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## Stakeholder Consultation on Progressive Management Pathway (PMP) to Improve Aquaculture Biosecurity

World Bank Headquarters, Washington, D.C. 10-12 April 2018



Development of a Progressive  
Management Pathway to assist  
National and International  
Improvement of Biosecurity in  
Aquaculture Productions

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REANTASO

FAO

# What is a Progressive Control Pathway (PCP)?

Step-wise approaches are increasingly used for the **reduction, elimination** and **eradication** of a range of major livestock and zoonotic diseases including:

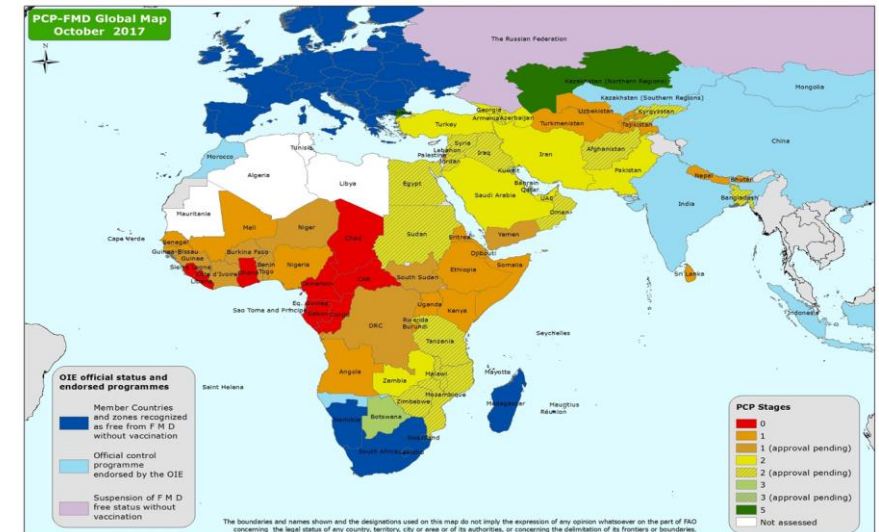
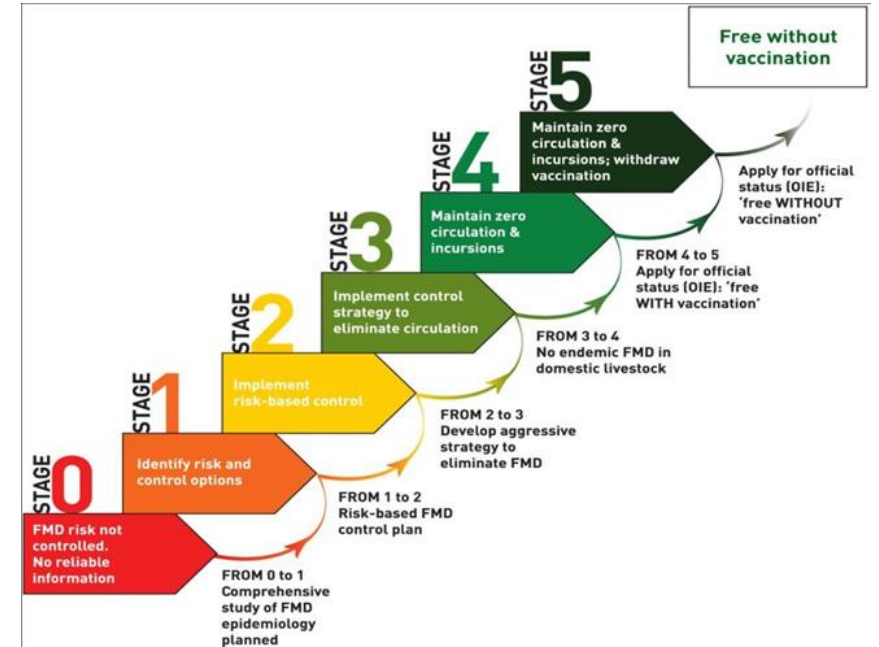
- **Foot and Mouth Disease (FMD)**
- **Peste des Petits Ruminants (PPR)**
- **Rabies**
- **African Animal Trypanosomosis (AAT)**

PCPs provide systemic frameworks for **planning** and **evaluating** field interventions and **enable** realistic disease control objectives to be defined and achieved.

PCPs have been used since 2008 by FAO and become adopted as joint tools with the OIE (FMD, PPR) , or developed/owned by global alliances (rabies, AAT)

## PCP - FMD

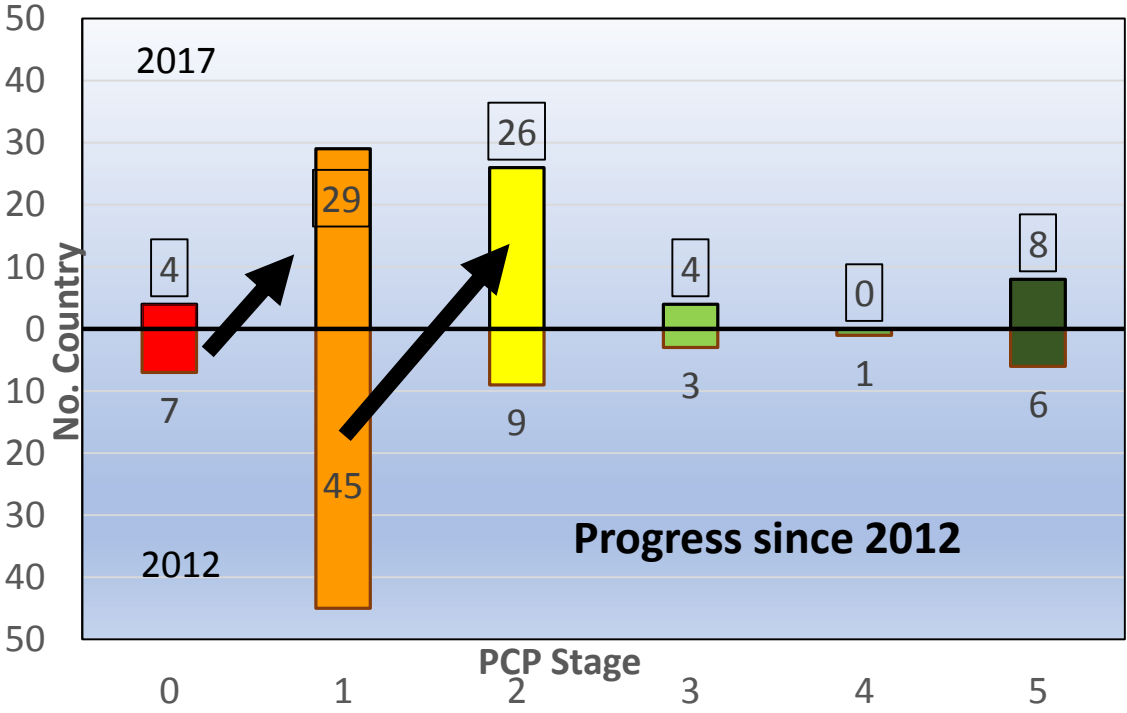
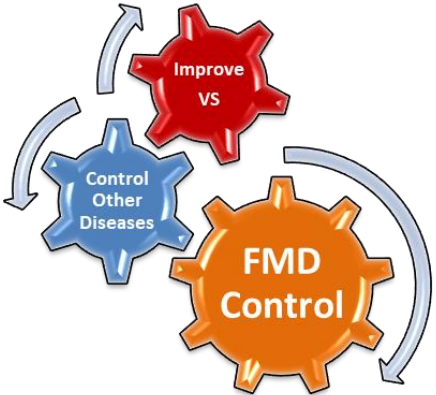
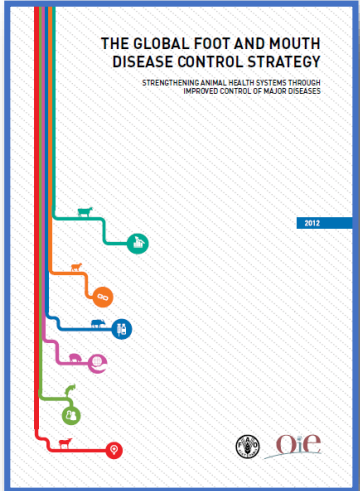
- Developed by FAO and EuFMD in 2008
- 5 stages that progressively increase the level of FMD control
- Consist of set of activities focused on identifying and addressing the risk for FMD introduction and spread
- Intended to assist FMD-endemic countries to progressively reduce the impact and burden of FMD



