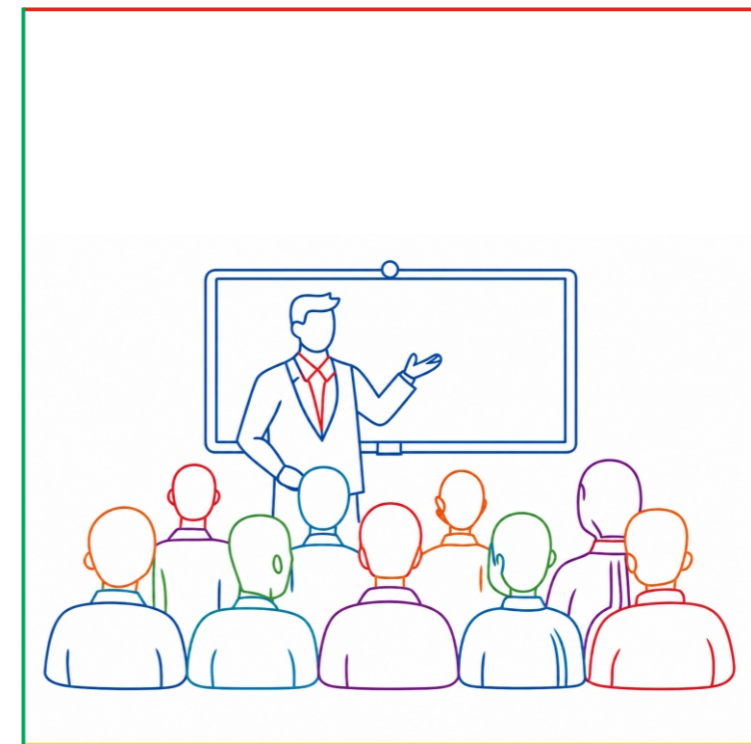




## One Health Programme

### Training Module

(Prepared for the training of officials from the Health department and other allied departments)



Health and Family Welfare Department  
Government of Kerala



Center For One Health Kerala (COHK)  
Thycaud Thiruvananthapuram

June 2026

**KERALA.HEALTH**

# **ONE HEALTH TRAINING MODULE**

(Prepared for the training of officials from the Health department and other allied departments)

**Department of Health and Family Welfare**

Government of Kerala

**KERALA.HEALTH**

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## Introduction

Kerala is the first state in India to implement the One Health program. One Health is an approach that recognizes that the health of humans, animals, plants, and their shared ecosystem/nature are inextricably linked and interdependent. The objective of this initiative is to continuously monitor the health of humans, living creatures, and environment to prevent the transmission of various infectious diseases to humans, and to detect and control those that manage to breach prevention systems at an early stage through required timely interventions.

Factors such as high population density, an increasing expatriate population along with resulting international travel, an aging population, and extensive forest coverage are the key elements that increase the risk and vulnerability of infectious diseases in the state. Considering these specific local circumstances, it was decided to implement the One Health Program to significantly improve the healthcare standards and resilience of the state.

The One Health program is currently being executed under the Rebuild Kerala Initiative as part of the Nava Kerala Karma Pathadi-2. The core goal of the project is to strengthen existing operational structures by bringing together all relevant departments for early detection of zoonotic diseases and time-bound containment of their spread.

The project timeline is 5 years, launched initially in 2021. In its first phase, the program is being implemented in the Pamba River basin districts, namely Kottayam, Idukki, Alappuzha, and Pathanamthitta. In the subsequent phase, the framework will be expanded to cover the remaining 10 districts of Kerala. Annual execution targets have been set up to successfully achieve the final goals of the program. The annual execution targets are given below:

<b>Year 1</b> <b>(July 2021 – June 2022)</b>	DoH & FW has operationalized district level One Health coordination platform with trained and certified staff in Pamba basin districts.
<b>Year 2</b> <b>(July 2022 – June 2023)</b>	DoH & FW has provided training to 2,50,000 LG and Kudumbashree members on protocols for community based OH surveillance in Pamba basin districts.
<b>Year 3</b> <b>(July 2023 – June 2024)</b>	DoH & FW undertakes routine joint disease outbreak investigations and inspections in 4 Pamba basin districts.
<b>Year 4</b> <b>(July 2024 – June 2025)</b>	150 LGs are implementing community based OH surveillance in Pamba basin districts.
<b>Year 5</b> <b>(July 2025 – June 2026)</b>	DoH & FW has identified and controlled at least one zoonotic disease outbreak of human importance in Pamba basin districts in a year.

The One Health program is implemented in the state by integrating it into the 'Multi-Sector Resilience Programme for Results Operation', which aims to enhance Kerala's defense against sudden outbreaks, infectious diseases, natural disasters, and climate change effects. The project is fully funded and supported on a co-financing model by the World Bank (IBRD) and the Asian Infrastructure Investment Bank (AIIB). The operational framework prioritizes zoonotic threats in its initial stages, subsequently expanding its scope to general communicable disease control, followed by non-communicable diseases (NCDs) and mental health integration.

## **Background**

One Health is an intervention strategy acknowledging that the health and well-being of humans, animals, birds, wildlife, plants, and the ecosystem are fundamentally intertwined and mutually dependent. The program aims to establish ongoing surveillance of human, animal, and environmental parameters to catch health risks early and put in place fast containment measures to protect the overall ecosystem health. The project is driven forward by the Health Department by functionally integrating and coordinating various line departments. This specialized training module has been designed to equip, train, and structurally orient field officers and staff of the Health Department and all allied departments for seamless execution.

## **Training Objectives**

1. Sensitize and thoroughly educate trainees on the concept and relevance of the One Health framework.
2. Familiarize officers with the department-specific focus areas, core vulnerabilities, and interventional spaces. Example: including zoonotic outbreaks, Antimicrobial Resistance (AMR), human-wildlife conflicts, and bio-invasions.
3. Build strong awareness regarding Kerala's One Health organizational structure, ongoing activities, future roadmap, and integrated approach.
4. Provide operational clarity on existing and planned disease surveillance, laboratory diagnostics, and rapid response systems, with special emphasis on community-based surveillance mechanics in various departments.
5. Equip officials with the skills to establish institutional multi-departmental coordination frameworks and joint mitigation plans at the State, District, and Local Self-Government levels.
6. Clearly define and delineate the general and specific roles and responsibility of various departmental officials.

## Training Topics

Workshop Sessions	
<b>Session 1</b>	One Health - Concept and significance.
<b>Session 2</b>	One Health- Issues to be noted and intervened by different departments
<b>Session 3</b>	One Health - Kerala and organizational structure
<b>Session 4</b>	One Health- Existing and to be implemented disease surveillance, diagnostic and intervention mechanisms within departments, community-based surveillance
<b>Session 5</b>	One Health Programme – Responsibilities and Duties of Officials in Various Departments
<b>Session 6</b>	Coordination and integrated activities of various departments at State, District, Local Self Government

*\* Note: It is mandatory to administer a structured Pre-Test at the beginning of the workshop and a Post-Test at the conclusion of the training.*

**Target Participants**

Various categories of staff belonging to the health department and all sectoral departments of One Health programme.

**Training Duration**

One Day –From 10:00 AM to 05:00 PM.

**Training Venue**

Available Local Self-Government or institutional centers at the can be utilized.

**Methodology**

Participatory learning suitable for adult trainers

**Trainers**

Officials and other experts from health department and various department who have received Training of Trainers (ToT).

**Learning Materials**

A handbook will be distributed to the participants of the training to assist in detailed reading and further study. Slides, videos, chart etc. should be used in the training program as recommended in the modules.

**Related Activities**

Further training opportunities will be provided to employees who require it. Officer level training will commence after Training of Trainers (ToT) is provided to selected officers and experts. Further services will also be provided online

## Programme Schedule

Sl. No	Topics	Duration
	Welcome, introduction and Pre-Test	30 Mins (10.00 am – 10.30 am)
1	One Health - Concept and Significance	50 Mins (10.30 am – 11.20 am)
	Tea Break	15 Minutes
2	One Health- Issues to be noted and intervened by different departments	60 Mins (11.35 am – 12.35 pm)
3	One Health-Kerala and organizational Structure	45 Mins (12.35 pm – 01.25 pm)
	Lunch Break	45 Minutes (01.25pm-02.10pm)
4	One Health- Existing and to be implemented disease surveillance, diagnostic and intervention mechanisms within departments, community-based surveillance	60 Mins (02.10 pm – 03.10 pm)
5	One Health programme and the duties and responsibilities of various categories of staff in the department	50 Mins (03.10 pm – 04.00 pm)
6	Coordination and integrated activities of various departments at State, District, Local Self Government	40 Mins (04.00 pm – 04.40 pm)
	Post-Test, conclusion, and vote of Thanks	10 Mins (04.40 pm – 04.50 pm)
	Tea	10 Mins (4.50 pm – 05.00 pm)

## Session 1

### One Health - Concept and Significance

**Subject:** One Health – Concept and Importance

**Objective:** To make the participating officials understand the following:

1. The concept and approach of One Health.
2. The relevance of the OH concept and the possibilities of the One Health program.
3. The One Health program in Kerala.

