



Food and Agriculture Organization
of the United Nations

Initiatives to Engage the Wildlife and Environment Sectors in One Health

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- *Regional Focal Point for the Quadripartite, AMR and GFTADs*

6 Sept 2022



- 1. Animal Production and Health Commission for Asia and Pacific (APHCA):** Promote & facilitate best practices, policy dialogue & technical information exchange
- 2. Improved Livestock Production:** Sustainable livestock production, good husbandry & farming practices
- 3. Antimicrobial Resistance (AMR):** Improved risk management, prevention and control of AMR
- 4. Diseases prevention and control:** zoonotic diseases (emerging, endemic & food-borne) & transboundary animal diseases
- 5. Expanding OH:** OH beyond animal & public health stakeholders, inclusive of forestry, wildlife, natural resource management & environment sectors



Over 100 projects in the region: regular program & extra budgetary (ECTAD+)



1. Global Framework for Transboundary Animal Diseases (GFTADs) with WOAH
 - Regional Strategy for TADs under development
 - Specific Disease Coordination efforts with ASEAN, SAARC & SPC & regional partners/stakeholders
2. FAO program on TADs – Prevent, Detect, Control, Repond, Risk Assessments, Policy, Strategy, etc.
 - African Swine Fever, Foot & Mouth Disease, Peste Pettit Ruminant, Lumpy Skin Disease, Highly Pathogen Avian Influenza Viruses (ASEAN, SAARC, SPC - projects, capacity development, etc)
 - **Impact of Diseases on livestock & wildlife (ASF, PPR, HPAI)**
 - Guidelines, SOPs, Best Practices, Preparedness & Response Plans, Surveillance (lab & epidemiology), Vaccination strategies, Outbreak Response, Simulation Exercises, Cross-border coordination, etc.



Food and Agriculture
Organization of the
United Nations



SSC
Species Survival Commission

Oie
WORLD ORGANISATION
FOR ANIMAL HEALTH

Conservation impacts of African swine fever in the Asia-Pacific region
Joint communique of the Food and Agriculture Organization of the United Nations (FAO),
International Union for Conservation of Nature Species Survival Commission (IUCN SSC)
and the World Organisation for Animal Health (OIE)
24 June 2021



