food and Agriculture
Organization of the
United Nations



Charting a course after Paris

Leveraging NDCs for action to address climate challenges for fisheries and aquaculture in the Asia-Pacific region

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Overview

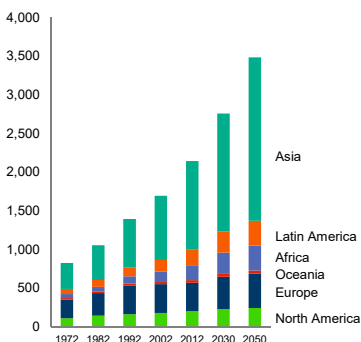
1. The long lead up to Paris (UNFCCC and Agriculture)
2. The Paris Agreement – Key Features
3. A closer look at NDCs and fisheries (and aquaculture)
4. NAPs as a pillar of NDC implementation
5. Take away messages



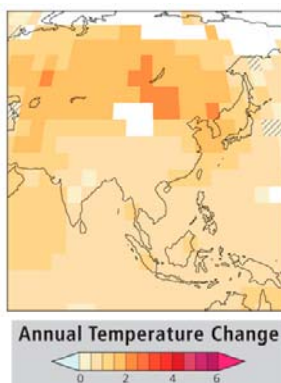
The Challenge

Food production needs to grow.. ..in the face of a changing climate.. ..while addressing GHG emissions.

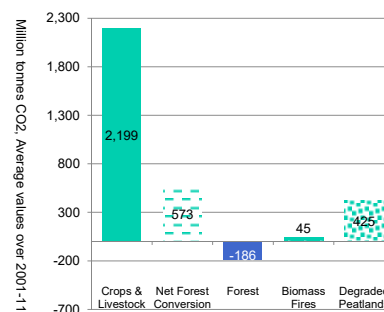
Food Production by Region 1972-2050
(Constant 2004-06 US\$)



Temperature trend, Asia, 1901-2012
(annual trend change in degrees Celsius over period)



Sources of emissions from agriculture and land use in Asia
(average values 2001-2011)



Sources: California Environmental Associates, 2013 – based on FAO, 2012; IPCC, 2014; FAOSTAT, 2015



Agriculture, Land-use and the UNFCCC

1992 - UNFCCC

- Article 2 – Objective
 - “..stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system..”
 - “... achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened...”
- Article 4 - Commitments
 - Acknowledging parties common, but differentiated responsibilities shall:
 - Maintain inventories of sources and sinks
 - Promote technologies and practices to reduce or prevent emissions
 - Promote sustainable management



Agriculture, Land-use and Kyoto

1997 - Kyoto Protocol

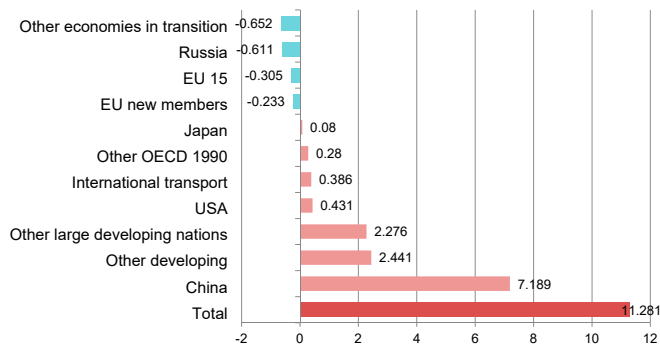
- Significant
- 36 developed countries (Annex I countries)
- Committed to reduce emissions by 4% between 1990 and 2008-2012
- Limited inclusion of land use, land use change and forestry
 - Accounting rules for LULUCF were not finalized but included under Article 3
 - Net changes in GHG sources and sinks contribute to commitments up to a 'cap'



Was Kyoto effective?

Change in CO₂ emissions, 1990 to 2011

By region and country, GT



Adapted from: Clark, 2012 based on UNFCCC

Short answer – Yes!

- Annex I countries reduced emissions by 24%

But...

