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Agriculture Modernization Project



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Ministry of Agriculture
கமத்தொழில் அமைச்சு

Social Screening Report

Strengthening Capacity to Enhance Basic Seed Potato Production at Seetha Eliya



Sri Lanka Agriculture Sector Modernization Project (ASMP)

Prepared for Project Management Unit of the Agriculture Sector Modernization Project

Democratic Socialist Republic of Sri Lanka, Ministry of Agriculture (MOA)

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Table of Contents

A. SUBPROJECT IDENTIFICATION	5
B. SUBPROJECT LOCATION	7
C. SUBPROJECT JUSTIFICATION	9
D. SUBPROJECT DESCRIPTION	14
E. DESCRIPTION OF THE SOCIOECONOMIC CONDITIONS	15
F. STAKEHOLDERS ENGAGEMENT AND PUBLIC CONSULTATION	21
G. GRIEVANCE READDRESSSED MECHANISM (GRM)	22
H. IMPLEMENTATION AND MONITORING	22
1. Monitoring	22
I. SCREENING OF POTENTIAL SOCIAL IMPACTS	23
Social Risks & Impacts	25
J. SCREENING DECISION AND RECOMMENDATIONS	27
K. SOCIAL MANAGEMENT PLAN (SMP)	28
L. CONCLUSION	30
M. DETAILS OF PERSON RESPONSIBLE FOR THE SOCIAL SCREENING	30
ANNEX 1: LIST OF REFERENCES	31
ANNEX 2: PROJECT LOCATION MAPS	32
ANNEX 3: DESIGN DRAWINGS OF	33
ANNEX 4: INTERIM GUIDELINES ON COVID-19 OF WORLD BANK	39

List of tables and figures

Figure 1: Location of the Potato Research Center and Seed Farm at Seetha Eliya	7
Figure 2: Agriculture Research Station, Seetha Eliya	8
Figure 3: Seed potato farm at Seetha Eliya	8
Figure 4: seed Potato Farmland	9
Figure 5: The vacant room identified to convert into tissue culture lab	16
Figure 6: Existing culture room of tissue culture lab	16
Figure 7: Land proposed to be upgraded with sprinkler irrigation system	16
Figure 8: Water source for irrigation	16
Figure 9: Aeroponic cultivation	17
Figure 10: Aeration system of aeroponic cultivation	17
Figure 11: An existing polytunnel	17
Figure 12: Poly tunnels decided to be converted	17
Figure 13: Manual sorting	17
Figure 14: Cold Store	17
Figure 15: Location identified to establish new polytunnels at Seed Farm	19
Figure 16: The location identified to install sprinkler irrigation system at Research Station	19
Table 1: Responsible Officers in ASM Project Activities	21

Table 2: Consultation outputs..... 22

ABBREVIATIONS

AI	Agriculture Instructor
ASMP	Agriculture Sector Modernization Project
ASC	Agrarian Service Center
ATDP	Agricultural Technology Demonstration Park
CBO	Community-Based Organization
DSD	Divisional Secretary Division
EMF	Environmental Management Framework
EMP	Environmental Management Plan
ESR	Environmental Screening Report
ESS	Environmental and Social Standards
FO	Farmers Organization
FPO	Farmers' Production Organization
GAP	Good Agricultural Practices
GND	Grama Niladhari Division
GoSL	Government of Sri Lanka
IDA	International Development Association
IEE	Initial Environmental Examination
LGA	Local Government Authority
MOA	Ministry of Agriculture
MOPI	Ministry of Primary Industries
NIRP	National Involuntary Resettlement Policy
NGO	Non-Governmental Organization
OP	Operational Policy
PAP	Project Affected Persons
PCR	Physical Cultural Resources
PMP	Pest Management Plan
PMU	Project Management Unit
SCS	Seed Certification Service
SIA	Social Impact Assessment
SIMP	Social Impact Mitigation Plan
SLRs	Sri Lanka Rupees
SPMDC	Seed and Planting Material Development Center
SSR	Social Screening Report

A. SUBPROJECT IDENTIFICATION

Subproject Title	Strengthening Capacity to Enhance Basic Seed Potato Production at Seetha Eliya
Parent Project Objectives (briefly)	<p>The World Bank Funded Agriculture Sector Modernization Project is aligned with the Country Partnership Strategy (CPS) 2013-2016. The project seeks to contribute to two CPS focus areas, namely: “Supporting structural shifts in the economy” and “Improved living standards and social inclusion” through: (a) improving agricultural productivity and competitiveness to strengthen the links between rural and urban areas and facilitate Sri Lanka’s structural transformation; (b) providing and strengthening rural livelihood sources, employment opportunities in agriculture and along agriculture value chains, as well as market access for the poor, bottom 40 percent, and vulnerable people, thereby improving income sources and livelihood security in lagging rural areas; and (c) contributing to improved flood and drought management, through project’s linkages to the water and irrigation sectors and a climate-smart agriculture approach. The project is also to promote diversification, value addition and increased competitiveness in the agriculture sector.</p> <p>The project has three components.</p> <ul style="list-style-type: none"> (01) Agriculture Value Chain Development (02) Productivity Enhancement and Diversification Demonstrations (03) Project Management, Monitoring and Evaluation <p>The Ministry of Agriculture (MOA) is responsible for the implementation of Component 2: Productivity Enhancement and Diversification Demonstrations. The component aims at supporting smallholder farmers to produce competitive and marketable commodities, improve their ability to respond to market requirements, and move towards increased commercialization.</p> <p>Component 2 comprises the following sub-components:</p> <p>2.1: Farmer Training and Capacity Building</p> <p>2.2: Establishment of Modern Agriculture Technology Parks</p> <p>2.3: Production and Market Infrastructure Supporting;</p> <ul style="list-style-type: none"> (i) Rehabilitation of small-scale irrigation infrastructures (ii) Improvement of selected production and market access roads and construction of new field access tracks to improve transportation, access to markets and accessibility for agricultural machinery (iii) Village level storage and product handling facilities <p>2.4: Analytical and Policy Advisory Support- Activities to be supported under this sub-component would include technical assistance to:</p> <ul style="list-style-type: none"> (i) Evaluate policies and regulations and recommend adjustments, reforms or new policies needed to make agriculture more competitive, responsive to market demand, gender sensitive, sustainable, and resilient; (ii) Undertake strategic market analysis for promoting new and high value exports, and analyze the changes needed in the policy, regulatory and institutional framework, or public investments needed to address the binding constraints to the evolution of high impact value chains;

	<ul style="list-style-type: none"> (iii) Evaluate the social and economic impact of policies and public expenditures and make recommendations on course corrections to improve the efficiency and effectiveness of public expenditures. (iv) Undertake external and independent monitoring and evaluation functions, including formal impact evaluations of government programs and investments, to provide the critical learning and feedback loop into the ministries’ decision-making processes. It would also support: (v) Annual conferences on Sri Lanka’s agricultural policy; (vi) Equipment, office furniture, and communications technology for MOA’s proposed Center of Excellence <p>The development objectives of Agriculture Sector Modernization Project for Sri Lanka are to support increasing agriculture productivity, improving market access, and enhancing value addition of smallholder farmers and agribusinesses in the project areas.</p> <p>Up to now, ASMP has launched its activities in nine districts of seven provinces of the country. Project Management Unit (PMU) and Provincial Project Management (PPMUs) directly implement the two kinds of subproject activities that mainly consist of Productivity Enhancement and Diversification Demonstrations and the infrastructure development programs. The Department of Agriculture (DOA) acts as the main project partner agency of Productivity Enhancement and Diversification Demonstrations. DOA’s activities consist of designing subprojects, training farmers, monitoring subprojects’ activities, and involving the troubleshooting of the program. The agricultural research stations play a remarkable role in ASMP’s activities by providing technical inputs and introducing new hybrid varieties to the farmers. Further, analyzing soil & crop samples of the farmers and giving recommendations for the fertilizer usage, investigating pest and disease attacks of the crops, and giving viable mitigation measures to overcome the issues timely are services provided by the agricultural research stations.</p> <p>Strengthening the capacities of Agricultural Research Stations, seed production farms, and seed certification service is identified as the subcomponent of ASMP. Inventing new crop varieties and expansion of hybrid seed production is one of the main sustainable factors of the ASMP’s activities to achieve its development objectives. Meantime, it will facilitate supply the of high-quality hybrid seed requirements and finally contribute to enhancing the productivity of the field crops, vegetable, and fruit farming sector in Sri Lanka</p>
Project proponent	Project Management unit, Agriculture Sector Modernization Project (ASMP), Ministry of Agriculture (MOA)
Implementing agency	Agriculture Sector Modernization Project (ASMP) implementing through Department of Agriculture
Project Management Team	<p>A PMU was established under the Ministry of Agriculture to implement proposed project activities.</p> <p>Project Director Agriculture Sector Modernization Project Ministry of Agriculture No. 123/2 Pannipitiya Road, Battaramulla</p>

	<p>Tel: +94 112 877 550, Fax: +94 112 877 546 Email: projectdirectorasm2@hotmail.com Web: https://www.asmp.lk/</p> <p>Environmental and Social Safeguards Specialist Agriculture Sector Modernization Project Ministry of Agriculture No. 123/2 Pannipitiya Road, Battaramulla Tel: +94 112 877 550, Fax: +94 112 877 546 Email: sanjayadms@hotmail.com Web: https://www.asmp.lk/</p> <p>Nature of Consultations and Inputs Received Consultations with Environmental and Social Safeguard Specialist/ PMU, DOA officials and field visits to the project</p>
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B. SUBPROJECT LOCATION

