



# Appraisal Environmental and Social Review Summary

## Appraisal Stage

### **(ESRS Appraisal Stage)**

Date Prepared/Updated: 03/11/2021 | Report No: ESRSA01348



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Peru	LATIN AMERICA AND CARIBBEAN	P174177	
Project Name	Peru: Strengthening of the Public Health Emergency Preparedness and Response		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Health, Nutrition & Population	Investment Project Financing	1/22/2021	5/25/2021
Borrower(s)	Implementing Agency(ies)		
Republic of Peru	Instituto Nacional de Salud, Instituto Nacional de Salud		

Proposed Development Objective

To strengthen epidemiological surveillance and public health emergency preparedness in Peru, and to support the prevention, detection and response to the COVID-19 pandemic.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>70.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The Project will include 5 components.

Component 1 will finance technical assistance activities to update the design, formulation, and implementation of the new national surveillance and disease prevention system, through the update of existing regulations and protocols. Under this system, the roles of both the National Health Institute (INS) and the Centre for Epidemiology and Disease Control and Prevention (CDC) will be redefined and strengthened, covering surveillance, health intelligence, mandatory notifiable infectious diseases, violence and GBV, among others.



Component 2 will finance infrastructure, laboratory and IT equipment, and software necessary to implement the national surveillance and disease prevention system described under Component 1. Specifically, this component will finance: (i) the construction and equipment of the CDC offices within INS's premises in the Municipal District of Chorrillos, Lima Province; (ii) construction and equipment of the National Health Center Laboratory Complex (NHCLC), also within INS's premises in Chorrillos; (iii) the construction and equipment of three Macro-Regional Centers (MRCs), one located in the north of Peru, Lambayeque Province; another one in the south of the country, Arequipa Province; and a third one next to the currently existing Investigation Center for Tropical Diseases (CIETROP), located in the city of Iquitos, Loreto Province; (iv) laboratory equipment for 21 Regional Public Health Laboratories, mainly to support the decentralized diagnosis of COVID-19 and other pathogens; and (v) the equipment of 29 Regional Offices of Epidemiology and Sanitary Surveillance and 196 Epidemiology Directorates of the Health Networks with information technology equipment, as well as with personal protection equipment.

Component 3 will finance training and technical assistance to strengthen human resource capacities in public health, environmental health, health intelligence, and laboratory diagnostics. This component will finance two sub-components: (i) technical assistance and training to 21 regional public health laboratories to strength human resource capacity in epidemiology and public health. Training will incorporate relevant Environmental, Health, and Safety aspects, in line with international standards and Good International Industry Practice; and (ii) the financing of competitive funding schemes to produce basic and applied research in epidemiology and biomedicine.

Component 4 will support a Project Management Team (PMT). The PMT will be headed by a Project Coordinator and will consist of a team of technical and fiduciary consultants, a full-time environmental specialist, a full-time social specialist, and a group of support staff.

Component 5 is a contingent emergency response component (CERC). This zero-cost component would support preparedness and rapid response to an Eligible Crisis or Emergency.

#### D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

Project Component 2 (C2) will finance the construction and equipment of the following:

i) National Center for Epidemiology and Disease Prevention and Control (CDC) and National Health Center Laboratory Complex (NHCLC): construction and equipment of the CDC and NHCLC in the department of Lima, District of Chorrillos, in empty, unused and uninhabited lots that are part of the Health National Institute's (INS) premises. In 2010 this area was lent by the Ministry of Health (MINSa) to the INS indefinitely. The CDC will mainly house offices and the NHCLC laboratory facilities (Biosafety Level 2 and 3 – BSL2/BSL3) and data centers for epidemiological research.

ii) Macro-Regional Centers for Public Health (MRCs): construction and equipment of three MRCs, one located in the department of Lambayeque, Lambayeque district, on land owned by the Pedro Ruiz Gallo Public University. The INS is coordinating with the University the adequate and necessary agreements for the use of the corresponding area.



Another one in the department of Arequipa, Alto Selva Alegre District, in an area that currently belongs to the “Superintendencia de Bienes del Estado”. The INS is gathering the necessary information to request the corresponding “cesión en uso”. A third one next to the currently existing Investigation Center for Tropical Diseases (CIETROP) located in the city of Iquitos, department of Loreto, in an unoccupied area that currently belongs to the San Marcos National University (UNMSM). The INS is arranging with the UNMSM to have the corresponding area lent out. These three MRCs will house BSL2/BSL3 laboratory areas.

No associated facilities, as defined in para. 11 of the ESF Environmental and Social Policy, have been identified. This will be further assessed and validated in the project’s final Environmental and Social Management Framework, and in the site-specific Environmental and Social Management Plans, as detailed under ESS1.

As described, all infrastructure interventions will be located in urban and periurban areas, on lands owned by government institutions. All proposed construction sites--not just in Lambayeque and Loreto but also in Lima (Chorrillos) and Arequipa--are uninhabited, unoccupied and unused. It is not expected that any land taking resulting in physical and/or economic displacement will be needed.

Additionally, the project will finance the acquisition of IT equipment and specialized software for the mentioned new infrastructure, as well as for: (i) 29 Regional Epidemiology Offices; (ii) 196 Health Networks Epidemiology Offices; and (iii) 21 Regional Public Health Laboratories (including also laboratory equipment in this case), all of these located in urban and peri-urban areas of Lima and provinces.

There are no natural or critical natural habitats within or near the proposed construction sites for C2 infrastructure, and no impacts over green areas are expected, except in the case of the MRC in Iquitos. The proposed footprint consists of a vegetation patch comprised of approximately 500 native tree and shrub individuals, located within a urban matrix. Trees include both species with a conservation status (e.g., “cedro”), and species that are indicators of degraded forest ecosystems (e.g., “cetico”), as detailed under ESS6.