**Duration:** 50 minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Minutes)	Method	Tool / Medium
1	Explaining what health and One Health are.	5	Brainstorming / Participatory Presentation	PPT Presentation
2	Briefly explain the history of the concept of One Health.	3	Participatory Presentation	PPT Presentation
3	Discuss health issues faced by Kerala, infectious diseases, natural disasters, waste management issues, food adulteration, and antimicrobial resistance.	5	Participatory Presentation	PPT Presentation
4	Explain how to protect the health of humans, animals, and the environment. Explain bio-invasion and human-animal conflicts.	7	Participatory Presentation	PPT Presentation
5	Clarify the necessity of coordination among various departments for One Health.	5	Participatory Presentation	PPT Presentation

6	Discuss the levels where disease prevention is essential.	5	Participatory Presentation	PPT Presentation
7	Clarify how public health issues can be prevented through One Health – Explain how this can be transformed into a people's movement.	10	Participatory Presentation	PPT Presentation
8	One Health Program in Kerala.	5	Participatory Presentation	PPT Presentation
9	Clarification of doubts (Q&A).	5		

### Important Notes

- Start by asking the question, “What is health?” Then explain that health refers to a person's physical, mental, and social well-being. Using this definition, introduce the concept of One Health. Explain that One Health recognizes the interconnection between human, animal, plant, and environmental health. The health of our ecosystem and environment is influenced by factors such as water, air, and soil pollution, the limitations of scientific waste management, and the loss of biodiversity.
- Diseases that spread from humans to animals and back are called zoonotic diseases or zoonoses. Explain what zoonosis is. Also, cover the history of One Health, including the "One World, One Health" concept brought up at the 2004 Wildlife Conservation Symposium, and the 2007 New Delhi Conference held to bring a One Health approach to fighting pandemics.
- Discuss the Epidemiological Triad. Explain that the Agent is what causes the disease, the Host is the one who gets sick, and the Environment is the surroundings. Complete healthcare needs to be based on the One Health concept, which brings together human, animal, and environment health.
- For the One Health concept to truly succeed, cross-departmental collaboration is essential. This requires active cooperation among various sectors, including Health, Local Self-Government, Animal Husbandry, Agriculture, Forest & Wildlife, Food Safety, Environment & Climate Change, Fisheries, Irrigation, and Drug Control. Collaborative support from other departments can be integrated as needed.
- Explain biological invasions and human-animal conflicts in detail.

- Use charts to illustrate the critical issues we must address to safeguard public health, emphasizing the urgent need for intervention across all these areas. Key priorities include securing access to safe food, halting hazardous practices like the unscientific use of pesticides in agriculture, managing zoonotic diseases, mitigating crises driven by climate change, and curbing the unscientific use of antibiotics.
- Issues faced by the people of Kerala, such as infectious diseases, natural disasters, food safety issues, waste management sectors, and water supply problems, must be addressed urgently.
- One Health is a matter of public importance. The activities of various departments and agencies can be seamlessly coordinated at the local self-government level; however, this requires a fundamental shift in the mindset of the public, elected representatives, and officials. Furthermore, securing the active service and participation of volunteers is entirely achievable, as past experiences demonstrate that our state possesses a highly conducive environment for such collective action. To create awareness and understanding among the trainees on this subject, the topic given below should be provided for discussion and analysis. It is preferable to conduct the discussion by dividing them into two groups. After the discussion, at least one group should be given an opportunity for presentation. To save time, it would be sufficient to present and discuss a case study among the common group.
- The detailed information provided in the handbook can be used for preparing the PPT presentation and for citing examples.

### **Case Study - Topic**

What will you do if a volunteer reports that some children experienced vomiting after eating guavas that were lying under a guava tree?

Discuss what actions can be taken and submit a report. The trainer should conclude the session by summarizing and addressing these points.

## Session 2

### One Health- Issues to be noted and intervened by different departments

#### Health Department

**Subject:** Interventions of the Health Department.

**Objective:**

1. To provide participants with knowledge and understanding of the subjects to be addressed in the One Health program during the training.
2. To enable the application of knowledge and skills regarding One Health in practical fields.

**Duration:** 60 Minutes

**Content and learning methods:**

No.	Topics	Time (min)	Method	Tool/ Medium
1.	Infectious diseases and public health.	10	General discussion: trainer should moderate.	-
2.	Zoonotic diseases found in Kerala - Prevention.	15	Discussion based on existing knowledge and providing additional information, presentation.	PPT Presentation
3.	Other Zoonotic diseases - Prevention.	15	Discussion based on existing knowledge and providing additional information, presentation.	PPT Presentation
4.	Antimicrobial Resistance (AMR).	15	Discussion based on existing knowledge and providing additional information, presentation.	PPT Presentation
5.	Clarification of doubts.	5	Discussion	-

## Important Notes

- Start by conducting an introductory discussion on public health issues based on infectious disease statistics, using examples like the COVID-19 pandemic. Mention emerging diseases, those on the verge of eradication, and re-emerging diseases.
- Explain the major zoonotic diseases, their vectors, suspected symptoms, treatment, diagnostic tests, danger signs, and preventive practices.
- Explain the major vector-borne diseases their symptoms and preventive activities.
- Explain how preparedness and prevention should be ensured in connection with environmental issues (including pollution) and climate change relative to zoonotic and vector-borne diseases.
- Create awareness that Antimicrobial Resistance (AMR) affects not only humans but also other living organisms, and that it is a cyclical process spreading from other organisms to humans.
- Include in the discussion habits that lead to AMR, self-medication, misuse of medicines, and improper disposal of unused medicines. Explain by citing reported cases/events related to various diseases.
- The detailed information provided in the handbook can be used to prepare the PPT presentation and to mention examples.

## Department of Agricultural Development and Farmers' Welfare

**Subject:** Agriculture and One Health

**Objective:** To ensure that those participating in the training understand the following:

1. The importance of the correct use of chemical fertilizers, pesticides, fungicides, and herbicides in the agricultural sector; understanding the side effects of excessive use, safe handling methods, and waste management.
2. The importance of Integrated Pest and Disease Management (IPDM), Good Agricultural Practices (GAP), and Integrated Nutrient Management (INM).
3. The relevance of community-based initiatives in the agricultural sector.
4. Awareness on organic farming methods and the importance of nutritional health.

**Duration:** 60 Minutes

**Content and Learning Method:**

Sl. No	Topics	Time (Minutes)	Method	Tool/ Medium
1	Understanding general concepts of scientific farming methods	10	Brainstorming / PPT Presentation	PPT Presentation, Chart Paper
2	Scientific use of various types of pesticides/fertilizers (Organic/Chemical)	10	Participatory Presentation / PPT Presentation	PPT Presentation
3	Explaining experiences of unscientific use of various pesticides (Pesticide residual management)	10	Participatory Presentation / PPT Presentation	PPT Presentation
4	Safe handling methods of pesticides	5	Participatory Presentation	<u>Video Link</u> <a href="https://youtu.be/r9x33zkLdKA?si=95xjVhcCcWGSuAj1">https://youtu.be/r9x33zkLdKA?si=95xjVhcCcWGSuAj1</a>
5	Waste Management	5	Participatory Presentation	<u>Video Link</u> <a href="https://youtu.be/E2ZiLgEV9HY?si=3L52Z9kCTbsxBXvE">https://youtu.be/E2ZiLgEV9HY?si=3L52Z9kCTbsxBXvE</a>

6	IPDM (Various pest and disease control methods and their integration)	8	PPT Presentation	PPT Presentation
7	Relevance and importance of community-based farming initiatives	7	PPT Presentation	PPT Presentation
8	Clarification of doubts / Q&A	5		

### Important Notes

#### 1. General Concepts:

- A discussion can be conducted on the topic: *"Do we really need chemical fertilizers, pesticides, and weedicides?"* Explain their benefits as well as their harmful effects.
- Explain their significance in achieving self-sufficiency in food production through the Green Revolution.

#### 2. Explain the classification of various types of pesticides/chemical fertilizers/organic fertilizers:

- Organic pesticides (Biopesticides)
- Chemical pesticides
- Organic fertilizers
- Chemical fertilizers
- Biofertilizers (Liquid/Microbial fertilizers)
- Weedicides (Herbicides)

#### 3. Guidelines for Practices:

- Approved agricultural practices formulated through years of experimentation are available today regarding the precise dosage, application methods, and timing for every pesticide and chemical fertilizer. Explain the importance of strictly adhering to these standard agricultural practices.
- Explain the importance of implementing control measures only after accurately determining the extent/threshold of a disease or pest infestation.
- The specific timing of implementing pest and disease control measures within a crop's life cycle is highly critical.
- Explain the importance of maintaining a waiting period (pre-harvest interval) after applying any pest/disease control method, allowing toxic residues to naturally degrade and become harmless before harvest.

- Discuss the adverse impacts on nature caused by unscientific use:
  - Changes in soil structure
  - Destruction of beneficial insects
  - Soil, air, and water pollution
  - Emergence of new diseases and pests (e.g., certain minor pests turning into major pests like the spread of African Snail)
  - Explain how the cardamom plantations in Idukki district serve as a major example of excessive pesticide usage.

4. A video presentation can be conducted on protective clothing/gear to be worn during pesticide application and safe application methods.

5. A video presentation can be conducted on the disposal and management methods of pesticides and their related waste materials.

#### 6. Integrated Pest and Disease Management (IPDM)

This is an approach where various pest and disease control methods are integrated and executed in a manner that causes minimal harm to humans, other living beings, and nature.

Mention the various methods involved:

- Cultural Method - Field Sanitation Vector Control
- Mechanical Method
- Physical Method
- Legal Method
- Biological Method
- Chemical Method

Present these methods in detail. We should resort to chemical methods only after utilizing the first 5 methods. Explain the benefits of promoting this highly scientific approach.

Explain by citing community-based initiatives as examples, such as “*Njangalum Krishiyilekk*” (We too into Farming), “*Krisbi Samridhi*”( Comprehensive Vegetable Production Campaign), “*Poshaka Samridhi Mission*”, programs transforming fallow lands into cultivation fields, Fruit and Vegetable Self-Sufficiency Program, and Agricultural Joint Venture (Collective) Programs.