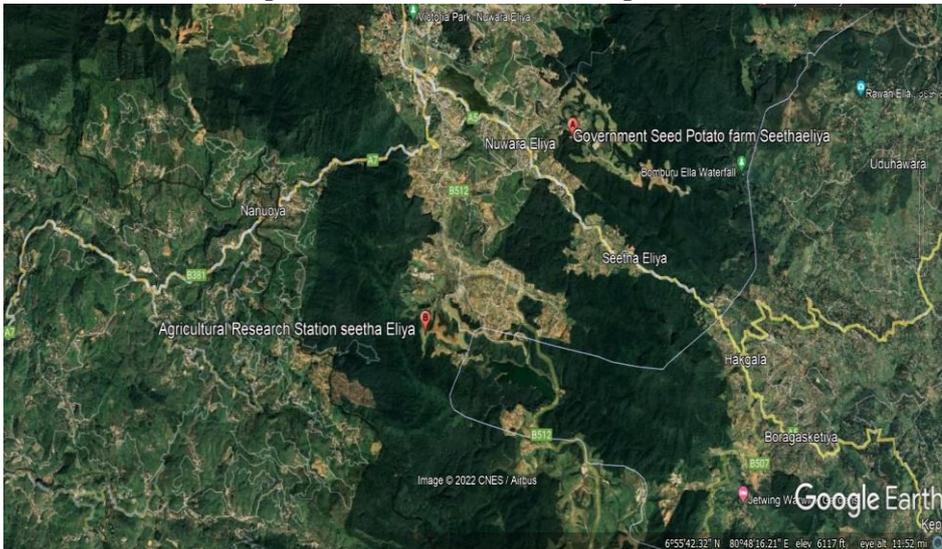
<p>Location</p> <p><i>Seed Potato Farm-</i> 6° 57' 03.04" N 80° 47' 58.50" E</p> <p><i>Seed Potato Research Center-</i> 6° 55' 28.10" N 80° 46' 17.34" E</p>	<p>The subproject's activities will be mainly implemented in seed potato farm and potato research center that are jointly located in Seetha Eliya 3.7 km away from the Nuwara Eliya city. This area belongs to Nuwara Eliya DSD and district in the Central Province.</p> <p>Under this subproject, Strengthening Capacity to Enhance Basic Seed Potato Production will be implemented. The location maps are annexed as Annex 1.</p>  <p style="text-align: center;">Figure 1: Location of the Potato Research Center and Seed Farm at Seetha Eliya</p>
<p>Definition of Project Area / Project Impact area</p>	<p>Agricultural Research Station, Seetha Eliya comes under the purview of Horticultural Crop Research and Development Institute, Gannoruwa. Potatoes and temperate vegetables are the commodity research focus of this station. Plant breeding programs of the station include potato and carrot breeding programs for upcountry wet and intermediate zones. Enhancement of crop productivity is done through the development of improved agronomic packages, the use of good agricultural practices for the management of pests, diseases, and nutrients. The center is responsible for conducting national programs to uplift the quality and amount of seed potato by providing in-vitro potato plants, rooted stem cutting plants, and potato mini-tubers for pre-basic seed production for both private and public sectors.</p>



Figure 2: Agriculture Research Station, Seetha Eliya

The Seed and Planting Material Development Center (SPMDC) has been established under the Department of Agriculture to achieve the vision of achieving excellence in Agriculture through increasing quality seed and planting materials. Seed potato development center/ seed potato farm was established in Seetha Elia as the affiliated center by SMPDC and its main objective is locally producing seed potato to supply high-quality planting materials to the growers.



Figure 3: Seed potato farm at Seetha Eliya

The cultivatable land extent belongs to potato research center and seed farm is about 240ha (600 acres). Meanwhile, research station buildings, farm's building, potato stores and the road networks covers considerable land extent. The potato research center and farm are nexus established in the agro-ecological zone belonging to the upcountry wet zone (WU2). The surrounding area is predominantly rolling terrain areas where the majority of lands are agricultural. All the private owners cultivate upcountry vegetables mostly potato and leeks on their farmlands as well as home gardens.

Adjacent land and features

The total cultivatable land extent under potato research center and the farm is about 240ha (600 acres) and in addition to cultivatable area, a considerable land area is covered by research station buildings, staff quarters, farm buildings, road network and potato stores. Seetha Eliya area belongs to Nuwara Eliya DS division of the Nuwara Eliya district in Central Province. The area belongs to the upcountry wet zone. This research station mainly aims generation and primary dissemination of technologies to improve the productivity, quality, and profitability of potato and carrot farming. The mandate of research center is the development and dissemination of appropriate technologies to increase commercial potato production in the country and improve the living standard of farmers.

	<p>Seed potato farm ensures the availability of quality seed and planting material to satisfy the demand of local growers through the development of local seed production industry with the participation of public and private sector.</p> <p>The area adjacent to the research center and the farm are owned by the farmers who continue the vegetable cultivation intensively. The land use of the surrounding area is agriculture. Even home gardens are also used by the residents for vegetable cultivation since the area is favorable for cultivation and it gives a high return for the investment.</p> <p>Since the research station and farm are jointly located separate from community living areas, there is no encroachment, activities, or accesses of other parties are get affected or disturbed by their activities.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: center;">Figure 4: seed Potato Farmland</p>
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C. SUBPROJECT JUSTIFICATION

<p>Need for the project</p> <p>(What problem is the project going to solve)</p>	<p>The Agriculture Sector Modernization Project (ASMP) seeks to contribute to two Country Partnership Strategy (CPS) focus areas, namely: “Supporting structural shifts in the economy” and “Improved living standards and social inclusion” through (a) improving agricultural productivity and competitiveness to strengthen the links between rural and urban areas and facilitate Sri Lanka’s structural transformation; (b) providing and strengthening rural livelihood sources, employment opportunities in agriculture and along agriculture value chains, as well as market access for the poor, bottom 40 percent, and vulnerable people, thereby improving income sources and livelihood security in lagging rural areas; and (c) contributing to improved flood and drought management, through project’s linkages to the water and irrigation sectors and a climate-smart agriculture approach. The project is also to promote diversification, value addition and increased competitiveness in the agriculture sector.</p> <p>The development objectives of Agriculture Sector Modernization Project for Sri Lanka are to support increasing agriculture productivity, improving market access, and enhancing the value addition of smallholder farmers and agribusinesses in the project areas.</p> <p>Up to now, ASMP has launched its activities in nine districts of seven provinces of the country. Project Management Unit (PMU) and Provincial Project Management (PPMUs) directly implement the two kinds of subproject activities that mainly consist with Productivity Enhancement and Diversification Demonstrations and the infrastructure development programs. The Department of Agriculture (DOA) acts as the main project partner agency of Productivity Enhancement and Diversification</p>
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Demonstrations. DOA's activities consist with designing of subprojects, training farmers, monitoring subprojects' activities and involving the troubleshooting of the program. The agricultural research stations play remarkable role in ASMP's activities by providing technical inputs, and introducing new hybrid varieties to the farmers. Further, analyzing soil & crop samples of the farmers and giving recommendations for the fertilizer usage, and investigating pest and disease attacks of the crops and giving viable mitigation measures to overcome the issues timely are services provided by the agricultural research stations.

Potato (*Solanum tuberosum L.*) originated in the Andes highlands in Peru and Europeans who settled in hilly areas introduced it to Sri Lanka in the 1850s. At present potato is extensively cultivated in the district of Nuwara Eliya (Upcountry wet zone >1,000m AMSL) in two major seasons, "Yala" (Feb - July) and "Maha" (Aug - Dec.) where annual rainfall is >2,500mm and temperature ranges between 10-15 °C with the relative humidity of 80%. It is also widely grown in Badulla District (Up Country intermediate zone- 1,000 to 1,500 m MSL) in paddy fields and high land during "Yala' and "Maha" seasons respectively. This area experiences rainfall of 1,500 - 2,250 mm annually with 70 % RH and 15- 22 °C

The annual domestic potato production which is generally about 80,000 tons is about 40% of the domestic consumption requirement of 200,000 tons. The balance requirement is about 120,000 tons is imported annually incurring a foreign exchange cost of about SLRs. 5,100mn. The potato extent and production of Sri Lanka have been stagnating with slight annual variations over the recent years. The average productivity of potatoes in Sri Lanka has been stagnating around 16 t/ha which is below the average yields of the neighboring countries.

Relatively low productivity increases the price of local potatoes than the imported products and the farmers have to compete with the low price imported potatoes. Local potato farmers get at risk of price fluctuation during the harvesting period and economic losses are happen as the result of this market behavior. The low productivity directly affects the increase of the cost of production resulting in less profit margin to the potato farmers.

The present annual unit cost of the production of potato is about SLRs 55.00 to 60.00/kg of which about 50% is incurred on the seed. The annual extent of potato cultivated is about 5,000 ha that needs about 12,500 tons of seed tubers to be cultivated. About 70% of the seed requirement is met with seed produced by farmers themselves, and 8% of the annual seed requirement is met with seed produced in government farms. While another 10% of seeds are being imported annually. Additionally, 12% of the annual seed requirement is supplied by small and medium-scale seed suppliers. Seeds produced by farmers are generally below the required standards of quality but the unit cost of imported seed is about SLRs 400/kg, and this high cost discourages farmers to purchase quality seed. Usage of lower quality seed is considered as the main reason for lower productivity of the domestic potato sector, and the high proportion of the cost of seeds in the unit cost of production reduces farmers' profitability and reduces incentives for expanding production.

Supplying high-quality seed at a lower cost has become a critical necessity to break the lower productivity-based vicious cycle of stagnating domestic

extent and production of potato, and associated impediments on efforts for reducing the high foreign exchange cost incurred annually on potato imports. The Department of Agriculture implemented a project on increasing high-quality seed production through rapid seed multiplication and has obtained successful results that seemed to lead to slight increases in domestic potato productivity.

The previous project of the Department of Agriculture expanded the Rapid Multiplication of potato seeds within Poly Tunnels by the expansion of area under Poly Tunnels that produce early generation seed (G0 or G1). However, the full benefit of that project could not be achieved since the expansion of the multiplication cycle at farmer fields was below expectations due to a lack of proper implementation of appropriate agronomic practices. The lessons learned from that project indicates that high-quality seed at a lower cost can be produced at farmer fields with the adoption of improved agronomic practices and multiplication of early generations of seeds (G0 or G1) produced at Poly Tunnels.

Focusing to achieve the above targets, ASMP and DOA officers have implemented a seed potato production cluster program with the participation of the selected farmers' groups in Keppetipola and Boralanda areas of the Badulla district.

Simultaneously, Strengthening Capacity to Enhance Basic Seed Potato Production of DOA has been identified as the urgent need that should be addressed by ASMP. This program directly impacts the sustainability of the ASMP seed potato production program too while it serves national potato production.

