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INITIAL ENVIRONMENTAL EXAMINATION (IEE)

Overview: Global Health Security (GHS) involves preventing, detecting, and responding to health emergencies across borders due to rapid disease spread. Peru faces challenges such as high COVID-19 death rates, dengue fever, and climate-change-exacerbated vector-borne diseases. Evaluations reveal inadequate GHS capacities, and adopting a One Health approach is crucial. This Activity aims to enhance Peru's GHS through improved zoonotic response, workforce and surveillance.

This IEE covers the new Strengthening Systems For Health Security Activity (SSHS) activity.

ORGANIZATIONAL DATA

Activity Name:	STRENGTHENING SYSTEMS FOR HEALTH SECURITY ACTIVITY (SSHS)
Geographic Location(s):	Peru (national and regional level, regions TBD)
Funding Operating Unit(s):	PERU
Other Involved Operating Unit(s):	NOT APPLICABLE
Funding Account(s):	TBD
Life of Project Funding (ceiling):	
Activity Start/End Date	10/30/2024 / 09/30/2029
If Amended, New End Date:	
Solicitation/Contract/Award Number(s) :	TBD
Mechanism Type:	TBD
Implementing Partner(s):	TBD

DOCUMENT TRACKING

Bureau Tracking ID:	LAC-24-179
If an Amendment, Tracking ID of Preceding Compliance Document(s):	None
Other Related Compliance Documents:	Social Impact Assessment Initial screening tool (SIA), Final Disposition plan (FDP), Screening and EMMP per each sub-grant
Document Expiration Date:	09/30/2029
Sector Type(s):	Environment, Health

ENVIRONMENTAL COMPLIANCE REVIEW DATA

Environmental Determination(s):	Categorical exclusion, Negative determinations with conditions	
Additional Analyses or Reporting Required:	N/A	
Activity will involve construction, as defined by	TBD	
<u>ADS 201</u> and <u>303</u> :		
Potential Impact to Threatened or Endangered	No impact	
Species or Critical Habitat per 216.5:		
Applicability of Safeguards for Activities	No, this activity will not take place in protected areas	
Supporting Parks and Protected Areas:		
Climate Risks Identified (#) in Annex 1:	Low: 41 Moderate: 2 High: 1	
Climate Risks Addressed (#) in Annex 1:	Low: 41 Moderate: 2 High: 1	

PURPOSE OF THIS DOCUMENT

In accordance with Title 22, Code of Federal Regulations, Part 216 (22 CFR 216), this document provides review of reasonably foreseeable effects of a proposed action on the environment. Its function is to document the factual basis as to whether an Environmental Assessment will be required. This document sets out conditions necessary to eliminate or mitigate significant adverse impacts. As needed, this document will be amended to provide further analysis when new activities are added or additional information is available that warrants further review.

This document also captures (in Annex 1) the results of the Climate Risk Management process, in accordance with USAID policy (<u>ADS 201mal</u>).

APPROVAL OF STRENGTHENING SYSTEMS FOR HEALTH SECURITY ACTIVITY (SSHS) IEE

Approval:	Approved in APECS	8-21-2024
	Amy Paro, Mission Director	Date
Cleananae	Mariana Damas	09 15 2024
Clearance:		08-15-2024
	Mariana Ramos, AOR/COR	Date
	Florencia Trama	08-15-2024
	Florencia Trama, Mission Environmental Officer	Date
	Diana Shannon, cleared electronically	Aug 20, 2024
	Diana Shannon, Regional Environmental Advisor	Date
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Concurrence:	Bethzaida Colon /s/	8/2//2024
	Bethzaida Colon, LAC Bureau Environmental Officer	Date
Other		
Clearance/		
Concurrence:	Danielle Spinard	08-15-2024
	Danielle Spinard, Office Director Regional Migration and Health Office	Date
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Distribution: Award File; Environmental Compliance Database

1. ACTIVITY DESCRIPTION

Global Health Security (GHS) involves the ability to effectively prevent, detect, and respond to health emergencies, including emerging infectious diseases, and requires coordination beyond national borders due to the rapid global spread of diseases. Peru faces significant challenges in this area, as demonstrated by its severe COVID-19 death rate, recent high dengue fever mortality, and difficulties in managing vector-borne diseases exacerbated by climate change. The country's decentralized health system and geographical diversity further complicate emergency responses. Evaluations like the WHO's International Health Regulations (IHR) tools have highlighted Peru's inadequate GHS capacities, with recent assessments showing a low score compared to global and regional averages. Adopting a One Health approach, which integrates human, animal, and environmental health, is crucial for improving Peru's ability to manage health threats effectively and strengthen its overall health security. This Activity aims to improve Peru's GHS capabilities using a One Health approach, by addressing technical gaps in three priority areas through the following objectives: 1. Improving the prevention of infectious diseases through the reduction of disease transmission from animals to humans (Zoonotic Diseases); 2. Improving the detection of infectious disease through a stronger health security workforce.