## Animal Husbandry Department

**Subject:** One Health - Interventions in the Animal Husbandry Sector

**Objective:**

1. To develop an understanding of the various zoonotic diseases that affect humans.
2. To explain the transmission of diseases among domestic animals, wildlife, insects, and humans based on the concept of One Health.
3. To understand the goals, we need to achieve in this sector, along with building the capacity to recognize the consequences of disease outbreaks.

**Duration:** 60 Minutes

**Content and Learning Methods:**

Sl. No.	Topics	Time (Min)	Method	Tool/ Medium
1	Zoonotic diseases caused by viruses: Transmission, symptoms, diagnosis, prevention, and control	20	Participatory Presentation / PPT Presentation	PPT Presentation, Chart Paper
2	Zoonotic diseases caused by bacteria: Transmission, symptoms, diagnosis, prevention, and control	15	Participatory Presentation / PPT Presentation	PPT Presentation, Chart Paper
3	Zoonotic diseases caused by parasites: Transmission, symptoms, diagnosis, prevention, and control	12	Participatory Presentation / PPT Presentation	PPT Presentation, Chart Paper
4	AMR (Antimicrobial Resistance), Biosafety	10	Participatory Presentation / PPT Presentation	PPT Presentation, Chart Paper
5	Inculcate the understanding that livestock disease management and prevention are essential not only for animal health care but also for safeguarding human health.	3	PPT Presentation	PPT Presentation

### **Important Notes**

1. Explain in detail about the zoonotic diseases commonly found in Kerala.
2. Explain about Emerging and Re-emerging diseases.
3. Explain about diseases, their characteristics, carriers (vectors), transmission, symptoms, diagnosis, treatment, prevention, and control. Emphasize prevention and control.
4. Explain about responsible antibiotic usage, its necessity, and the importance of infection prevention and control.
5. Explain the necessity of maintaining biosafety, the importance of bringing it into practice, and discuss biosafety measures and guidelines.
6. Make the trainees understand that zoonotic diseases affect not just an individual, but also families and society. Create awareness that several zoonotic diseases are public health problems and have the potential to become pandemics.
7. Create awareness that animal disease treatment and prevention are crucial not only for animal welfare but also for protecting human health. For instance, explain this by referencing Rabies.
8. The detailed information provided in the handbook can be used for preparing the PPT presentation and for citing examples.

**Subject:** One Health, Forest, and Wildlife Conservation

**Objective:**

1. To create an understanding of human-wildlife conflict, zoonotic diseases, seasonal relevance, and its consequences.
2. To explain and create awareness about wildlife rescue operations and rehabilitation the associated challenge.  
es and solutions.
3. To build awareness regarding the importance of scientific forest conservation.

**Duration:** 60 Minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Min)	Method	Tool/Medium
1	Explaining deforestation, encroachment into ecosystems, and reduction in food availability	15	PPT Presentation, Discussion	PPT Presentation, Chart Paper
2	Explaining what human-wildlife conflict is in detail	10	PPT Presentation, Discussion	PPT Presentation, Chart Paper
3	Explaining wildlife rescue operations and rehabilitation	20	PPT Presentation, Discussion	PPT Presentation, Chart Paper
4	Explaining how zoonotic diseases are connected to human-wildlife conflict	10	PPT Presentation, Discussion	PPT Presentation, Chart Paper
5	Clarification of doubts / Q&A	5		

**Important Notes**

- Awareness must be created among all field-level staff and other officials regarding the diseases currently found in Kerala and those likely to emerge in the future. Wildlife and their associated ecosystems play a major role in the life cycle of most of these diseases (e.g., Nipah, Corona, Kyasanur Forest Disease / Monkey Fever). Create an understanding of these matters by giving them due emphasis in a simple manner. Along with this, the main symptoms observed in humans and animals must also be highlighted.
- Clarify what human-wildlife conflict means. In the context of Kerala, an understanding must be built regarding which animals are involved in conflicts and under what circumstances.
- Explain the situations where wildlife needs rescue and rehabilitation, along with the safety precautions that must be followed, and the diseases rescue workers might be exposed to. You must also verify that these animals do not carry any contagious diseases before releasing them back into the wild.
- Discuss how approaches to mitigate and prevent human-wildlife conflicts can be put into practice and what steps we need to take to achieve this.
- Clearly explain with examples how zoonotic diseases affect the health of wildlife and force them to migrate to human settlements for security. Identify the diseases transmitted from cattle and domestic animals to wildlife and highlight how these outbreaks disrupt the natural balance between prey and predator populations.
- Build an understanding of the various activities that can be undertaken as part of the One Health approach to reduce human-wildlife conflicts. For instance, ensure planning and execution in infrastructure development such as roads in a manner that does not adversely affect animal habitats.
- The detailed information provided in the handbook can be used for preparing the PPT presentation and for citing examples.

**Subject:** One Health and Irrigation

**Objective:**

1. To create awareness regarding waterborne diseases and their control.
2. To ensure the quality standards of water sources.
3. To build awareness about the importance of conserving water sources through community participation.

**Duration:** 60 Minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Min)	Method	Tool/Medium
1	Explaining how to clean and maintain water sources, dam reservoirs, streams, rivers, public ponds, and wells.	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
2	Creating awareness regarding the mode of transmission of waterborne diseases and their control.	15	Case Study Presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
3	Introducing scientific methods for the conservation of water sources and ensuring water quality standards.	15	PPT Presentation, Discussion	PPT Presentation, Chart Paper
4	Introducing how awareness can be raised among the public to prevent the pollution of water sources.	10	PPT Presentation, Discussion	PPT Presentation, Chart Paper
5	Clarification of doubts / Q&A	5		

**Important Notes**

- Explain how to clean and maintain water sources, dam reservoirs, streams, rivers, public ponds, and wells. Ask the training participants to share their experiences related to this. Encourage a general discussion on the topic.
- Create awareness regarding the mode of transmission of waterborne diseases and their control. Prepare and present case studies of waterborne diseases such as diarrheal diseases, jaundice (hepatitis), typhoid, Encephalitis, leptospirosis (rat fever), etc.
- Introduce scientific methods (Physical, Biological, and Chemical methods) for the conservation of water sources and ensuring water quality standards.
- Explain with examples the importance and necessity of public committees in water conservation (e.g., Thelineerozhukum Navakeralam, Jalanidhi).
- The detailed information provided in the handbook can be used for preparing the PPT presentation and for citing examples.
- To create proper awareness among the public against turning water bodies and streams into waste dumping sites, community meetings should be conducted in coordination with public representatives and officials from various departments (Revenue, PCB [Pollution Control Board], District Administration).

**Drugs Control Department**

**Subject:** One Health and Drugs Control Department

**Objective:** By the end of this session, participants in the training should be able to:

- Gain knowledge regarding the definition and classification of antimicrobial drugs.
- Build an awareness about antimicrobial resistance and its root causes.
- Understand the role of society in antimicrobial resistance prevention.
- Understand how the distribution and use of medicines can be managed in accordance with guidelines.
- Learn about the preventative activities carried out by the Drugs Control Department to effectively curb antimicrobial resistance.
- Understand the necessity of preventing antimicrobial resistance.

**Duration:** 60 Minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Min)	Method	Tool/Medium
1	Definition, classification, and mode of action of antimicrobial drugs	10	PPT Presentation, Discussion	PPT Presentation
2	Antimicrobial Resistance – Definition and root causes	10	PPT Presentation, Discussion	PPT Presentation
3	The role of society in controlling antimicrobial resistance	10	PPT Presentation, Discussion	PPT Presentation
4	Explaining how the distribution and use of medicines can be regulated according to guidelines. Explain further about drug abuse.	10	PPT Presentation, Discussion	PPT Presentation
5	Explaining the prevention activities carried out by the Drugs Control Department to effectively curb antimicrobial resistance using a slide. Explain through discussions as and when necessary.	10	PPT Presentation, Discussion	PPT Presentation

6	SPAARK– Awareness activities conducted by the Drugs Control Department in collaboration with VHSE – NSS	5	PPT Presentation, Discussion	PPT Presentation
7	Clarification of doubts / Q&A	5		

### **Important Notes**

- Explain the definition, classification, mode of action, and conditions to be followed when using antimicrobial drugs through a PPT presentation.
- Explain with examples what antimicrobial resistance is and why it occurs. Explain through discussion the harmful consequences that antimicrobial resistance can cause to individuals and society.
- Clarify the role of society in preventing antimicrobial resistance:
  - a) Every individual must take personal responsibility and strive toward this goal.
  - b) Subject over-the-counter sales to social monitoring.
  - c) Explain the importance of creating public awareness regarding the gravity of AMR.
- Explain how the distribution and use of medicines can be regulated according to guidelines:
  - a) Present guidelines through a slide on the measures needed to curb the distribution and use of narcotics and banned drugs. Explain via discussions as and when necessary.
  - b) The detailed information provided in the handbook can be used for preparing the PPT presentation and for citing examples.

## **Department of Fisheries**

**Subject:** One Health and Fisheries Sector

## Objectives:

- To create an awareness regarding the potential diseases that can be transmitted to humans from fish and other aquatic organisms.
- To enable the explanation of diseases and other health issues caused directly or indirectly to humans from fish and other aquatic organisms, based on the concept of 'One Health'.
- To create awareness regarding the hygiene practices and other precautions to be followed from the stage of fish catching until it reaches the hands of consumers.
- To create awareness about diseases transmitted to humans through fish and other allied food products.
- To create awareness about Antimicrobial Resistance (AMR) and its consequences.