Enhancement of the capacities of potato research center and potato seed farm-Seetha Eliya will result the more positive return to the farmers and the country economy as well. The services that are provided by the both centers are;

- Development of high yielding potato and carrot varieties locally.
- Development of agricultural technology for consumption potato production, seed potato production and other up-country vegetables like leeks, cabbage, cauliflower, broccoli, lettuce, kohlrabi, beet etc.
- Development and evaluation of effective pest and disease control measures for potato and other up-country vegetables.
- Evaluation of commercial potato and up-country vegetable varieties for recommendation
- Evaluation of new fungicide, insecticide and weedicide for potato and other up-country vegetables.
- Evaluation of fertilizers for potato and up-country vegetables
- Soil testing for potato bacterial wilt, nematodes and soil mineral NPK
- Production of disease free in-vitro potato plants for pre-basic potato plant production.
- Production of potato mini-tubers as planting material for basic potato seed production using aeroponic, hydroponic and geoponic systems
- Farmers' field inspection for field problems
- Fertilizer recommendation for potato and up-country vegetables according to soil analysis results

	<ul style="list-style-type: none"> • Dissemination of agricultural technologies to the field extension officers. • Supply of high-quality Seed Potato • Seed Processing • Providing Storage Facilities • Distribution & Supply of Quality Seed & Planting Materials • Management of Buffer Seeds & Planting Material Stock • Quality Seed Production under the Contract Growing Program • Conducting Training Programs <p>The need of this subproject emphasizes that Basic Seed Potato Production, and practicing good agricultural practices in potato farming under ASMP is an essential integral part of the agriculture modernization activities.</p>
<p>Purpose of the project (What is going to be achieved by carrying out the project)</p>	<p>The project will directly result the enhancements of basic seed potato production process at potato research center and the potato seed farm in Seetha Eliya. The following purposes will be achieved by implementing the subproject.</p> <ul style="list-style-type: none"> • Ensure timely availability of Quality Seed & Planting Materials. • Production and Supply of National Basic Seed Requirement of Potato. • Fulfillment of National/Certified Seed Requirement through Co-ordination of stakeholders of the industry. • To overcome Crisis situations through maintenance of buffer seed stocks • Recommendation of commercial potato and up-country vegetable varieties for commercial cultivation • Screening of new fungicide, insecticide and weedicide for potato and other up-country vegetables for recommendation. • Fertilizer testing for potato and up-country vegetables • Soil testing for potato bacterial wilt, nematodes and soil mineral NPK • Supply of disease free in-vitro potato plants for pre-basic potato plant production. • supply of potato mini-tubers for basic seed potato production • Farmers’ field inspection for field problems • Fertilizer recommendation for potato and up-country vegetables according to soil analysis results • Dissemination of agricultural technologies to the field extension officers • Providing technical support to the farmers to improve crop productivity, especially in the established SL-GAP farms through the services provided by the Centers of Excellence and the Extension and Training arms of the DOA, and Provincial Departments of Agriculture. <p>The ultimate effort of the ASMP is to establish good agriculture practices (GAP) in the farming activities by introducing new technologies.</p>

Beneficiaries	<p>Potato is the most popular crop of upcountry farmers due to its high net return. Potatoes in Sri Lanka are mainly grown in three districts, namely Nuwara Eliya, Badulla, and Jaffna. However, there are areas where potatoes can be cultivated. Such as Puttalam, Kalpitiya, Rathnapura, Kandy, etc. However, Due to many reasons cultivation are strictly limited to the above areas. The annual domestic potato production which is generally about 80,000 tons is about 40% of the domestic consumption requirement of 200,000 tons. The balance requirement is about 120,000 tons is imported annually incurring a foreign exchange cost of about SLRs. 5,100mn. The potato extent and production of Sri Lanka have been stagnating with slight annual variations over the recent years. The average productivity of potatoes in Sri Lanka has been stagnating around 16 t/ha which is below the average yields of the neighboring countries.</p> <p>Relatively low productivity increases the price of local potatoes than the imported products and the farmers have to compete with the low price imported potatoes. Local potato farmers get at risk of price fluctuation during the harvesting period and economic losses are happen as the result of this market behavior. The low productivity directly affects the increase of the cost of production resulting in less profit margin to the potato farmers.</p> <p>The present unit cost of the production of potato is about SLRs 55.00 to 60.00/kg of which about 50% is incurred on the seed. The annual extent of potato cultivated is about 5,000 ha that needs about 12,500 tons of seed tubers to be cultivated. About 70% of the seed requirement is met with seed produced by farmers themselves, and 8% of the annual seed requirement is met with seed produced in government farms. While another 10% of seeds are being imported annually. Additionally, 12% of the annual seed requirement is supplied by small and medium-scale seed suppliers. Seeds produced by farmers are generally below the required standards of quality but the unit cost of imported seed is about SLRs 400/kg, and this high cost discourages farmers to purchase quality seed. Usage of lower quality seed is considered as the main reason for lower productivity of the domestic potato sector, and the high proportion of the cost of seeds in the unit cost of production reduces farmers' profitability and reduces incentives for expanding production.</p> <p>Implementing this subproject makes available quality seed potato for the farmers who are presently engaged in potato production and they will get direct benefits through enhancing their productivity while reducing the cost of production. Local seed production directly impacts on reducing the cost for the imported seed and it will be additional and important benefits since it saves the foreign exchange. The ultimate impact of the project is indirectly received by the whole nation by receiving quality potato for consumption and it results in food security too. Further, ASMP has launched a seed potato production program with the selected farmers in the Boralanda and Keppetipola areas. Nearly 500 farmers are already producing seed potatoes with the assistance of ASMP and the technical and other inputs from the DOA. The sustainability of this program also depends on this subproject. Hence, the seed potato producing farmers will be the first direct beneficiaries of this subproject.</p>
Alternatives considered	<p>With the current economic policies of the country, farmers are encouraged to use locally produced seeds and planting materials. Simultaneously, the</p>

(Different ways to meet the project need and achieve the project purpose)	<p>enhancement of national production is also a goal set by policymakers. During the past four decades, farmers use imported seed potatoes for their cultivations finally it becomes the 70% share of the total seed requirement. In addition to that potato, cultivation was threatening due to poor quality imported seeds. As per the evidence revealed by the authorized parties, many pest and diseases issues were arisen due to the seed potato importation. Now the cost of potato production is too high and more than 70% of the potato production cost is caused due to imported seeds.</p> <p>Hence, promoting local seed potato production is the most cost-effective alternative as it indirectly influences food security too. Therefore, strengthening basic potato seed production is the only alternative that can be implementable. There is no private party investing for the local seed production since it needs high-level investment.</p>
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D. SUBPROJECT DESCRIPTION

Proposed start date (duration)	March 2022 (04 Months)
Proposed completion date	June 2022
Estimated total cost	SLRs 164.29 Mn
Land ownership	The potato research center and the farm are located on the state land that is under the purview of the DOA.
Planned interventions	<p>This subproject is mainly focusing on enhancing facilities at the potato research center and seed farm- Seetha Eliya and upgrading their services. For strengthening capacities includes following activities;</p> <p><u>At Research Station</u></p> <ul style="list-style-type: none"> • Increasing capacity of tissue culture facilities • Installation of sprinkler irrigation system for 1 acre land plot <p><u>At Seeds Farm</u></p> <ul style="list-style-type: none"> • Upgrading Root Stem Cutting (RSC) production facilities • Construction of 4 polytunnels (each size is 400m²) • Converting of G₀ potato seed producing polytunnels in to aro phonic pre basic seed potato (G₀) production system with hardening facilities – 20 units • Establishing cold room facilities for seed multiplier as a service – 1 unit) • Establishing seed potato (G₀ and G₁) sorting facility- I unit <p>The design drawings of the civil works annexed as annex 3.</p>
Beneficiary selection criteria and process	The whole capacity building program pertaining to the department of agriculture was collectively negotiated by MOA, DOA and ASMP. Then, DOA has prepared the capacity building needs with participation of the relevant research institutions, planting material production center and the Potato research station. Accordingly, the subproject activities were identified by the sector experts in the DOA.

Vulnerable groups and Gender	Generally, agriculture sector development directly gives benefits to vulnerable groups and women since the majority (80%) of the farmers and agriculture sector laborers belong to the low-income category. The project helps to enhance the farmers' livelihood and the food security for low-income community.
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E. DESCRIPTION OF THE SOCIOECONOMIC CONDITIONS

Institute Profile	<p>There are five (5) main divisions that come under potato research center. All five divisions have its laboratory facilities within the premises and research activities have been undertaken by the well-experienced & qualified research staff that consists of Director, Deputy Director (Research), Assistant Directors Agriculture (Research), Research Assistants, and Technical Assistants. As the main divisions, there are;</p> <ol style="list-style-type: none"> 1. Plant breeding and bio-technology division 2. Agronomy division 3. Plant pathology division 4. Plant entomology division 5. Soil science division <p>Each above divisions have their laboratories within the research premises. With the existing facilities they are delivering the following services to the industry.</p> <ul style="list-style-type: none"> • Recommendation of commercial potato and up-country vegetable varieties for commercial cultivation • Screening of new fungicide, insecticide and weedicide for potato and other up-country vegetables for recommendation. • Fertilizer testing for potato and up-country vegetables • Soil testing for potato bacterial wilt, nematodes and soil mineral NPK • Supply of disease free in-vitro potato plants for pre-basic potato plant production. • supply of potato mini-tubers for basic seed potato production • Farmers' field inspection for field problems • Fertilizer recommendation for potato and up-country vegetables according to soil analysis results • Dissemination of agricultural technologies to the field extension officers <p>More ever, the research center has to be provided the potato tissue culture seedlings to the farm to proceed with the new G0 and G1 production. The existing facilities are not enough they supply the demand made by the seed farm; hence they have planned to strengthen their services by expanding their tissue culture lab. They have planned to convert a underutilize section of the center into a tissue culture lab.</p>
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Figure 5: The vacant room identified to convert into tissue culture lab



Figure 6: Existing culture room of tissue culture lab

Further, the one-acre extent open field has to be upgraded with a sprinkler irrigation system to facilitate the ongoing research activities of the center. The research station uses earthen ponds to irrigate its crops. And they have planned to connect the new sprinkler system into their existing irrigation system since there is adequate water.



Figure 7: Land proposed to be upgraded with sprinkler irrigation system



Figure 8: Water source for irrigation

The seed potato farm includes a polytunnel area, open field, and potato stores area. Presently, the farm division gets potato tissue culture seedlings from the research center and multiply seedling subject to hardening process and then produce the G_0 and G_1 potato seeds for distribution among the farmers and the private farms.

The seed farm has constructed 20 polytunnels to produce the G_0 potato seed and a few aeroponic polytunnels. The experiences and the research findings revealed that aeroponic cultivation gives two times more yield than hydroponic cultivation. E.g., In hydroponic cultivation, one potato plant produces nearly 20-22 tubers but aeroponic cultivation can produce 40-45 tubers from one plant at a time. It is a 100% yield increment. Hence, they have decided to convert the existing polytunnel into aeroponic polytunnels since it is a cost-effective and efficient program.



Figure 9: Aeroponic cultivation



Figure 10: Aeration system of aeroponic cultivation



Figure 11: An existing polytunnel



Figure 12: Polytunnels decided to be converted

The seed potato sorting is currently undertaken manually. It consumes time and a high labor force. Therefore, seed potato sorting should be mechanized to cater to the high production period to minimize the cost and improve the quality of the service. Meantime, the seed potato farm already has 3 cold storages to store the production. One of these stores can store 150 MT of seed potato and cumulatively, the farm can store 450 MT of seed potato during the season. It is emphasized that the facility should be expanded to cater the future demand and the production enhancement.



Figure 13: Manual sorting



Figure 14: Cold Store

DOA annually allocates funds for the recurrent expenditures to manage the researches and continue the seed potato production process but there is no capital investment is received to enhance the proposed activities. ASMP and DOA together conduct the consultation sessions with relevant officials and identified to need of strengthening the capacities of these centers.