# PCP-FMD – the motor of the Global Control Strategy for FMD

## Application - Global, National and Regional approach

Global	National	Regional
<b>GF-TADs FMD WG</b> Developed the GS and coordinates its implementation	<b>PCP-FMD</b> guiding tool	Regional <b>roadmap</b> meetings
<b>Global Network:</b> <ul style="list-style-type: none"> <li>Network of FAO/OIE FMD Reference Lab</li> <li>Global Expert Group</li> </ul>	Countries' <b>investment, political will, control plans (FAO, OIE, EuFMD and donor support)</b>	Regional laboratory and epidemiology <b>networks</b>
Development of <b>resource documents</b>	Performance of veterinary services ( <b>PVS</b> )	Regional <b>proficiency test</b> panels
	Promotion of success stories and in country support	Regional <b>collaboration and transparency</b> , including cross border issues



# Supporting implementation (PCP-FMD):

## E-learning courses

- What is PCP (1hr): short course which introduces key features and principles of the PCP for FMD Control (PCP-FMD)
- Introduction to PCP (6hr): introduces the PCP in more detail. It has six modules which aim to answer common questions related to the PCP
- Other e-learning thematic courses: Post Vaccination Monitoring, FMD investigation, FMD socio-economic impact, FMD risk along the value chain, FMD Laboratory investigation

## Networks

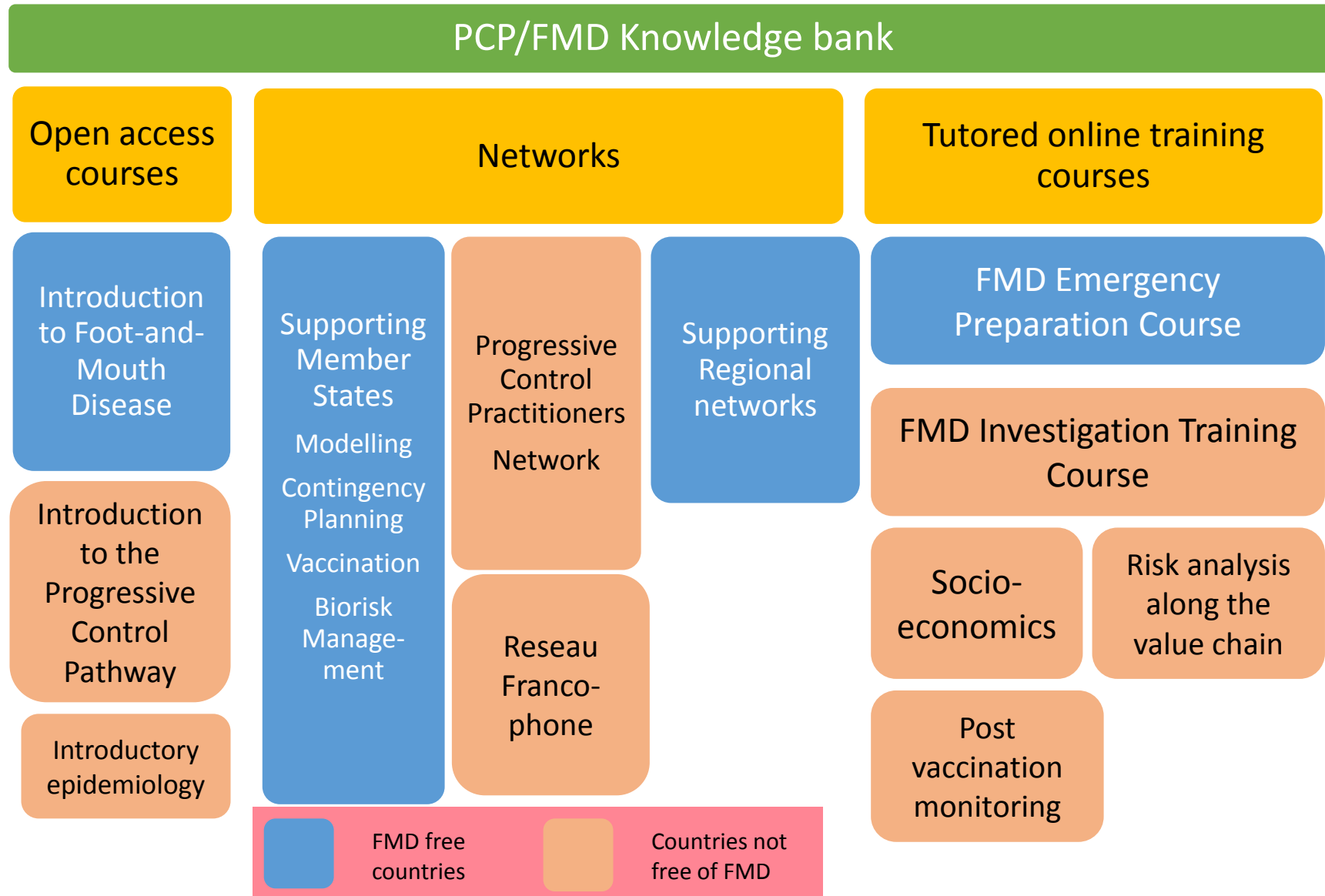
- PCP practitioner network: a **tailored training** covering all aspects of working on FMD control through the PCP-FMD. Participants are able to choose from a combination of webinars, discussion fora and interactive training exercises, and a different topic is covered each month.
- Other networks: modelling, contingency planning, biorisk, East African FMD Regional Laboratory Network, Réseau francophone pour le contrôle de la fièvre aphteuse