1	1.Implementing multi-sectoral mechanisms and policies to prevent and mitigate risks and
1	minimize the transmission of zoonotic disease at national and regional levels.
2	1.1 Developing and disseminating guidelines and educational materials tailored to the needs of different
	stakeholders within the value chains.
3	1.2 Conducting comprehensive training programs for farmers and producers on best practices in animal
	husbandry and biosecurity measures that align with international standards.
Δ	1.3 Implementing routine inspections and audits of animal production facilities to ensure compliance with
	these standards.
5	1.4 Coordination to collaborate with veterinary services and public health authorities to monitor and
	manage animal health
6	1.5 Fostering partnerships with industry stakeholders to encourage investment in safer production
	practices to prevent the spillover of zoonotic diseases.
7	2. Creating formal mechanisms for the timely detection of potential zoonotic disease outbreaks by
	integrating surveillance systems that link animal, human, and environmental health data.
8	2.1 Developing shared protocols for data collection, analysis, and reporting across sectors.
9	2.2 Organizing regular intersectoral meetings to ensure real-time information exchange and coordination
	among health professionals.
10	2.3 Conducting training programs to enhance the skills of health workers in identifying and responding to
11	2.4 Strengthening partnerships with local communities and stakeholders to improve the early detection and
	reporting of unusual health events in animals and the environment.
12	2.5 Designing and implementing a centralized digital platform for monitoring and alerting potential zoonotic
	disease outbreaks, and enabling rapid response actions.
12	3. Developing multi-sectoral standard operating procedures (SOPs) at the national and regional level to
10	ensure a better response to zoonotic disease outbreaks.

TABLE 1: ILLUSTRATIVE ACTIVITIES OR INTERVENTIONS

14	3.1 Organizing and conducting workshops with key stakeholders from health, agriculture, environment, and wildlife sectors to collaboratively draft SOPs that address the unique needs of each of the selected regions.		
15	3.2 Conducting a series of simulation exercises to test and refine these SOPs, ensuring they are practical an effective in real-world scenarios.		
16	3.3 Establishing a monitoring and evaluation framework to assess the implementation of SOPs and identify areas for improvement.		
17	3.4 Providing targeted training sessions to relevant personnel at both national and regional levels, ensuring that all involved parties are well-prepared to respond effectively to zoonotic disease outbreaks.		
18	4. Strengthening the current disease surveillance system to become a real-time interoperable one that seamlessly connects institutions across human, animal, and environmental health sectors to facilitate rapid information sharing and coordinated responses during sanitary emergencies, and data-driven decision-making.		
19	4.1 Design a disease surveillance system that links national and regional units, ensuring that both levels car efficiently collaborate to mitigate the impact of health emergencies on any level (including local one).		
20	4.2 Integrating digital and paper-based surveillance platforms that allow for real-time data exchange at national and regional levels.		
21	4.3 Establishing protocols for inter-sector (human, animal and environmental) exchange of information		
22	4.4 Design and implementation of training sessions for personnel in the use of these tools.		
23	4.5 Conducting regular drills and simulations to test the system's effectiveness and to refine functioning		
24	4.6 Developing interoperable data systems to aggregate and analyze data from various sectors, ensuring timely and accurate information sharing.		
25	4.7 Conducting regular training sessions for health and safety personnel to enhance their capacity to interpret and utilize complex datasets		
26	4.8 Identification of emerging threats and informing proactive mitigation measures by using recent GHS research and bioinformatic		
27	4.9 Implementation of rigorous quality control to provide early warnings of potential health risks, thereby enabling a more responsive and effective surveillance system		
28	5. Developing a strategy for an occupationally diverse health security workforce		
29	5.1 Identifying key stakeholders across the human, animal, and environmental sectors, engaging with healthcare providers, veterinarians, environmental scientists, and public health officials to ensure comprehensive representation		
30	5.2 Assessing the current workforce capabilities, identify gaps, and develop targeted training programs to address these needs.		
31	5.3 Updating the strategy regularly to reflect emerging health threats and workforce development needs.		