1. Surveillance for HPAI viruses
2. Surveillance for resistant AMR pathogens in livestock samples

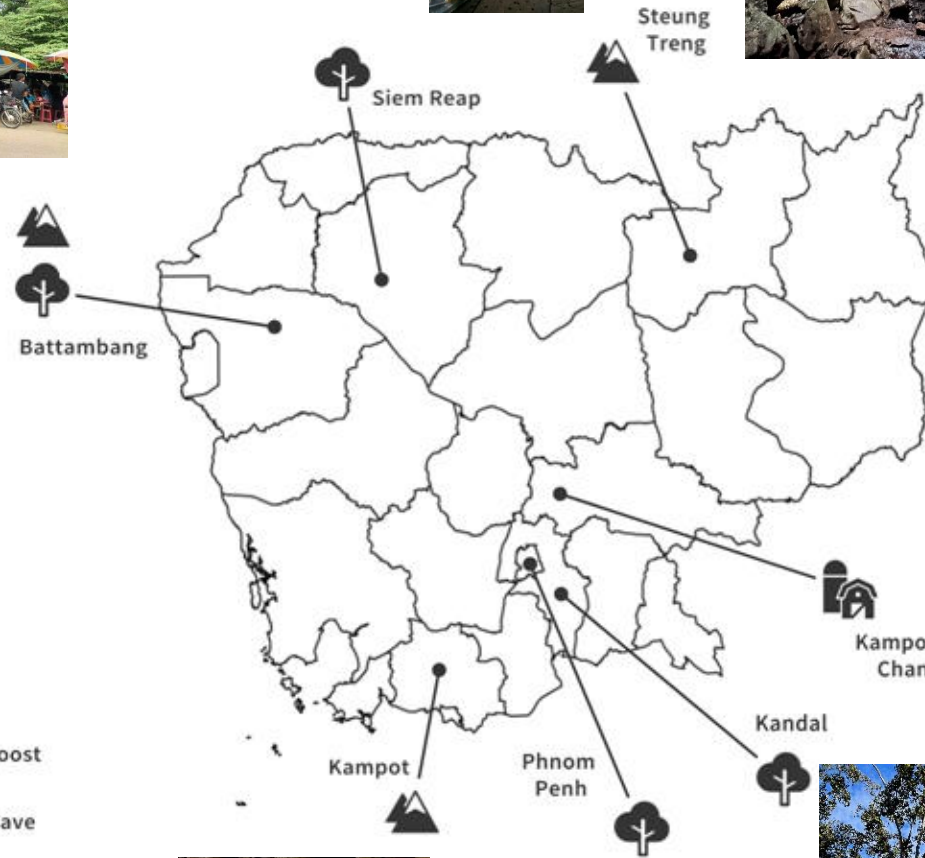


3. Searching for coronaviruses (& other pathogens) at bat-human interfaces with novel technologies
4. Risk Assessment at Wildlife Markets



Sampling Sites

2 rounds – May/August 2022



Total Samples Collected:

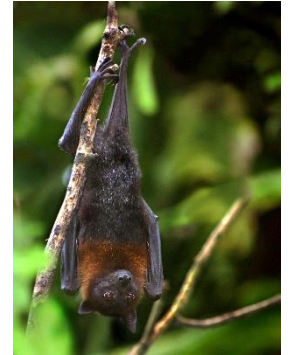
Province	Air	Feces	Surface	Urine	Grand Total
Battambang	20	304	30	624	978
Kampong Cham	10	209	20	162	401
Kampot	6	120	13	81	220
Kandal	5	120	10	110	245
Phnom Penh	5	110	10	100	225
Siem Reap	5	234	30	200	469
Steung Treng	10	248	23	143	424
Grand Total	61	1345	136	1420	2962

Scotophilus kuhlii



Major Species:

Pteropus lylei



Chaerephon plicatus

Rhinolophus shameli



...and many other co-roosting and free ranging insectivorous bats



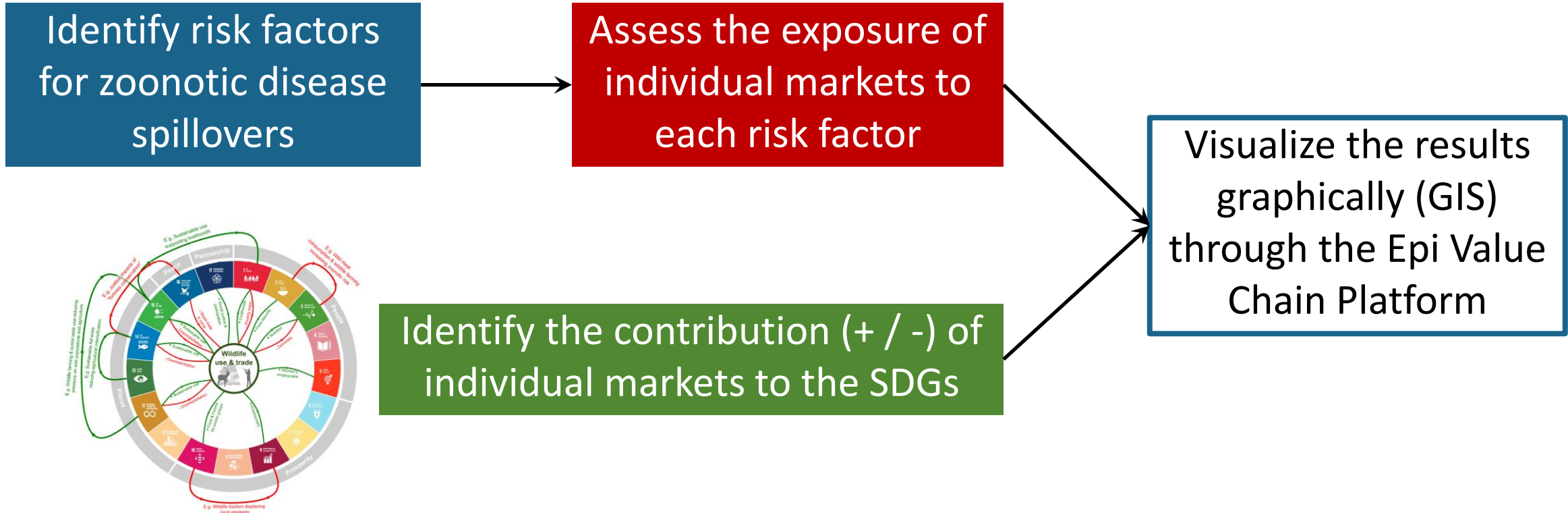
4. Reducing the risk of emerging zoonotic disease spillover events in high-risk wildlife wet markets and their value chains in Indonesia