## Country focused support

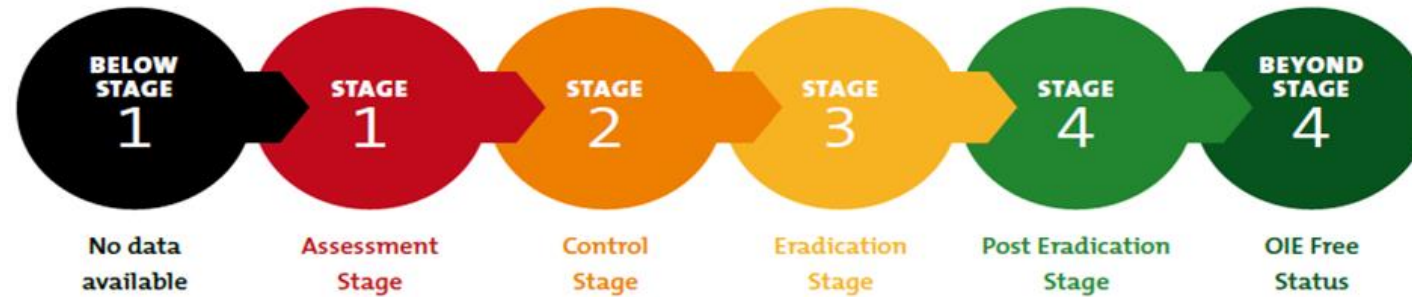
- Workshop series based on expected PCP Stage achievements
- Distant support (PCP support officers)

The screenshot shows the website for 'eofmd e-Learning'. The top navigation bar includes 'Dashboard', 'Resources', 'Networks', 'Contact', and 'My Courses'. Below the navigation is a large banner image of a herd of cows in a field. Underneath the banner is the text 'EuFMD's New Knowledge Bank' and a link to a searchable database of FMD resources and training tools. Below this are three main content blocks: 'Courses' (showing a person with a cube labeled 'FMD'), 'Knowledge Bank' (showing a cow with a magnifying glass over 'FMD'), and 'Networks' (showing a colorful circular logo with 'FMD'). Below these is a section titled 'Study one of our open access courses today:' with three course thumbnails: 'Introduction to Foot-and-Mouth Disease', 'What is the Progressive Control Pathway?', and 'Introduction to the Progressive Control Pathway'. To the right is a 'Twitter Feed' showing tweets from @Eufmd. At the bottom, there are three images: a meeting around a table, a group of people in a meeting, and a computer screen displaying a presentation slide about 'Quality Control'.

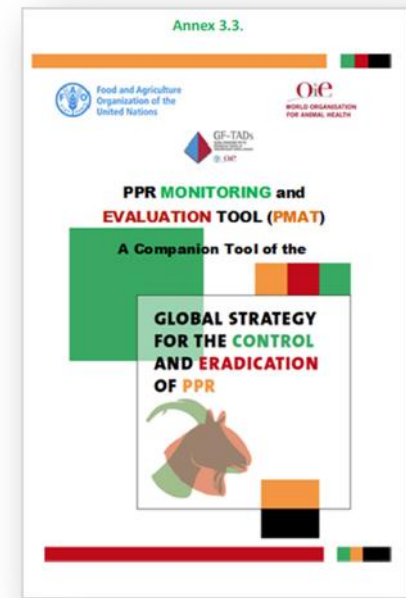
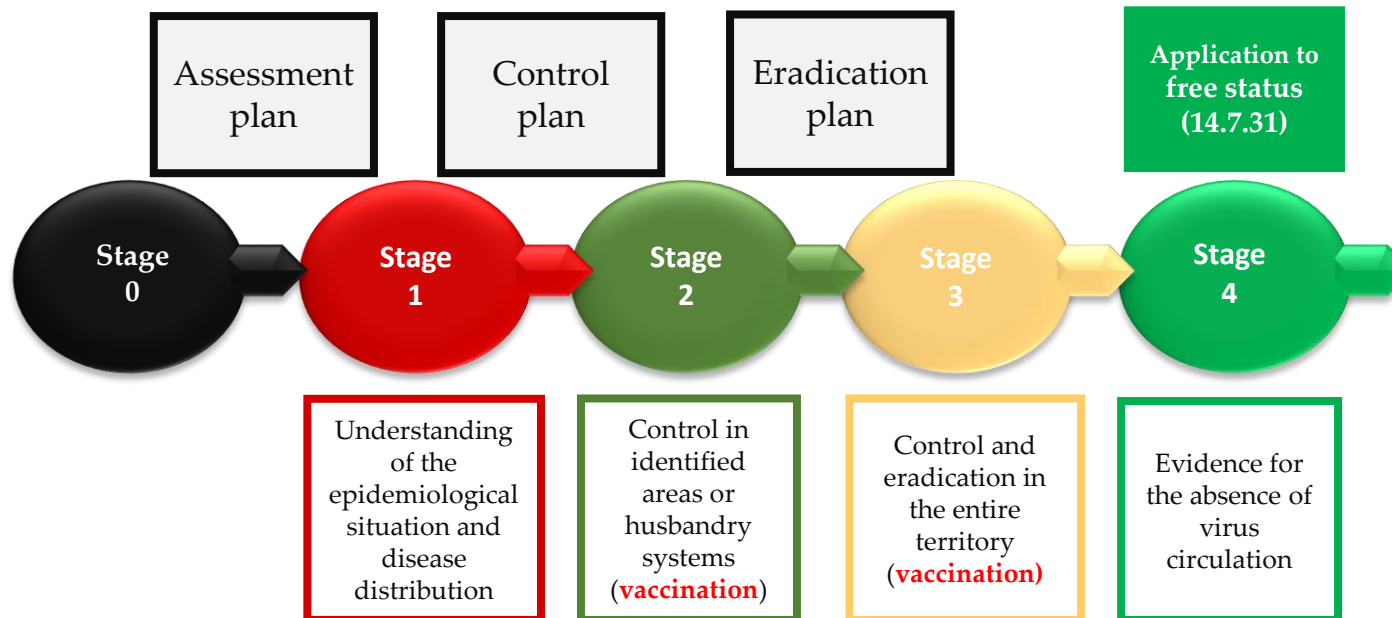
# Thousands of learners have now taken online training – at relatively low cost