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32	5.4 Establishment of a robust monitoring system to track progress and ensure the strategy's consistent application.	
33	5.5 Ensuring the allocation of adequate budgeting (from national and regional sectors) to support these efforts, ensuring the strategy's sustainability and effectiveness over time.	
34	5.6 Implementing a comprehensive approach at both national and regional levels to establish regular competency-based training programs and standards for health security professions and sectors. This approach will include developing standardized curricula tailored to the specific needs of various health security roles, ensuring alignment with international best practices.	
35	5.7 Designing of training modules to incorporate the One Health approach in the curricula, emphasizing the interconnectedness of human, animal, and environmental health.	
36	5.8 Conducting workshops and practical exercises regularly to build and assess competencies, with a focus on real-world scenarios.	
37	5.9 Establishing partnerships with academic institutions and professional organizations to provide ongoing education and certification opportunities, ensuring that the workforce remains equipped with the latest skills and knowledge in health security.	
38	5.10 Conducting regular evaluations and updates to the training programs to adapt to emerging threats and evolving best practices.	
39	6. Developing a multi-sectoral action plan for surge support during a public health emergency at the national and regional level during emergencies.	
40	6.1 Engaging key stakeholders from various sectors to establish a comprehensive framework, including the identification and rostering of qualified personnel across disciplines.	
41	6.2 Ensuring readiness by implementing regular training sessions tailored to the specific needs of different regions and potential emergencies.	
42		
	6.3 Establishment of protocols for rapid mobilization and deployment, enabling a swift, coordinated response that leverages multidisciplinary expertise to effectively manage public health crises.	
43	 6.3 Establishment of protocols for rapid mobilization and deployment, enabling a swift, coordinated response that leverages multidisciplinary expertise to effectively manage public health crises. 7. Conducting a climate vulnerability assessment for the proposed selected regions of this Activity as it pertains to the regional government's capabilities to prevent, detect, and respond to infectious disease threats. 	

2. BASELINE ENVIRONMENTAL INFORMATION

Peru is renowned for its vast and diverse landscapes, encompassing arid coastal plains, towering Andean mountains, and lush Amazonian rainforests. The coastal region, or "Costa," is characterized by deserts and fertile valleys influenced by the cold Humboldt Current, creating unique ecosystems with rich marine biodiversity. The "Sierra" region includes the Andes, where elevations exceed 6,000 meters, featuring high-altitude grasslands, glaciers, and endemic species adapted to extreme conditions. The "Selva," or Amazon basin, covers more than 60% of Peru's territory, hosting some of the planet's most biodiverse rainforests. This region is a critical global carbon sink, home to countless species of flora and

fauna, many of which are yet to be documented. Peru's varied topography and climate zones result in a remarkable range of ecosystems, from dry forests and montane cloud forests to wetlands and paramos, making it one of the world's most ecologically rich countries.

Peru, a country known for its rich biodiversity and complex ecosystems, faces significant environmental challenges that have profound implications for public health, animal health, and environmental sustainability. The One Health approach, which recognizes the interconnectedness of human, animal, and environmental health, provides a comprehensive framework for understanding and addressing these challenges. This environmental baseline aims to outline the current state of Peru's environment, with a focus on key factors relevant to the One Health concept.

The Activity is located at National and regional level (the activity will intervene in three regions to be determined). Peru faces significant environmental concerns, including air pollution, soil degradation, water contamination, and improper waste management. Peru faces natural and climate-induced hazards, including earthquakes, floods, landslides, droughts, and El Niño events, impacting various regions.

There is not going to be an expected impact on biodiversity or endangered species as a consequence of this activity's interventions Vegetation will not be removed. The interventions during this activity will not interfere with land use or tenure Indigenous or marginalized communities will not be negatively affected.

3. DETERMINATION OF CATEGORICAL EXCLUSIONS

A categorical exclusion is recommended for the following activities or interventions (sub-activities) that fall under the classes of actions defined in §216.2(c)(2). No further analysis is required for the activities/interventions identified in the table below.

	Activity or Intervention #	Recommended Determination for Categorical Exclusion
1	1.Implementing multi-sectoral mechanisms and policies to prevent and mitigate risks and minimize the transmission of zoonotic disease at national and regional levels.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
2	1.1 Developing and disseminating guidelines and educational materials tailored to the needs of different stakeholders within the value chains.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
5	1.4 Coordination to collaborate with veterinary services and public health authorities to monitor and manage animal health	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
6	1.5 Fostering partnerships with industry stakeholders to encourage investment in	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include

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	Activity or Intervention #	Recommended Determination for Categorical Exclusion
	safer production practices to prevent the spillover of zoonotic diseases.	activities directly affecting the environment (such as construction of facilities, etc.);
7	2. Creating formal mechanisms for the timely detection of potential zoonotic disease outbreaks by integrating surveillance systems that link animal, human, and environmental health data.	§ 216.2 (c) 2(v) Document and information transfers;
8	2.1 Developing shared protocols for data collection, analysis, and reporting across sectors.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
9	2.2 Organizing regular intersectoral meetings to ensure real-time information exchange and coordination among health professionals.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
10	2.3 Conducting training programs to enhance the skills of health workers in identifying and responding to zoonotic threats.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
11	2.4 Strengthening partnerships with local communities and stakeholders to improve the early detection and reporting of unusual health events in animals and the environment.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
12	2.5 Designing and implementing a centralized digital platform for monitoring and alerting potential zoonotic disease outbreaks, and enabling rapid response actions.	§ 216.2 (c) 2(v) Document and information transfers;
13	3. Developing multi-sectoral standard operating procedures (SOPs) at the national and regional level to ensure a better response to zoonotic disease outbreaks.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
14	3.1 Organizing and conducting workshops with key stakeholders from health, agriculture, environment, and wildlife sectors to collaboratively draft SOPs that address the unique needs of each of the selected regions.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
15	3.2 Conducting a series of simulation exercises to test and refine these SOPs, ensuring they are practical and effective in real-world scenarios.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
16	3.3 Establishing a monitoring and evaluation framework to assess the implementation of SOPs and identify areas for improvement.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
18	 Strengthening the current disease surveillance system to become a real-time interoperable one that seamlessly connects 	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include