<p>Project Benefits</p>	<p>The project will directly result in the strengthening Capacity to Enhance Basic Seed Potato Production at Seetha Eliya. Ultimately, it gives benefits to the farmers who have engaged in cultivation mainly in Nuwara Elia, Badulla, Jaffna, and Kalpitiya areas. The following benefits will be achieved by implementing the subproject.</p> <ul style="list-style-type: none"> • To increase the production of high-quality potato seeds at a low cost, by enhancing facilities at research center and potato seed farm and thereby raise productivity and profitability of the crop. • To expand the existing seed potato (G0) production facility • To increase production and supply of high-quality seed potato locally at a low cost. • To improve productivity and quality of potato seeds production • To improve the production, storage, and marketing system of potato seeds through strengthening private seed producer organizations and developing business partnerships • Promote the potato growers to produce their own seed potato requirement through their cultivation cycles by practicing Good Agricultural Practices • Reduce the utilization of low quality locally produced planting materials (seed potato) for cultivation to maintain the healthy cultivation and enhance the productivity • Reduces the share of imported seed potato by replacing high-quality locally produced seed potato at a low price and saving the import cost <p>The ultimate effort of the ASMP is to establish good agriculture practices (GAP) in the farming activities by introducing new technologies.</p>
<p>Social Impact</p>	<p>The proposed subproject will be implemented within the government premises which is earmarked for the Potato Research Station and the Seed Potato Production Farm at Seetha Eliya. Hence there is no direct contact of subproject activities with the community. As the subproject activities, installation of sprinkler irrigation system, the establishment of polytunnels, upgrading the existing laboratory facilities, and upgrading of hydroponic cultivation polytunnels, cool storeroom, and seed potato sorting activities are included. Hence, there is no social impact emerging by the subproject activities since there are no major construction works or changes of land use by proposed activities. The new polytunnels will be established in the cultivation area that is under the purview of the potato seed farm and installation of sprinkler systems will be implemented on the cultivation area of the research station. There are no assets or activities that will be disturbed or affected by the subproject activities.</p>



Figure 15: Location identified to establish new polytunnels at Seed Farm



Figure 16: The location identified to install sprinkler irrigation system at Research Station

The magnitude of the proposed project interventions is very low. accordingly, the anticipated negative social impacts of the proposed project will be minor or insignificant. Only possible impacts regarding the health & safety issues on staffs of Research Station, Seed Farm and contractor during the establishment of polytunnels and sprinkler system are anticipated. Summarised social impacts and mitigation measures are shown in table 2. However, the following impacts are listed to get emphasis in the project selection and implementation.

01. Construction impacts such as dust, noise, and vibrations
02. Labour influx for establishment of polytunnels
03. Occupational health and safety hazards, and on impacts on the environment during the construction period

All environmental related issues and mitigation measure are in the EMP under ESR.

Mitigation Measures

Proposed migratory measures for the negative social impacts listed above.

01. Construction impacts such as dust, noise, and vibrations

Anticipated impacts due to the construction will be generic and most of the impacts will be mitigated by following good construction practices. Noise and vibration will be reduced by maintaining the construction machinery and limiting the construction activities in the daytime only. Since the proposed site to establish the polytunnels is free from other activities as well as located separate from human settlement, public accesses, office buildings, staff quarters, or any community gathering centres, there are no impacts for the outsiders. But contractor staff and supervision staff may face inconveniences due to construction-related impacts such as dust, noise, and vibration. Hence, the construction contractor will be responsible to implement the minimizing, preventing, and mitigation measures proposed in the SIMP and EMP.

02. Labour influx for construction and upgrading activities

There is no high labour demand in civil works envisage with this subproject. If labour will be hired where possible from the local community and the contractor will give priority to women when hiring. Worker Code of Conduct will be included as part of the employment contract - that establishes the workers' commitment in attitudes and behaviour preventing, combating, and responding Gender-Based Violence (GBV). During implementation, robust measures will be implemented to prevent sexual harassment/GBV including training of workforce

and sanctions for non-compliance (e.g., termination).

05. Public/ occupational health and safety Hazards, and on impacts on the environment

All measures in the Environment Management Plan (EMP) will be implemented in regard to management. Necessary COVID19 safety measures and protocols will be implemented as per the government, WHO, and World Bank interim guidelines on COVID-19 by all construction workers. Training and awareness will reduce the direct exposure to minimize the risk.

F. STAKEHOLDERS ENGAGEMENT AND PUBLIC CONSULTATION

1. Stakeholders and Public consultation																																									
Stakeholders' engagements	<p>The Department of Agriculture is the main project partner agency of this subproject. The staff of the research stations jointly prepared their capacity needs and submitted them to the ASMP. Several discussions were undergone to decide the subproject activities between the research stations and seed farm staff. In addition to DOA officials, the Seeds and Planting Materials Development Center (SPMDC)- Peradeniya and Horticulture Research and Development Institute (HORDI) also participated during the consultation process with ASMP. For more transparency, the research staff and seed farm staff represent the technical evaluation committee of this subproject. The ASMP PMU staff conducted site visits, consultations with DOA's officials during subproject identification and designing stages.</p> <p style="text-align: center;">Table 1: Responsible Officers in ASM Project Activities</p> <table border="1"> <thead> <tr> <th>SN</th> <th>Name</th> <th>Designation</th> <th>Contacts</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Mr. K.D. Pushpananda</td> <td>Director (Seed and Planting Material Development Center- Peradeniya)</td> <td>0812 388122 0812 388608 pushpanandak@yahoo.com</td> </tr> <tr> <td>2</td> <td>Mr. M.C. Jayasinghe</td> <td>Additional Director of Agriculture (Development)</td> <td>0718 319224 jayasinghe70c@gmail.com</td> </tr> <tr> <td>3</td> <td>Mr. W.M.I. Weerasekara</td> <td>Deputy Director of Agriculture (Farm Development)</td> <td>0715 347267 weerasekaradoa@gmail.com</td> </tr> <tr> <td>4</td> <td>Mr. Sanath Dissanayake</td> <td>Assistant Director of Agriculture (Seeds)</td> <td>0718153061</td> </tr> <tr> <td>5</td> <td>Mr. Athula Nawarathne</td> <td>Agriculture Instructor (AI)/ Officer-In-Charge- Seed Farm</td> <td></td> </tr> <tr> <td>6</td> <td>Ms. Chalani Dissanayake</td> <td>Agriculture Instructor (AI)- Seed Farm</td> <td></td> </tr> <tr> <td>7</td> <td>Ms. Nishanthi Handunge</td> <td>Agriculture Instructor (AI)-Cold Room Facility</td> <td>07184860160</td> </tr> <tr> <td>8</td> <td>Dr.P.D. Abeythilakarathna</td> <td>Deputy Director Research- Potato Research Center</td> <td>0522222615 0714495445 ddr.arssi@doa.gov.lk</td> </tr> <tr> <td>9</td> <td>Ms. K. Pushpanji</td> <td>Assistant Director of Agriculture (Research)</td> <td>0522222615 0716431992 pushpanjie@yahoo.com</td> </tr> </tbody> </table>	SN	Name	Designation	Contacts	1	Mr. K.D. Pushpananda	Director (Seed and Planting Material Development Center- Peradeniya)	0812 388122 0812 388608 pushpanandak@yahoo.com	2	Mr. M.C. Jayasinghe	Additional Director of Agriculture (Development)	0718 319224 jayasinghe70c@gmail.com	3	Mr. W.M.I. Weerasekara	Deputy Director of Agriculture (Farm Development)	0715 347267 weerasekaradoa@gmail.com	4	Mr. Sanath Dissanayake	Assistant Director of Agriculture (Seeds)	0718153061	5	Mr. Athula Nawarathne	Agriculture Instructor (AI)/ Officer-In-Charge- Seed Farm		6	Ms. Chalani Dissanayake	Agriculture Instructor (AI)- Seed Farm		7	Ms. Nishanthi Handunge	Agriculture Instructor (AI)-Cold Room Facility	07184860160	8	Dr.P.D. Abeythilakarathna	Deputy Director Research- Potato Research Center	0522222615 0714495445 ddr.arssi@doa.gov.lk	9	Ms. K. Pushpanji	Assistant Director of Agriculture (Research)	0522222615 0716431992 pushpanjie@yahoo.com
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Stakeholders' consultation	<p>During the social and environmental screening process, the staff of Potato Research Center, Potato Seed Farm and Cold Stores- Seetha Eliya were consulted. Meantime ASMP has taken actions to conduct the stakeholders' consultation starting from the subproject identification stage up to finalizing the subproject's design. It was a good tool to maintain transparency among the stakeholders. Due to the impact of the fruitful consultation process undertaken by the ASMP, the research station's staff and seed farm's staff are well aware of the subproject activities and their objectives. Meantime, they have negotiated and decided the real requirements that they want to enhance the research and seed production facilities of the stations.</p>																																								

Table 2: Consultation outputs		
Locations / Sub Units / Fields Visited	Participants with Designations	Matters Discussed
SPMDC- Peradeniya on 19.01.2022		
Director's Office (Seed and Planting Material Development Center- Peradeniya)	Mr. K.D. Pushpananda Director	Overall capacity building plan on strengthening seed and planting material production at seed potato farm at Seetha Eliya and Vegetable seeds and planting material production farm-Kundasale
	Mr. W.M.I. Weerasekara- Deputy Director of Agriculture (Farm Development)	
Seed Potato Production Farm @ Seetha Eliya on 21.01.2020		
Seed & Planting Material Development Center, Seetha Eliya	Mr.M.C. Jayasinghe Additional Director of Agriculture (Development)	Requirement of proposed improvement for seed potato production and its impact
	Mr. Sanath Dissanayake Assistant Director of Agriculture (Seeds)	Process of seed potato production (G0 & G1)
	Ms. Chalani Dissanayake Agriculture Instructor (AI) Seed Farm	
	Ms. Nishanthi Handunge Agriculture Instructor (AI)- Cold Room Facility	Cold room storage facilities
Seed Potato Research Station @ Seetha Eliya on 21.01.2020		
Seed Potato Research Station, Seetha Eliya	Ms. K. Pushpanji Assistant Director of Agriculture (Research)	Requirement of improving tissue culture laboratory facilities and sprinkler system for irrigation facility

G. GRIEVANCE READDRESSED MECHANISM (GRM)

A GRM will be in place to promptly address any grievances including any unforeseen impacts that may arise during the implementation phase of the project, at no cost to the people. Field level grievances will record by Deputy Director (Research) at Potato Research Centre and Additional Director of Agriculture (Development) at the Potato Seed Farm by keeping the registry on their premises. The ASMP, and DOA official will facilitate resolving the grievance. The middle level grievances committee will operate at the DOA office to address the issues which are unsolved or when the affected person is not satisfied with the decision at the field level. The third tier of GRM will operate at PMU headed by the Project Director of ASMP with technical support from the Social Development Specialist to address the issues which are not solved at the initial stages.