# PCP - PPR



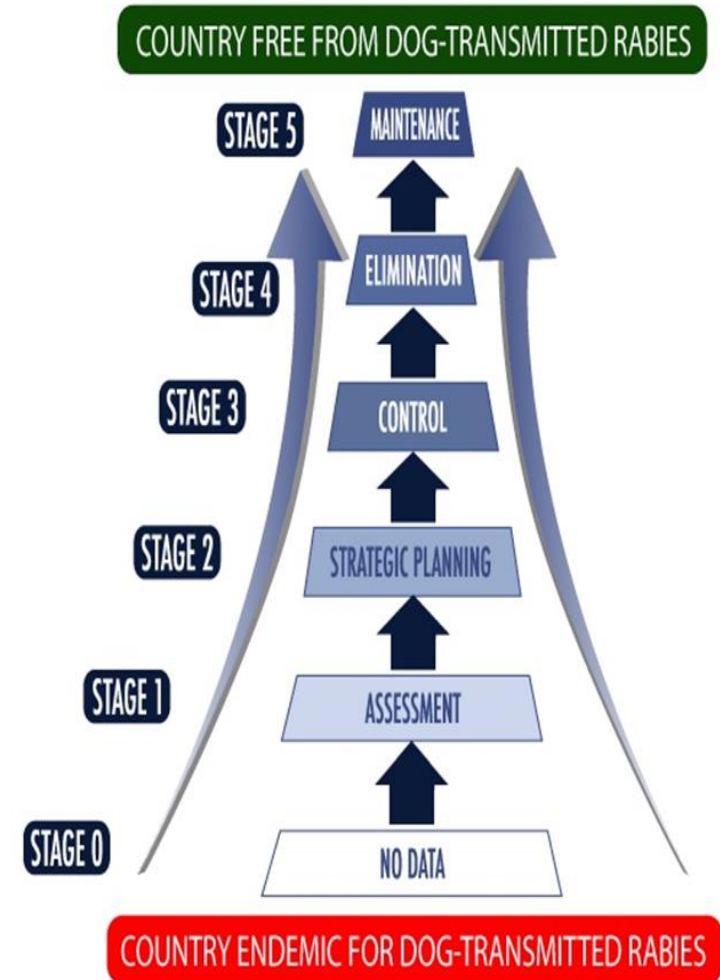
The Stages correspond to a combination of decreasing levels of epidemiological risk and increasing levels of prevention and control



# SARE tool – for Global Rabies Control

- Serves as a **self-assessment and a practical guide in developing a national rabies programme**
- Consists of specific activities that provide measurable steps in a chronological order
- Provides practical guidance and examples of how to implement rabies control activities

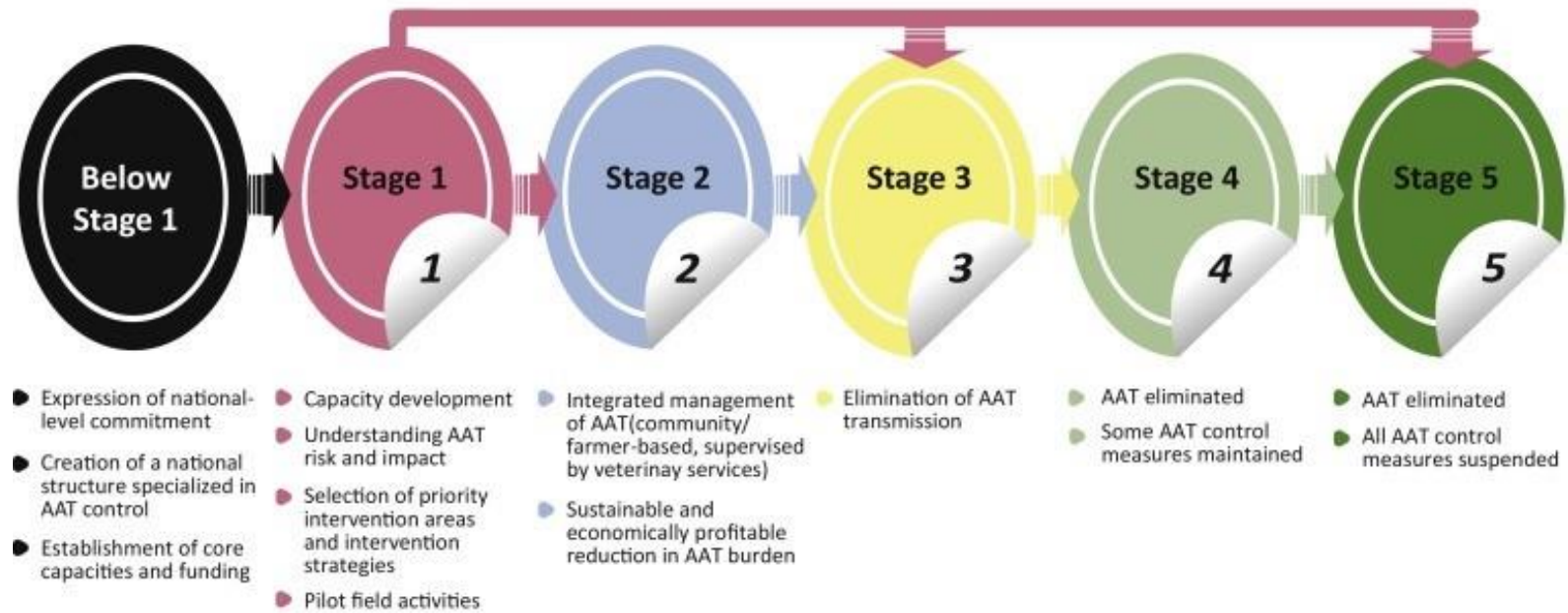
The SARE score shows clear progress (or lack thereof)





# PCP - AAT

Progressive control pathway for African animal trypanosomosis (AAT)



- 5 stages and a pre-entry level called 'below Stage 1'
- To move from one stage to the next, a set of minimum requirements must be met and a detailed plan implemented in the following stages is prepared
- Independent validation is required
- PCP provides donors with a robust tool to monitor and evaluate progress and impacts, and gives them confidence in supporting AAT-endemic countries

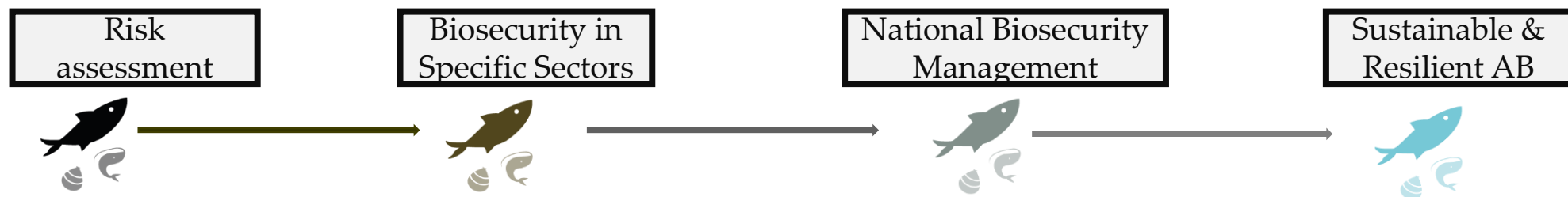
PMP | The Progressive Management Pathway  
for Aquatic Biosecurity to support  
Sustainable and Resilient Aquaculture

