



KICK-OFF WORKSHOP

Introduction to ICT4Health project

**Improving human health through sustainable value chains in
human-animal-environmental interactions using ICT in Vietnam (2022-2025)**

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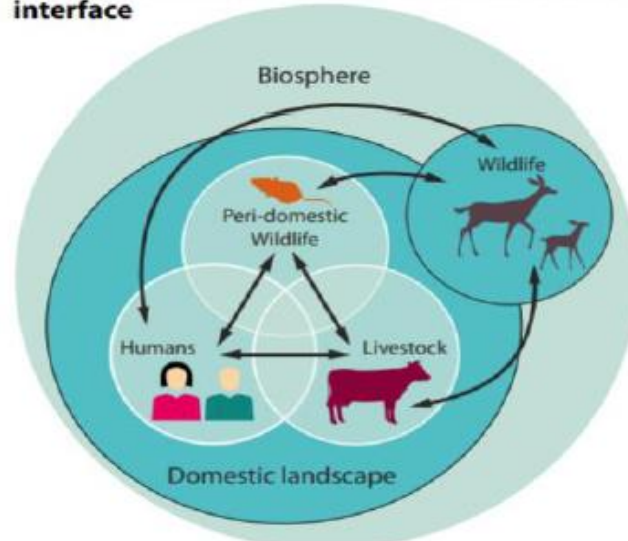
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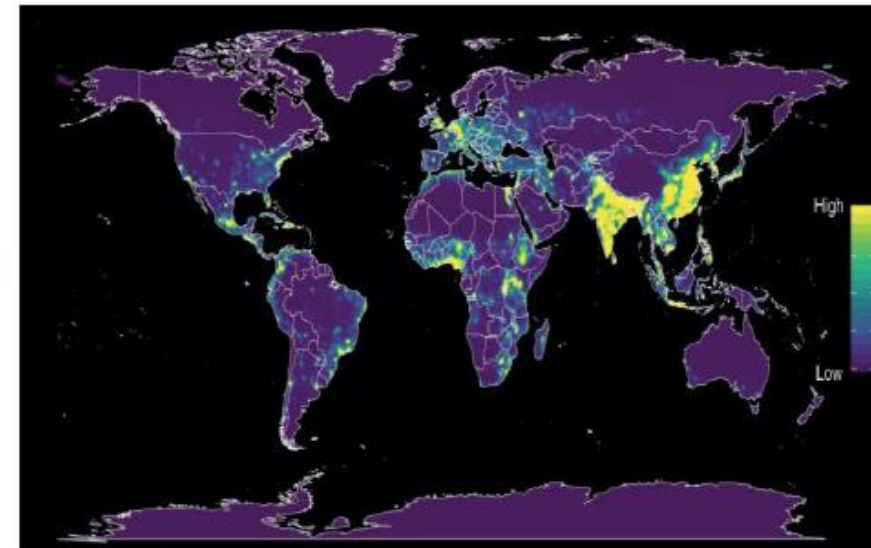
Project justification & outline

- Livestock production: critical to human nutrition & health in low-and middle-income countries
- Endemic and emerging diseases in animals:
 - The recent outbreaks of COVID-19 (2019), ASF (2018) and avian influenza (2004) in Asia:
 - human health, food safety, livestock trade, and livelihoods of poor farming communities
 - to heighten the awareness of the wide-ranging negative impacts of infectious diseases