Even though there are two archaeological sites (“huacas” that belong to the “Armatambo” complex) within the larger INS compound in Chorrillos (formally demarcated and recognized by the Ministry of Culture), these are outside the proposed footprints and will not be affected by construction activities. In the case of the competitive research funding scheme, it is expected that the research and studies to be financed will be developed by hospitals, health centers and/or universities nationwide, and will not require field work activities with the potential of affecting green areas (mainly laboratory activities are expected). Regarding C5, it is not foreseen that infrastructure interventions will be financed under the CERC. For activities to be eligible under this component, these would need to directly address Public Health Emergencies, which are defined as “the occurrence of, or the imminent threat of, an illness or health condition caused by one of several factors, including pathogens, that can result in significant excess of morbidity and mortality and poses a high probability of a large number of affected people in the at risk population”.

Waste generated by (i) civil works; (ii) the operation of new infrastructure; (iii) the operation of equipped Regional Public Health laboratories; (iv) the epidemiological research to be financed under the competitive scheme (including biological waste, chemical waste, testing residues and/or other types of hazardous byproducts); and (v) discarded/replaced equipment, will require appropriate management procedures and facilities in place, as detailed below:



(i) Regarding waste to be generated during civil works, per Peruvian regulations (mainly Law 1278 on Integral Solid Waste Management and corresponding Guidelines) this would need to be collected, transported, and finally disposed in authorized sanitary and/or security landfills (with enabled cells for such purpose) by authorized and certified “solid waste operating companies” (EORS, by its Spanish acronym – “Empresa Operadora de Servicios”) to be hired by the contractor in charge of construction. Construction bidding documents will reflect corresponding requirements, as highlighted under ESS1 and ESS3.

(ii) In the case of waste to be generated during the operation of the NHCLC and MRCs (specially bioinfectious waste), these facilities will have the necessary equipment to ensure an adequate internal management (from waste generation point to final internal storage), following international standards (such as the WHO Laboratory Biosafety Manual, and the CDC Biosafety in Microbiological and Biomedical Laboratories publication) and the requirements of relevant national regulations, including: the Health Technical Regulation “Integral Management of Solid Waste in Health Care Facilities, Supporting Medical Services, and Research Centers” (Nº 144-MINSA/2018/DIGESA); the Technical Procedure for the “Management of Wastes Generated in the National Center of Public Health” (PRT-CNSP-005), which is specific for the management of infectious waste generated in laboratories operated by the INS; among others. According to these standards and regulations, bio-contaminated waste needs to be treated through autoclave or similar technologies/processes before its final disposal. The equipment to be acquired for the MRCs and NHCLC will include the corresponding technologies, as will be reflected in corresponding bidding documents (refer to ESS1). Transportation and final disposal will be outsourced to a certified EORS, as required per national regulations, and would have to occur in authorized sanitary, security and/or mixed landfills, depending on the type of waste being disposed. Currently, waste generated at INS’s Regional Reference Laboratories is managed following the described approach, and the same will apply for the management of the waste to be generated at the MRCs and NHCLC.

(iii) Regarding the Regional Public Health laboratories, these will be equipped as necessary to support the decentralized diagnosis of COVID-19 and other pathogens only after proving that these contemplate the necessary equipment and measures to ensure an adequate internal and external management of bioinfectious waste, as detailed in point (ii) above.

(iv) To ensure adequate management of waste to be generated by the epidemiological research to be financed under the competitive scheme, eligible proposals will have to demonstrate the research premises (i.e., hospitals, laboratories) have the necessary infrastructure and procedures in place, as described under ESS1 and ESS3. This includes valid contracts with EORS, details of waste treatment equipment within the research premises, among others.

(v) Finally, e-waste to be generated by discarded/replaced equipment will be managed by each institution following national requirements (“Reglamento Nacional para la Gestión y Manejo de los Residuos de Aparatos Eléctricos y Electrónicos”) and international standards, as detailed under ESS3.

#### D. 2. Borrower’s Institutional Capacity

INS: The INS will be in charge of implementation and oversight of the project. INS is an implementing agency tied to the Ministry of Health but with an independent budgetary line. The World Bank’s due diligence indicates that the INS’s ability to manage social and environmental risk and impacts in accordance with the Bank’s ESF is limited mainly due to: (i) lack of experience on WB projects and environmental and social management. The INS, as an institution,



has no prior experience preparing or implementing Bank-financed operations; and (ii) limited institutional capacity to manage environmental and social aspects. Within the INS there has not been a permanent dedicated team of staff to manage social and environmental issues in projects (several different consultants have been hired at different times for different projects).

Project preparation team: Preparation is being supported by a preparation team composed of INS specialists and an environmental and a social consultant hired to support the INS in the preparation of the necessary E&S instruments. The preparation team was trained on the ESF and applicable requirements early during preparation.

Capacity strengthening measures: In order to strengthen the INS’s ability to manage social and environmental risks and impacts in accordance with the Bank’s ESF during implementation, the following specific areas of improvement and institutional strengthening measures have been proposed and included in the project’s ESCP:

(i) A dedicated Project Management Team (PMT) will be created within the INS to coordinate and manage the project. The PMT will be under direct supervision of the Head of INS, and will be staffed with a full- time environmental specialist and a full-time social specialist, to be financed under Component 4. These specialists will be either designated or hired by the PMT no later than 30 days after project effectiveness date, as stated in the project’s ESCP, based on TORs agreed with the Bank team’s environmental and social specialists and the proposed candidates will require Bank’s No-objection. The POM will clearly define the qualifications and roles of these central-level E&S specialists.

(ii) Existing framework agreements between the INS and Regional Governments will be updated to include references regarding implementation of the Project activities, including the necessary provisions to facilitate EHSS management and supervision of the PMT during execution. These and other additional details on necessary institutional arrangements for adequate project implementation and oversight on EHSS aspects are defined and detailed in the project’s Environmental and Social Management Framework (ESMF), as detailed under ESS1.

(iii) The PMT will be supported by an Advisory Committee of high-level representatives of the Ministry of Health and other relevant institutions. The specific role and functions of this committee will be detailed in the POM, and will include technical advisory on EHSS aspects, especially in relation to waste management and community and occupational health and safety issues from a representative of the Ministry of Health.

(iv) Training on ESF requirements will be carried out for all PMT staff and implementation support will be provided by the World Bank, as needed, throughout execution. Trainings will occur during the 1st year of implementation.