- PMP focuses on **building management capacity** through a bottom-up approach with **strong stakeholder involvement** to promote the application of risk management at producer level as part of the national approach
- Useful tool to establish a **National Biosecurity Management System**
- Capable to generate **early warning information** from monitoring and surveillance activities contributing to the notification to OIE (WAHIS)



# PMP | The Progressive Management Pathway for Aquatic Biosecurity to support Sustainable and Resilient Aquaculture

- **4 Stages** which lead to a sustainable and resilient national aquaculture system
- To move from one stage to another a set of **minimum entry requirements** must be met and a detailed plan for implementation in the following stage must be prepared
- ‘gateway passes’ are usually in the form of **Biosecurity Action Plan**



# PMP | The Progressive Management Pathway for Aquatic Biosecurity to support Sustainable and Resilient Aquaculture

## STAGE PROGRESSION in the PROGRESSIVE MANAGEMENT PATHWAY

MAINTAIN 4: NATIONAL AND INTERNATIONAL CONFIDENCE IN MANAGEMENT MAINTAINED

**4** SUSTAINABLE NATIONAL AQUACULTURE SYSTEM

**3** NATIONAL BIOSECURITY MANAGEMENT SYSTEM

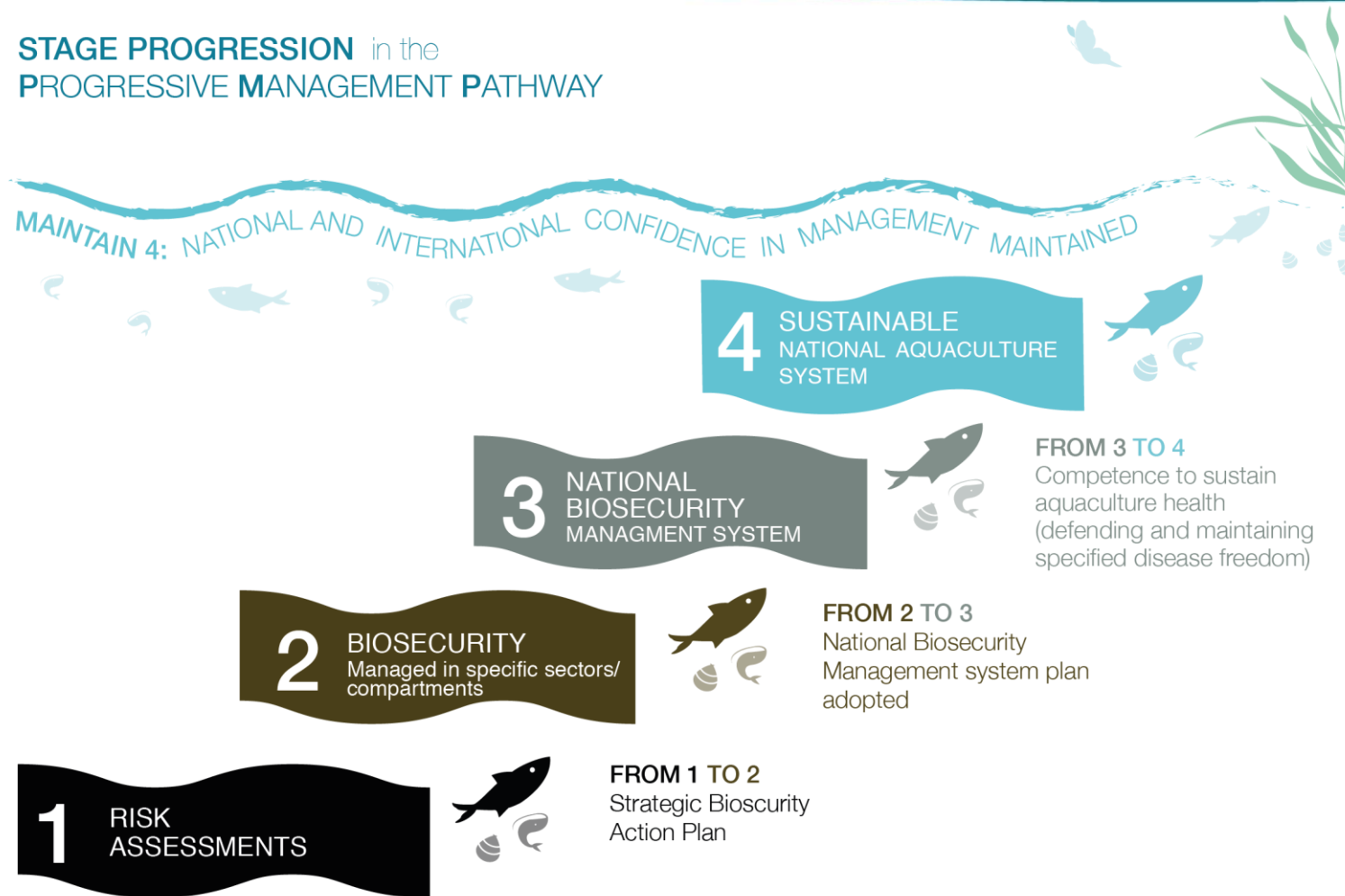
**FROM 3 TO 4**  
Competence to sustain aquaculture health (defending and maintaining specified disease freedom)