	Activity or Intervention #	Recommended Determination for Categorical Exclusion
	institutions across human, animal, and environmental health sectors to facilitate rapid information sharing and coordinated responses during sanitary emergencies, and data-driven decision-making.	activities directly affecting the environment (such as construction of facilities, etc.);
19	4.1 Design a disease surveillance system that links national and regional units, ensuring that both levels can efficiently collaborate to mitigate the impact of health emergencies on any level (including local one).	§ 216.2 (c) 2(v) Document and information transfers;
20	4.2 Integrating digital and paper-based surveillance platforms that allow for real- time data exchange at national and regional levels.	§ 216.2 (c) 2(v) Document and information transfers;
21	4.3 Establishing protocols for inter-sector (human, animal and environmental) exchange of information.	§ 216.2 (c) 2(v) Document and information transfers;
22	4.4 Design and implementation of training sessions for personnel in the use of these tools.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
23	4.5 Conducting regular drills and simulations to test the system's effectiveness and to refine functioning	§ 216.2 (c) 2(v) Document and information transfers;
24	4.6 Developing interoperable data systems to aggregate and analyze data from various sectors, ensuring timely and accurate information sharing.	§ 216.2 (c) 2(v) Document and information transfers;
25	4.7 Conducting regular training sessions for health and safety personnel to enhance their capacity to interpret and utilize complex datasets	§ 216.2 (c) 2(v) Document and information transfers;
26	4.8 Identification of emerging threats and informing proactive mitigation measures by using recent GHS research and bioinformatic	§ 216.2 (c) 2(v) Document and information transfers;
27	4.9 Implementation of rigorous quality control to provide early warnings of	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include

	Activity or Intervention #	Recommended Determination for Categorical Exclusion
	potential health risks, thereby enabling a more responsive and effective surveillance system	activities directly affecting the environment (such as construction of facilities, etc.);
28	5. Developing a strategy for an occupationally diverse health security workforce	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
29	5.1 Identifying key stakeholders across the human, animal, and environmental sectors, engaging with healthcare providers, veterinarians, environmental scientists, and public health officials to ensure comprehensive representation	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
30	5.2 Assessing the current workforce capabilities, identify gaps, and develop targeted training programs to address these needs.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
31	5.3 Updating the strategy regularly to reflect emerging health threats and workforce development needs.	
32	5.4 Establishment of a robust monitoring system to track progress and ensure the strategy's consistent application.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
33	5.5 Ensuring the allocation of adequate budgeting (from national and regional sectors) to support these efforts, ensuring the strategy's sustainability and effectiveness over time.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
34	5.6 Implementing a comprehensive approach at both national and regional levels to establish regular competency- based training programs and standards for health security professions and sectors. This approach will include developing standardized curricula tailored to the specific needs of various health security	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);

	Activity or Intervention #	Recommended Determination for Categorical Exclusion
	roles, ensuring alignment with international best practices.	
35	5.7 Designing of training modules to incorporate the One Health approach in the curricula, emphasizing the interconnectedness of human, animal, and environmental health.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
36	5.8 Conducting workshops and practical exercises regularly to build and assess competencies, with a focus on real-world scenarios.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
37	5.9 Establishing partnerships with academic institutions and professional organizations to provide ongoing education and certification opportunities, ensuring that the workforce remains equipped with the latest skills and knowledge in health security.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
38	5.10 Conducting regular evaluations and updates to the training programs to adapt to emerging threats and evolving best practices.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
39	6. Developing a multi-sectoral action plan for surge support during a public health emergency at the national and regional level during emergencies.	§ 216.2 (c) 2(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
40	6.1 Engaging key stakeholders from various sectors to establish a comprehensive framework, including the identification and rostering of qualified personnel across disciplines.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
41	6.2 Ensuring readiness by implementing regular training sessions tailored to the specific needs of different regions and potential emergencies.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;
42	6.3 Establishment of protocols for rapid	§ 216.2 (c) 2(i) Education, technical assistance, or training

