

Sri Lanka Agriculture Sector Modernisation Project (ASMP)

SOCIAL SCREENING REPORT FOR CDP № 11 – JAFFNA DISTRICT – POTATO AND ONION

Prepared for: The Democratic Socialist Republic of Sri Lanka, Ministry of Agriculture (MOA)

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TABLE OF ABBREVIATIONS

ADA Assistant Director of Agriculture ADO Agricultural Development Officer

AI Agriculture Instructor

ARPA Agriculture Research and Production Assistant
ASMP Agriculture Sector Modernisation Project
ATDPs Agricultural Technology Demonstration Park

BBTV Banana Bunchy Top Virus
CPS Country Partnership Strategy
DCO Distributary Canal Organisations

DS Divisional Secretary

EMP Environment Management Plan

ESHS Environmental, social, health, and safety

FPO Farmer producer organisations
GAP Good Agricultural Practices
GBV Gender-Based Violence

GN Grama Niladari

GPS Global Positioning System

GRM grievance readdressed mechanism

HH Head of household

IPM Integrated Pest Management
ISP International Service Provider

LKR Sri Lanka rupee

O&M Operation and maintenance
OHS Occupational health and safety
PMC Project Management Committee

PMU Project Management Unit
PPE Personal protective equipment
PPMU Provincial Project Management Unit

SMP Social management plan

WB World Bank

ASMP SOCIAL SCREENING REPORT

A. PROJECT IDENTIFICATION

Introduction of Improved Technologies to enhance the quality and productivity of Potato and Onion in Jaffna District					
The Agriculture Sector Modernisation Project (ASMP) aims at supporting the Government of Sri Lanka's effort to modernise the agriculture sector through the Country Partnership Strategy (CPS).					
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 40 percent poorer and vulnerable people, hence 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 Development Objectives are to support increasing agriculture productivity, improving market access, and enhancing value addition of smallholder farmers and agribusinesses in the project areas					
Project Management unit, ASMP, Ministry of Agriculture					
A PMU was established under the Ministry of Agriculture to implement proposed project activities. Contact Persons Project Director ASMP Ministry of Agriculture No. 123/2 Pannipitiya Road, Battaramulla Tel: +94 112 877 550 Fax: +94 112 877 546 Email: projectdirectorasmp2@hotmail.com Web: https://www.asmp.lk/ Deputy Project Director — Northern Province No. 340, Point Pedro Road, Anaipanthy, Jaffna. Environmental and Social Safeguards Specialist ASMP Ministry of Agriculture					

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Nature of Consultations and Inputs Received

Consultations with Environmental and Social Safeguard Specialist/PMU

However, an institutional mechanism for the Potato/Onion Cluster Development has been proposed. Institutional roles in this cluster (Cluster Development Plan (CDP) № 11 - Jaffna – Potato/Onion) are attached in Annexure 3. Provincial Agriculture Department, consisting of all the line agencies such as irrigation, Agrarian Development, DS and Land), and all the chairmen of farmer organisations have extended cooperation for potato/onion cultivation considering the following reasons.

- Great potential to increase Farmer income with less labour and inputs.
- Effective mechanism to attract young farmers for commercial agriculture.
- All the Potato farmers are members of farmer organisations or successors.

B. PROJECT LOCATION

Location:

The Jaffna Potato Cluster is located in three DSs: Valikamam East (Kopay), Valikamam North (Tellippalai) and Valikamam South (Uduvil) of the. These three DSs have 37 Grama Niladari (GN) divisions. The selected villages are located about 4km away from Jaffna town. Figure 1 shows the selected areas in the three DSDs.

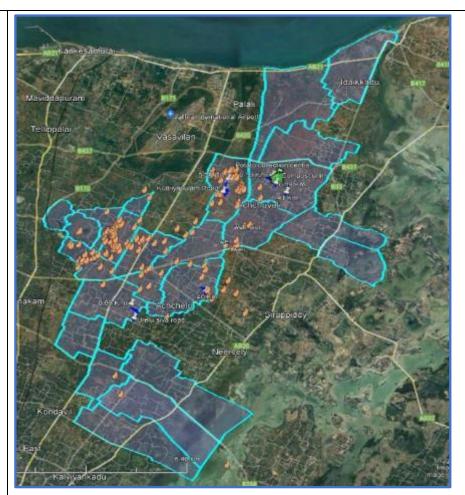


Figure 1: Selected farmlands

Mainly these selected areas can be accessed through AB 16 – Jaffna-Kankasanthurai, AB 18 – Jaffna Palali, AB 20 – Jaffna-Point Pedro, AB 32 – Puttur-Meesalai, B 380 – Chankanai-Puttur, and B 268 – Manippai-Kaithady. Main townships which are falling within these areas are namely Tellipalai, Puttur, Kopay, Achchuveli, and Chunnakam. Palali Airport is located about 2.5km away from Atchuveli. The railway line up to Kankasanthurai is running closer to the project areas in Urumpirai and Chunnakam.