(v) The construction of infrastructure will be supervised by a supervising engineer, and the corresponding bidding documents will include specific language on environmental, health and safety and social requirements.

**II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS**

**A. Environmental and Social Risk Classification (ESRC)**

Substantial

**Environmental Risk Rating**

Substantial

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Based on the available information, the environmental risk classification for the project is Substantial. Classification responds to potential environmental, health and safety (EHS) risks and impacts stemming mainly from (i) the operation of the NHCLC and MRCs, as well as of the equipped Regional Public Health laboratories; (ii) the construction and equipment of the mentioned infrastructure; and (iii) the studies and research on epidemiology and biomedicine to be financed through the competitive research funding scheme.

Adverse risks and impacts from the construction activities are: (i) predictable and expected to be temporary and/or reversible; (ii) moderate in magnitude, considering that all construction is expected to happen in already built areas within urban settings; (iii) site-specific, without likelihood of impacts beyond the actual footprint of the infrastructure; (iv) not expected to cause serious adverse effects to the environment; and (v) can be readably mitigated in a predictable manner. These include overall nuisances to the communities due to noise and vibration, dust, traffic congestion, waste, and visual disturbances from construction activities; risks of occupational accidents, as well as third-party accidents due to increased vehicular traffic; inadequate sourcing and transportation of construction material; inadequate handling, transportation and disposal of waste and hazardous materials; impacts on chance archaeological finds; and impacts to green areas within urban matrices; among other things.

During operation of the infrastructure, significant adverse EHS risks or impacts could occur due to the dangerous nature of the pathogens to be researched and surveilled in the NHCLC's and MRCs' BSL2/BSL3 laboratories (as well as in the Regional Public Health laboratories to be equipped), the reagents and other materials to be used, and the biological waste, chemical waste, and/or other types of hazardous byproducts to be generated. Nevertheless, there are known and reliable mechanisms available to prevent or minimize related adverse incidents to human health and/or the environment, which the project will consider and implement to make sure these are mitigated during the operation phase. Such mechanisms include: (i) incorporation of design considerations in the infrastructure final designs, in line with international standards and national regulations for biosafety, adequate waste management, etc.; (ii) development of strict EHS management protocols and plans, following GIIPs, international standards, and national requirements; (iii) development and establishment of a training program for laboratory works; among others (refer to ESS1-ESS8).

Expected EHS risks from the competitive research funding scheme are related to potential adverse effects to human health and/or the environment from the epidemiology and biomedicine research and studies to be funded.

To adequately address and mitigate project's EHS risks and impacts, the Borrower, with the support of qualified E&S specialists, has prepared a draft project Environmental and Social Management Framework (ESMF) aligned with ESF requirements and relevant ES standards, as detailed under ESS1.

### Social Risk Rating

Moderate

Based on the available information, the social risk classification for the project is Moderate. This classification responds to potential social risks and impacts stemming mainly from the operation and construction of the NHCLC and MRCs to be built and equipped as part of the project under C2.

The identified risks associated with the project are i) security concerns related to potential exposure of communities adjacent to the CDC/NHCLC and MRCs to biological waste, chemical waste and/or other type of hazardous byproducts during operation of laboratories, or viruses and pathogens during the carrying out of epidemiological research; ii)



adverse impacts linked to civil works and traffic safety during the project’s construction activities; and iii) the possibility that the guidelines and protocols for disease surveillance, prevention and response will not take account of the full breadth of sociocultural diversity in Peru, thereby limiting their effectiveness.

This project is expected to have a range of both urban or periurban stakeholders, including at the community level. The draft Stakeholder Engagement Plan (SEP) prepared for the project specifies clear actions for addressing stakeholder concerns, managing expectations, and collecting stakeholder suggestions. It is key to have a robust SEP in order to manage stakeholders expectations especially during the operation stage of the project due to potential risks to local communities in terms of the management of hazardous byproducts and wastes from laboratories. The grievance mechanism that is part of the SEP provides for the adequate management of potential grievances or complaints, especially from communities neighboring the CDC and MRCs centers.

Regarding workers, draft Labor Management Procedures aligned with ESS2 have been prepared by INS, and the project draft ESMF provides guidelines to identify and manage project risks, impacts, and opportunities in the different regions. The project is not expected to involve any labor influx, as the construction will draw from the local workforces in the cities where it’s being carried out. For this reason, the risk level related to sexual exploitation and abuse (SEA) and sexual harassment (SH) is considered low. Just the same, this risk has been considered in the preparation of a Code of Conduct for contracted workers.

To adequately address and mitigate project’s social risks, the Borrower, with the support of qualified E&S specialists, has prepared specific E&S instruments aligned with the ESF requirements and relevant E&S standards, including Guidelines for the development of specific Traffic Management Plans for each set of infrastructure works and a training program for laboratory workers on biosafety. Details on these measures are provided under ESS1 below.

## **B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

### **B.1. General Assessment**

#### **ESS1 Assessment and Management of Environmental and Social Risks and Impacts**

##### ***Overview of the relevance of the Standard for the Project:***

This standard is relevant.

##### **A. Environmental and Social Management Framework (ESMF):**

In compliance with ESS1 requirements and other relevant standards, and considering that: (i) the CDC, NHCLC, and MRCs building designs are not yet available (final designs will be financed as part of the project, and thus obtained during implementation); (ii) specific services, corresponding laboratory types, and detailed equipment requirements for the NHCLC and MRCs have not yet been defined; (iii) specific equipment and modernization activities for the Regional Public Health laboratories, Regional Epidemiology Offices and Health Networks Epidemiology Offices are not yet defined; and (iv) research and studies to be financed under the competitive research funding scheme will be identified during implementation, the Borrower has developed an ESMF for managing the project’s E&S risks and impacts related to C2 infrastructure, equipment interventions and research under Sub-Component 3.2.

The draft ESMF has been consulted and finalized, and disclosed via the INS and World Bank websites prior to project Appraisal. Consultations have been developed following recommendations and guidance of the “Public Consultations



and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings” Technical Note (03.20.2020). The final ESMF will be disclosed prior to project effectiveness; it will be an effectiveness condition as reflected in the Project Appraisal Document.