	Activity or Intervention #	Recommended Determination for Categorical Exclusion
	mobilization and deployment, enabling a swift, coordinated response that leverages multidisciplinary expertise to effectively manage public health crises.	programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);
43	7. Conducting a climate vulnerability assessment for the proposed selected regions of this Activity as it pertains to the regional government's capabilities to prevent, detect, and respond to infectious disease threats.	§ 216.2 (c) 2(iii) Analyses, studies, academic or research workshops and meetings;

4. ENVIRONMENTAL DETERMINATIONS, IMPACTS, AND MITIGATION MEASURES

The following section provides the mandatory analysis of impacts for all activities that are NOT Categorically Excluded per Section 3 of this IEE. Upon approval of this document, the determinations become affirmed, per Agency regulations (22 CFR 216).

4.1. NEGATIVE DETERMINATION:

Negative Determinations with Conditions are made when activities or interventions will not have a significant effect on the environment and/or when potential adverse impacts can be avoided or minimized by application of suitable mitigation measures.

The impacts, mitigation, and monitoring measures identified below are provided as a starting point to inform planning. Further review and consideration by the implementing partner will usually be required to properly assess impacts and adjust the measures. Additional guidance is available on the <u>USAID</u> <u>Environmental Procedures Hub</u>, including <u>Sectoral Environmental and Social Best Practices</u> that should be consulted while preparing Environmental Mitigation and Monitoring Plan(s).

	Activities or Interventions	Potential Impacts	Mitigation and Monitoring Measures
3	1.2 Conducting comprehensive training programs for farmers and producers on best practices in animal husbandry and biosecurity measures that align with international standards.	Public Health & Safety Potential impacts on public health and safety, including exposure to hazardous materials and infected animals, spread of infectious diseases, inadequate sanitation, and risks associated with poor infrastructure. These impacts can lead to increased illness, accidents, and general harm to community well-being, particularly in vulnerable populations	Implement health and safety procedures, established by the local or national authority.

4	1.3 Implementing routine	Public Health & Safety	Provide personal protection
	inspections and audits of	Potential impacts on public health	equipment (PPE) according to
	animal production facilities to	and safety, including exposure to	regulations.
	ensure compliance with these	hazardous materials and infected	
	standards.	animals, spread of infectious	
		diseases, inadequate sanitation,	
		and risks associated with poor	
		infrastructure. These impacts can	
		arise from insufficient safety	
		protocols, poor waste	
		management, lack of proper	
		sanitation, and failure to adhere to	
		health regulations. These impacts	
		can lead to increased illness,	
		accidents, and general harm to	
		community well-being, particularly	
		in vulnerable populations	
17	3.4 Providing targeted training	Public Health & Safety	Implement health and safety
	sessions to relevant personnel	Potential impacts on public health	procedures, established by the
	at both national and regional	and safety, including exposure to	local or national authority.
	levels, ensuring that all	hazardous materials and infected	
	involved parties are well-	animals, spread of infectious	
	prepared to respond	diseases, inadequate sanitation,	
	effectively to zoonotic disease	and risks associated with poor	
	outbreaks.	infrastructure. These impacts can	
		arise from insufficient safety	
		protocols, poor waste	
		management, lack of proper	
		sanitation, and failure to adhere to	
		health regulations. These impacts	
		can lead to increased illness,	
		accidents, and general harm to	
		community well-being, particularly	
		in vulnerable populations	
44	8. Acquisition of equipment	Solid Waste Management	Design a disposition plan for the
	and materials		acquired equipment

5. MANAGEMENT AND REPORTING

5.1. USAID IMPLEMENTATION AND MONITORING REQUIREMENTS FOR AWARDS

The environmental determinations in this IEE are contingent upon full implementation of the following pre- and post-award requirements.

Changes to scope of awards require a determination be made as to whether such change may have an environmental impact not previously assessed (per §216.3(a)(9)). Per ADS 204, it is the responsibility of the AOR/COR to keep the MEO/REA and BEO informed of any new information or changes in the activity(ies) subject to this IEE.

5.1.1. During Pre-Award:

- 5.1.1.1. Pre-Award Briefings: As feasible, the design team and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide a pre-award briefing for potential offerors on environmental compliance responsibilities at bidders' conferences.
- 5.1.1.2. Awards: The AOR/COR, in coordination with the AO/CO, will ensure all awards and sub-awards include environmental compliance requirements stated in this IEE. See <u>ADS 204sac</u> for recommended language for use in solicitations and awards.