**2** BIOSECURITY  
Managed in specific sectors/ compartments

**FROM 2 TO 3**  
National Biosecurity Management system plan adopted

**1** RISK ASSESSMENTS

**FROM 1 TO 2**  
Strategic Bioscurity Action Plan

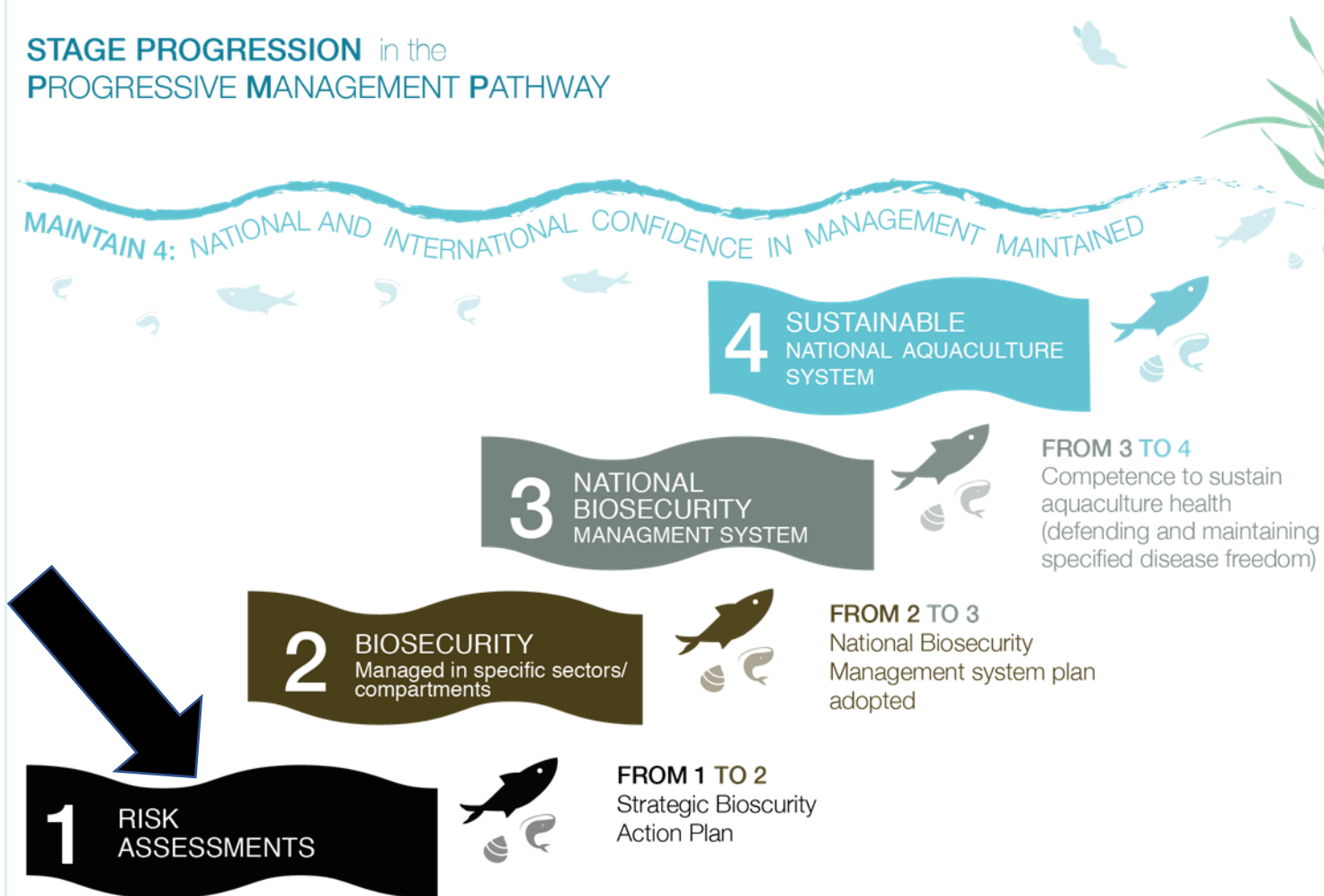


PMP | The Progressive Management Pathway  
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- May be applied at a **National level**, or targeted **geographically**
- Each stage has **well-defined outcomes** which are achieved through a variety of activities
- **Evidence based** and **transparent assessment** of stage of a country (or zone) proposed through data collection and audits
- **Fast-track system** can be considered for enter into advanced stages (providing evidence for meeting stages entry requirements)

# PMP | The Progressive Management Pathway for Aquatic Biosecurity to support Sustainable and Resilient Aquaculture

## STAGE PROGRESSION in the PROGRESSIVE MANAGEMENT PATHWAY



## PMP Stage 1 focus -

- Creation of a national strategy that has confidence and support of the **stakeholders** (private and public)
- Addresses **principal hazards** and **risks** that affect aquaculture health and production
- **Aim** - common agreement on a long term vision
- Each country will need to complete its **Strategic Biosecurity Action Plan** which will be the 'gateway pass' to enter **Stage 2**



**Stage 1** : Gain understanding of level of Biosecurity by doing a preliminary assessment and develop a **Risk Assessment**

Develop a Risk Assessment:

- **Identify hazards:** pathogens, mapping risks and gaps in the system, identify any negative impact on the ecosystem
- **Periodic checks** e.g. every trimester or every 6 months
- Development of **Strategic Biosecurity Action Plan** in order to progress to Stage 2



## Stage 1 : Achievements

At National level, public/private task force



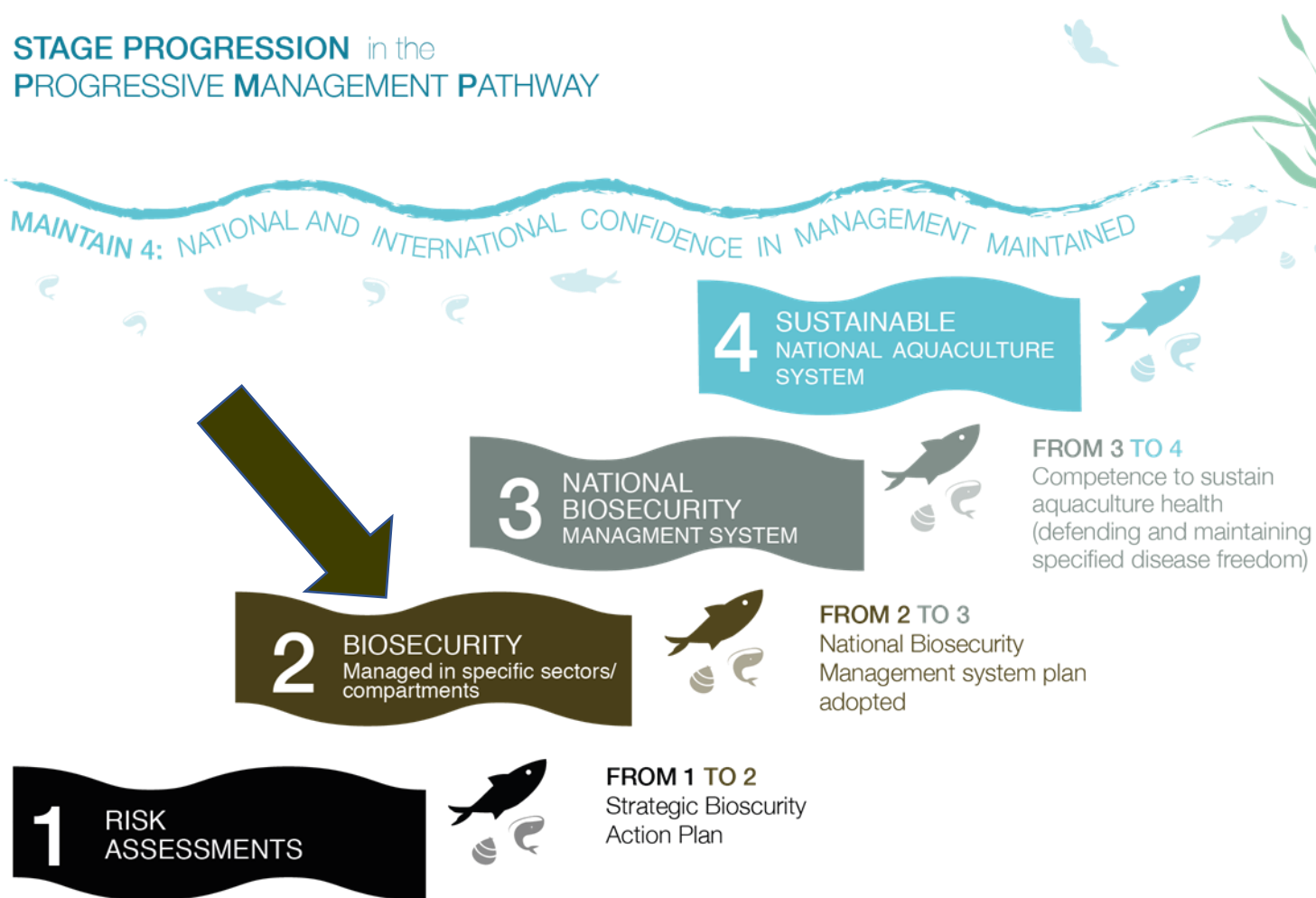
Establish co-regulation and co-ownership of the pathway between public and private sector stakeholders