- On a closer look there are **many problems**
 - Weak transparency and loopholes including some for LULUCF
 - Lack of coverage (Non-Annex I countries)
 - Kyoto was unable to stop growth in global emissions



Key Lessons - Kyoto

- Dedicating **significant negotiation** resources on emissions reductions commitments and their legally binding nature was **not efficient or effective**
- **Monitoring and reporting** of commitments is **essential** for building trust among countries to enact policies and programmes to improve management
- **Flexibility** should be a key element of the adoption process and any future agreement
- **Coverage** must be expanded to have any possibility of curbing emissions

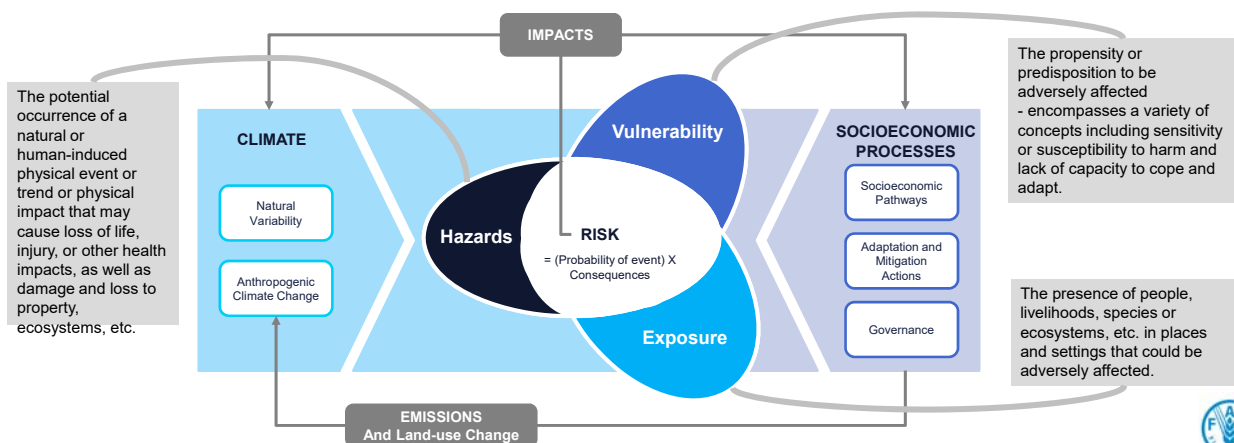
Source: Morel & Shishlov (2014)



In parallel - Moves to better integrate risks of & responses to CC at a conceptual level

Schematic of the interaction among the physical climate system, exposure, and vulnerability producing risk

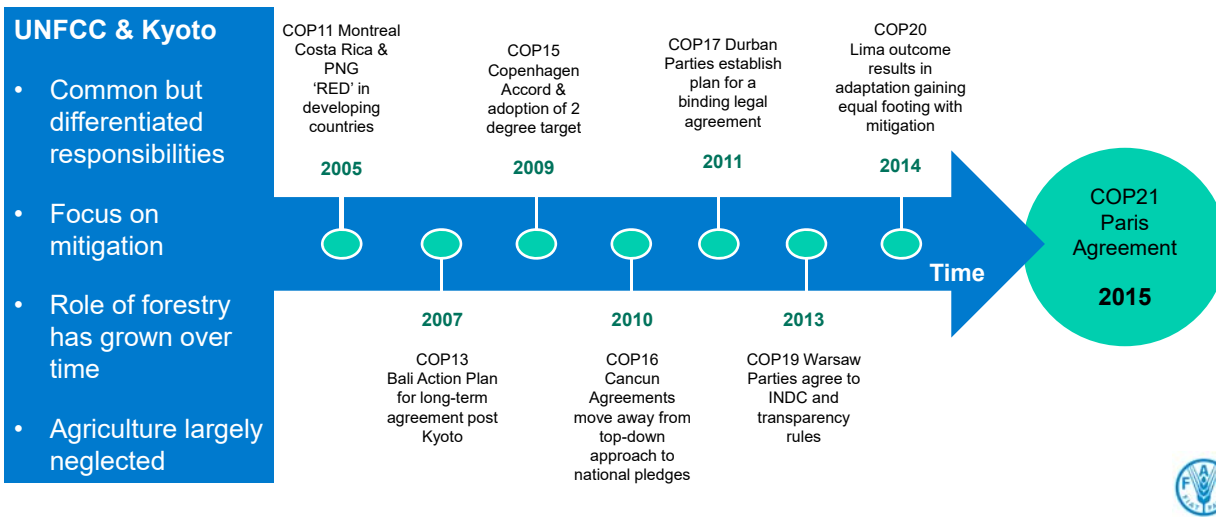
Risk of climate-related impacts results from the interaction of climate-related hazards with the vulnerability and exposure of human and natural systems



Source: IPCC (2014)



Path toward a global agreement



Paris Agreement – Overview

What is the Paris Agreement?