5.1.2. During Implementation:

- 5.1.2.1. Post-Award Briefings: The AOR/COR and/or the cognizant environmental officer(s) (e.g., MEO, REA, BEO) will provide post-award briefings for the IP on environmental compliance responsibilities, including applicable environmental requirements in the country.
- 5.1.2.2. Work Plans and Budgeting: The AOR/COR will ensure that activities remain within the scope accessed in this IEE and that IPs integrate environmental compliance requirements though work plans and budgets to comply with specified requirements, including Environmental Mitigation and Monitoring Plan (EMMP) implementation and monitoring (if required by the IEE).
- 5.1.2.3. Environmental Mitigation and Monitoring Plan: The AOR/COR, in consultation with the MEO and/or REA, will ensure the IP develops, obtains approval for, and implements EMMPs to adequately address impacts. The AOR/COR must approve the EMMP and the cognizant environmental officer(s) (e.g., MEO, REA, or BEO) should provide clearance.
- 5.1.2.4. Records Management: The AOR/COR will maintain environmental compliance documents in the official activity file and upload records to the USAID Environmental Compliance Database.
- 5.1.2.5. Monitoring Oversight: The AOR/COR or designee, with the support of the cognizant environmental officer(s) (e.g., MEO, REA, or BEO), will ensure compliance with established requirements in the IEE and EMMPs is properly monitored, e.g., desktop reviews, site visits, etc.
- 5.1.2.6. Environmental Compliance Reporting: The AOR/COR, in consultation with the cognizant environmental officer(s) (e.g., MEO, REA, or BEO), will ensure the IP includes environmental compliance in regular activity reports, using indicators as appropriate; develops and submits the Environmental Mitigation and Monitoring Reports (EMMRs), describing implementation of EMMP requirements..
- 5.1.2.7. Corrective Action: When noncompliance or unforeseen impacts are identified, the AOR/COR will initiate the corrective action process, in consultation with the cognizant environmental officer(s) (e.g., MEO, REA, or BEO). The Corrective Action Plan is used to document findings, recommendations, and a timeline for making the corrections.
- 5.1.2.8. Activity Closeout: AOR/CORs must ensure that compliance with this IEE is verified during the closeout process. A summary of how mitigation and monitoring

requirements were met should be included in the verification. The Record of Compliance may be used to document this requirement.

5.2. SPECIAL INSTRUCTIONS FOR ENVIRONMENTAL COMPLIANCE

- 5.2.1. Other Supplemental Analyses: The AOR/COR will ensure supplemental environmental analyses that are called for in the IEE are completed and documented e.g., EMMPs, pesticide evaluation reports and safer use action plans (PERSUAPs), water quality assurance plans (WQAP).
- 5.2.2. Sub-award (Grant and Sub-contract) Screening: The AOR/COR will require the IP to use appropriate screening tools for ensuring activities described in the sub-award application are within the scope of the prime award IEE and that adequate environmental safeguards are part of sub-award implementation.

ATTACHMENTS: Annex 1: Climate Risk Management Summary and Table

ANNEX 1. CLIMATE RISK MANAGEMENT SUMMARY AND TABLE

CLIMATE RISK MANAGEMENT SUMMARY

This section summarizes the methodology used and findings of the CRM Screening, in accordance with <u>ADS 201mal</u>. The design team, in consultation with the CIL, considered the potential effect of climate risks/stressors on the sustainability of the activity in the table below (changing precipitation patterns, rising temperature, floods, droughts, fires, landslides, etc.) in addition to the impact of activities on the climate (increased greenhouse gas emissions, land use changes, etc.).

CLIMATE RISK MANAGEMENT SUMMARY TABLE

	Activity or Intervention #	Climate Risks ¹	Risk Rating ²	How Risks are Addressed ³	Opportunities to Strengthen Climate Resilience or Climate Mitigation ⁴
1	1.Implementing multi-sectoral mechanisms and policies to prevent and mitigate risks and minimize the transmission of zoonotic disease at national and regional levels.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
2	1.1 Developing and disseminating guidelines and educational materials tailored to the needs of different stakeholders within the value chains.	Reduced attendance and learning success due to increasing vector-borne diseases caused by higher temperatures and/or floodings	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of	N/A

¹ List key risks related to the defined/illustrative interventions identified in the screen and additional assessment.

² Low/Moderate/ High

³ Describe how risks have been addressed in activity design and/or additional steps that will be taken in implementation. If a decision has been made to accept the risk, briefly explain why.

⁴ Describe opportunities to achieve development objectives by integrating climate resilience or mitigation measures.