H. IMPLEMENTATION AND MONITORING

1. Monitoring

Considering the magnitude of the proposed project interventions and the infrastructure development projects at the selected location, the anticipated social impacts of the proposed activities will be minor or insignificant. There won't be any significant negative social impacts envisaged from the proposed project during the construction stages with the implementation of

the given SIMP. Further, there will not be significant negative social impacts during the infrastructure development activities assuming all the proposed mitigation actions are taken appropriately. Therefore, it is not necessary to have a complex monitoring system. However, it is necessary to ensure there are no violations of the regulations and conformity to the national and World Bank standards and guidelines pertaining to environmental and social safeguards.

Therefore, the contractor should be aware of the project management to ensure social management compliance during the implementation of the project. The Additional Director of Agriculture (Development)- Seed Farm and Deputy Director (Research)- Research Station will undertake the internal monitoring activities with close coordination of ASMP-PMU. Implementation of social and environmental safeguards compliance will be monitored by the social and environmental safeguard specialist at ASMP-PMU.

I. SCREENING OF POTENTIAL SOCIAL IMPACTS

Probable Involuntary Resettlement Impacts	Yes	No	Not known	Details
Will the intervention include new physical construction work?	√			<p><u>In Potato Research Centre-</u></p> <ul style="list-style-type: none"> • Installation of sprinkler irrigation system for 1 acre land plot <p><u>In Potato Seed Farm-</u></p> <ul style="list-style-type: none"> • Construction of 4 polytunnels (each size is 400m²) <p>The above two activities are new construction while other proposed activities are rehabilitation and upgrading of existing facilities</p>
Does the intervention include upgrading or rehabilitation of existing physical facilities?	√			<p><u>In Potato Research Centre-</u></p> <ul style="list-style-type: none"> • Upgrading of tissue culture research lab <p><u>In Potato Seed Farm-</u></p> <ul style="list-style-type: none"> • Upgrading Root Stem Cutting (RSC) production facilities • Rehabilitation of 20 hydroponic polytunnels • Upgrading of cold room storage • Upgrading of seed potato sorting facilities
Is the intervention likely to cause any permanent damage to or loss of housing, other assets, resource use?		√		All proposed activities are limited to DOA owned land that is earmarked for the research station and seed farm (Government programs)
Are the sites chosen for this work free from encumbrances and is in possession of the		√		Selected land belongs to DOA and vested to Research Centre and Seed Farm

Probable Involuntary Resettlement Impacts	Yes	No	Not known	Details
government/community land?				
Is this subproject intervention requiring private land acquisitions?		√		No land acquisition taken place
If the site is privately owned, can this land be purchased through negotiated settlement?				N/A
If the land parcel has to be acquired, is the present plot size and ownership status known?				N/A
Are these land owners willing to voluntarily donate the required land for this sub-project?				N/A
Whether the affected land owners likely to lose more than 10% of their land/structure area because of donation?				N/A
Is land for material mobilisation or transport for the civil work available within the existing plot/ Right of Way?	√			The accesses to proposed sites are free from other encumbrances.
Are there any non-titled people who are living/doing business on the proposed site/project locations that use for civil work?		√		
Is any temporary impact likely?	√			Dust, Noise, vibration, etc.,
Is there any possibility to move out, close of business/ commercial/ livelihood activities of persons during constructions?		√		
Is there any physical is placement of persons due to constructions?		√		
Does this project involve resettlement of any persons? If yes, give details.		√		
Will there be loss of /damage to agricultural lands, standing crops, trees?		√		
Will there be loss of incomes and livelihoods?		√		
Will people permanently or temporarily lose access to facilities, services or natural resources?		√		
Are there any previous land acquisitions happened and the identified land has been already acquired?		√		

Probable Involuntary Resettlement Impacts	Yes	No	Not known	Details
Are any indigenous people living in proposed locations or affected/benefited by the project intervention?		√		

Assuming that all mitigation measures are implemented as proposed, the following effects can be predicted during the infrastructure development activities.

Key project activities	Potential Social Effects	Significance of Social effect with mitigation in place¹
<u>At Potato Research Station</u>		
Increasing capacity of tissue culture facilities	N/A	NS
Installation of sprinkler irrigation system for 1 acre land plot	Emission of dust, generation of noise, and vibration	NS
<u>At Potato Seeds Farm</u>		
Upgrading Root Stem Cutting (RSC) production facilities	N/A	NS
Construction of 4 polytunnels (each size is 400m ²)	Emission of dust, generation of noise, and vibration	NS
Converting of G ₀ potato seed producing polytunnels in to aero phonic pre basic seed potato (G ₀) production system with hardening facilities – 20 units	Generation of noise, and vibration	NS
Establishing cold room facilities for seed multiplier as a service – 1 unit)	N/A	NS
Establishing seed potato (G ₀ and G ₁) sorting facility- I unit.	N/A	NS

Social Risks & Impacts

¹ NS - Effect not significant, or can be rendered insignificant with mitigation, SP - Significant positive effect, SN - Significant negative effect, U - Outcome unknown or cannot be predicted, even with mitigation

Activities	Land requirements	Risk of exclusion of vulnerable groups	Construction impacts	Risks due to labour influx	Risk of livelihood impacts	Public/ occupational health and safety	COVID19 risks
<u>At Potato Research Station</u>							
Increasing capacity of tissue culture facilities	Premises owned by DOA						
Installation of sprinkler irrigation system for 1 acre land plot	Land owned by DOA		Yes	Yes		Yes	Yes
<u>At Potato Seeds Farm</u>							
Upgrading Root Stem Cutting (RSC) production facilities	Premises owned by DOA						
Construction of 4 polytunnels (each size is 400m ²)	Land owned by DOA		Yes	Yes		Yes	Yes
Converting of G ₀ potato seed producing polytunnels in to aero phonic pre basic seed potato (G ₀) production system with hardening facilities – 20 units	Premises owned by DOA		Yes	Yes		Yes	Yes
Establishing cold room facilities for seed multiplier as a service – 1 unit)	Premises owned by DOA						
Establishing seed potato (G ₀ and G ₁) sorting facility- I unit.	Premises owned by DOA						

INFORMATION ON AFFECTED PERSONS

<p>Any estimate of the likely number of households that will be affected by the sub project?</p> <ul style="list-style-type: none"> • <input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. If yes, approximately how many? • No. of HHs losing <10% of their productive assets - N/A • (land/cowshed/shops) N/A • No. of HHs losing 10% or more of their productive assets?..... N/A
<p>Are any vulnerable households affected? <input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. If yes, please briefly describe their situation with estimated numbers of HHs? N/A</p>
<p>What are the needs and priorities for social and economic betterment of vulnerable people who are affected by this project? N/A</p>

J. SCREENING DECISION AND RECOMMENDATIONS

After reviewing the answers above, it is determined that the subproject is:

- Categorised as a 'B' project, an Abbreviated Resettlement Action Plan is required
- Categorised as a 'C' project, only the Social Screening/ Due Diligence Report is required

K. SOCIAL MANAGEMENT PLAN (SMP)

SN	Issues/ Impacts and risks	Mitigation measures	Institutional responsibility		Mitigation cost
			Implementation	Supervision/ monitoring	
1	Public complaints and lack of community awareness and support for the project implementation	<ul style="list-style-type: none"> The staff of Potato Research Station and Potato Seed Farm will be briefed of the project, its purpose, design and outcomes with comprehensive discussion. Consultations will be repeated once the contractor is mobilised. The GRM will be established to receive and resolve complaints/ grievances related to disturbances caused by construction including GBV related issues. Awareness will be created of the GRM among staff and contact details will be publicly displayed to report grievances 	Additional Director of Agriculture (Development)- Seed Farm and Deputy Director Agriculture (Research)- Research Station	PMU	Included in EMP
2	Construction related disturbances from dust, noise, and Vibration	<ul style="list-style-type: none"> All measures in the EMP will be implemented in regard to management of construction related impacts including impacts to the environment including pollution, deforestation, soil erosion and management of solid waste A copy of the SMP and EMP should be available at all times at the project supervision office on site An Officer will be nominated to implement & monitor social/environment safeguards mitigations measures during construction 	Contractor	Social/Environment safeguard specialist	Included in construction cost.
3	Labour Influx related issues (e.g. GBV)	<ul style="list-style-type: none"> Local labour will be hired where possible and contract will give priority to women when hiring Worker Code of Conduct will be included as part of the employment contract - that defines workers' commitment in attitudes and behaviour preventing, combating and responding GBV Contractor will implement robust measures to prevent sexual harassment/GBV including training of workforce and 	Contractor	Social/Environment safeguard specialist	Included in construction cost.

SN	Issues/ Impacts and risks	Mitigation measures	Institutional responsibility		Mitigation cost
			Implementation	Supervision/ monitoring	
		sanctions for non-compliance (e.g., termination)			
4	Public/ occupational health and safety Hazards, and on impacts on environment	<ul style="list-style-type: none"> • All measures in the EMP will be implemented in regard to management. • Provide training and awareness on safety for contractor staff • Necessary COVID19 safety measures and protocols will be implemented as per Government, WHO and WB guidelines by all construction workers • All construction activities should follow the 'INTERIM GUIDANCE ON COVID-19 (VERSION 1: APRIL 7, 2020)' recommended by World Bank's Operations Environmental and Social Review Committee 	Contractor	Social/Environment safeguard specialist	Included in construction cost.

L. CONCLUSION

The proposed Strengthening Capacity to Enhance Basic Seed Potato Production at Seetha Eliya well augers with enhancing the DOA's capacities. It aligns with the sustainability of the agriculture sector modernization under ASMP. The proposed activities will not have impacts in relation to land acquisition or involuntary resettlement. The impacts that can arise can be considered modest and can be reversed with mitigation action.