The draft ESMF includes, among others, the following components:

- i. Legal Framework: highlighting national regulations, international agreements and EHS Guidelines and GIIP that are applicable to the project interventions and relevant to the application of each ESS, including guidelines, standards, practices and procedures established by the CDC, NIH, and WHO (e.g., WHO Laboratory Biosafety Manual 3rd edition), as well as WBG General EHS Guidelines for infrastructure works in general, and for the handling of hazardous materials and waste. A gap analysis between ESF requirements and national regulation requirements related to the content and scope of site-specific E&S Management Plans (ESMPs) is included, and any needed gap-filling measures to comply with the ESF identified.
- ii. Institutional Framework: describing the necessary institutional arrangements for an adequate project E&S management and oversight, and the necessary institutional strengthening activities.
- iii. Expected E&S risks and impacts
- iv. Environmental and Social Management requirements, including:
  - a. Exclusion List with the set of interventions under C2, and proposals under the competitive research funding scheme (C3.2), that will not be financed due to their potential E&S risks. The list will explicitly rule out: infrastructure interventions that overlap with the limits of critical natural habitats, that have the potential to generate significant impacts on natural habitats, and/or that are located within the limits of nationally recognized historical or archeological sites; acquisition and distribution of equipment for conducting activities that correspond to a BSL4 laboratory; acquisition and distribution of laboratory equipment for Regional Public Health laboratories that do not comply with minimum infrastructure and processes required to ensure an adequate treatment and disposal of bio-infectious waste; epidemiological research that include activities that correspond to a BSL4 laboratory; that require field work with potential relevant environmental and community health and safety risks and impacts; that are unable to demonstrate the research premises have the necessary infrastructure and procedures in place to ensure an adequate waste management; etc.
  - b. EHS design and technology considerations to be incorporated into the final designs of the BSL2/BSL3 laboratories to mitigate risks and impacts during their operation. As well as the necessary processes for ensuring bidding documents for design and equipment include such considerations.
  - c. Checklist to assess the capacity of Regional Public Health laboratories to ensure an adequate treatment and disposal of bio-infectious waste.
  - d. Design of a training program for laboratory workers (both new laboratories and laboratories to be equipped), focused on the application of all necessary environmental and biosafety considerations during regular laboratory procedures. The training program will be heavily based on the application of protocols for standardized procedures and their socialization through virtual classes, considering potential high turnover rates and a limited availability of workers with the desired experience/profile.



- e. Process for developing, consulting, approving (by both WB and national environmental authorities) and disclosing the interventions' ESMPs, as required per national law, and in compliance with relevant ESF standards. As well as process for making sure bidding documents for construction include the relevant requirements of such ESMPs.
- f. E&S Management Guidelines for the development of management plans as part of the site-specific ESMPs, including: Guidelines for Waste Management during Construction (G-WM); for Infection Control and Waste Management during Operation of laboratories (G-ICWM); for managing used PPEs; for e-waste Management; for Traffic Management; for an adequate sourcing and transportation of construction material; for developing a Risk Hazard Assessment and an Emergency Response Plan, if deemed necessary, for new infrastructure that involve laboratories; for developing Community Health and Safety Management Plans during construction; for Chance Find Procedures; for vegetation management (specifically in the case of the Iquitos MRC); among others. These guidelines will incorporate the necessary language to make sure management plans include all relevant ESF requirements. Regarding Management Guidelines for mitigating risks and impacts related to civil works, these take into account the relevant recommendations and guidance included in the "COVID-19 Considerations in Construction/Civil Works Project" Interim Note (April 7, 2020), as necessary.
- g. E&S Management Guidelines for the competitive research funding scheme, detailing the EHS requirements applicable to each stage of the process, including: call for proposals; proposal evaluation; negotiations and grant award; implementation and supervision; and closure. Awarded proposals will require the presentation and approval of an ESMP, prior to the start of the corresponding activities, following the the E&S Management Guidelines, and aligned with the requirements of relevant ESSs and national regulations. For each call for proposals, the project will develop a "Grant Operational Manual" defining the term of reference for the competitive process. The Borrower will make sure that corresponding E&S Management Guidelines are incorporated into these manuals.

Analyses developed as part of the draft ESMF suggest there are no associated facilities, as defined per para. 11 of the ESF Policy, related to the infrastructure interventions. This will be further assessed and validated in the final ESMF. If identified, site-specific ESMPs (see B below) will identify and assess, to the extent appropriate, the potential related environmental and social risks and impacts, and propose measure for their management, in line with ESS1 requirements.

**B. Site-specific ESMPs for the CDC, NHCLC, and MRCs:**

Site-specific ESMPs for the CDC, NHCLC, and MRCs will be commissioned by the Borrower during implementation and will be part of construction bidding documents. ESMPs will be prepared following the ESMF, in order to ensure compliance with both national legislation and relevant ESSs, as well as with WB General EHS Guidelines. These will require Bank's non-objection prior to their submission to the corresponding environmental authority for approval, in order to ensure compliance with ESF requirements.

**C. Contingency Emergency Response ESMF (CERC-ESMF):**

For Component 5, the Borrower will develop and adopt a CERC-ESMF in case the component is activated. This stand-alone document will incorporate, among other things: (i) potential activities that the CERC could finance (i.e., positive list of goods, services and works); (ii) a negative list, highlighting the type of interventions that will not be financed by this component due to their potential E&S risks; (iii) analysis of potential E&S risks and impacts based on the positive list; (iv) E&S management procedures (screening, clearance and approval, implementation and monitoring, etc.) in case the CERC is activated; (v) processes for completing, submitting to the World Bank for approval, and disclosing any necessary environmental and social instruments as required under the ESF prior to initiation of corresponding



activities; (vi) institutional arrangement for the CERC implementation; etc. Even though it is not foreseen that infrastructure interventions will be financed under the CERC, specific potential activities have not yet been identified. Given this situation, this CERC-ESMF will be developed and adopted, in a manner acceptable to the Bank, prior to any disbursement under project Component 5, as reflected in the ESCP.