**Duration:** 60 Minutes

## Content and learning methods:

Sl. No.	Topics	Time (Minutes)	Method	Tool / Medium
1	Explain about diseases caused by bacteria and other parasites, their spread, symptoms, prevention, and control.	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
2	Explain about diseases transmitted from fish and other aquatic organisms meant for food consumption, their source, spread, control, and the hygiene to be maintained during handling.	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
3	Explain Antimicrobial Resistance (AMR) and its consequences.	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
4	Explain environmental impacts associated with aquaculture and ways to control them.	10	Discussion, PPT Presentation	PPT Presentation, Chart Paper
5	Doubts Clarification (Q&A)	5		

## Important Notes

- Start the class by asking the participants questions like: "*What do you know about the diseases affecting fish?*" and "*What are the preventive measures currently being taken?*". Write down their answers on chart paper. After that, explain using the subsequent slides.
- Explain the diseases commonly found in fish to the participants. Elaborate on the spread, symptoms, seasonality, control, and prevention of these diseases.
- Explain with the help of pictures the hygiene practices to be followed by those handling fish after it is caught. Explain the differences between fresh fish and stale/spoiled fish using pictures and tables. Also, explain the unscientific use of chemicals during fish distribution. Pictures, tables, and slides have been included for this purpose.
- Begin the topic of Antimicrobial Resistance by asking the participants what it means. Write their answers on chart paper. Following this, explain using the subsequent slides. Explain the consequences of AMR and recent study reports with examples. Explain how the unscientific use of antibiotics in aquaculture and other sectors leads to related health issues that affect society.
- Detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

**Subject:** One Health and Environmental Protection

**Objectives:**

- Create awareness regarding the environment, environmental issues, and the necessity of environmental protection.
- Create awareness regarding climate change and its related environmental impacts.
- Create awareness regarding diseases and health issues associated with these factors and their control measures.

**Duration:** 60 Minutes

**Content and learning methods:**

Sl. No.	Topics	Time (Min)	Method	Tool/Medium
1	Explain the environment, environmental issues, and the necessity of environmental protection.	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
2	Explain climate change and its related environmental consequences.	20	Discussion, PPT Presentation, Video Presentation	PPT Presentation, Chart Paper, AV Aids
3	Explain diseases and health issues related to climate change and their control measures.	10	Discussion, PPT Presentation	PPT Presentation, Chart Paper
4	Explain how to survive the era of climate change.	10	Discussion, PPT Presentation	PPT Presentation, Chart Paper
5	Doubt Clarification	5		

## **Important Notes**

- Explain the environment, environmental issues, and the necessity of environmental protection. Take one or two local environmental issues as examples and discuss how environmental protection can be ensured based on them.
- Explain climate change and related environmental impacts with the help of a video (5-minute duration).
- Explain diseases and health issues related to climate change with examples. Prepare a list of diseases related to climate change through discussion and explain ways to control them.
- Explain how to survive the era of climate change. Explain how an environment-friendly lifestyle with public participation is possible.
- Detailed information provided in the handbook can be used for preparing the PPT presentation and for indicating examples.

## Food Safety Department

**Subject:** One Health and Food Safety

**Objectives:**

- Create awareness about health problems caused by foodborne factors (microbiological, contaminants, residues, toxins, and antibiotics)
- Create awareness and understanding about foodborne diseases, their source of contamination, preventive measures, and control measures.

**Duration:** 60 Minutes

**Content and learning methods:**

Sl. No.	Topics	Time (Minutes)	Method	Tool/Medium
1	Explain foodborne diseases caused by microorganisms, their sources, and control measures.	10	Participatory Presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
2	Explain the knowledge, sources, and control measures regarding chemical substances entering the food chain (heavy metals, disinfectants, chemical pesticides, antibiotics).	15	Participatory Presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
3	Explain the Food Safety and Standards Act 2006 and its allied regulations.	15	Participatory Presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
4	Explain food safety and the basic principles for ensuring it.	15	Group Discussion	PPT Presentation
5	Doubt Clarification (Q&A)	5		

## Important Notes

- Specify the various foodborne diseases transmitted through microorganisms, the types of food products (raw, processed, or partially processed) through which they spread, and the preventive measures to be adopted by both food business operators and consumers to prevent them.
- Discuss the chemical substances that can enter food items (pesticides, disinfectants, heavy metals, antibiotics, aflatoxins), the main food items where they are found, and their control measures (GAP/GSP/GMP). Additionally, include and discuss reports from the National Milk Survey, KARSAP, and previous studies conducted by the department.
- Present the topic by emphasizing the 5 basic principles of food safety: maintain cleanliness, separate raw and cooked food, cook thoroughly, keep food at safe temperatures, and use safe water and raw materials.
- Provide explanations regarding the basic infrastructure requirements for a food enterprise. (Read the handbook to conduct further assessments/discussions).
- Detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

### Session 3

## One Health – Kerala and Organizational Structure

#### Objectives:

1. To understand the organizational structure established in Kerala via official government orders to implement the One Health initiative.
2. To comprehend the explicit roles and relevance, of various government departments, allied institutions, and public officials in executing the one health programme.

**Duration:** 45 Minutes

#### Content and learning method:

Sl. No.	Topic	Time (Mins)	Method	Tool / Medium
1	Explain how relevant and significant the One Health program is in the context of Kerala.	5	Participatory Presentation, Discussion	PPT Presentation
2	Explain the priority focus areas in Kerala related to One Health, and the absolute necessity of various departments and agencies working together in coordination.	10	Participatory Presentation, Discussion	PPT Presentation
3	Explain the implementation framework of One Health based on the Government Order.	10	Participatory Presentation, Discussion	PPT Presentation
4	Roles and responsibilities of officials across various departments.	10	Participatory Presentation, Discussion	PPT Presentation
5	Clarification of doubts / Q&A.	10	—	—

## Important Notes

- One Health approach is highly relevant in the context of Kerala. One Health is an integrated framework encompassing human health, animal health, and environmental health. High population density, unique climatic conditions, dense domestic animal-wildlife contacts, and a high volume of global transit are distinctive features of Kerala. Zoonotic diseases are being increasingly reported in Kerala. Additionally, Kerala's current status regarding antimicrobial resistance (AMR), water pollution, and air pollution is highly critical. Issues concerning biodiversity loss and other environmental degradations must also be evaluated seriously.
- Explain the priority areas and focus zones linked to the implementation of the One Health program in Kerala. Ensure a unified surveillance system for all type of diseases. For this purpose, it is essential to convey the absolute necessity of coordinated action across multiple departments and agencies. This program is envisioned to be implemented by incorporating the possibilities of decentralized planning.
- Explain the implementation mechanism of the One Health program. In connection with this, detail the structural composition of the committees that need to be formulated at the State, District, and Local Self-Government levels based on **Government Order G.O. (Rt) No. 399/2022/H&FWD dated 19/02/2022**. One Health programme is being implemented as the one of the 10 focus areas of Aardram programme. To support this framework, the **Centre for One Health - Kerala** is functional at the State level, and **DPSU (District Program Support Unit)** structures are operational at the district levels.
- Identify issues within the purview of each department that are related to One Health and emphasise the need for collaborative work with other departments to resolve them. Examples of how African snail infestation, rabies, bird flu, etc have been brought under control should be clarified.
- Explain the necessity and significance of expanding the One Health program-which is currently being implemented in **Alappuzha, Pathanamthitta, Kottayam, and Idukki** districts-to all other districts across the state.

## Session 4

**One Health - Existing and to be implemented disease surveillance, diagnosis, intervention mechanisms within departments, and community-based surveillance.**

### Health Department

**Topic:** Healthcare system-based disease surveillance.

**Objective:**

1. Create an understanding of the importance, methods, and reporting of Indicators/Events related to the One Health program.
2. Understand the feasibility of disease surveillance, data communication and analysis in relation to the responsibilities of various categories of staff.
3. Provide motivation to utilize community volunteers and other voluntary workers in disease surveillance.
4. Familiarize with the existing disease surveillance systems and the respective responsibilities of various categories of employees.
5. Accuracy and significance.
6. Suggestions should also be identified for completing the next steps to improve reporting in a timely manner.

**Duration:** 60 minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Minutes)	Method	Tools/Medium
1	Disease Surveillance - What, When, How, Who, Where	10	PPT Presentation, Discussion	PPT Presentation, Chart Paper

2	Surveillance System, Objectives	15	PPT Presentation, Discussion	PPT Presentation, Chart Paper
3	Existing systems in the Health Department	10	PPT Presentation, Discussion	PPT Presentation, Chart Paper
4	Category-wise disease surveillance (S, P, L forms)	10	PPT Presentation, Discussion	PPT Presentation, Chart Paper
5	Community-based disease surveillance	10	PPT Presentation, Discussion	PPT Presentation, Chart Paper
6	Clarification of doubts	5	Discussion	

### Important Notes

- Explain the importance of disease surveillance using examples (e.g., Nipah, Avian Influenza) explain what disease surveillance is, why it is needed, when it should be conducted, how it should be conducted, and who should conduct it.
- Create an understanding of what a scientific disease surveillance system is, its objectives, and its components. Familiarize them with existing disease surveillance systems, specifically the S, P, and L forms of disease surveillance (IHIP).
- **Community-Based Disease Surveillance System:** Explain what it is, what types exist, and who should conduct it. Create an understanding of the instructions and protocol procedures related to reporting to the surveillance system, conducting investigations, implementing control measures, and field-level follow-up disease surveillance activities once events (e.g., birds falling dead, finding new species of birds, fish floating dead in ponds, etc.) and indicators (disease symptoms) are identified.
- Understand the responsibilities based on each category. Use the appendix and various government orders as reference material.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Department of Agricultural Development and Farmers' Welfare

**Topic:** Diseases and pests in the agricultural sector – surveillance, study, and control.

**Objective:**

1. Create awareness regarding the steps to be followed if crops are affected by diseases or pests.
2. Create an understanding of the existing systems in the agricultural sector for disease diagnosis and control, and the corresponding responsibilities of the officials involved.
3. Create awareness about the specific disease surveillance activities to be carried out newly in connection with the One Health program.