M. DETAILS OF PERSON RESPONSIBLE FOR THE SOCIAL SCREENING

Screening conducted and reviewed by D.M. Sanjaya Bandara Environment and Social Safeguard Specialist Agriculture Sector Modernization Project Name/Designation/Contact information	Date February 2022  Signature
Screening report recommended by Dr. Rohan Wijekoon Project Director Agriculture Sector Modernization Project Name/Designation/Contact information	Date February 2022  Signature

ANNEX 1: LIST OF REFERENCES

- 1) <https://asmp.lk/the-project/>
- 2) <https://doa.gov.lk/home-page/>
- 3) <https://doa.gov.lk/spmdc-home-new/>
- 4) <https://doa.gov.lk/hordi-home/>
- 5) <https://doa.gov.lk/hordi-sub-institute2-sitaeliya/>

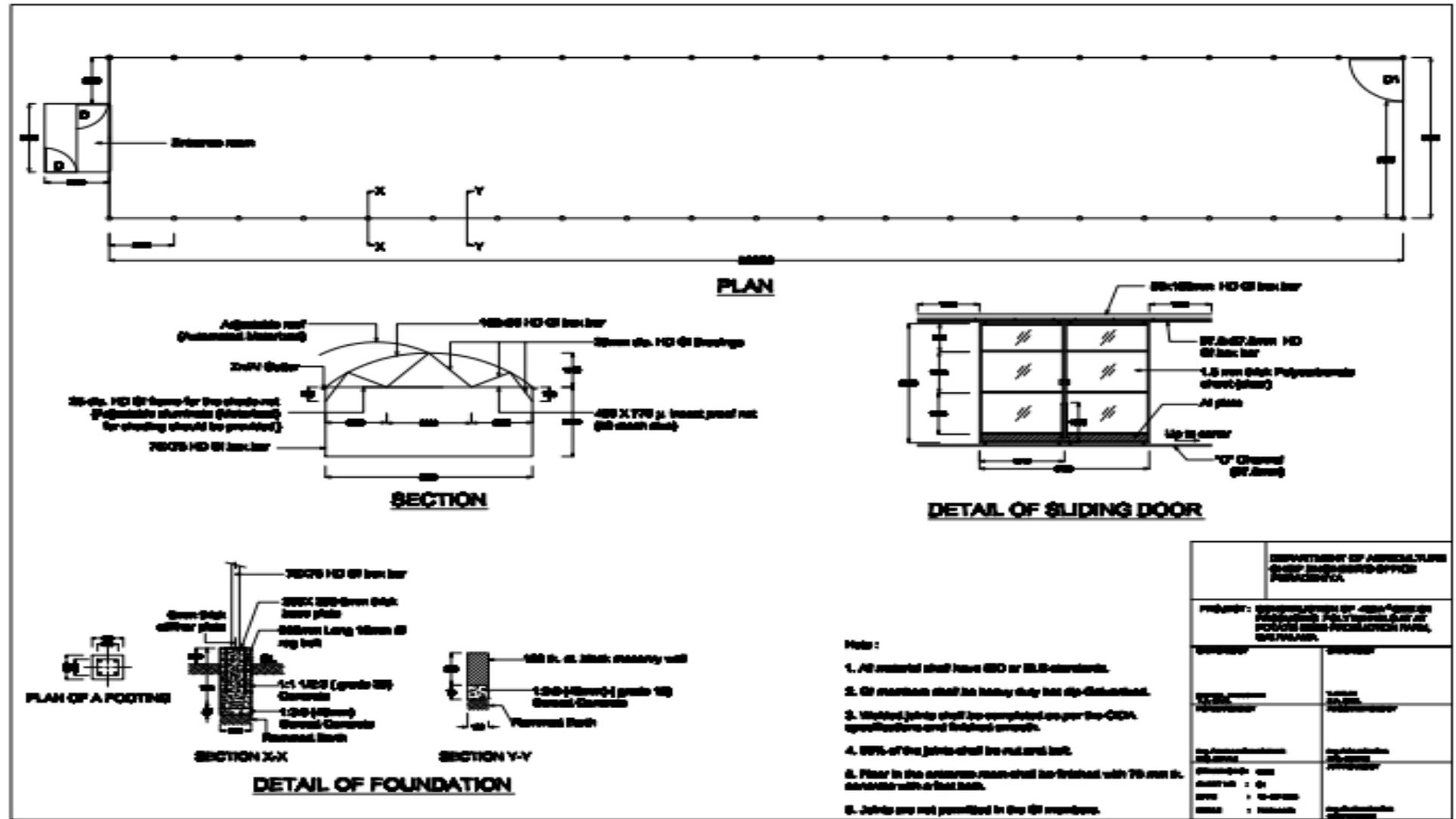
ANNEX 2: PROJECT LOCATION MAPS



Source: Google Map

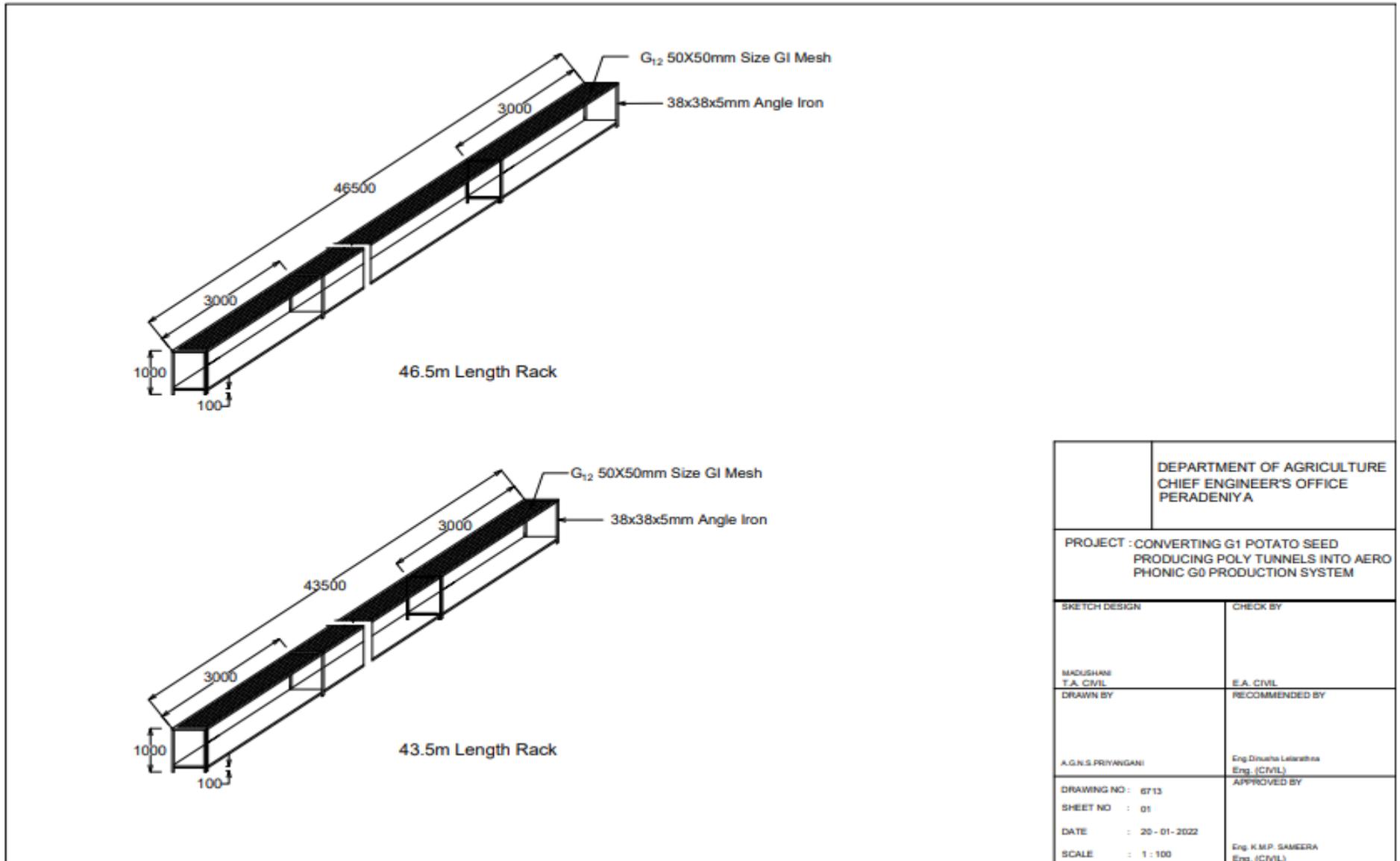
ANNEX 3: DESIGN DRAWINGS OF

1. Construction of 400m² size Polytunnel



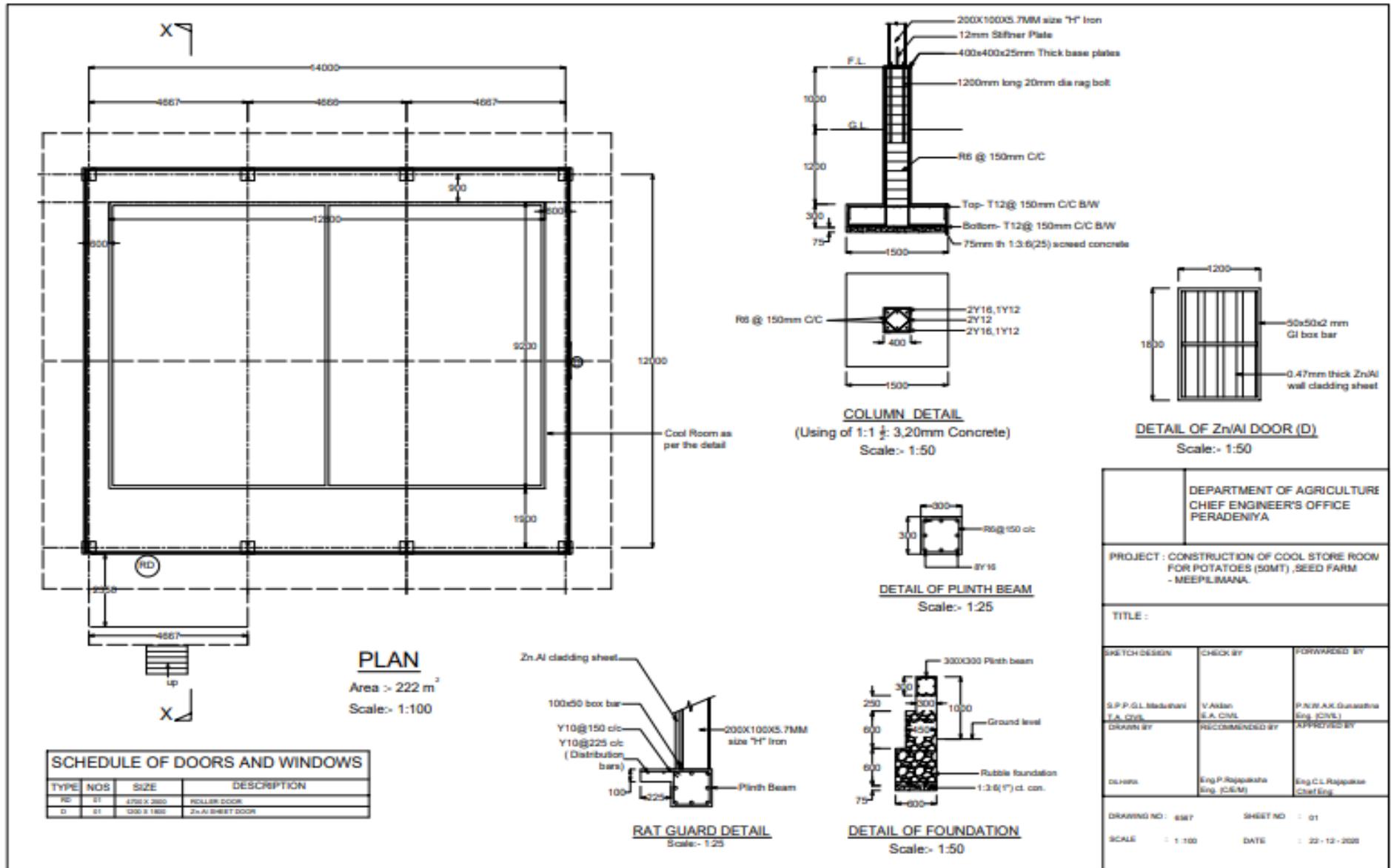
DEPARTMENT OF AGRICULTURE AND RANGERS-OPFOR PERAMBUR	
Project: CONSTRUCTION OF 400m² SIZE POLYTUNNEL FOR POLICE BIRD REPRODUCTION PARI, PERAMBUR.	
Drawn by:	Checked by:
Scale:	Scale:
By: ASMP	By: ASMP
Date: 10-07-2022	Date: 10-07-2022
Sheet: 1/1	Sheet: 1/1