# PMP | The Progressive Management Pathway for Aquatic Biosecurity to support Sustainable and Resilient Aquaculture

## STAGE PROGRESSION in the PROGRESSIVE MANAGEMENT PATHWAY



## PMP Stage 2 focus -

- **Implementation** of a **Biosecurity Action Plan** in specific sectors/compartments
- **Co-management** is expected to continue and strengthen the implementation and the improvements
- Should this stage move forward additional biosecurity efforts at ports and borders must be included
- Countries will need: **evidence** Strategic Biosecurity Action Plan implementation, & **commitment** through a National Biosecurity Management System in order to enter **Stage 3**

## Stage 2 : Implementation of Biosecurity

This should be achieved by giving constant training to all involved parties (private and public)

Evidence of implementation is done through:

- Inspections/Surveillance
- Monitoring
- Reporting
- Evaluation

Once a certain threshold is achieved through a combination of all of the above, it would be the gateway to Stage 3. All the achievements must be monitored and evidenced in order to move forward to **Stage 3**



## Stage 2 : Achievements

Task force to monitor and evaluate progress in engagement with enterprise and sector levels

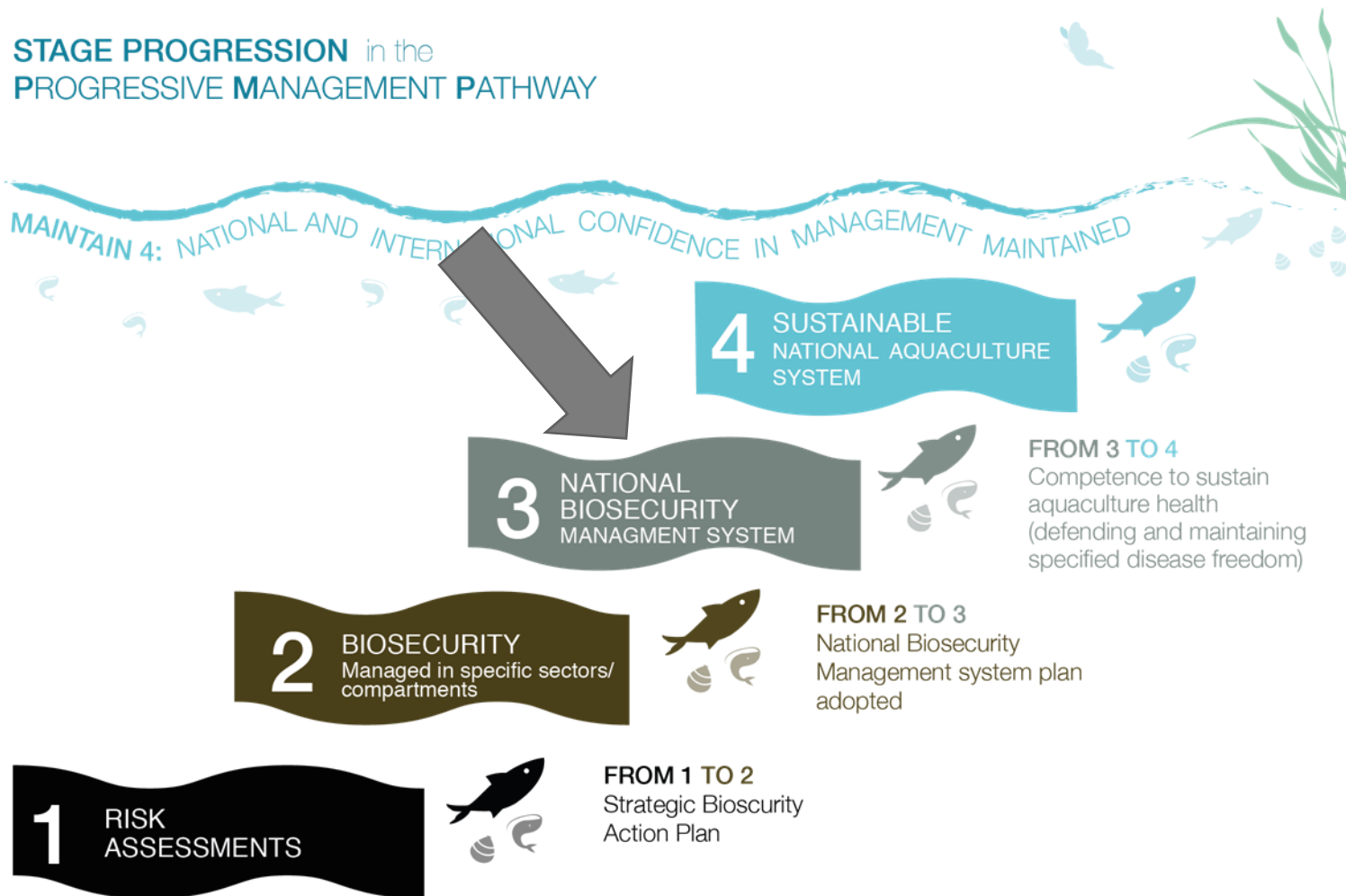


- Evidence of sufficient stakeholder application of **Biosecurity Plan**
- Evidence that task force is effective and problems encountered are being addressed



# PMP | The Progressive Management Pathway for Aquatic Biosecurity to support Sustainable and Resilient Aquaculture

## STAGE PROGRESSION in the PROGRESSIVE MANAGEMENT PATHWAY



## PMP Stage 3 focus -

- Zoning, restrictions of movement and reporting of any disease/emerging problems through constant surveillance should be in place
- Once the management system is found to be capable to sustain the Aquaculture health by defending and maintaining specific disease freedom it can move forward to **Stage 4**



### **Stage 3** : National safeguarding and sustaining progress

The management capacity should be sufficient to safeguard the level of investments (private and public entities)

Disease/risks should be managed by a combination of:

- Public efforts
- Policies
- Legislation
- Producer interest and engagement

At this stage specific diseases should be under control within the country, with sufficient attention and actions taken against any posed threats



- The **maturity of the system** for monitoring Aquaculture health, specific diseases, evidence of stakeholders support and their participation in achieving this progress are required to move onto **Stage 4**.