D. Retroactive financing: In case it is applied for the equipment of regional public health laboratories, the retroactive financing request to be submitted by the PIU must include a report with the necessary evidence confirming that: (i) the supplies and equipment were provided to laboratories that function in accordance with national environmental regulations; (ii) there were appropriate measures for internal and external waste management; and (iii) staff at beneficiary facilities received adequate training on the use of the supplies and equipment under the necessary biosafety conditions. The final version of ESMF will incorporate the template for the mentioned report.

### ESS10 Stakeholder Engagement and Information Disclosure

This standard is relevant.

INS has prepared a draft Stakeholder Engagement Plan (SEP), proportionate to the risks of the project, disclosed prior to project Appraisal. The draft SEP includes the results of an initial stakeholder mapping for the project, and a roll-out plan for a Grievance Redress Mechanism (GRM) that will be deployed in essentially two phases: i) throughout the life of the project, based on the GRM already in use by INS, and ii) by project effectiveness, which will be an enhanced version of the INS GRM that is specifically tailored to the activities of the project under all of its components. Beneficiaries will be informed of the availability of this Mechanism as soon as the SEP is finalized. The draft SEP will be updated and a final version published on the INS website prior to project effectiveness; it will be an effectiveness condition as reflected in the Project Appraisal Document.

All technical information and related ESF compliance requirements will be disclosed in an ongoing manner and in a way that is satisfactory to the Bank. Each project location (Chorrillos, Lima; Loreto, Iquitos; Lambayeque; Arequipa) will be screened following the project ESMF guidelines (ESS1) and this will include a stakeholder mapping to engage local stakeholders, using culturally appropriate approaches and materials as necessary, and taking public health precautions into account.

During construction of infrastructure, it will be especially important to implement a consultation process regarding traffic deviation, community outreach, information about the centers and potential labor requirements. During the operation of the built and/or equipped institutions, a continuous information process on the management of wastes and hazardous materials from the laboratories will be implemented. This is described in the draft SEP.

Due to the COVID-19 pandemic, consultations and other participatory activities will be carried out according to WHO guidelines and existing national norms related to this issue. Remote engagement strategies will be preferred whenever feasible. When in-person engagement activities need to be carried out to ensure robust and inclusive engagement with key stakeholders, all necessary precautions will be taken to protect project personnel involved in stakeholder engagement, as well as the stakeholders themselves. A series of remote consultation events were carried out at the end of October and during November 2020. These involved key stakeholders from each project location,



who discussed the potential E&S risks and mitigation measures for the project, as well as its ESMF and SEP instruments.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

This standard is relevant.

ESS2 recognizes the importance of promoting sound worker-management relationships and enhancing project development benefits by treating workers fairly and providing safe and healthy working conditions. Project workers will include direct workers (civil servants working with INS, CDC) and contractors. Given the scope of the interventions to be financed (construction and equipment of the CDC and three MRCs), it is expected that necessary workforces will be locally provided, so no issues associated with labor influx are anticipated. Local labor laws are aligned with ESS2, and the project will not hire children under the age of 18. Workers' rights are protected by government organizations such as the Ministry of Labor and Employment Promotion and the National Superintendence of Labor Inspection ("Superintendencia Nacional de Fiscalización Laboral"-SUNAFIL), among others. National labor regulations recognize the principles of equal opportunity and non-discrimination. The extent to which these regulations are applied and potential exclusion risks are reflected in draft Labor Management Procedures (LMP) prepared by the Borrower and disclosed prior to project Appraisal. The draft LMP will be updated and a final version published on the INS website prior to project effectiveness.

The draft LMP prepared for the project sets out how all types of workers will be managed under the requirements of national law and ESS2 during project implementation. The LMP describes the working conditions and management of worker relationships, the terms and conditions of employment, provisions for non-discrimination and equal opportunity, worker's organizations and freedom of association, occupational health and safety for workers, provisions to protect the workforce including child labor and minimum wage, and the prevention of forced labor.

The LMP will ensure that the health and safety of workers are adequately addressed using World Bank General Environmental, Health, and Safety (EHS) Guidelines as pertinent to the project. Key industry occupational health and safety risks for this project would be those related to construction and decommissioning activities (WB EHS Guidelines 4.2), such as overexertion, slips, and falls; working at heights, amidst dust or with moving machinery; exposure to chemical, hazardous or flammable materials; etc. Also, key general H&S risks considered under WB EHS Guidelines 2.0 are addressed. These risks will be confirmed or complemented once the final designs of the infrastructure required for the Macro-Regional Centers are defined.

Regarding worker safety issues and the COVID-19 pandemic, all actors involved in the construction sector have prepared their Contingency Plan (protocols and measures) to address health and safety issues related to COVID-19, following WHO guidelines and national regulations. The Contingency Plan, protocols and measures are also mandatory for contractors and subcontractors. This Contingency Plan is included in the LMP.



Likewise, a Workers Code of Conduct, which contains obligations for all contracted workers involved in the project has been prepared, and adherence to such Code will be a condition of employment. The Code of Conduct explicitly addresses issues of sexual exploitation and abuse (SEA), sexual harassment (SH), and gender-based violence (GBV).

A workers' grievance mechanism will be developed and implemented for the project. The LMP contains the details of the grievance mechanism for all project workers, as well as the roles and responsibilities for monitoring worker grievances. SUNAFIL is the national mechanism for any labor complaints and its role is described in the LMP. Any worker, independent of his or her level, will have access to this mechanism.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

This standard is relevant.

Energy efficiency measures: The operation of the data centers within the NHCLC will entail a relatively high energetic cost, as the area will potentially need an air conditioning system operating at all times. The Borrower will make sure to take into account energy considerations when developing the final designs of the corresponding infrastructure. Likewise, the operation of the MRCs, NHCLC, and CDC will follow basic energy efficiency measures, including for example the use of LED lights, which will be reflected in the infrastructure final designs. Energy efficiency measures to be considered in the CDC, MRCs and NHCLC are laid out in the project ESMF, based on the WB's EHS guidelines for energy conservation. In general, and to the extent possible, all investments will utilize measures to increase energy efficiency (building designs, lighting, appliances and equipment and use of renewable energy) and to support climate resiliency applying the national Sustainable Building Code ("Código Técnico de Construcción Sostenible") and wherever possible, technical specifications for the appliances and equipment will promote environmentally preferred products.