- **Overall Output:** Roadmaps for the development & endorsement of the **5-year action plan on risk reduction** of emerging zoonotic disease spillovers in high-risk live animal markets
- **Risk profiling of selected live-animal markets & associated value chain of prioritized wildlife - understand drivers & factors influencing risk of disease spillover**
- **Critical control points, risky practices and behaviors at market level are identified and can be addressed in order to reduce the risk of emerging zoonotic disease spill-over events are identify**





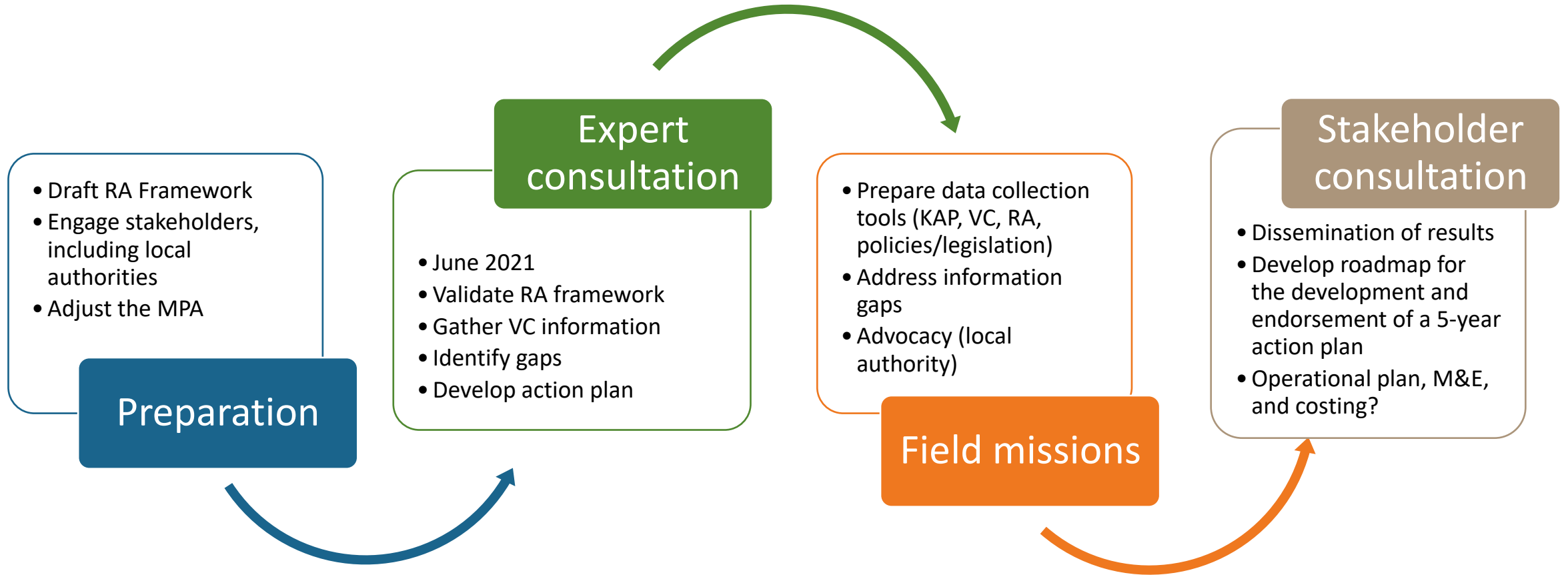
The Risk Assessment Framework



We will not aim at categorizing markets according to their risk because this could lead to intentions to close markets without taking into consideration their contribution to local people’s livelihoods.