2. Converting G₀ potato seed producing polytunnels in to aero phonic pre basic seed potato (G₀) production system



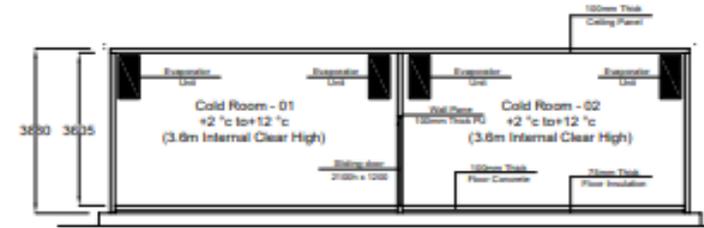
DEPARTMENT OF AGRICULTURE CHIEF ENGINEER'S OFFICE PERADENIYA	
PROJECT : CONVERTING G ₁ POTATO SEED PRODUCING POLY TUNNELS INTO AERO PHONIC G ₀ PRODUCTION SYSTEM	
SKETCH DESIGN	CHECK BY
MADUSHANI T.A. CIVIL	E.A. CIVIL
DRAWN BY	RECOMMENDED BY
A.G.N.S.PRIYANGANI	Eng. Dinusha Lelashtha Eng. (CIVIL)
DRAWING NO : 0713	APPROVED BY
SHEET NO : 01	
DATE : 20 - 01 - 2022	
SCALE : 1 : 100	Eng. K.M.P. SAMERA Eng. (CIVIL)

3. Establishing Cold Room Facilities

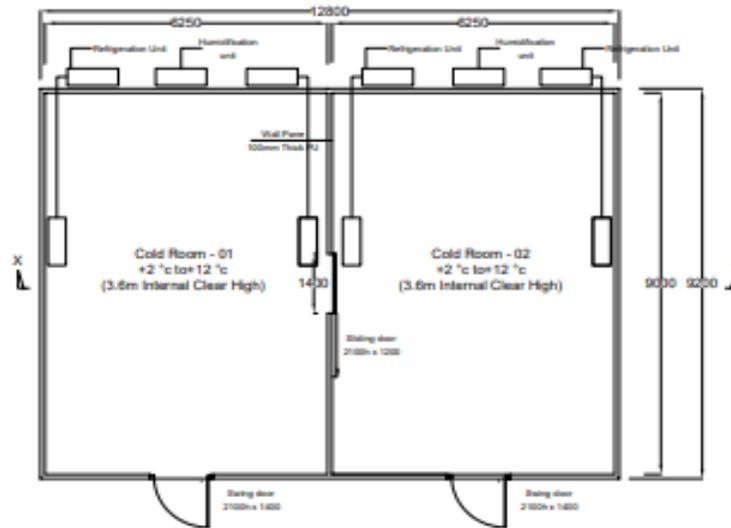




FRONT ELEVATION



SECTION X-X



FLOOR PLAN

DEPARTMENT OF AGRICULTURE CHIEF ENGINEER'S OFFICE PERADENIYA		
PROJECT : CONSTRUCTION OF COOL STORE ROOM FOR POTATOES (SMT) ,SEED FARM - MEEPLIMANA.		
TITLE : COLD ROOM GENERAL LAY-OUT		
SKETCH DESIGN	CHECK BY	FORWARDED BY
S.P.P.G.L.Madushani T.A. CIVIL	V.AKSHI S.A. CIVIL	L.L.R.R.LOKULIYANA Eng. (ARCH)
DRAWN BY	RECOMMENDED BY	APPROVED BY
CLARA	Eng.P.Rajapaksa Eng. (C&M)	Eng.C.L.Rajapaksa Chief Eng.
DRAWING NO : 6567	SHEET NO : 03	
SCALE : 1:100	DATE : 22-12-2020	

ESF/SAFEGUARDS INTERIM NOTE: COVID-19 CONSIDERATIONS IN CONSTRUCTION/CIVIL WORKS PROJECTS

This note was issued on April 7, 2020 and includes links to the latest guidance as of this date (e.g. from WHO). Given the COVID-19 situation is rapidly evolving, when using this note it is important to check whether any updates to these external resources have been issued.

1. INTRODUCTION

The COVID-19 pandemic presents Governments with unprecedented challenges. Addressing COVID-19 related issues in both existing and new operations starts with recognizing that this is not business as usual and that circumstances require a highly adaptive responsive management design to avoid, minimize and manage what may be a rapidly evolving situation. In many cases, we will ask Borrowers to use reasonable efforts in the circumstances, recognizing that what may be possible today may be different next week (both positively, because more supplies and guidance may be available, and negatively, because the spread of the virus may have accelerated).

This interim note is intended to provide guidance to teams on how to support Borrowers in addressing key issues associated with COVID-19, and consolidates the advice that has already been provided over the past month. As such, it should be used in place of other guidance that has been provided to date. This note will be developed as the global situation and the Bank's learning (and that of others) develops. This is not a time when 'one size fits all'. More than ever, teams will need to work with Borrowers and projects to understand the activities being carried out and the risks that these activities may entail. Support will be needed in designing mitigation measures that are implementable in the context of the project. These measures will need to take into account capacity of the Government agencies, availability of supplies and the practical challenges of operations on-the-ground, including stakeholder engagement, supervision and monitoring. In many circumstances, communication itself may be challenging, where face-to-face meetings are restricted or prohibited, and where IT solutions are limited or unreliable.

This note emphasizes the importance of careful scenario planning, clear procedures and protocols, management systems, effective communication and coordination, and the need for high levels of responsiveness in a changing environment. It recommends assessing the current situation of the project, putting in place mitigation measures to avoid or minimize the chance of infection, and planning what to do if either project workers become infected or the work force includes workers from proximate communities affected by COVID-19. In many projects, measures to avoid or minimize will need to be implemented at the same time as dealing with sick workers and relations with the community, some of whom may also be ill or concerned about infection. Borrowers should understand the obligations that contractors have under their existing contracts (see Section 3), require contractors to put in place appropriate organizational structures (see Section 4) and develop procedures to address different aspects of COVID-19 (see Section 5).

2. CHALLENGES WITH CONSTRUCTION/CIVIL WORKS

Projects involving construction/civil works frequently involve a large work force, together with suppliers and supporting functions and services. The work force may comprise workers from international, national, regional, and local labor markets. They may need to live in on-site accommodation, lodge within communities close to work sites or return to their homes after work. There may be different contractors

permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the project such as fuel, food, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.

Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is extremely serious, as are the implications of such a spread. Projects may experience large numbers of the work force becoming ill, which will strain the project's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a work force is large and/or the project is in remote or under-serviced areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.

3. DOES THE CONSTRUCTION CONTRACT COVER THIS SITUATION?

Given the unprecedented nature of the COVID-19 pandemic, it is unlikely that the existing construction/civil works contracts will cover all the things that a prudent contractor will need to do. Nevertheless, the first place for a Borrower to start is with the contract, determining what a contractor's existing obligations are, and how these relate to the current situation.

The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main contractor; between the main contractors and the sub-contractors). It will differ if the Borrower used the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017), which contains no 'ESF enhancements', states (in the General Conditions, clause 6.7) that the Contractor will be required:

- to take all necessary precautions to maintain the health and safety of the Contractor's Personnel
- to appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents
- to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sick bay, ambulance services and any other medical services specified are available at all times at the site and at any accommodation
- to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics

These requirements have been enhanced through the introduction of the ESF into the SPDs (edition dated July 2019). The general FIDIC clause referred to above has been strengthened to reflect the requirements of the ESF. Beyond FIDIC's general requirements discussed above, the Bank's Particular Conditions include a number of relevant requirements on the Contractor, including:

- to provide health and safety training for Contractor's Personnel (which include project workers and all personnel that the Contractor uses on site, including staff and other employees of the Contractor and Subcontractors and any other personnel assisting the Contractor in carrying out project activities)
- to put in place workplace processes for Contractor's Personnel to report work situations that are not safe or healthy
- gives Contractor's Personnel the right to report work situations which they believe are not safe or healthy, and to remove themselves from a work situation which they have a reasonable justification to believe presents an imminent and serious danger to their life or health (with no reprisal for reporting or removing themselves)
- requires measures to be in place to avoid or minimize the spread of diseases including measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent contract-related labor
- to provide an easily accessible grievance mechanism to raise workplace concerns

Where the contract form used is FIDIC, the Borrower (as the Employer) will be represented by the Engineer (also referred to in this note as the Supervising Engineer). The Engineer will be authorized to exercise authority specified in or necessarily implied from the construction contract. In such cases, the Engineer (through its staff on site) will be the interface between the PIU and the Contractor. It is important therefore to understand the scope of the Engineer's responsibilities. It is also important to recognize that in the case of infectious diseases such as COVID-19, project management – through the Contractor/subcontractor hierarchy – is only as effective as the weakest link. A thorough review of management procedures/plans as they will be implemented through the entire contractor hierarchy is important. Existing contracts provide the outline of this structure; they form the basis for the Borrower to understand how proposed mitigation measures will be designed and how adaptive management will be implemented, and to start a conversation with the Contractor on measures to address COVID-19 in the project.