- An **agreement** by the 196 Parties to the UNFCCC to **act limit the increase** in global average **temperature to below 2°C**
- Long-term commitment to balance emission sources and sinks

When will action start & finish?

- Commitment period **commences** in **2020**
- Countries have identified **actions** up to **2025** and at least **2030**



Paris Agreement – Overview

How will the Agreement be implemented?

- Agreement **based upon** Nationally Determined Contributions (NDCs)
- **Parties** have agreed to be **bound** by an enhanced **transparency framework (ETF)**

What is an enhanced transparency framework?

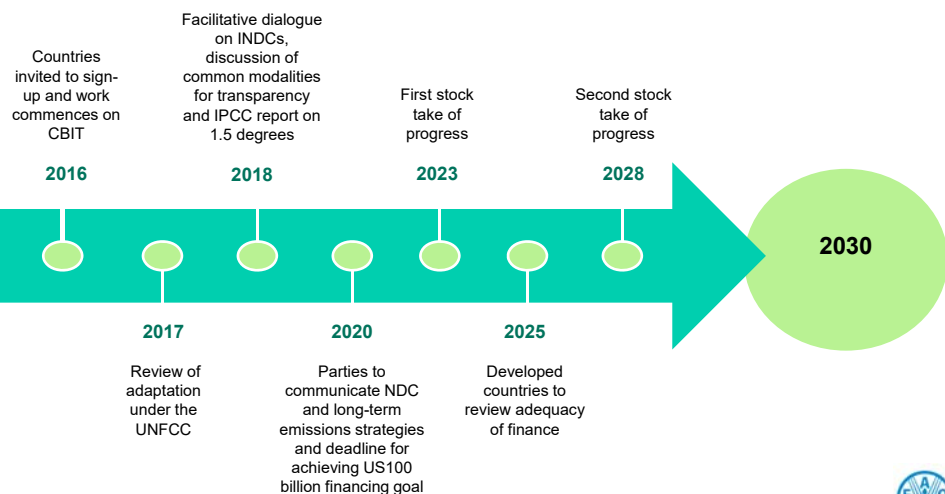
- Countries will be **required** to submit **the following** on a regular basis:
 1. A **national inventory** report of anthropogenic emissions
 2. **Information** necessary to **track progress** implementing the NDCs



Road ahead for the Paris Agreement

Paris Features

- Global (55 rule)
- Country driven
- Partially-binding
- Special long-term role afforded to sinks
- Transparency key tool for implementation
- Equal importance of resilience and adaptation



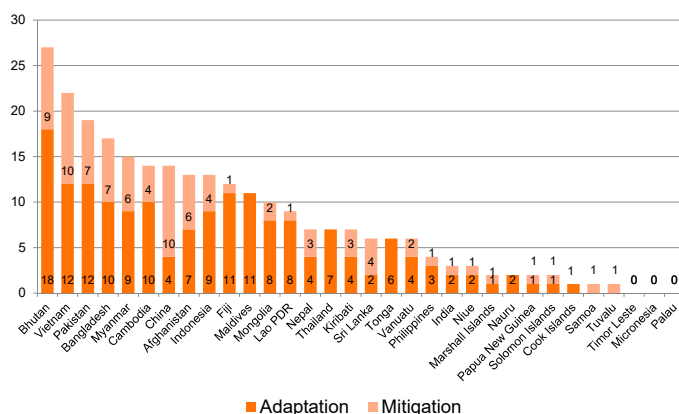
Implications for Agriculture and Land-use sectors

- **NDC key planning document** for future climate change adaptation and mitigation actions
- **Warsaw Framework for REDD+** and results-based payments enshrined as part of the Agreement
- **Experience** with REDD+ and MRV means **forest sector** may have useful lessons for **Transparency Framework**
- **Opportunities** to highlight and foster **non-carbon benefits** for biodiversity, livelihoods and resilience among others
- Potential to access public and private **finance** to support **NDC implementation**



Paris and the Asia-Pacific Region

Number of INDC actions for agriculture and land-use sectors in Asia-Pacific (by country)