The system is expected to be an integral part of a **National Policy and plan for Aquaculture**, and addressing the system, roles and responsibilities required to safeguard health of the sector, consumer and the environment.



### Stage 3 : Achievements

National, multi agency task force with capacity for effective regulation of  
Biosecurity change with producers

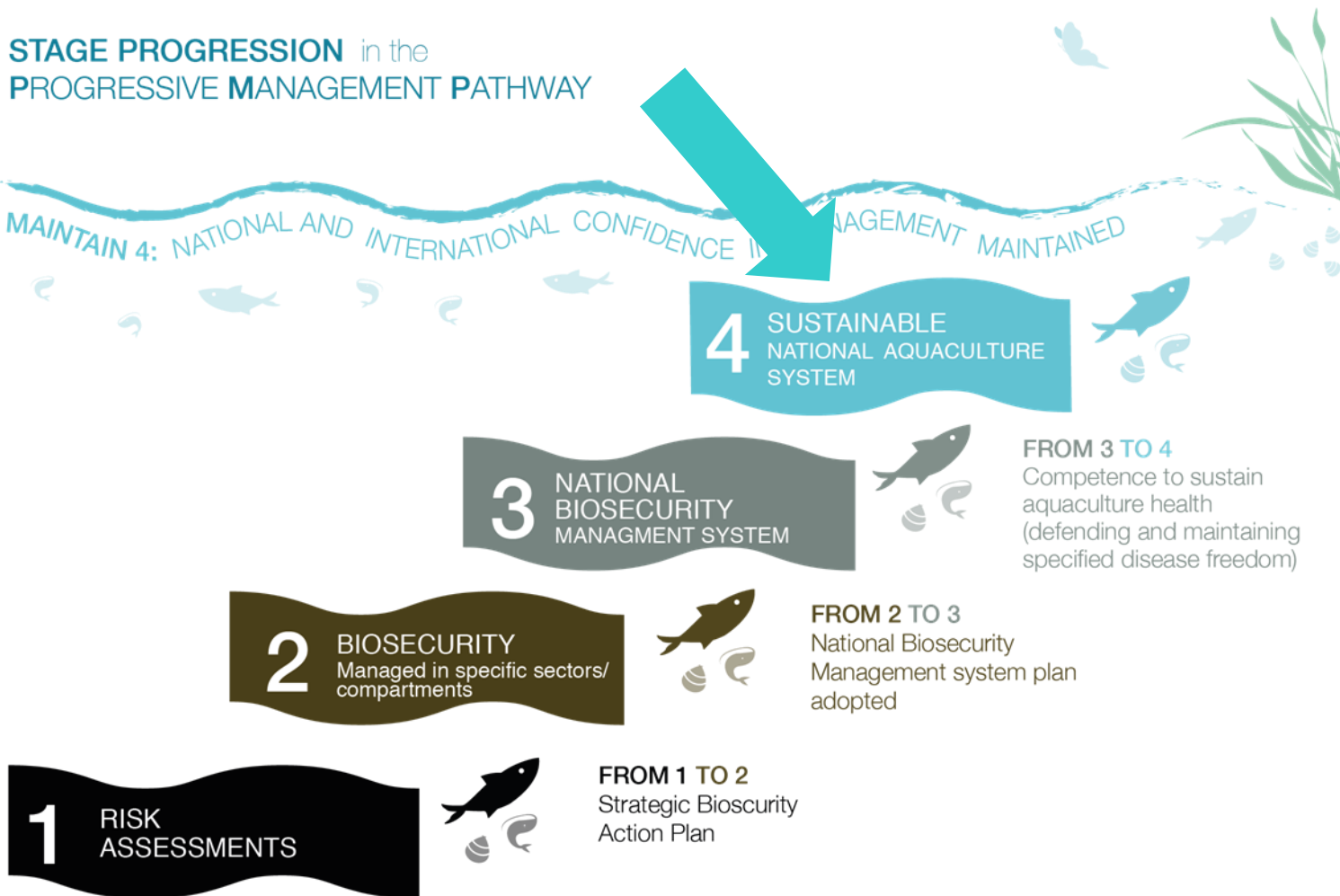


- Evidence of performance indicators for a functional national system which addresses risks
- Increase systematic surveillance
- Evidence of health status – **pathogen freedom**



# PMP | The Progressive Management Pathway for Aquatic Biosecurity to support Sustainable and Resilient Aquaculture

STAGE PROGRESSION in the PROGRESSIVE MANAGEMENT PATHWAY



## PMP Stage 4 focus -

- End stage - **Achievement** of a **Sustainable and Resilient National Aquaculture System** acquired through the capacity to maintain confidence, biosecurity system, emergency preperdness and preventive measures
- All these activies must be co-ordinated and maintained, otherwise a 'downgrading' of the PMP status may result





## Stage 4 : Achievements

National long term commitment of maintenance of the system for  
Aquaculture and Ecosystem



- Evidence of National policy supported in law with legal and financial commitments
- Evidence base supports confidence in National Aquaculture and Ecosystem health, and in capacity to prevent and respond to any threat at National level



## **Benefits of the PMP**

- At National level it addresses the lack of clear national plans through a focus on: national strategy development processes, mid- to long-term and promoting a co-management approach
- Brings stakeholders together with a variety of benefits
- Builds the basis for national, public and private co-management of Biosecurity



## Global Action Plan

The approach taken by other PCPs of promoting national uptake through regional meetings, where countries assess their likely rate of change, over a 15-20 year period. The *Global Strategy for FMD* for e.g. foresaw that countries would progress 2 stages over a 15 year period, ensuring that all countries would be **at least in Stage 3 after 15 years** – a significant increase in control level.



# PMP | The Progressive Management Pathway for Aquatic Biosecurity to support Sustainable and Resilient Aquaculture

## PMP Stages: example of progress planned (and ACTUAL)

	PMP	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PLANNED	1	█	█								
	2			█	█	█					
	3						█	█	█	█	█
ACTUAL	1	█	█								
	2			█	█	█	█	█			█
	3								█	█	█

PMP stage Reversal: (producers withdrew)

PMP stage 1 achieved in 2 years AS PLANNED.

Entry into PMP2 after joint evaluation (JE) in 2021.

ACTUAL implementation LONGER THAN EXPECTED; meeting criteria for PMP3 ONLY in 2026

In 2028, co-regulation lost as main sectors of producers withdrew from the national system, forcing suspension then loss of PMP stage 3.

# Progressively – we can improve biosecurity



# Thank you

- Appreciation
- Melba and the Conference team
- PMP- advice:
  - Giancarlo Ferrari
  - Koen Mintiens
  - April Johnson
- Design work
  - Enrique Anton
  - Nadia Rumich