Pollution management from construction: The Borrower has prepared Guidelines for Waste Management during Construction (G-WM) as part of the draft project ESMF, in line with both national regulation requirements and necessary gap-filling measures to ensure compliance with para. 17-20 of ESS3, WB's EHS General Guidelines and the specific Guidelines for Waste Management Facilities. It includes specific management measures and procedures to ensure there is no soil, water and/or air contamination from handling and disposal of construction waste, including hazardous materials during civil works. The draft ESMF also includes Guidelines for developing Management Plans for Material Sourcing and Transportation during construction, requiring, among others, queries to be duly accredited and have the necessary permits in force. For each MRC, NHCLC, and CDC, a specific Waste Management Plan during Construction and Material Sourcing and Transportation Management Plan will be prepared, following the project ESMF's corresponding Guidelines, as part of the site-specific ESMPs.

Pollution management during operation of laboratories: biological waste, chemical waste, and/or other types of hazardous byproducts to be generated (including water, contaminated fluids, lab solutions and reagents, infected materials, etc.) from the operation of the new laboratories, could have significant impacts on the environment and human health if not adequately stored, transported and disposed. For ensuring an adequate waste management during operation of these new laboratories, the draft project ESMF details: (i) infrastructure and equipment requirements for ensuring an adequate internal waste management at each MRC and at the NHCLC, depending on



the facilities/services for external waste final disposal at each specific location; (ii) process for ensuring bidding documents for design and equipment include the necessary considerations per (i); (iii) checklist of EHS requirements that selected private entity for final disposal, and security landfill, will have to comply with to ensure an adequate waste disposal, including the necessary environmental authorizations/licenses/permits; (iv) necessary interinstitutional arrangements; among others. Also, the draft ESMF includes a checklist to assess the capacity of the Regional Public Health laboratories to be equipped in terms of hazardous waste internal and external management.

Additionally, the draft project ESMF includes Guidelines for Infection Control and Waste Management during Operation of laboratories (G-ICWM), as described under ESS1, which integrate national regulation requirements and necessary gap-filling measures to ensure compliance with CDC, NIH, and WHO guidelines to prevent or minimize contamination from inadequate waste management and disposal. Used resources (water discharge, air emissions) will follow national environmental quality standards (ECAs) and guideline values established in WBG General EHS Guidelines – Environment, which is also detailed in the G-ICWM. Water effluents will receive appropriate treatment before being sent to the sewerage, and equipment for gas extraction will be used to avoid air pollution. For the NHCLC and for each MRC, a specific ICWM Plan will be prepared, following the project ESMF's G-ICWM, as part of the site-specific ESMPs, where these provisions will be detailed.

The draft project ESMF also describes a Training Program for laboratory workers (both new laboratories and laboratories to be equipped), focused on the application of all necessary environmental management considerations during regular laboratory procedures. The Training Program will be heavily based on the application of protocols for standardized procedures and their socialization through virtual classes.

The draft project ESMF also includes (i) Guidelines for managing used PPEs, as these will be acquired and distributed by the project to be used by the laboratory staff for conducting the corresponding epidemiological research under the necessary biosafety conditions; and (ii) Guidelines for E-waste Management, to be applied by the institutions that will be equipped as part of C2. Based on these guidelines, each corresponding institution will need to prepare and present a concise PPE Management roadmap/protocol and/or E-waste Management roadmap/protocol, in line with national regulations and international standards.

Pollution management of research to be funded through the competitive funding scheme: epidemiological applied research to be funded through the competitive funding scheme could generate impacts/risks on the environment and/or human health due to inadequate management of biological waste, chemical waste, and/or other types of hazardous byproducts to be generated. The draft project ESMF includes E&S Management Guidelines highlighting the EHS requirements applicable to the different stages of the competitive process (call for proposals, application, grant agreement, implementation & supervision, and closure) with which the corresponding beneficiaries will have to comply with to ensure adequate waste management, which will be reflected in corresponding ESMPs (required prior to the start of activities). This, in line with both national regulations and necessary gap-filling measures to ensure compliance with ESS3 requirements. Likewise, the draft project ESMF's Exclusion List rules out specific types of epidemiological research that will not be eligible for funding due to level and type of expected environmental pollution impacts and risks, including those that are unable to demonstrate the research premises have the necessary infrastructure and procedures in place to ensure an adequate waste management.



For each call for proposals, the project will develop specific “Grant Operational Manuals” that will define the term of reference of the competitive process. The INS will make sure that corresponding E&S Management Guidelines, together with the exclusion list, are incorporated into such Operational Manuals, which will require Bank’s approval prior to the launching of each call for proposal.

#### ESS4 Community Health and Safety

This standard is relevant.

Community health and safety (CHS) risks during construction: linked to civil works and traffic safety during the construction of the CDC, NHCLC and MRCs. The draft project ESMF incorporates Guidelines for Traffic Management, in line with national regulation requirements and necessary gap-filling measures to comply with para. 10-13 of ESS4. These guidelines detail the process and EHS requirements in case traffic detours and/or road closures are needed for the construction of the different infrastructure interventions, and incorporate requirements related to: operation of intersections to improve traffic flow and particularly enhance road safety, strategies to ensure that trucks unloading equipment/material do not unnecessarily cause traffic jams and so equipment and supplies can be safely off-loaded, sensibilization and early communication measures, road safety measures, among others. For each infrastructure, a specific Traffic Management Plan will be prepared by the Borrower, following the project ESMF’s Guidelines, as part of the site-specific ESMPs during implementation. The SEP provisions will be key at this stage in order to provide information to, and receive feedback from, neighboring communities in terms of traffic safety.

The draft project ESMF also includes Guidelines for CHS Management Plans, to be developed as part of the site-specific ESMPs. These Guidelines include specific measures to avoid and reduce risks to third parties, especially from accidents, during civil works construction, in line with both national regulation requirements and ESS4 provisions. The construction required under C2 will not be at a scale requiring the contracting of security personnel by INS. To ensure that any such personnel hired by the contractors involved in the construction are managed properly, the PMT will make reference to the necessary provisions in the bidding documents for the contractors.