Source: FAORAP, 2016

- Under the **Paris Agreement** countries in **Asia-Pacific** have **signaled Agriculture** (crops, livestock, forestry, fisheries and aquaculture) as a **key concern**
- Countries have identified **256 INDC priority actions** for the **Agriculture** sectors
- **Action** to address climate change an **“enabler”** for **SDGs**



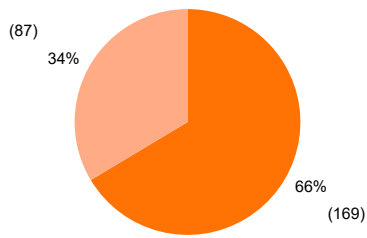
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Priorities for climate action in Agriculture

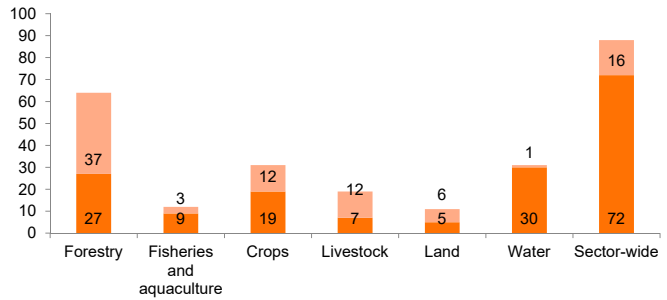
Adaptation is the most pressing concern...

...and action is required across all agriculture sectors.

Share of INDC actions identified for the agriculture and land use sectors in Asia-Pacific by type (percentage - number in brackets)



Number of INDC actions identified for agriculture and land-use sectors in Asia-Pacific (by broad agriculture sector)



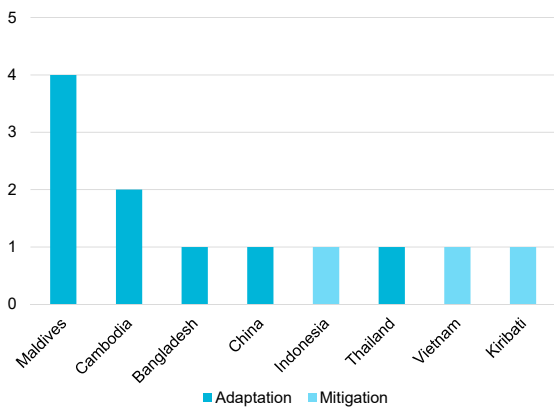
■ Adaptation ■ Mitigation

Sources: FAORAP, 2016



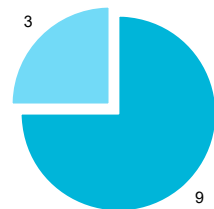
A closer look at fisheries and aquaculture

Number of INDC fisheries & aquaculture actions By country

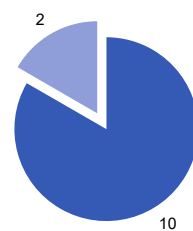


Fisheries & Aquaculture INDC actions in Asia-Pacific

Number of adaptation and mitigation actions and Fisheries and Aquaculture specific actions



■ Adaptation ■ Mitigation



■ Fisheries ■ Aquaculture



A closer look at fisheries and aquaculture

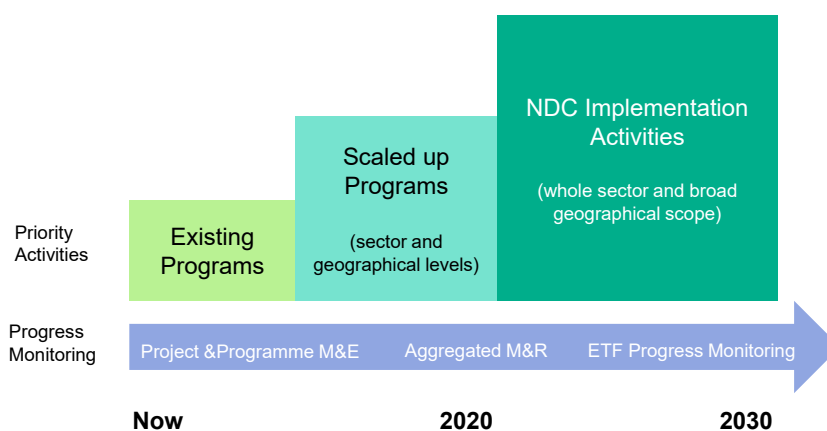
- **Stress tolerant** fisheries varieties
- Promoting **climate resilient agriculture in coastal areas** through building sea dykes and scaling-up of climate-smart farming systems
- Promoting **aquaculture** production systems and practices that are **adaptive** to climate change
- Enhance **resistance to marine disasters** and management of coastal zones and to improve the resilience of coastal areas against climatic disasters
- Strengthen fisherman **insurance** mechanism to ensure minimum monthly income from fishing activities for lost fishing due extreme events
- Research and develop solutions to **reduce GHG emissions in fisheries**
- Design, procure and install **off-grid PV systems** for the Fish Centres to support a fully equipped centres lighting, refrigeration and other equipment