Pathogen flow at the wildlife-livestock-human interface



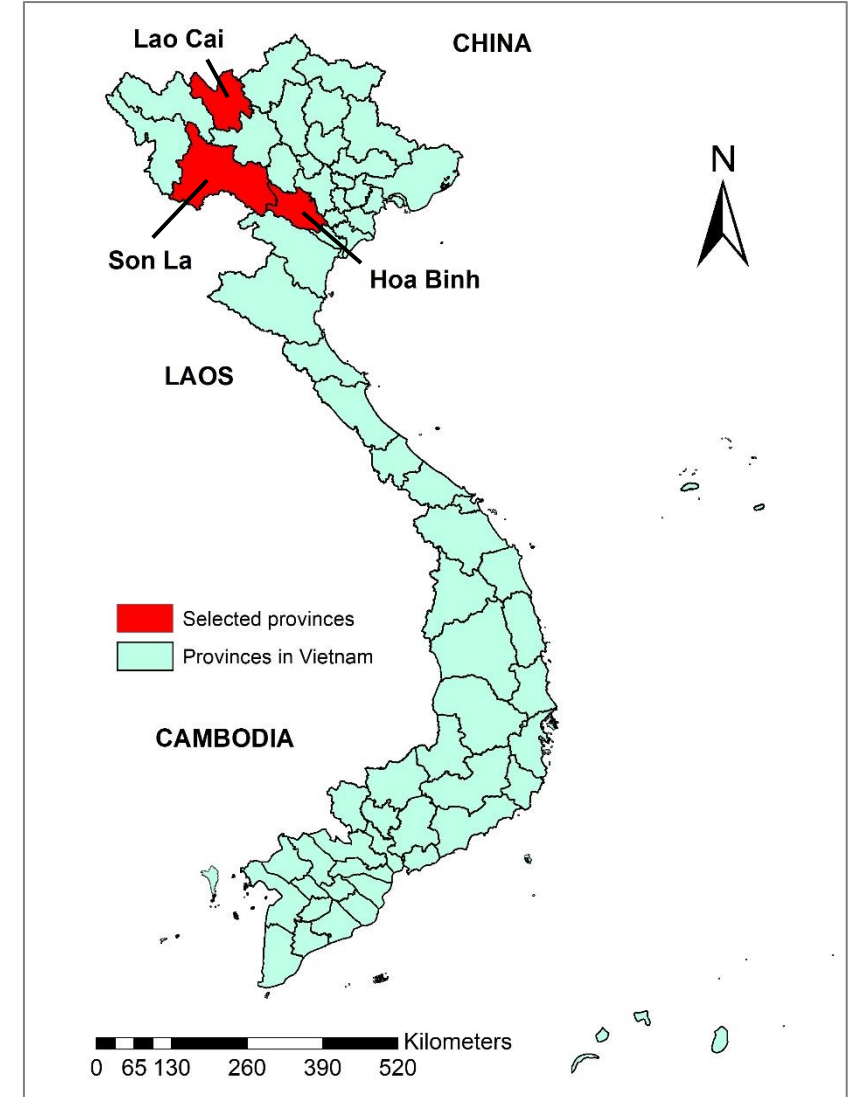
Global hotspot map of estimated risk in zoonotic disease emergence



Source: Adapted from Jones et al. (2013)²³

Project justification & outline

- **Title:** Improving human health through sustainable value chains in human-animal-environmental interactions using ICT in Vietnam (“ICT4Health”)
- **Period:** 2022-2025
- **Target area:** Hoa Binh, Lao Cai and Son La provinces
- **Budget:** USD 3 million
- **Donor:** Ministry of Agriculture, Food and Rural Affairs (MAFRA) in South Korea



Objective and Key components

To improve human health through sustainable livestock value chain

Component 1:

To conduct gap analysis on TAEZDs

- TAEZDs prioritization through participatory approach
- Communication and information sharing

Component 2:

To establish surveillance working groups

- Institutional capacity
- integrated surveillance and diagnosis along the VC
- Assessment of cost-effective control & prevention strategies

Component 3:

To conduct a pilot study for e-surveillance & training

- Developing mobile application and systems
- Training workshops for e-surveillance system

Component 4:

To develop method tools for improving health along the VC

- Developing risk map and transmission models
- Risk assessment and preparedness tools
- Cost-effective strategies

Component 5:

To implement community-based interventions

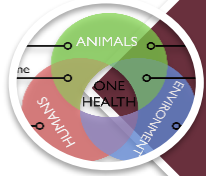
- Low-cost interventions (e.g., livestock management and biosecurity)
- Capacity building (e.g., outbreak investigation, vaccines and drug use)

Cross cutting aspects: ICT, E-training, Gender & equity, Climate change, and Animal welfare

Link to the SDGs:



Expected results



Improved evidence-based One Health policies for the government

- List of prioritized diseases and recommendations
- Strengthened human and animal disease monitoring and surveillance



Improved livestock productivity in smallholders by reduced disease outbreaks

- better livestock management and biosecurity



Improved income of targeted value chain actors and traceability via ICT support

- better sanitation and hygiene measures for zoonosis control

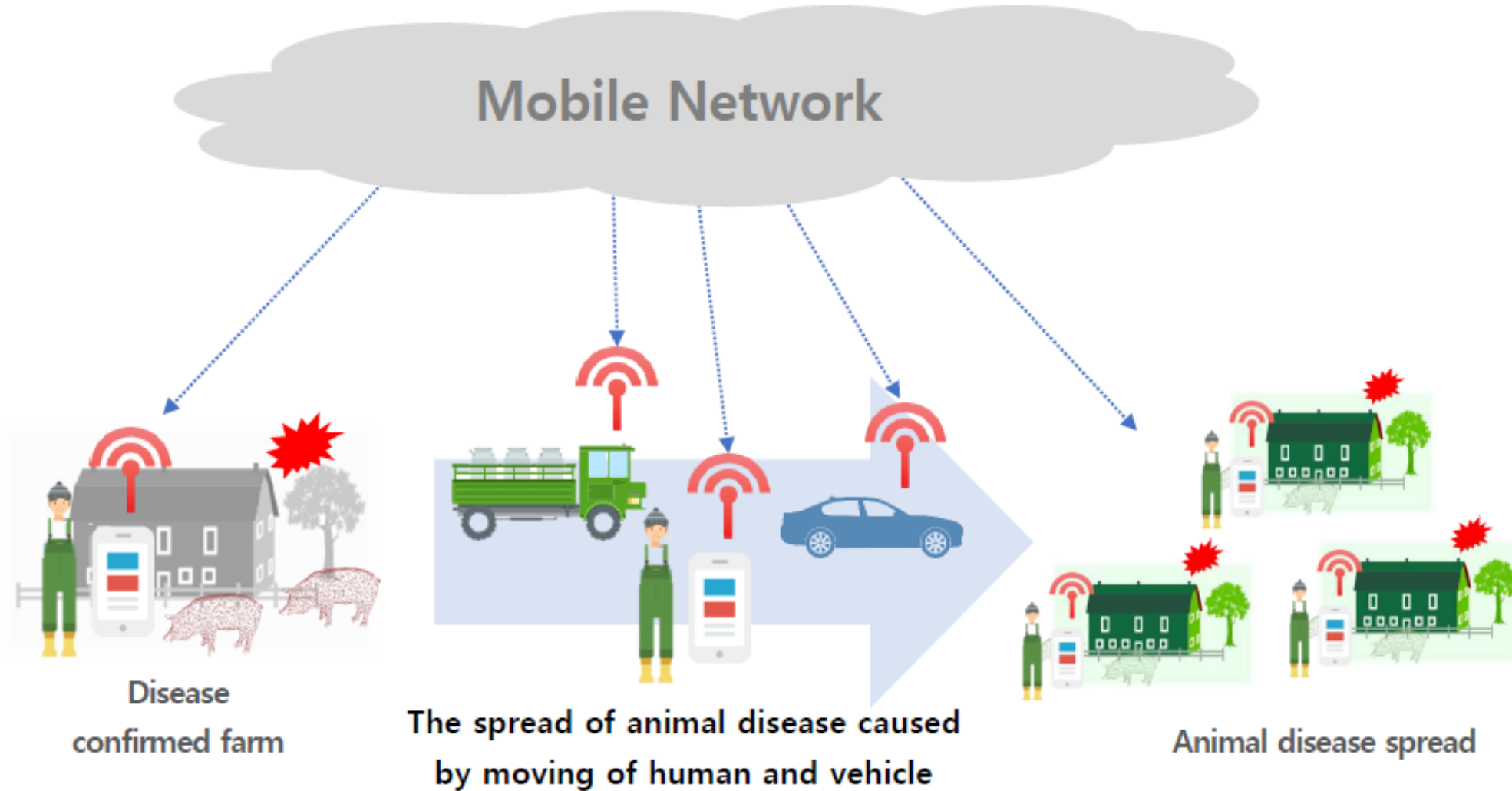


Improved veterinary services and better accessibility for smallholder farmers