The process





1. RAP Virtual Learning Center - Training Modules developed/delivered
 1. **8 online courses (ASF, LSD, FMD), One Health, epidemiology**, livestock value chain, food security
 2. 725 participants from 31 countries in Asia (20) and the Pacific (11)

2. **Introductory OH training course** available through the FAO RAP Virtual Learning Ctr
 - M1. Introduction to One Health
 - M2. Potential Sources of Pathogens
 - M3. Drivers of Diseases at Human-Environment-Wildlife-Livestock Interface
 - M4. Impacts of Infectious Diseases
 - M5. Principles of Joint risk Analysis
 - M6. Risks of wildlife farming and trade
 - M7. Integrated One Health Disease Surveillance
 - M8. Joint One Health Outbreak Investigation

3. Training modules training for veterinary and medical professionals on links between the **environment and health** are under development

4. Delivered presentation to Regional FETPV program here in Thailand – **The Role of the Environment Sector in One Health**



Major Gaps in One Health

- Largely engaged the public health and veterinary sectors
- Has not adequately engaged Ministries responsible for natural resource management, ecosystems, environment, wildlife & biodiversity
- Focused on addressing Zoonotic Diseases, AMR and Food Safety
- Has not focused on
 - preventing environmental degradation
 - protecting & restoring natural resources (biodiversity & ecosystems)
 - upstream interventions to prevent pandemics, TADs and AMR
- Established in-service training programs (FETP, FETPV) to support Ministries of Health and Veterinary Services
- No training program for in-service Environment professionals
- Environment professionals play a small role, if any, in OH coordination mechanisms, setting national OH policies, or implementing OH programs & activities





Field Training Program for Wildlife, Environment Biodiversity & Ecosystems (FTP-WEBE)

An interoperable One Health
... in-service training
program for the
environment sector

The compliment to FETP and
FETPV

Targeting in-service
professionals from
Ministries of Forestry,
Wildlife, & Natural Resource
Management



Strengthen the capacity of
the natural resource
management and
environment sector to
participate in an
interoperable manner
with human and animal
professionals and to
support One Health
policies, legislation and
interventions



Goals:

- 1. Strengthen OH technical capacity of the wildlife & environment sector professionals and institutions**
- 2. Create a “win-win” scenario to properly engage the wildlife and environment sector professionals and have them understand how they can significantly contribute to OH solutions*
- 3. Wildlife and environment sector participate as equal partners in national, regional and global OH policy development, national initiatives, programs activities**

Expected Outcomes:

- 1. Protect** the environment from anthropogenic drivers of degradation
2. Improve “**upstream**” interventions that **Prevent** spill-over and emergence of infectious zoonotic pathogens, transboundary animal diseases, AMR;
- 3. Enhance** national OH programming, platforms, policies & implementation



Concurrently, the medical & veterinary sector professionals need to learn about the links between environment & health, learn how NRM/ environment sector can contribute to OH solutions and welcome them to participate



- OH beyond animal & public health stakeholders

FTP-WEBE

1. Position Paper & Theory of Change

2. Curriculum

- Summary report on the Curriculum Framework Under a One Health Approach
- Curriculum Development (50 persons/ 17 partners- Dec 2022)
- Manuals being prepared for participants, trainers, mentors, M&E framework (Dec 2022)

3. Environment Sector Mapping & Needs Assessment Tool

- 4. **Two-Year Regional Implementation Plan** developed to guide the initial ACB coordination in enabling & engaging ASEAN member countries and relevant ASEAN bodies to participate in the FTP-WEBE Program