Community health and safety risks during operation of new laboratories: biological waste, chemical waste, and/or other types of hazardous byproducts to be generated during lab operation, as well as direct exposure to viruses and pathogens during the conduction of epidemiological research, have a high potential of carrying micro-organisms that can infect the community at large if waste is not properly managed and/or research conducted without the necessary biosafety protocols and/or equipment. Also, it is possible for the infectious microorganisms to be introduced into the environment if not well contained within the laboratory or due to accidents or emergencies (e.g., traffic accident during transportation of samples/supplies, fires, seismic events, etc.) where no appropriate contingency and emergency protocols are in place.

Considering the above, the G-ICWM included in the draft project ESMF describe, among other things: (i) how epidemiological research activities will be carried out in a safe manner, aiming to minimize EHS incident/accident rate as much as possible, in line with GIIP; (ii) measures to prevent or minimize the spread of infectious diseases; (iii) measures for workers’ cleaning before leaving the work place back into their communities; (iv) appropriate chemical and infectious substance handling and transportation procedures; among others. For the NHCLC and for each MRC, a specific ICWM Plan will be prepared during implementation, following the project ESMF’s G-ICWM, as part of the



site-specific ESMPs. Implementation of the project's SEP during execution will be key to consult properly with neighboring communities regarding the adequate management of wastes generated by the CDC and MRCs.

Additionally, the draft project ESMF incorporates Guidelines for Risk Hazard Assessments, and for developing a corresponding Emergency Response Plan, if deemed necessary, to be included in each of the new laboratories' ESMPs, due to the potential of these infrastructures to generate emergency events during operation. Guidelines for Risk Hazard Assessments included in the draft project ESMF describe the process for identifying hazards and other risk factors that may cause harm to laboratory workers and nearby communities; for analyzing and evaluating such hazards and risks; identifying and implementing the controls necessary to eliminate the hazard or control the risks; and for connecting with relevant national and local authorities. As set out in the Guidelines, the results of this assessment will determine the need for developing an Emergency Response Plan, as part of the laboratory's ESMPs. This Plan should include, as appropriate: engineering controls at the laboratory; identification of, and secure access to, emergency equipment available on-site and nearby; notification procedures for designated emergency responders; diverse media channels for notification of the affected community and other stakeholders; measures for restoration and /or cleanup following any accident, among others.

The project ESMF also details a Training Program for laboratory workers (including workers of laboratories to be equipped), focused on the application of all necessary biosafety considerations during regular laboratory procedures. The Training Program will be heavily based on the application of protocols for standardized procedures and their socialization through virtual classes.

The NHCLC's and MRCs' final designs will incorporate all BSL2/BSL3 biosafety requirements and include anti-seismic considerations, as well as specific fire safety considerations (e.g., sprinklers, alarms, emergency exits, etc.), as is detailed in the draft project ESMF.

Community health and safety risks of research to be funded through the competitive funding scheme: The draft project ESMF includes E&S Management Guidelines highlighting the EHS requirements applicable to the different stages of the competitive process (call for proposals, application, grant agreement, implementation & supervision, and closure) with which the corresponding beneficiaries will have to comply with to ensure research is conducted following the necessary biosafety protocols, as will be reflected in corresponding ESMPs (required prior to the start of activities). This, in line with both national regulations and ESS4 requirements. Likewise, the draft project ESMF's Exclusion List rules out specific types of epidemiological research that will not be eligible for funding due to their expected high magnitude impacts and risks on community health & safety.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

This standard is currently not relevant. No land acquisition leading to physical and/or economic displacement is currently expected in connection with any project activities, including infrastructure construction, although the relevance of this standard will be reviewed once more prior to the start of the implementation of works under C2.

The construction and equipment of the CDC and NHCLC will be developed within an empty lot that is part of the Health National Institute's (INS) premises, located in the Municipal District of Chorrillos (Lima Province). In 2010 this area was lent by the Ministry of Health (MINSa) to the INS indefinitely, through a Directorial Resolution 263-2010-



OGA-OLS-SA. In the case of the MRCs, one will be located in the north of Peru, in Lambayeque, in an unused area owned by Pedro Ruiz Gallo University. The INS is coordinating with this University, which is public, the necessary specific and framework agreements for use of the corresponding area. Another one in Arequipa, in Alto Selva Alegre District, will be constructed in an empty and unused area that currently belongs to the “Superintendencia de Bienes del Estado”. The INS is gathering the necessary information to request the corresponding “cesión en uso”. A third one will be constructed in an unused area next to the currently existing Investigation Center for Tropical Diseases (CIETROP), located in the city of Iquitos, Loreto Province, that currently belongs to the San Marcos National University (UNMSM), which is also public. The area where the CIETROP was built was lent by the University to the INS in 2005 for 30 years. The INS is coordinating with the UNMSM the lending of the corresponding adjacent area. Therefore, the lands required for the construction of the CDC and MRCs belong to government institutions and are currently not in use; there will be no impacts on either private or community lands. The transfer of the properties to the INS for the construction of all the facilities will be demonstrated in writing (Transfer of Property Agreement signed) by the Borrower prior to commencing any activities in C2. The Bank will verify that the lands are granted for the project in an official manner demonstrating that INS has total control over these properties.

#### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

This standard is relevant.

All infrastructure interventions, except in the case of the Iquitos MRC, will be located in urban or peri-urban areas, outside natural and critical natural habitats, without generating impacts over green areas. The draft project ESMF's Exclusion List rules out any infrastructure intervention that overlaps with the limits of critical natural habitats, and/or that has the potential to generate significant impacts on natural habitats, as well as epidemiological research proposals that require field work with potential relevant environmental impacts.

In the case of the proposed footprint of the MRC in Iquitos, it consists of a vegetation patch of approximately 3,300 m<sup>2</sup> with 500 native tree and shrub individuals, located within a urban matrix, without connectivity with natural ecosystems located outside the city. The trees include both species with a conservation status (e.g., “cedro”) and species that are indicators of degraded forest ecosystems (e.g., “cetico”). They are located within an area classified as “high density residential area”, per the “Plan de Desarrollo Urbano de La Ciudad de Iquitos” (2011 – 2021). They have not been found to linked in any way to the maintenance of local livelihoods.