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				the environment and selection of less vulnerable locations are also crucial.	
3	1.2 Conducting comprehensive training programs for farmers and producers on best practices in animal husbandry and biosecurity measures that align with international standards.	Disruption of educational services because of damage of infrastructure cause by extreme climate change events	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial. Develop online training modules and distribute materials in advance to ensure continuity. Plan a flexible schedule with alternative dates and identify safe locations for emergency training.	N/A
4	1.3 Implementing routine inspections and audits of animal production facilities to ensure compliance with these standards.	Disruption of health services because of damage to infrastructure or interruption in services cause by to extreme climate change events	Moderate	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Develop health interventions that are adaptable to changing climate conditions. This could include adjusting vaccination schedules based on climate patterns or preparing health systems for climate-related disease outbreaks, such as vector-borne diseases that may increase with rising temperatures.	If possible, invest in constructing or retrofitting buildings and facilities to withstand extreme weather conditions, such as floods, storms, or heatwaves. Use green building materials and designs that reduce environmental impact and increase energy efficiency. Utilize advanced data analytics and climate modeling to predict and prepare for potential climate impacts on project activities.
5	1.4 Coordination to collaborate with veterinary services and public health authorities to monitor and manage animal health	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A

	Activity or Intervention #	Climate Risks ¹	Risk Rating ²	How Risks are Addressed ³	Opportunities to Strengthen Climate Resilience or Climate Mitigation ⁴
6	1.5 Fostering partnerships with industry stakeholders to encourage investment in safer production practices to prevent the spillover of zoonotic diseases.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
7	2. Creating formal mechanisms for the timely detection of potential zoonotic disease outbreaks by integrating surveillance systems that link animal, human, and environmental health data.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less yulnerable locations are also crucial.	N/A
8	2.1 Developing shared protocols for data collection, analysis, and reporting across sectors.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
9	2.2 Organizing regular intersectoral meetings to ensure real-time information exchange and coordination among health professionals.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of	N/A

	Activity or Intervention #	Climate Risks ¹	Risk Rating ²	How Risks are Addressed ³	Opportunities to Strengthen Climate Resilience or Climate Mitigation ⁴
				the environment and selection of less vulnerable locations are also crucial.	
10	2.3 Conducting training programs to enhance the skills of health workers in identifying and responding to zoonotic threats.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
11	2.4 Strengthening partnerships with local communities and stakeholders to improve the early detection and reporting of unusual health events in animals and the environment.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less yulperable locations are also crucial	N/A
12	2.5 Designing and implementing a centralized digital platform for monitoring and alerting potential zoonotic disease outbreaks, and enabling rapid response actions.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
13	3. Developing multi-sectoral standard operating procedures (SOPs) at the national and regional level to ensure a better response to zoonotic disease outbreaks.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as	N/A

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				electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	
14	3.1 Organizing and conducting workshops with key stakeholders from health, agriculture, environment, and wildlife sectors to collaboratively draft SOPs that address the unique needs of each of the selected regions.	Disruption of educational services because of damage of infrastructure cause by extreme climate change events	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
15	3.2 Conducting a series of simulation exercises to test and refine these SOPs, ensuring they are practical and effective in real-world scenarios.	Disruption of educational services because of damage of infrastructure cause by extreme climate change events	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
16	3.3 Establishing a monitoring and evaluation framework to assess the implementation of SOPs and identify areas for improvement.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
17	3.4 Providing targeted training sessions to relevant personnel at both national and regional levels, ensuring that all involved parties are well-prepared to respond effectively	Disruption of educational services because of damage of infrastructure cause by extreme climate change events	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and	N/A

	Activity or Intervention #	Climate Risks ¹	Risk Rating ²	How Risks are Addressed ³	Opportunities to Strengthen Climate Resilience or Climate Mitigation ⁴
	to zoonotic disease outbreaks.			redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	
18	4. Strengthening the current disease surveillance system to become a real-time interoperable one that seamlessly connects institutions across human, animal, and environmental health sectors to facilitate rapid information sharing and coordinated responses during sanitary emergencies, and data- driven decision-making.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
19	4.1 Design a disease surveillance system that links national and regional units, ensuring that both levels can efficiently collaborate to mitigate the impact of health emergencies on any level (including local one).	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less yulnerable locations are also crucial.	N/A
20	4.2 Integrating digital and paper- based surveillance platforms that allow for real-time data exchange at national and regional levels.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
21	4.3 Establishing protocols for inter- sector (human, animal and environmental) exchange of	Access restrictions due to extreme climate change impacts on damage to	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity	N/A

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	information	infrastructure or interruption in services		plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	
22	4.4 Design and implementation of training sessions for personnel in the use of these tools.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
23	4.5 Conducting regular drills and simulations to test the system's effectiveness and to refine functioning	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
24	4.6 Developing interoperable data systems to aggregate and analyze data from various sectors, ensuring timely and accurate information sharing.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
25	4.7 Conducting regular training sessions for health and safety personnel to enhance their capacity	Access restrictions due to extreme climate change impacts on damage to	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand	N/A