Subject Area	Domains	Competencies	Skills
Biodiversity & Ecosystems	13	44	66
Wildlife	5	27	97
One Health	29	96	



Building on FETP and FETPV Proven Practices

Characteristics	Frontline	Intermediate	Advanced
Duration of training	- 4 months	- 9 months	- 24 months
Percentage of theory to applied learning	- 25% : 75%	- 25% : 75%	- 25% : 75%
Scope	- Understand and apply basic concepts at the local community level	- Perform simple analysis and integrate data and information at subnational level	- Perform complex analysis and report findings to national decision makers
Minimum Candidate requirements	- In-service environment professionals-field level or community based professionals- i.e. park rangers, local managers, etc.	- Undergraduate level training in environmental sciences	- Graduate or post-graduate level training in environmental sciences



- Developed an **Environment Sector Country Mapping and Needs Assessment Tool** that evaluates national baseline individual & institutional setting
- Includes 3 parts:
 - I. Environment sector stakeholder identification and mapping exercise
 - II. Self-assessment based on indicators in biodiversity, ecosystems, wildlife and OH
 - III. HR and Skills gap analysis
- Piloting in (Bangladesh, Indonesia, Thailand + Laos PDR, Mongolia) and then roll out in the ASEAN region with ASEAN Centre for Biodiversity
- For each indicators - country score of Very High, High, Medium or Low