The project's final ESMF will include guidelines for the development of a Vegetation Management Plan, in line with both ESS6 and national requirements (mainly the Forestry and Wildlife Law, No. 29763), as part of the site-specific ESMP. These guidelines will detail, among others: (i) process and requirements for developing a tree inventory and biological baseline of the vegetation patch; (ii) alternative management procedures to be determined based on the results of the inventory and baseline; (iii) preliminary list of responsible entities for the implementation and supervision of the plan and necessary inter-institutional coordination measures; (iv) list of necessary permits; (v) alternative potential financing mechanisms for the execution of the Plan and maintenance of the activities carried out; (vi) guidelines for the monitoring, reporting and verification of the activities, etc. Based on these guidelines, the vegetation management plan of the corresponding ESMF will cover the following:

- i. Results of the tree inventory, including a detailed characterization of the vegetation patch.



- ii. Fauna species/individuals present in the patch, and analysis of its relevance in terms of habitat for fauna species.
- iii. Based on (i) and (ii), details of the necessary management measures based on the mitigation hierarchy, prioritizing measures aimed at avoiding and reducing the impact to be generated on the vegetation patch.
- iv. Responsible entities and detailed inter-institutional coordination measures.
- v. Permissions required to carry out the measures, and corresponding timelines.
- vi. Monitoring measures.
- vii. Detailed budget.

Per the requirements of the Forestry and Wildlife Law, No. 29763 and procedures of the SEIA (Sistema de Evaluacion de Impacto Ambiental), this vegetation management plan needs to be reviewed and approved by SERFOR (National Forestry and Wildlife Service) and a corresponding “autorizacion de desbosque” needs to be issued, in order to obtain the corresponding environmental certification.

### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

This standard is relevant.

Component 1 of the project will support the update of the operational framework underpinning the functioning of the surveillance and disease prevention system in Peru, including guidelines for decentralized diagnosis of COVID-19 (PCR and antigen testing) and contact tracing. It will also support the update of operational guidelines and protocols for managing and responding to outbreaks, epidemics, and other public health emergencies and epidemics. Indigenous peoples (IPs) are present throughout Peru and have a particularly strong presence in the area to be served by one of the Macro-Regional Centers (Loreto-Iquitos); therefore, the operational guidelines and protocols that are developed would have to take their needs, interests and views into account, as part of a broader effort to make the guidelines and protocols pertinent to the full range of sociocultural diversity in Peru. The final ESMF will incorporate provisions to ensure that this is done, drawing on relevant norms such as Legislative Decree No. 1489, which seeks to protect indigenous communities in the context of the public health emergency declared in response to COVID-19. It will also incorporate guidelines for the development of Indigenous Peoples Plans, as per ESS7, in the unlikely event this comes to be required. Additionally, the SEP for the project describes the steps that project authorities need to take to consult on operational guidelines, protocols, or other relevant products with IPs, via their representative organizations. Finally, the project-specific GRM will be developed so as to make it culturally appropriate for and accessible to IPs, as relevant.

Beyond this, presuming the project achieves its objectives, the benefits expected to accrue for IPs and other minority groups are the same as those to be enjoyed by Peruvians in general, wherein a reinforced national system for disease surveillance and prevention is expected to translate into a healthier, more resilient population overall.

In terms of expected negative impacts on IPs, it is not expected that any indigenous lands or natural resources will be adversely affected by the construction of facilities under C2. Nor is it expected that indigenous peoples (or anyone, for that matter) will need to be relocated. Finally, the project is not expected to have any impact on indigenous peoples’ cultural heritage or assets. While no specific adverse impact is expected to be generated towards IPs, the SEP contains the necessary provisions in case any particular IP groups would need to receive information with regards to the implementation of activities under Components 2 or 3.



**ESS8 Cultural Heritage**

This standard is relevant.

There are no known archaeological sites within the footprint of the future CDC, NHCLC, and MRCs infrastructure, and the draft project ESMF’s Exclusion List rules out any infrastructure intervention that overlaps within the limits of archaeological sites. However, chance findings could occur during earthworks and construction activities, especially considering the existence of two archaeological sites within the larger compound where the CDC and NHCLC will be built (outside the proposed footprints). The Borrower has prepared Guidelines for a Chance Find Procedure as part of the draft project ESMF, in line with national legislation and any necessary gap filling measures to comply with para. 11 of ESS8. This procedure will be detailed and developed in the corresponding site-specific ESMPs, to be developed during implementation. ESMPs will be part of the bidding documents for construction.

**ESS9 Financial Intermediaries**

This standard is not relevant.

**B.3 Other Relevant Project Risks**

No other relevant environmental and social risks have been identified.

**Should "Other Relevant Project Risks" be disclosable?**

No

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways**

No

No rivers or international waters are involved in the Project

**OP 7.60 Projects in Disputed Areas**

No

No project interventions are expected in disputed areas.

**B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts**

**Is this project being prepared for use of Borrower Framework?**

No

**Areas where “Use of Borrower Framework” is being considered:**

None

**III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

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**A. Is a common approach being considered?** No

**Financing Partners**

Not applicable

**IV. WORLD BANK ES OVERSIGHT**

Corporate advice/oversight will be provided by an Environmental and Social Standards Adviser (ESSA) during project preparation Yes

**V. CONTACT POINTS**

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**Borrower/Client/Recipient**

Borrower: Republic of Peru

**Implementing Agency(ies)**

Implementing Agency: Instituto Nacional de Salud

Implementing Agency: Instituto Nacional de Salud

**VI. FOR MORE INFORMATION CONTACT**

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**VII. APPROVAL**

Task Team Leader(s): Carlos Marcelo Bortman, Malva Baskovich

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Safeguards Advisor ESSA Marco Antonio Zambrano Chavez (SAESSA) Concurrred on 21-Jan-2021 at 11:30:9 GMT-05:00

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