4. WHAT PLANNING SHOULD THE BORROWER BE DOING?

Task teams should work with Borrowers (PIUs) to confirm that projects (i) are taking adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak. Suggestions on how to do this are set out below:

- The PIU, either directly or through the Supervising Engineer, should request details in writing from the main Contractor of the measures being taken to address the risks. As stated in Section 3, the construction contract should include health and safety requirements, and these can be used as the basis for identification of, and requirements to implement, COVID-19 specific measures. The measures may be presented as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures. The measures may be reflected in revisions to the project's health and safety manual. This request should be made in writing (following any relevant procedure set out in the contract between the Borrower and the contractor).
- In making the request, it may be helpful for the PIU to specify the areas that should be covered. This should include the items set out in Section 5 below and take into account current and relevant

guidance provided by national authorities, WHO and other organizations. See the list of references in the Annex to this note.

- The PIU should require the Contractor to convene regular meetings with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
- Where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site and the local community. It is also advisable to designate at least one back-up person, in case the focal point becomes ill; that person should be aware of the arrangements that are in place.
- On sites where there are a number of contractors and therefore (in effect) different work forces, the request should emphasize the importance of coordination and communication between the different parties. Where necessary, the PIU should request the main contractor to put in place a protocol for regular meetings of the different contractors, requiring each to appoint a designated staff member (with back up) to attend such meetings. If meetings cannot be held in person, they should be conducted using whatever IT is available. The effectiveness of mitigation measures will depend on the weakest implementation, and therefore it is important that all contractors and sub-contractors understand the risks and the procedure to be followed.
- The PIU, either directly or through the Supervising Engineer, may provide support to projects in identifying appropriate mitigation measures, particularly where these will involve interface with local services, in particular health and emergency services. In many cases, the PIU can play a valuable role in connecting project representatives with local Government agencies, and helping coordinate a strategic response, which takes into account the availability of resources. To be most effective, projects should consult and coordinate with relevant Government agencies and other projects in the vicinity.
- Workers should be encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19, preparations being made by the project to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

5. WHAT SHOULD THE CONTRACTOR COVER?

The Contractor should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project: the location, existing project resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the project put in place the best measures possible to address the situation. As discussed above, measures to address COVID-19 may be presented in different ways (as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures). PIUs and contractors should refer to guidance issued by relevant authorities, both national

and international (e.g. WHO), which is regularly updated (see sample References and links provided in the Annex).

Addressing COVID-19 at a project site goes beyond occupational health and safety, and is a broader project issue which will require the involvement of different members of a project management team. In many cases, the most effective approach will be to establish procedures to address the issues, and then to ensure that these procedures are implemented systematically. Where appropriate given the project context, a designated team should be established to address COVID-19 issues, including PIU representatives, the Supervising Engineer, management (e.g. the project manager) of the contractor and sub-contractors, security, and medical and OHS professionals. Procedures should be clear and straightforward, improved as necessary, and supervised and monitored by the COVID-19 focal point(s). Procedures should be documented, distributed to all contractors, and discussed at regular meetings to facilitate adaptive management. The issues set out below include a number that represent expected good workplace management but are especially pertinent in preparing the project response to COVID-19.

(a) ASSESSING WORKFORCE CHARACTERISTICS

Many construction sites will have a mix of workers e.g. workers from the local communities; workers from a different part of the country; workers from another country. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:

- The Contractor should prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).
- This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.
- Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.
- Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
- Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

(b) ENTRY/EXIT TO THE WORK SITE AND CHECKS ON COMMENCEMENT OF WORK

Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:

- Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID - 19 specific considerations.
- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
- Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.
- Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

(c) GENERAL HYGIENE

Requirements on general hygiene should be communicated and monitored, to include:

- Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see [WHO COVID-19 advice for the public](#)).
- Placing posters and signs around the site, with images and text in local languages.
- Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.
- Review worker accommodations, and assess them in light of the requirements set out in [IFC/EBRD guidance on Workers' Accommodation: processes and standards](#), which provides valuable guidance as to good practice for accommodation.
- Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

(d) CLEANING AND WASTE DISPOSAL

Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:

- Providing cleaning staff with adequate cleaning equipment, materials and disinfectant.
- Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
- Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
- Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes is necessary, this should be for as limited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information [see WHO interim guidance on water, sanitation and waste management for COVID-19](#)).

(e) ADJUSTING WORK PRACTICES

Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the project schedule. Such measures could include:

- Decreasing the size of work teams.
- Limiting the number of workers on site at any one time.
- Changing to a 24-hour work rotation.
- Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
- Continuing with the usual safety trainings, adding COVID-19 specific considerations. Training should include proper use of normal PPE. While as of the date of this note, general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see [WHO interim guidance on rational use of personal protective equipment \(PPE\) for COVID-19](#)).
- Reviewing work methods to reduce use of construction PPE, in case supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
- Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
- Consider changing canteen layouts and phasing meal times to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on site, including gyms.

- At some point, it may be necessary to review the overall project schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, taking into account Government advice and instructions.

(f) PROJECT MEDICAL SERVICES

Consider whether existing project medical services are adequate, taking into account existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures and training. Where these are not adequate, consider upgrading services where possible, including:

- Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in [WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19](#). Isolation facilities should be located away from worker accommodation and ongoing work activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use common areas and facilities (e.g. kitchens or canteens), they should only do so when unaffected workers are not present and the area/facilities should be cleaned prior to and after such use.
- Training medical staff, which should include current WHO advice on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on site should follow [WHO interim guidance on infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected](#).
- Training medical staff in testing, if testing is available.
- Assessing the current stock of equipment, supplies and medicines on site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see [WHO interim guidance on rational use of personal protective equipment \(PPE\) for COVID-19](#)).
- If PPE items are unavailable due to world-wide shortages, medical staff on the project should agree on alternatives and try to procure them. Alternatives that may commonly be found on construction sites include dust masks, construction gloves and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.
- Ventilators will not normally be available on work sites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
- Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see [WHO interim guidance on water, sanitation and waste management for COVID-19](#), and [WHO guidance on safe management of wastes from health-care activities](#)).

(g) LOCAL MEDICAL AND OTHER SERVICES

Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:

- Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff and essential supplies).
- Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
- Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
- Clarifying the way in which an ill worker will be transported to the medical facility, and checking availability of such transportation.
- Establishing an agreed protocol for communications with local emergency/medical services.
- Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.
- A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

(h) INSTANCES OR SPREAD OF THE VIRUS

WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see [WHO interim guidance on infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected](#)). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see [WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community](#)). These may include the following:

- If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
- If testing is available on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).
- If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.
- Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
- Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.

- Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
- If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
- If workers live at home and has a family member who has a confirmed or suspected case of COVID-19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
- Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.
- Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

(i) CONTINUITY OF SUPPLIES AND PROJECT ACTIVITIES

Where COVID-19 occurs, either in the project site or the community, access to the project site may be restricted, and movement of supplies may be affected.

- Identify back-up individuals, in case key people within the project management team (PIU, Supervising Engineer, Contractor, sub-contractors) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.
- Document procedures, so that people know what they are, and are not reliant on one person's knowledge.
- Understand the supply chain for necessary supplies of energy, water, food, medical supplies and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional and national supply chains, especially for those supplies that are critical for the project, is important (e.g. fuel, food, medical, cleaning and other essential supplies). Planning for a 1-2 month interruption of critical goods may be appropriate for projects in more remote areas.
- Place orders for/procure critical supplies. If not available, consider alternatives (where feasible).
- Consider existing security arrangements, and whether these will be adequate in the event of interruption to normal project operations.
- Consider at what point it may become necessary for the project to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to re-start work when it becomes possible or feasible.

(j) TRAINING AND COMMUNICATION WITH WORKERS

Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the project, and their own responsibilities in implementing them.

- It is important to be aware that in communities close to the site and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.

- Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
- Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
- Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.
- Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

(k) COMMUNICATION AND CONTACT WITH THE COMMUNITY

Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by local workers presence on the project site. The project should set out risk-based procedures to be followed , which may reflect WHO guidance (for further information see [WHO Risk Communication and Community Engagement \(RCCE\) Action Plan Guidance COVID-19 Preparedness and Response](#)). The following good practice should be considered:

- Communications should be clear, regular, based on fact and designed to be easily understood by community members.
- Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used; posters, pamphlets, radio, text message, electronic meetings. The means used should take into account the ability of different members of the community to access them, to make sure that communication reaches these groups.
- The community should be made aware of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers and the procedure that will be followed by the project if a worker becomes sick.
- If project representatives, contractors or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).

6. EMERGENCY POWERS AND LEGISLATION

Many Borrowers are enacting emergency legislation. The scope of such legislation, and the way it interacts with other legal requirements, will vary from country to country. Such legislation can cover a range of issues, for example:

- Declaring a public health emergency

- Authorizing the use of police or military in certain activities (e.g. enforcing curfews or restrictions on movement)
- Ordering certain categories of employees to work longer hours, not to take holiday or not to leave their job (e.g. health workers)
- Ordering non-essential workers to stay at home, for reduced pay or compulsory holiday

Except in exceptional circumstances (after referral to the World Bank's Operations Environmental and Social Review Committee (OESRC)), projects will need to follow emergency legislation to the extent that these are mandatory or advisable. It is important that the Borrower understands how mandatory requirements of the legislation will impact the project. Teams should require Borrowers (and in turn, Borrowers should request Contractors) to consider how the emergency legislation will impact the obligations of the Borrower set out in the legal agreement and the obligations set out in the construction contracts. Where the legislation requires a material departure from existing contractual obligations, this should be documented, setting out the relevant provisions.

ANNEX

WHO Guidance

Advice for the public

WHO advice for the public, including on social distancing, respiratory hygiene, self-quarantine, and seeking medical advice, can be consulted on this WHO website:

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

Technical guidance

[Infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected](#), issued on 19 March 2020

[Coronavirus disease \(COVID-19\) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health](#), issued on 18 March 2020

[Risk Communication and Community Engagement \(RCCE\) Action Plan Guidance COVID-19 Preparedness and Response](#), issued on 16 March 2020

[Considerations for quarantine of individuals in the context of containment for coronavirus disease \(COVID-19\)](#), issued on 19 March 2020

[Operational considerations for case management of COVID-19 in health facility and community](#), issued on 19 March 2020

[Rational use of personal protective equipment for coronavirus disease 2019 \(COVID-19\)](#), issued on 27 February 2020

[Getting your workplace ready for COVID-19](#), issued on 19 March 2020

[Water, sanitation, hygiene and waste management for COVID-19](#), issued on 19 March 2020

[Safe management of wastes from health-care activities](#) issued in 2014

[Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus \(COVID-19\) outbreak](#), issued on March 19, 2020

ILO GUIDANCE

[ILO Standards and COVID-19 FAQ](#), issued on March 23, 2020 (provides a compilation of answers to most frequently asked questions related to international labor standards and COVID-19)

MFI GUIDANCE

[IDB Invest Guidance for Infrastructure Projects on COVID-19: A Rapid Risk Profile and Decision Framework](#)