**Duration:** 60 minutes

**Content and Learning Method:**

Sl. No.	Topic	Time (Minutes)	Method	Tools/Medium
1	Explain the guidelines regarding the steps to be followed if crops are affected by diseases or pests.	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
2	Explain the existing systems in the agricultural sector for disease diagnosis and control, and the responsibilities of the respective officials.	20	Discussion, PPT Presentation	PPT Presentation, Chart Paper

3	Explain the disease surveillance activities to be carried out newly in connection with the One Health program, and the setup and functioning of the MDDT (Multidisciplinary Diagnostic Team).	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
4	General discussion and clarification of doubts.	10	Discussion	

**Important Notes**

- Explain with examples how to create awareness among farmers regarding the timely reporting of disease and pest outbreaks to officials, as well as the procedures and actions to be taken by officials upon visiting the affected farmlands.
- Present the guidelines on organizing experts from various departments (Health, Agriculture, Animal Husbandry, Dairy, Fisheries, LSGD, etc.) to conduct field visits, review issues, and suggest remedies.
- Explain the specific disease surveillance activities to be carried out newly in connection with the One Health program, as well as the setup and functioning of the MDDT (Multidisciplinary Diagnostic Team). Discuss information obtained from the field with other departments as necessary and take appropriate actions.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Animal Husbandry Department

- **Topic:** Disease surveillance, diagnosis, control, and preventive measures in the Animal Husbandry Department.
- **Objective:**
  1. Create awareness regarding community-based disease surveillance.
  2. Create awareness about the necessity, method, and importance of laboratory surveillance.
  3. Create an understanding of how to adopt prevention and control measures based on surveillance.
  4. Provide knowledge about the importance of collecting appropriate samples in a timely manner to conduct disease diagnosis.
  5. Enable the capacity to issue disease alerts based on surveillance findings.
  6. Create awareness about whom to share surveillance data with to take follow-up actions.

**Duration:** 60 minutes

### **Content and Learning Method:**

Sl. No.	Topic	Time (Minutes)	Method	Tools/Medium
1	Explain community-based disease surveillance for zoonotic diseases.	10	Participatory presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper

2	Explain what laboratory-based surveillance for zoonotic diseases is.	10	Participatory presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
3	Explain sample collection, packing, and transporting them to laboratories in detail.	10	Participatory presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
4	Explain disease diagnosis and reporting.	10	Participatory presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
5	Explain what preventive and control measures should be adopted.	5	Participatory presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
6	Explain to whom the surveillance data should be shared with to initiate follow-up actions.	10	Participatory presentation, Discussion, PPT Presentation	PPT Presentation, Chart Paper
7	Clarification of doubts.	5		

### **Important Notes**

- Community-Based Disease Surveillance - Explain with examples how information gathering is conducted by involving community volunteers.
- Explain with examples the importance of laboratory-based surveillance, as well as active, passive, and targeted surveillance.
- Explain with examples how to choose samples for each zoonotic disease, the method of packing them, and which laboratories they should be sent to, in order to establish a clear understanding.
- Explain with examples how to report diseases, and how to implement prevention and control measures in a time-bound manner based on those reports.
- Explain with examples how to share information obtained through the surveillance system with the relevant stakeholders to take follow-up actions.

- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

### **Forest and Wildlife Department**

**Topic:** Community-based disease surveillance and intervention through the One Health program.

**Objective:**

1. Create awareness regarding what disease surveillance is as part of the One Health program and its importance.
2. Create awareness about disease surveillance, diagnostic activities, and control methods to be conducted in forest areas and among wildlife.
3. Create awareness about voluntary work as part of the One Health program, the qualities required for volunteers, follow-up activities, etc.

**Duration:** 60 minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Minutes)	Method	Tools/Medium
1	Explain the role of the forest-dependent community in community-based disease surveillance.	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper

2	Explain the disease surveillance, diagnostic activities, and control methods to be conducted in forest areas and among wildlife.	20	Discussion, PPT Presentation	PPT Presentation, Chart Paper
3	Explain voluntary activities as part of the One Health program, the qualities required for volunteers, and follow-up activities.  Explain the methods and necessity of implementing voluntary work through EDC VSS.	20	Discussion, PPT Presentation	PPT Presentation, Chart Paper
4	Clarification of doubts.	5		

### Important Notes

- Explain clearly how the forest-dwelling tribal community and other people living dependent on forests can understand and notice changes in the wildlife and the forest. Explain the role that field staff must play in disease diagnosis through accurate surveillance and by properly completing post-mortem procedures.
- Explain how to closely monitor disease symptoms found among forest dwellers and forest-dependent communities through VSS-EDC who live in close contact with the forest, in order to prevent the spread of diseases and create awareness.
- Explain who the volunteers should be, what tasks they need to perform, and with whom the gathered information should be shared. Explain with examples how the information received by the Forest Department should be shared with other departments to take necessary actions in a time-bound manner.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Irrigation Department

**Topic:** Disease surveillance, diagnosis, control, and preventive measures based on One Health.

**Objective:**

1. Create an understanding of the existing responsibilities of staff related to water conservation, and how data exchange, reporting, and analysis of disease surveillance are carried out.
2. Bring clarity regarding the department-level activities being conducted in connection with water conservation activities.
3. Create an understanding of the importance of disease surveillance based on One Health.

**Duration:** 60 minutes

**Content and Learning Method:**

Sl. No.	Topic	Time (Minutes)	Method	Tools/Medium
1	Prepare a table and consolidate how the existing responsibilities of staff related to water conservation, and data exchange, reporting, and analysis of disease surveillance are carried out.	20	General discussion, PPT Presentation	PPT Presentation, Chart Paper

2	Explain the ongoing department-level activities related to water conservation and link them with health care.	20	General discussion, PPT Presentation	PPT Presentation, Chart Paper
3	Explain the importance of One Health-based disease surveillance and coordinated activities.	15	General discussion, PPT Presentation	PPT Presentation, Chart Paper
4	Clarification of doubts.	5		

**Important Notes**

- Present a list of department-level activities to show what the existing guidelines are regarding the fields of irrigation and drinking water supply and explain the possibilities of linking them with the One Health action area.
- Explain the existing disease surveillance activities conducted by those working in this field, along with the disease surveillance and control activities that need new emphasis from a One Health perspective.
- It should be explained with examples the necessity of accurately recording details of disease surveillance and control activities conducted at the department level, as well as the importance of sharing this data with other departments at regular intervals.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Drugs Control Department

**Topic:** Safe medicine distribution and usage – statutory provisions and department-level procedures that drug traders and registered pharmacists must know for public health.

**Objective:**

1. Create an understanding of what the antimicrobial resistance activities of the Drugs Control Department are and their importance.
2. Create an understanding of the IEC activities of the Drugs Control Department.
3. Create an understanding regarding the disposal of unusable and expired medicines.
4. Create an understanding of the importance of distributing medicines strictly according to guidelines and the necessity of cooperating with allied departments.

**Duration:** 60 minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Minutes)	Method	Tools/Medium
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1	Antimicrobial resistance activities of the Drugs Control Department, execution, and importance.	10	Participatory presentation, PPT Presentation, Discussion	PPT Presentation, Chart Paper
2	Operation AMRITH	8	Participatory presentation, PPT Presentation, Discussion	PPT Presentation
3	Operation Vet biotics	6	Participatory presentation, PPT Presentation, Discussion	PPT Presentation
4	Students Program for Awareness on Antimicrobial Resistance Kerala Program (SPAARK) – Saugyam Sada Project: Explain the importance of awareness activities conducted by the Drugs Control Department in collaboration with VHSE-NSS.	8	PPT Presentation, Discussion	PPT Presentation
5	Information Education Activities of the Drugs Control Department.	8	Participatory presentation, PPT Presentation, Discussion	PPT Presentation, Chart Paper
6	Operation Double Check	5	Participatory presentation, PPT Presentation, Discussion	PPT Presentation
7	Program for Removal of Unused Drugs (PROUD)	5	PPT Presentation	PPT Presentation

8	Future Programs – Med Watch (Over the counter sale etc.)  Sentinel Pharmacies, possibilities of coordination with various departments.	8	Participatory presentation, PPT Presentation, Discussion	PPT Presentation
9	Clarification of doubts	2		

### **Important Notes**

- Explain with examples what the antimicrobial resistance activities of the Drugs Control Department are and how they are implemented.
- Explain "Operation AMRITH".
- Explain Operation Vetbiotics".
- Explain the awareness activities ('SPARK – Saugyam Sada') given to the public, especially students, regarding the importance of antimicrobial resistance, and other IEC activities.
- Explain the "Operation Double Check" program.
- Explain what the "Program for Removal of Unused Drugs" is.
- Explain about Med Watch, Sentinel Pharmacies, and the necessity of preventing the Over the counter sale of antibiotic medicines.
- Explain the importance of AMR (Antimicrobial Resistance) in the One Health program and the necessity of working towards public health goals in cooperation with other departments.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

### **Department of Fisheries**

**Topic:** Disease surveillance, disease diagnosis, and One Health.

**Objective:**

1. Create an understanding of the Standard Operating Procedure (SOP) currently adopted in the Fisheries Department regarding disease surveillance and disease diagnosis.
2. Understand the activities from the farmer-level to the official-level to identify diseases in a time-bound manner, report them correctly, test them, and document them.