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Implementation – Some unknowns

NDC implementation timeline – Escalating programming and reporting requirements
(Illustrative example)



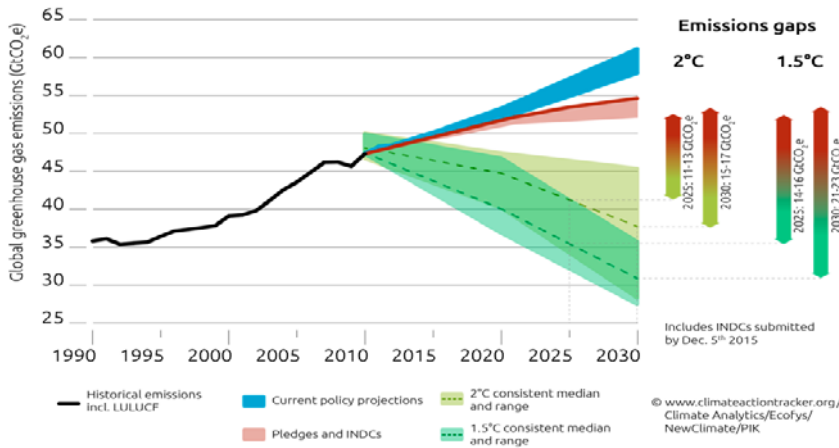
- Scaling-up from project level to national level actions
- Meeting transparency requirements for data and verification
- Finance
- Increasing ambition levels

Source: FAORAP, 2016



Despite its significance Paris will not be enough

Emissions gaps between current pledges and temperature goals
GHG emissions, GtCO₂e per year

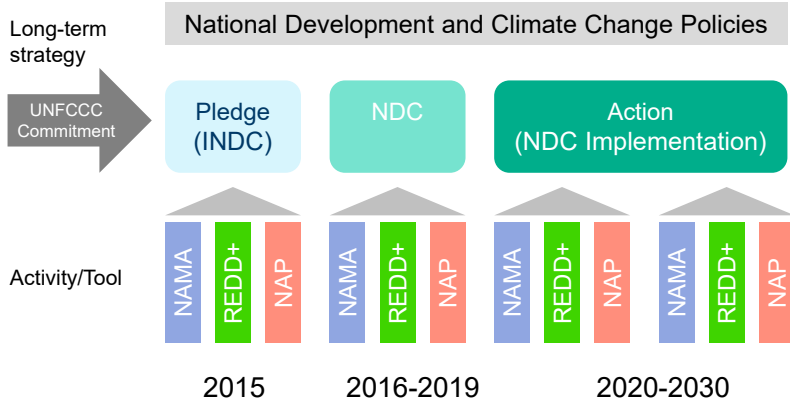


- By 2030 the emissions gap to keep us on 2 degree pathway could be as much as 15-17 GtCO₂e
- More if 1.5 degrees is our goal
- The agriculture and land-use sectors have an important contribution to make if we are to avoid potentially dangerous climate change



NDC is not duplication

Relationship between INDCs and other UNFCCC planning mechanisms
Illustrative example



- NDCs rooted in existing policy frameworks
- NDCs will be guided by and build upon existing tools and activities