Increased eco-friendly & sustainable productions of relevant value chain actors e.g., effective waste management

Basic Concept



E-surveillance system

Early detection & rapid response will become available by simplifying the entire report process by using LEPP Quarantine

Recognizing signs & symptoms

Real-Time report

Disease response

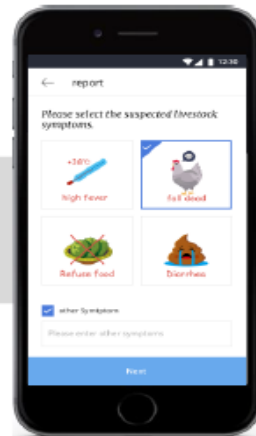


Livestock Farmer

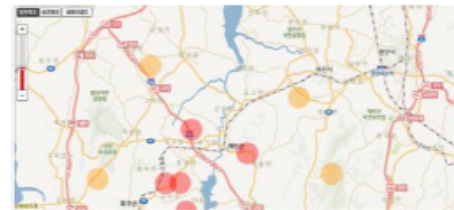


Local Veterinarian

local head, local drug dealers, drug stores



Report symptoms and pictures of susceptible animal through smartphone app



No	위험도	농장명	농장번호	농장주	연락처
1	높다	우리 농장	12345678	홍길동	010-1234-5678
2	낮다	김촌 농장	23456789	김철수	010-2345-6789
3	높다	정북산 농장	34567890	정남산	010-3456-7890

PAHPO

VAHW

District governor

Provincial governor

PAHPO: Provincial Animal Health and Production Office
VAHW: Village Animal Health Workers

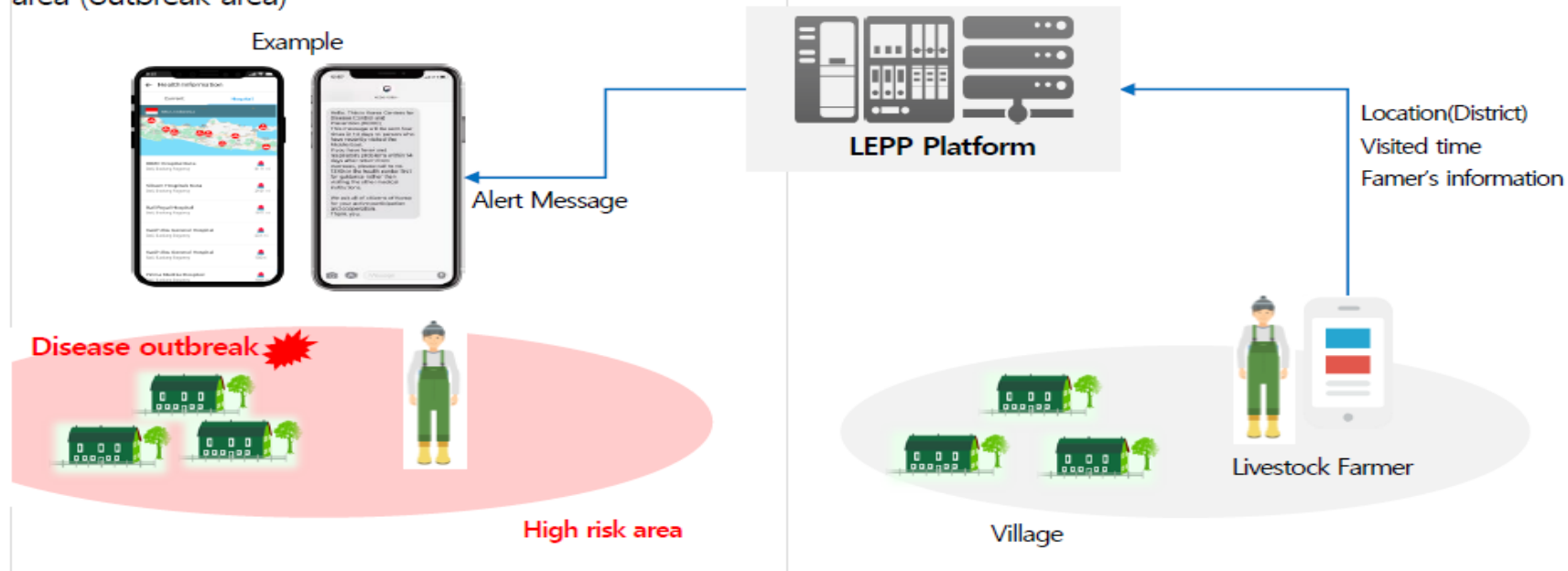
Quarantine inspection by local government and related organizations.