○ **Biodiversity**
- 10 indicators

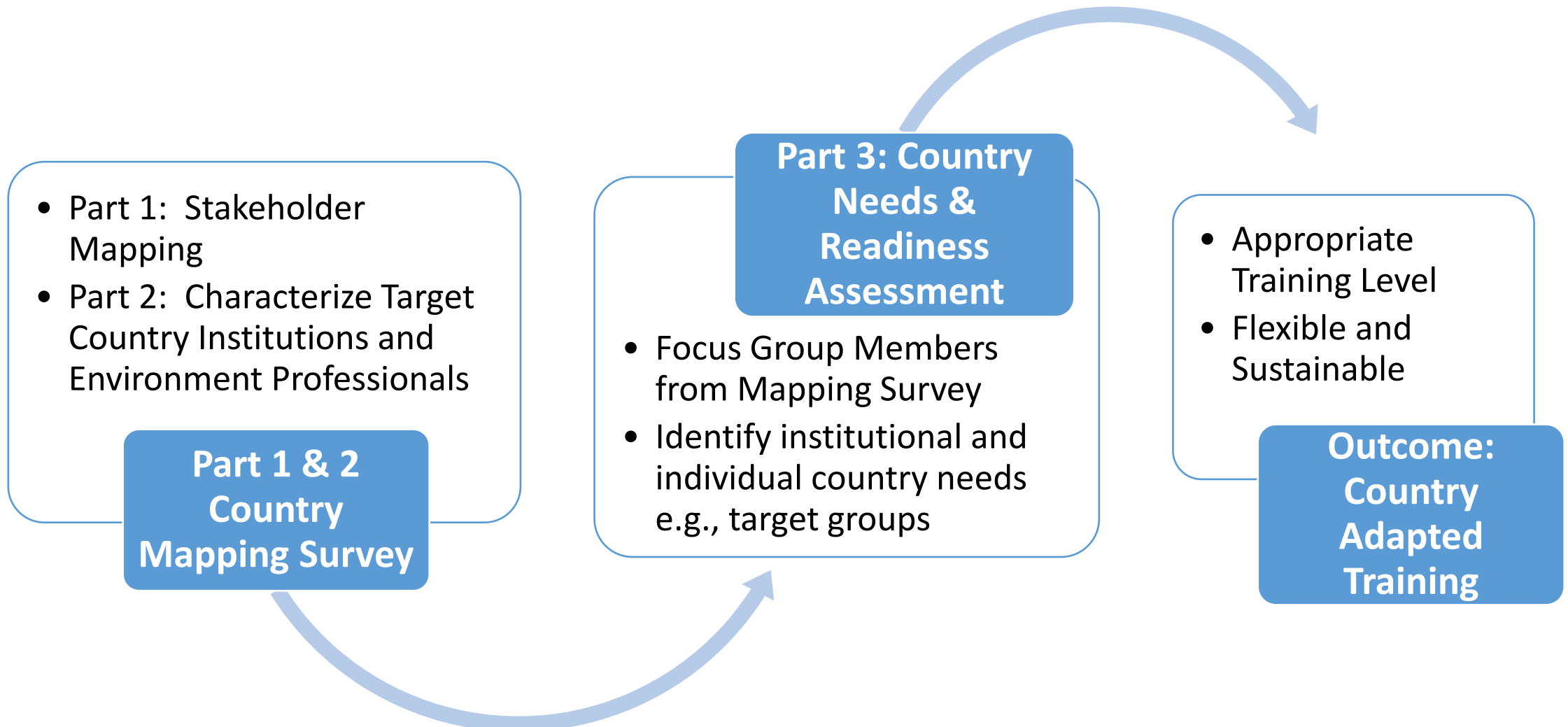
○ **Ecosystems**
- 14 indicators

○ **Wildlife**
- 19 indicators

○ **One Health**
- 21 indicators



FTP-WEBE: Process – Environment Sector Country Mapping & Needs Assessment Tool





Safety across Asia for the global Environment

SAFE

Reducing zoonotic risks and wildlife crime



Implemented by



UNODC

United Nations Office on Drugs and Crime



Funded by
the European Union

In cooperation with



Food and Agriculture
Organization of the
United Nations



Project Summary



THAILAND



VIETNAM



LAO PDR



- Unknown risks associated with wild animal utilization & risks are compounded by the illegal wildlife trade
- Start an EU/UN/Asia cooperation to contribute to the prevention of wildlife-related pandemics
- Target risks at facilities and locations with a high risk of disease agent transmission from wild animals to humans
- One Health approach

Year 1: August 2021 – July 2022

Year 2: August 2022 – July 2023

Year 3: August 2023 – July 2024

Inception:
August-October
2021

IMPLEMENTATION: November 2021 – July 2024



Implemented by



SAFE

Reducing zoonotic risks and wildlife crime

PROJECT OUTPUTS – RISK ASSESSMENT FRAMEWORK, REGULATORY SUPPORT & REGIONAL COOPERATION



1. Develop & implement a **risk assessment framework** for facilities & locations posing the highest risk of passing severe zoonotic diseases from wild animals to humans
 - Scientific Advisory Committee & Expert Working Groups (Wildlife Crime, Pathogen Transmission, Facility Management)
 - **Field surveys in facilities hosting wild animals** (Zoos, petting establishments, wild animal markets and restaurants...)
2. Provide **regulatory & advisory support** to governments to manage & phase-out high-risk facilities and location
 - National Advisory Committees
 - Legal and policy review
 - Technical workshops
3. Support existing dialogues & **increase regional cooperation** framework (ASEAN, China, EU) **on biosafety** aiming to prevent zoonotic diseases in the future



Implemented by



SAFE

Reducing zoonotic risks and wildlife crime

36th Session of the Regional Conference for Asia and the Pacific #APRC36



Recommended FAO, in collaboration with Tripartite and other international organizations to...

- i. provide technical assistance to countries to strengthen OH policy, governance & capacity (individual & institutional), including **undertaking national OH & environment sector needs assessments**;
- ii. **expand OH capacity development**, subject to available resources, that incorporates linkages between the environment and health and includes both **in-service training for wildlife, environment, biodiversity and ecosystem professionals and joint, multi-sector training on OH**;
- iii. maintain ongoing OH support for addressing zoonotic diseases, transboundary animal diseases, scale-up activities under the regional programme on antimicrobial resistance and food safety and include CODEX Alimentarius and other associated standards;



Thank you



**BETTER
PRODUCTION**

**BETTER
NUTRITION**

**BETTER
ENVIRONMENT**

**BETTER
LIFE**