**Duration:** 60 minutes

### Content and Learning Method:

Sl. No.	Topics	Time (Minutes)	Method	Tools/Medium
1	Explain the Standard Operating Procedure (SOP) for Aquatic Animal Health Management.	15	Participatory presentation, PPT Presentation, Discussion	PPT Presentation, Chart Paper
2	Explain Best Management Practices (BMP) and Aquatic Quarantine Practices (AQP).	15	Participatory presentation, PPT Presentation, Discussion	PPT Presentation
3	Explain the existing programs related to disease surveillance, data exchange of disease surveillance information, analysis, and disease control as part of the One Health approach.	25	Participatory presentation, PPT Presentation, Discussion	PPT Presentation
4	Clarification of doubts.	5		

### Important Notes

- Begin the class by asking interactive questions such as: "Have you heard about the SOP system in the Fisheries Department before? What would you do if fish die in large numbers in a fish farm, or if they show signs of illness?" Write their responses on a chart paper. Following this, explain the topics by showing the PPT presentation.
- Explain in detail the necessity and practices of Best Management Practices. Topics like handbooks and health management should be read and understood from the Fisheries Department's specific SOP handbook. Afterwards, explain these to the trainees by showing the slides.
- Familiarize the trainees with various programs for disease surveillance in the aquaculture sector, such as NSPAAD, by displaying the slides.
- Detail the importance of disease surveillance, analysis, data exchange, and disease control as part of the One Health approach.

- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## **Department of Environment and Climate Change**

**Topic:** Disease surveillance and the Department of Environment and Climate Change.

**Objective:**

1. Introduce what activities/systems are being carried out by the department as part of disease surveillance and climate change tracking.
2. Create an understanding of the activities to be undertaken as part of the One Health approach in addition to the existing activities, as well as data exchange, analysis, and disease control.

**Time:** 60 minutes

**Content and Learning Method:**

Sl. No.	Topics	Time (Minutes)	Method	Tools/Media
1	<p>Explain about Surveillance/ Detection:</p> <ul style="list-style-type: none"> <li>- KSPCB activities: <ul style="list-style-type: none"> <li>i. AQI</li> <li>ii. Water quality monitoring, etc.</li> <li>iii. Waste management</li> </ul> </li> <li>- KWA's sewage treatment and related activities</li> <li>- SDMA activities</li> <li>- Suchitwa Mission activities</li> <li>- Meteorological data – KSEB, IMD</li> </ul>	20	Discussion, PPT Presentation	PPT Presentation, Chart Paper
2	<p>Explain about Interventions:</p> <ul style="list-style-type: none"> <li>- SAPCC 2.0 implementation</li> <li>- Coastal Zone Management Plan 2011, 2019</li> <li>- GHG Inventory</li> <li>- CN-50 Pathway</li> <li>- MAPs for Ramsar Wetlands and its implementation</li> </ul>	20	Discussion, PPT Presentation	PPT Presentation, Chart Paper
3	<p>Explain about disease surveillance, data exchange, and disease control as part of the One Health approach.</p>	15	Discussion, PPT Presentation	PPT Presentation, Chart Paper
4	Clarification of doubts.	5		

### Important Notes

In addition to sector-level interventions, projects have been planned by identifying strategies for climate change adaptation in priority sectors through an analysis of various chapters and sections of the SAPCC, namely the Composite Vulnerability Assessment, Climate Profile, and Stakeholder Recommendations from sector-level departments. These priority climate change adaptation projects are essential for mitigating the risks of climate change and are capable of minimizing cross-sectoral disparities and impacts. The said interventions are listed below:

1. Land use planning and zoning.
  2. Sustainable conservation of oceans and riverbanks.
  3. Rehabilitation of vulnerable sections/communities.
  4. Sustainable drainage systems for efficient stormwater management.
  5. Integrated coastal zone management.
  6. Climate change monitoring systems.
  7. Planning local government development programs aligned with climate change (climate proofing), or local governance responsive to climate change.
  8. Awareness and education regarding climate change.
- For these initiatives, various projects with a total outlay of ₹12,420 crores have been envisioned in SAPCC 2.0 from the financial year 2023-24 to 2030-31, keeping in view the **Sustainable Development Goals (SDGs) and Nationally Determined Contributions**
  - Detail the importance of disease surveillance, analysis, data sharing, and disease control as part of the **One Health approach**.
  - The detailed information provided in the handbook can be utilized for preparing PPT presentations and referencing examples.

### **Food Safety Department**

**Subject:** Food Adulteration - Monitoring, Detection, and Intervention

**Objective:**

1. Create awareness about the importance of surveillance activities of food articles as part of the One Health program.
2. Provide knowledge regarding which specific areas require monitoring and control in relation to food safety.
3. Create awareness regarding the necessity of time-bound data collection and assessment, follow-up action planning, and the need for integrated activities with other departments.

**Duration:** 60 Minutes

### Content and learning methods:

Sl. No	Topics	Time (Mins)	Method	Tool/Medium
1.	Explaining what the surveillance (monitoring) of food articles means.	15	Participatory Presentation, Discussion, PPT Presentation	PPT Presentation
2.	The necessity of conducting surveillance and its methodology.	15	Participatory Presentation, Discussion, PPT Presentation	PPT Presentation
3.	The importance of data to be obtained from other departments during the monitoring process, and the necessity of cooperating with other departments.	10	Participatory Presentation, Discussion, PPT Presentation	PPT Presentation
4.	Explain the follow-up actions and corrective measures to be taken based on the surveillance report.	15	Discussion, PPT Presentation	PPT Presentation
5.	Clarification of doubts.	5		

### Important Notes

- Explain the risk-based categorization of food articles and the biological/chemical hazards that may occur in them. Along with this, explain the importance of these activities within the One Health approach. Existing guidelines at the departmental/sector level should be consolidated into slides and displayed. Discussions on the aforementioned matters should be conducted and explained with examples.
- Explain the importance of coordination between enforcement/analytical divisions and the process of implementing food safety through them.
- Explain the different types and levels of surveillance sampling: Routine, Targeted, Risk-based, and Incident-based.

- The detailed information provided in the handbook can be utilized for preparing PPT presentations and referencing examples.

## Session 5

### **One Health Programme – Duties and Responsibilities of Officials in Various Departments**

#### **Health Department**

**Subject:** One Health: Duties and responsibilities of various category officials in the Health Department.

**Objective:**

1. To understand the duties and responsibilities of various categories of Health Department staff associated with the One Health Programme.

2. To understand disease surveillance, outbreak control, biomedical waste management, AMR programme, One Health coordination, evaluation, gap analysis, and preparation of a revised action plan.

**Duration:** 50 minutes

**Content and learning methods**

Sl. No.	Topics	Time (Minutes)	Method	Tool/Medium
1	Duties and responsibilities of staff associated with disease control and surveillance.	10	Interactive learning, discussion, PPT presentation.	Chart paper, PPT presentation.
2	One Health – Surveillance, detection, and timely interventions based on responsibilities. Activities undertaken.	10	Interactive learning, discussion, PPT presentation.	Chart paper, PPT presentation.
3	Responsibilities of various categories of staff: <ul style="list-style-type: none"> <li>• Interventions</li> <li>• Coordination</li> <li>• Disease surveillance</li> <li>• Disease detection</li> <li>• Antimicrobial Resistance &amp; Outbreak control</li> <li>• Disaster Mitigation/ Response</li> <li>• Waste management</li> </ul>	15	Group discussion on responsibilities of various categories of staff, consolidation, and PPT presentation.	Chart paper, PPT presentation.
4	Group Presentation	10		Chart paper
5	Responsibilities of staff in allied departments associated with One Health.	5	PPT presentation	PPT presentation

**Important Notes**

Currently, disease surveillance, detection, outbreak prevention, control, and climate-related disease control are being carried out in connection with disease control. Create awareness by scheduling the

responsibilities of various categories of staff in the Health Department. Also, raise awareness about the necessity and importance of S, P, L activities.

- Provide awareness to various categories of staff regarding the new responsibilities to be undertaken as part of the One Health Programme (Event Indicator).
- Identify the responsibilities of staff in the areas specified in the table through discussion, and the facilitator should consolidate them.
- Provide understanding and awareness to coordinate and understand the activities undertaken by various departments as part of the One Health programme.

### **Department of Agricultural Development and Farmers' Welfare**

**Subject:** One Health – Duties and responsibilities of officials from various categories within the Agriculture Department.

**Objective:**

1. To create awareness regarding the necessity of coordination and the duties and responsibilities of officials at various levels within the Agriculture Department in connection with disease surveillance, analysis, and control.
2. By the end of this session, participants will have a clear understanding of their specific duties and responsibilities regarding One Health.