Mobile application

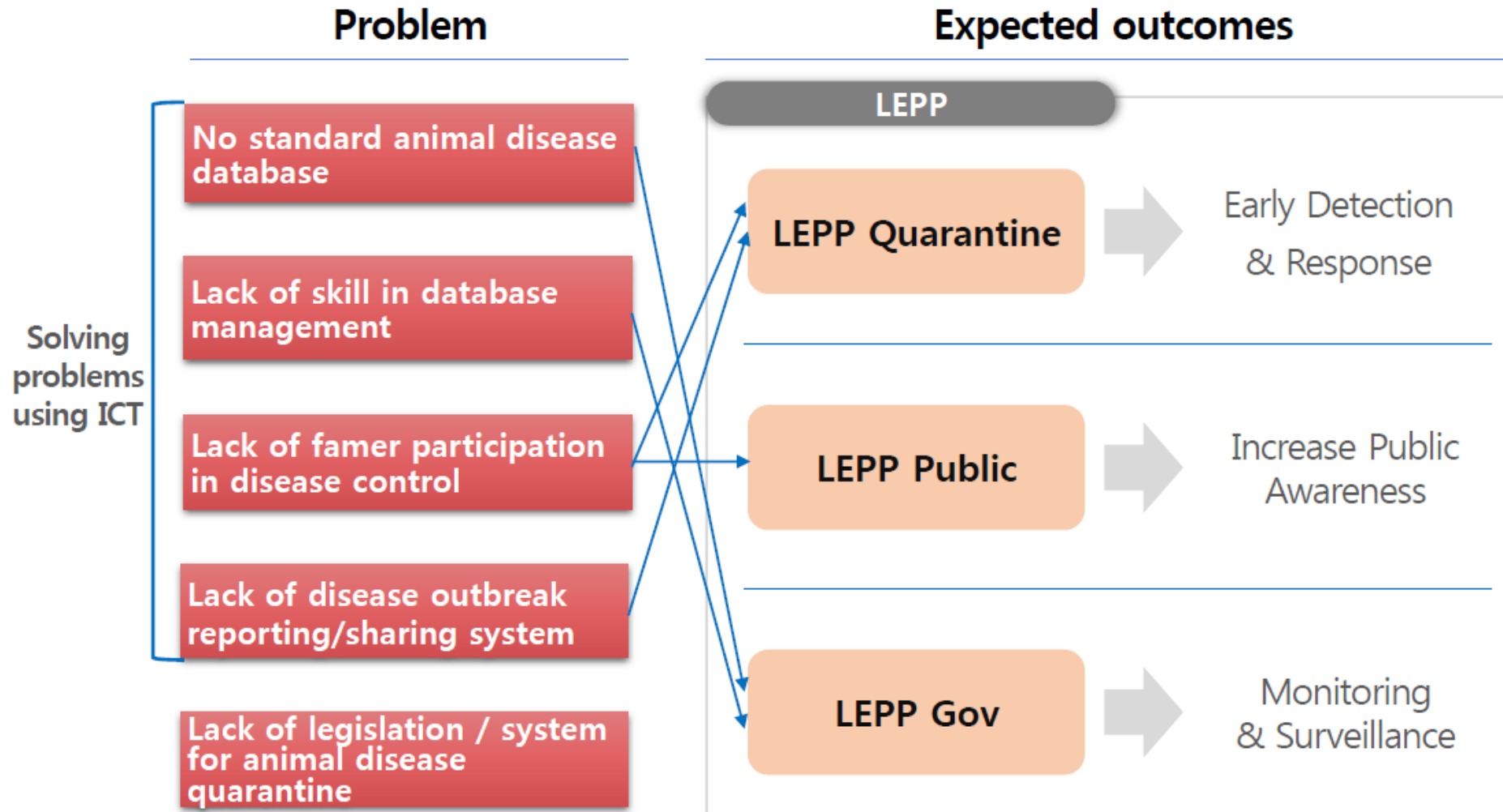
Sending an alert message to livestock stakeholders collecting the location data on the smartphone