	Activity or Intervention #	Climate Risks ¹	Risk Rating ²	How Risks are Addressed ³	Opportunities to Strengthen Climate Resilience or Climate Mitigation ⁴
	to interpret and utilize complex datasets	infrastructure or interruption in services		climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	
26	4.8 Identification of emerging threats and informing proactive mitigation measures by using recent GHS research and bioinformatic	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
27	4.9 Implementation of rigorous quality control to provide early warnings of potential health risks, thereby enabling a more responsive and effective surveillance system	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less yulnerable locations are also crucial	N/A
28	5. Developing a strategy for an occupationally diverse health security workforce	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
29	5.1 Identifying key stakeholders across the human, animal, and	Access restrictions due to extreme climate change	Low	Incorporate changes in precipitation patterns when planning meetings to reduce	N/A

	Activity or Intervention #	Climate Risks ¹	Risk Rating ²	How Risks are Addressed ³	Opportunities to Strengthen Climate Resilience or Climate Mitigation ⁴
	environmental sectors, engaging with healthcare providers, veterinarians, environmental scientists, and public health officials to ensure comprehensive representation	impacts on damage to infrastructure or interruption in services		risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	
30	5.2 Assessing the current workforce capabilities, identify gaps, and develop targeted training programs to address these needs.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
31	5.3 Updating the strategy regularly to reflect emerging health threats and workforce development needs.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
32	5.4 Establishment of a robust monitoring system to track progress and ensure the strategy's consistent application.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less yulnerable locations are also crucial.	N/A
33	5.5 Ensuring the allocation of	Disrupted financial markets	Moderate	Incorporate climate risk assessments into	If possible, create contingency financial

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	adequate budgeting (from national and regional sectors) to support these efforts, ensuring the strategy's sustainability and effectiveness over time.	and investment uncertainty due to extreme climate change impacts on damage to crops, productive infrastructure and/or forests		financial planning and budgeting processes. This includes evaluating the potential impacts of climate-related disruptions on funding sources and adjusting financial strategies to ensure long-term sustainability. Diversify funding sources to reduce dependency on any single market or investment that might be vulnerable to climate risks.	plans that account for potential climate-related disruptions. This includes establishing emergency funds or reserves to be used in the event of climate-induced financial stress, such as unexpected costs due to natural disasters or delays in project implementation caused by extreme weather events.
34	5.6 Implementing a comprehensive approach at both national and regional levels to establish regular competency-based training programs and standards for health security professions and sectors. This approach will include developing standardized curricula tailored to the specific needs of various health security roles, ensuring alignment with international best practices.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
35	5.7 Designing of training modules to incorporate the One Health approach in the curricula, emphasizing the interconnectedness of human, animal, and environmental health.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
36	5.8 Conducting workshops and practical exercises regularly to build and assess competencies, with a focus on real-world scenarios.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and	N/A

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				redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	
37	5.9 Establishing partnerships with academic institutions and professional organizations to provide ongoing education and certification opportunities, ensuring that the workforce remains equipped with the latest skills and knowledge in health security.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
38	5.10 Conducting regular evaluations and updates to the training programs to adapt to emerging threats and evolving best practices.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
39	6. Developing a multi-sectoral action plan for surge support during a public health emergency at the national and regional level during emergencies.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
40	6.1 Engaging key stakeholders from various sectors to establish a comprehensive framework, including the identification and rostering of	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include	N/A

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	qualified personnel across disciplines.	in services		remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	
41	6.2 Ensuring readiness by implementing regular training sessions tailored to the specific needs of different regions and potential emergencies.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
42	6.3 Establishment of protocols for rapid mobilization and deployment, enabling a swift, coordinated response that leverages multidisciplinary expertise to effectively manage public health crises.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
43	7. Conducting a climate vulnerability assessment for the proposed selected regions of this Activity as it pertains to the regional government's capabilities to prevent, detect, and respond to infectious disease threats.	Access restrictions due to extreme climate change impacts on damage to infrastructure or interruption in services	Low	Incorporate changes in precipitation patterns when planning meetings to reduce risks and ensure strategies withstand climate variability. Implement continuity plans for training activities that include remote work, cloud storage, and redundancy in critical services such as electricity and internet. Pre-assessment of the environment and selection of less vulnerable locations are also crucial.	N/A
44	8. Acquisition of equipment and materials	Loss of shelter and/or displacement due to loss of infrastructure or interruption in services caused by extreme	High	Keep the most valuable and critical equipment in protected areas within the facility, such as upper floors to prevent damage from flooding. Use appropriate	Strengthen supply chains by diversifying suppliers and transportation routes to reduce the risk of disruptions due to extreme

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	climate events		storage systems, such as overhead racks, to protect electronic equipment. Prioritize sourcing equipment that is resilient to extreme weather conditions and can be easily replaced or repaired. Establish relationships with multiple suppliers to ensure continuity in case of supply chain disruptions, and secure proper storage facilities that protect equipment from potential climate impacts.	weather. Additionally, prioritize local sourcing of materials and equipment to decrease dependency on long- distance supply chains that may be more vulnerable to climate impacts.