**Duration:** 50 minutes

**Content and learning methods**

Sl. No.	Topics	Time (Minutes)	Method	Tool/Medium
1	Prepare a list and consolidate the existing disease surveillance and control roles, duties, and responsibilities of the officials.	20	Interactive presentation, Roleplay, PPT presentation, Discussion.	PPT presentation
2	Explain the duties, responsibilities, and coordination possibilities related to One Health.	20	Interactive presentation, General discussion, PPT presentation.	PPT presentation, Chart paper
3	Clarification of doubts	10		

### Important Notes

- The trainer shall invite officials from various categories among the trainees to step forward and ask them to explain their duties. They should also be requested to explain their existing responsibilities specifically related to disease surveillance and control
- Record the points mentioned by each participant on chart paper and facilitate the discussion as required. Along with explaining their duties and responsibilities, ask them to share the challenges they face while executing them. Finally, present and detail the responsibilities of each category of officials with the help of slides.
- **Nodal Officer** - Project Director, ATMA
- **Training** - Deputy Director (EXT), Deputy Director (NWDPR), (GAP, PGS, SAP, VDP, etc.)

- **Block Level Organization/Training - ADA's**
- **Agricultural Officer / Agricultural Assistant / Contract Staff**
  - a) Integration at the Grama Panchayat level.
  - b) Provide awareness to farmers on GAP (Good Agricultural Practices) and SAP (Sustainable Agricultural Practices).
  - c) Create awareness among farmers on monitoring the spread of pests and diseases.
  - d) Prevent the spread of these diseases through timely and accurate reporting
  - e) Conduct monthly joint field visits by coordinating various departments and submit study reports and recommendations.
  
- The trainer shall display the list of duties and responsibilities prepared in the previous session and, through discussion, consolidate which of them can be linked to One Health. Following this, explain the necessity of cooperating with various departments and the importance of sharing surveillance data.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Animal Husbandry Department

**Subject:** One Health – Duties and responsibilities of officials from various categories within the Animal Husbandry Department.

**Objective:**

- To create awareness regarding the necessity of coordinating the duties and responsibilities of officials at various levels within the Animal Husbandry Department in connection with disease surveillance, analysis, and control.
- By the end of this session, the training participants will be clear about what their duties, responsibilities, and roles are in relation to One Health.

**Duration:** 50 minutes

**Content and learning methods:**

Sl. No.	Topics	Time (Minutes)	Method	Tool/ Medium
1	Prepare a list and consolidate the existing disease surveillance and control responsibilities of the officials.	20	Interactive presentation, Roleplay, PPT presentation, Discussion.	PPT presentation
2	Explain the duties, responsibilities, and coordination possibilities related to One Health.	20	Interactive presentation, General discussion, PPT presentation.	PPT presentation, Chart paper
3	Clarification of doubts	10		

**Important Notes:**

- The trainer shall invite officials from various categories among the trainees to step forward and ask them to explain their duties. They should also be requested to explain their existing responsibilities specifically related to disease surveillance and control.
- Record the points mentioned by each participant on chart paper. Facilitate and encourage the discussion as required. Along with explaining their duties and responsibilities, ask them to share the challenges they face while executing them. At the end of this session, present and detail the responsibilities of each category of officials with the help of slides.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Forest and Wildlife Department

**Subject:** One Health – Duties and responsibilities of officials from various categories within the Forest and Wildlife Department.

**Objective:**

- To create awareness regarding the necessity of coordinating the duties and responsibilities of officials at various levels within the Forest and Wildlife Department in connection with disease surveillance, analysis, and control.
- By the end of this session, the training participants will be clear about what their duties, responsibilities, and roles are in relation to One Health.

**Duration:** 50 minutes

**Content and learning methods:**

Sl. No.	Topics	Time (Minutes)	Method	Tool/ Medium
1	Prepare a list and consolidate the existing disease surveillance and control roles, duties, and responsibilities of the officials.	20	Interactive presentation, Roleplay, PPT presentation, Discussion.	PPT presentation
2	Explain the duties, responsibilities, and coordination possibilities related to One Health.	20	Interactive presentation, General discussion, PPT presentation.	PPT presentation, Chart paper
3	Clarification of doubts	10		

**Important Notes**

- The trainer shall invite officials from various categories among the trainees to step forward and ask them to explain their duties. They should also be requested to explain their existing responsibilities specifically related to disease surveillance and control.
- Record the points mentioned by each participant on chart paper. Facilitate and encourage the discussion as required. Along with explaining their duties and responsibilities, ask them to share the challenges they face while executing them. At the end of this session, present and detail the responsibilities of each category of officials with the help of slides.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Irrigation Department

**Topic:** Coordination - Duties and responsibilities of officials from various sections within the Irrigation Department.

**Objective:**

- Sensitize participants to the necessity of coordinating the duties and responsibilities of officials across different wings of the Irrigation Department regarding disease surveillance, analysis, and control.
- By the end of this session, participants will understand what their respective duties and responsibilities are regarding coordination.

**Duration:** 50 minutes

**Content and Learning Methods:**

Sl. No.	Topics	Time (Minutes)	Method	Tool/ Medium
1	Compile and consolidate the existing disease surveillance and control responsibilities of the officials into a table.	20	Discussion, Presentation, Role Play, PPT, Presentation, Chart	PPT, Presentation
2	Explaining the duties, responsibilities, and coordination possibilities related to coordination.	20	Discussion, Presentation, Public Discussion, PPT, Presentation	PPT, Presentation, Chart Paper
3	Clearing doubts.	10		

**Important Notes**

- The trainer should invite officials from various sections among the trainees to come forward and ask them to explain their duties and responsibilities. Record the points mentioned by each person on a chart paper. Encourage the discussion in the required manner. Along with explaining their duties and responsibilities, ask them to talk about the challenges they face while executing them. Finally, present and explain the specific duties of the officials from each section using a slide.

- Display the list of duties and responsibilities prepared by the trainer in the session and conclude the discussion by clarifying which duties and responsibilities are related to coordination. following that, explain the necessity of cooperating with various departments and the importance of sharing data.
- The detailed information provided in the handbook can be utilized for preparing the PPT presentation and for citing examples.

## Drugs Control Department

**Topic:** One Health - Duties and responsibilities of officers in various divisions of the Drugs Control Department.

**Objective:**

- To create awareness about the necessity of coordinating the duties and responsibilities of officers in various divisions of the Drugs Control Department regarding the availability, quality, and control of medicines.
- By the end of this session, participants will understand their duties and responsibilities in connection with One Health.

**Duration:** 50 minutes

**Content and Learning Methods:**

Sl. No.	Topics	Time (Minutes)	Method	Tool/ Medium
1	Prepare and compile a table of current duties and responsibilities of officers regarding the availability, quality, and control of medicines.	20	Participatory presentation, Role play, PPT presentation, Discussion	PPT presentation
2	Explain the duties, responsibilities, and coordination possibilities related to One Health.	20	Participatory presentation, General discussion, PPT presentation	PPT presentation, Chart paper
3	Clarification of doubts	10		

## **Important Notes**

- The trainer should invite officers from different divisions among the trainees to the front and ask them to explain their duties and responsibilities. Record the points mentioned by each individual on chart paper. Encourage the discussion effectively. Along with explaining the duties and responsibilities, ask them to talk about the challenges they face while performing them. At the end of this, present and explain the duties and responsibilities of officers in each division on a slide.
- The trainer should display the list of duties and responsibilities prepared in the previous session and consolidate through discussion which of those duties and responsibilities can be linked to One Health framework. After that, explain the need to cooperate with various departments and the importance of sharing observational data.
- The detailed information provided in the handbook can be used to prepare the PPT presentation and to indicate examples.

## Department of Fisheries

**Topic:** One Health - Duties and responsibilities of officers in various divisions of the Fisheries Department.

**Objective:**

- To create awareness about the necessity of coordinating the duties and responsibilities of officers in various divisions of the Fisheries Department regarding disease surveillance, analysis, and control.
- By the end of this session, participants attending the training will understand their duties and responsibilities in connection with One Health.

**Duration:** 50 minutes

**Content and Learning Methods:**

Sl. No.	Topics	Time (Minutes)	Method	Tool/ Medium
1	Prepare and compile a table of the existing disease surveillance and control duties of the officers.	20	Participatory presentation, Role play, PPT presentation, Discussion	PPT presentation
2	Explain the duties, responsibilities, and coordination possibilities related to One Health.	20	Participatory presentation, General discussion, PPT presentation	PPT presentation, Chart paper
3	Clarification of doubts	10		

**Important Notes**

- Explain by showing various stages in a slide, including monitoring and reporting of aquaculture areas at the Panchayat level, farm health card monitoring, soil and water quality testing reporting, primary fish disease reporting, and BMP (Better Management Practices).
- Collate the information reported by local self-governments/fisheries falling under the responsibility of officers such as FO / AFEO / FEO, conduct necessary field visits to recommend initial remedial measures, and report this information to the District Officer, and explain what is being done.
- Explain the matters to be implemented at the district level by officers such as ADF / DDF. Explain the process of collecting information at the district level and reporting it to the state cells.
- The trainer should invite officers from different divisions among the trainees to the front and ask them to explain their duties and responsibilities. Record the points mentioned by each individual on

chart paper. Encourage the discussion effectively. Along with explaining the duties and responsibilities, ask them to talk about the challenges they face while performing them. At the end of this, present and explain the duties and responsibilities of officers in each division on a slide.

- The trainer should display the list of duties and responsibilities prepared in the previous session and consolidate through discussion which of those duties and responsibilities can be linked to One Health. After that, explain the need to cooperate with various departments and the importance of sharing observational data.
- The detailed information provided in the handbook can be used to prepare the PPT presentation and to indicate examples.

## Department of Environment and Climate Change

**Topic:** One Health – Duties and responsibilities of officers in various divisions of the Department of Environment and Climate Change.

**Objective:**

1. To create awareness about the necessity of coordinating the duties and responsibilities of officers in various divisions of the Department of Environment and Climate Change regarding disease surveillance, analysis, and control.
2. By the end of this session, participants attending the training will understand their duties and responsibilities in connection with One Health.