Notification of disease outbreak

1. Sending outbreak information
 - location , Prevention & response method
2. Sending an alert message when visiting the high risk area (outbreak area)



Expected outcomes



A pilot study

- **Project sites**
 - Min. 500 farmers / province (Hoa Binh and Lao Cai)
 - Da Bac district in Hoa Binh
 - TBC in Lao Cai and Son La
- **E-surveillance training**
 - Farmers and AHWs/Vets
- **Major indicators**
 - Reporting time
 - Before vs After: No. reporting cases & detected pathogens / year
 - Target provinces vs other provinces
 - Dispatched time for vet. officers



Photo: Sub-DAH in Hoa Binh


Tentative activities and timelines

Tentative activities and timelines	2022		2023				2024				2025			
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Project launch workshop	█													
1. To conduct gap analysis of the current registration on TAEZDs using a One Health approach														
- TAEZDs literature review and analysis focus on Vietnam and SEA	█	█												
- TAEZDs prioritization workshop and sharing information	█	█												
2. One Health TAEZD Surveillance Working Groups established and networked with each other and key surveillance partners														
- Institutional capacity to support One health action plan	█	█	█	█	█	█	█	█	█	█	█	█	█	█
- field activities (epidemiological investigation and lab analysis)		█	█	█	█	█	█	█	█	█	█	█	█	
- Assessment of cost-effective control measures		█	█	█	█	█	█	█	█	█	█	█	█	
3. To conduct a pilot study for establishing a surveillance & monitoring system using ICT technology responding to TAEZDs with the authorities and relevant stakeholders														
- Development of application and establishment of main server	█	█												
- Testing e-surveillance system		█	█											
- Training for relevant stakeholders (e.g. farmers, traders etc.)		█	█											
- Establishing a surveillance & monitoring system		█	█	█	█	█	█	█	█	█	█	█	█	█
4. Deployment of tools and methods that can improve surveillance of TAEZDs														
- To collect secondary and surveillance data			█	█	█	█	█	█	█	█	█	█	█	
- To develop prediction model, risk maps and risk assessment			█	█	█	█	█	█	█	█	█	█	█	
5. Strategies to improve agricultural extension services and sharing equal benefit/right for women through implementation of gender intervention programs along the value chain														
- Build participants' knowledge and understanding on the gender issues in livestock farms		█	█	█	█	█	█	█	█	█	█	█	█	█



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