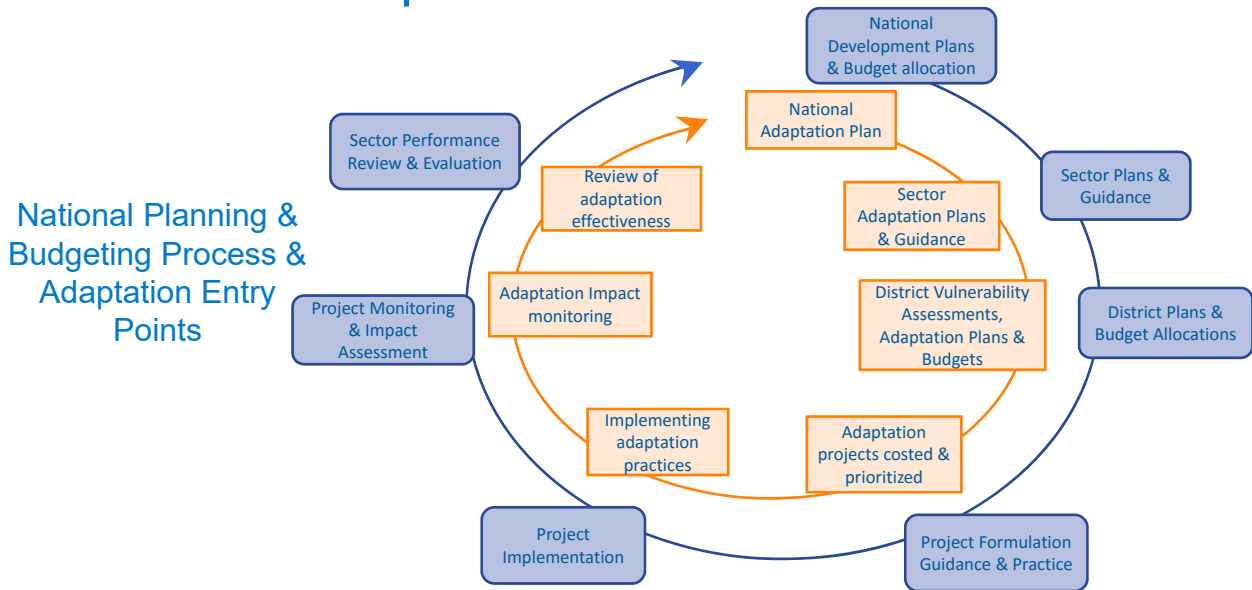
Adapted from: GIZ, 2015



National Adaptation Plans



National Adaptation Plans

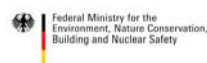


Key Elements of FAO NAP Activities in Asia*



- Capacity building with VA&A and costing adaptation
- Identifying entry points for adaptation in existing planning processes
- Field monitoring of adaptation practices
- Learning by doing

* Specific activities will differ by country based on country context



Integration using a 'Technical Team'*

Adaptation Technical Team

- Cross agency Team involving working-level technical specialists
- Team is engaged for key implementation activities
- Team acts as a focus group for national and field-level training activities
- Team members act as champions for adaptation within their respective agencies/departments



* Approach will differ by country based on country context

Adapted from: ICEM, 2013



NAP & INDC: Key Issues

- Finding effective coordination mechanisms
- Integrating agriculture and land-use sectors into NAP implementation planning
- Turning NAPs into action pipelines for NDC implementation
- Financing and scaling up effective adaptation in the agriculture and land-use sectors
- Building capacity to measure and monitor progress

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Take away messages

- Climate agreements are facilitating incremental progress toward global action on climate change
- Progressively moving from differentiated to shared responsibilities
- Agriculture and land-use are important for addressing the drivers and impacts of climate change
- Role of forestry and, now agriculture, has been increasingly acknowledged in climate change agreements



Take away messages

- Paris Agreement is an important milestone that elevates the role that agriculture and land-use play in tackling the climate challenge
- NDCs provide a framework for action to help us **chart a course**
- A number of countries have identified specific actions for fisheries and aquaculture sectors



Take away messages

- Enhanced engagement in NDC review up to 2020 will be important to ensure fisheries and aquaculture sectors are properly reflected
- NAPs and other processes are key pillars for planning and implementing NDC actions
- Sub-sector engagement will be crucial for ensuring adaptation requirements are incorporated





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Thank You

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Discussion Questions

- Are fisheries and aquaculture stakeholders engaging with relevant nation stakeholders to influence the priorities identified in the INDCs?
- How could fisheries and aquaculture stakeholders enhance engagement in the NDC review process in the lead up to 2020?
- Once the fisheries and aquaculture sectors are properly reflected as NDC priority actions what are effective ways to scale-up action at national or large geographical scales?



Discussion Questions

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