**Duration:** 50 minutes

**Content and Learning Methods:**

Sl. No.	Topics	Time (Minutes)	Method	Tool/Medium
1	Prepare and compile a table of the existing disease surveillance and control responsibilities of the officers.	20	Participatory presentation, Role play, PPT presentation, Discussion	PPT presentation
2	Explain the duties, responsibilities, and coordination possibilities related to One Health.	20	Participatory presentation, General discussion, PPT presentation	PPT presentation, Chart paper
3	Clarification of doubts	10		

## **Important Notes**

- The trainer should invite officers from different divisions among the trainees to the front and ask them to explain their duties and responsibilities. Record the points mentioned by each individual on chart paper. Encourage the discussion effectively. Along with explaining the duties and responsibilities, ask them to talk about the challenges they face while performing them. At the end of this, present and explain the duties and responsibilities of officers in each division on a slide.
- The trainer should display the list of duties and responsibilities prepared in the previous session and consolidate through discussion which of those duties and responsibilities can be linked to One Health. After that, explain the need to cooperate with various departments and the importance of sharing observational data.
- The detailed information provided in the handbook can be used to prepare the PPT presentation and to indicate examples.

## Food Safety Department

**Topic:** One Health – Duties and responsibilities of officers in various divisions of the Food Safety Department.

**Objective:**

1. To create awareness about the necessity of coordinating the duties and responsibilities of officers in various divisions of the Food Safety Department regarding disease surveillance, analysis, and control.
2. By the end of this session, participants attending the training will understand their duties and responsibilities in connection with One Health.

**Duration:** 50 minutes

**Content and Learning Methods:**

Sl. No.	Topic	Time (Minutes)	Method	Tool/ Medium
1	Prepare and compile a table of the existing disease surveillance and control responsibilities of the officers.	20	Participatory presentation, Role play, PPT presentation, Discussion	PPT presentation
2	Explain the duties, responsibilities, and coordination possibilities related to One Health.	20	Participatory presentation, General discussion, PPT presentation	PPT presentation, Chart paper
3	Clarification of doubts	10		

**Important Notes**

**A. Responsibility of Food Safety Officers**

1. Routine sampling, targeted sampling, and area-specific inspections.
2. Plan and organize awareness programs.
3. Reporting and related recommendations.

## **B. Responsibility of Lab Personnel**

1. Introduce the latest technology for C=chemical / microbiological testing of food items.
2. Create awareness regarding foodborne pathogens, pesticides, antibiotics, heavy metals and their residues, and aflatoxins.
3. Analyse test results that cause public concern.
4. Data collection and analysis from various fields and planning subsequent follow-up actions based on it.
5. Share information with other departments.
6. Plan targeted awareness programs focusing on relevant stakeholders/beneficiaries.

**The trainer can prepare the PPT presentation using the information mentioned above.**

- The trainer should invite officers from different divisions among the trainees to the front and ask them to explain their duties and responsibilities. Record the points mentioned by each individual on chart paper. Encourage the discussion effectively. Along with explaining the duties and responsibilities, ask them to talk about the challenges they face while performing them. At the end of this, present and explain the duties and responsibilities of officers in each division on a slide.
- The trainer should display the list of duties and responsibilities prepared in the previous session and consolidate through discussion which of those duties and responsibilities can be linked to One Health. After that, explain the need to cooperate with various departments and the importance of sharing observational data.
- The detailed information provided in the handbook can be used to prepare the PPT presentation and to indicate examples.

## Session 6

### Coordination and integrated activities of various departments at State, District, Local Self Government

**Subject:** Departmental coordination for the planning and implementation of the One Health program at State, District, and Local Self-Government levels.

**Objective:** By the end of this session, participants in the training will be able to:

1. Understand the importance of inter-departmental coordination required for planning and implementing the One Health program at State, District, and Local Self-Government levels, as well as the pathways to achieve it.
2. Create an awareness of the duties and responsibilities of each department associated with the One Health program.

**Duration:** 40 Minutes

#### Content and Learning methods:

Sl. No.	Topic	Time (Mins)	Method	Tool / Medium
1	Importance of the One Health program, the necessity of departmental coordination, and the resulting benefits.	10	Participatory presentation, Discussion, PPT presentation	PPT presentation, Chart paper
2	Current responsibilities and operational methods of departments (From State to Local Self-Government level).	10	Discussion, PPT presentation	PPT presentation, Chart paper
3	Activities required for the implementation of the One Health program (At State – District – Local level).	15	PPT presentation	PPT presentation
4	Clarification of doubts	5	Interactive discussion	

## Important Notes

- This session includes the necessity of cooperation required between departments as part of coordinating the One Health program, as well as the responsibilities each department must fulfil. Furthermore, various activities of the One Health program are explained. It explains the importance of their joint activities when various departments perform their roles as part of the One Health program at state, district, and local government levels. The challenges they may face during these activities should also be discussed.
- Planning and implementation of the One Health program at state, district, and local government levels are of great importance. Interventions are necessary for comprehensive planning at various levels and for their efficient implementation.
- To achieve the objectives of the One Health program, coordination in information exchange, decision-making, and conducting effective interventions at the local level can be implemented fruitfully.
- Comprehensive participation of various departments is required in the planning and implementation of the One Health program. Each department must perform its specific duties with responsibility.

**For Example,**

### **Rabies Control Activities:**

- **Health Department:** Treatment and prevention, IEC - BCC
- **Animal Husbandry Department:** Prevention, ABC, IEC - BCC
- **LSGD (Local Self Government Department):** Waste management, licensing, infrastructure development, IEC - BCC

Similarly, coordination of various departments must be ensured in activities such as disease diagnosis, surveillance, and control. Detailed information provided in the handbook can be used for preparing PPT presentations and providing examples.

## Summary

This One Health training module has been prepared with the objective of ensuring the coordination of various departments and the integrated action of officials. Departments such as Health, Agriculture, Animal Husbandry, Forest, Water Resources, Food Safety, Environment - Climate Change, Fisheries, and Drugs Control play an indispensable role in healthcare and environmental protection.

To achieve the training objectives, each department must accurately fulfil its specific responsibilities. The core message of this module is that goals can be achieved through coordination. It includes guidelines and recommendations for implementing the One Health program at the state, district, and local self-government levels.

All departments must come forward with their own contributions to make this training program a success by utilizing basic infrastructure and learning materials. To realize the concept of "One Health," it is expected that the methods and guidelines recommended in this module will be effectively applied according to local conditions.

It is anticipated that the training sessions planned through this module will equip various categories of staff in the relevant departments to perform their duties based on the One Health approach. It is hoped that completion of the training programs using this module will help elevate healthcare and environmental protection in Kerala to a higher level. Through this path, let us work together to create a sustainable future for our society and environment.

## Appendix

### Guidelines/Instructions for One Health Trainers in various departments

Training should be conducted in a manner favourable to adult education. Trainers must realize that each trainee may be hearing about this subject for the first time and may have many doubts related to it. Trainers should not view the trainees' existing ideas or misconceptions as shortcomings; instead, they should adopt an approach that enhances their capabilities and awareness of the subject.

A trainer's responsibility is not limited to presenting the subject or sharing information; rather, it is to create an environment where trainees can learn and absorb the topic. When handling each session, the goal should be to enable participants to perform activities that align with the training's intended outcomes.

#### Things Trainers Should Note are Given Below:

1. Always be ready to answer the questions of those participating in the training. Do not mislead or provide incorrect information. If you do not know something, say "I don't know" and direct them to the source of information, or find the correct information and provide it at the next opportunity. Trainers should always strive to maintain continuity between sessions. It is beneficial to provide a brief explanation at the start of a session on how it relates to previous sessions.
2. Before the training, the trainer must have read and understood the training module and reference materials.
3. Each trainer must have a clear understanding of which sessions they are handling. This should be planned together before each training program.
4. Before starting the training programs, trainers should discuss with the One Health nodal officer and create a checklist. This checklist should include things that trainers need to ensure regarding the training program.
5. During the training program, if any topics are missed in a session, the co-trainer should add them at the end of that session.
6. Trainers should interact with trainees in a friendly and cooperative manner.
7. Do not get angry with the trainees.
8. Congratulate the trainees for giving correct answers or opinions. Similarly, encourage the trainees to increase training participation.
9. Try to use energizers like games as needed to ensure full-time participation of the participants. As far as possible, try to use energizers that finish within two minutes.
10. Under no circumstances should matters of a religious or political nature be discussed during the training program. Special care should be taken to ensure that the trainer's religious or political thoughts do not influence the training program.
11. Explain the name, content, and objectives of the session to the trainees as each session begins.
12. Use Malayalam as much as possible in the training program. The words used should be simple and meaningful.

13. The examples used or spoken by the trainers should be easily understandable to the trainees. It will be good to give examples from their own contexts. Avoid using words and examples that cause discomfort to the trainees.
14. Avoid giving instructions to the trainees as much as possible; instead, guide them in the required manner.
15. At the end of each session, ask the trainees what they have understood. If anything has been missed, explain it to them once again.

### **Other points to be noted**

1. Do not use mobile phones while handling a session.
2. Do not generalize matters by highlighting isolated incidents.
3. If any of the trainees say something wrong, gently provide the correct information without mocking or blaming them.
4. Try to adhere to the time schedule of the session.
5. When communicating, use a simple language that the trainees can understand. Do not speak too fast.
6. Do not interact with the trainees with prejudice.
7. After each training program, the trainers should gather together to analyse the program and make preparations for the next program.