It was initially planned to have 500 farmers for this cluster. However, 543 farmers were identified with the assumption that there would be some losses at a later date due to other factors of being ineligible.

Definition of project area/project impact area This cluster encompasses several sections of land and beneficiaries in three DS divisions of Valikamam North (Tellippalai), Valikamam East (Kopay) and Valikamam South (Uduvil). The total land area of the cluster including inland water is 19,040 ha.

Table 1: Summary of the farmer involvement in potato/onion rotation

No.	DS division	ADC area	AI range	No. of farmers	Extent ha
1	Valikamma East	Puttur	Puttur	52	16.72
			Avarankai	167	56.31
			Achchuveli	83	
		Urumpirai	Neervely	47	15.7

		Urumpirai	48	10.7
Valikamam	Uduvil	Punnalaikadduwan	71	25.0
South				
		Chunnakam	37	16.0
Valikamam	Vasavilan	Vasavilan	38	7.7
North				
Total	4	8	543	174.13

Source: Agrarian Services Department, Jaffna

Even though the suggested number of farmers is 500 for the cluster, 543 farmers were identified assuming that there would be some drop out due to inability to fulfil the eligibility requirements. The PPMU has already selected 150 farmers to cultivate potato on about 60 ha and taken steps to commence the cultivation during 2021/22 Maha Season. From next season onwards, all farmers would cultivate the entire extent in the cluster area under this programme. Due to the unavailability of suitable lands and conversion of some lands for other crops, there is a problem of meeting the required area under the project as planned.

As per the project requirement, the minimum land area which will be cultivated is about 270 acres and the maximum would be about 543 Acres. This estimation is without the impact zone of public infrastructures proposed to be improved. Further, a total of 3.65km length rural roads will be improved to ease the accessibility to economic infrastructures. Improvements in rural roads will benefit the entire community in the area. Improvements to the existing collection centre, institutional arrangement proposed, capacity building activities, value chain developments, etc are will have a significant positive impact on the area in general.

Adjacent land and features

The proposed cluster has three DSs that have 37 GN divisions. **Error! Reference source not found.**below indicates how important the proposed cluster area is in the sector of agricultural development in Jaffna District. Non-home gardened lands where vegetables, fruits and other field crops are cultivated are classified as other crop lands. **Error! Reference source not found.**below shows that 68% of these lands in the district are located in this cluster area.

Table 2: Land use pattern in cluster area and Jaffna District

		Land area (ha)				
Description	Jaffna District	Kopay	Tellippalai	Uduvil	Cluster total	district area
Built-up areas	690	0	110	0	110	16
Non-agriculture	390	60	270	0	330	85
Homesteads	33,720	2,290	2,830	1,520	6,640	20
Coconut	1,470	210	0	0	210	14
Mixed trees/other perennials	1,530	70	110	0	180	12
Paddy	15,520	1370	460	310	2,140	14
Sparsely used crop lands	10,510	710	860	130	1,700	16
Other crops	5,880	2,300	820	890	4,010	68
Dense forests	0	0	0	0	0	
Open forests	290	0	0	0	0	0

Forest cultivations	0	0	0	0	0	
Scrublands	6,810	590	180	0	770	11
Grass lands	10	10	0	0	10	100
Wetlands – forest	20	0	0	0	0	0
mangroves						
Wetlands – non-	6,630	1,480	0	0	1,480	22
forest marshes						
Water bodies	9,610	1,220	10	20	1,250	13
Barren lands	9,450	210	0	0	210	2
Total	10,2530	10,520	5,650	2,870	19,040	19

Source: ESRI – Wageningen, Survey Department of Sri Lanka, 1989

People in Jaffna District are traditionally farming communities. Their culture is mostly agrarian-based. These traditional farmers have generations of experience with the soil, climate, and agricultural technology that is unique to their production system. They have their cultivation techniques developed by their forefathers and the practices have been time-tested and proven to be more appropriate than modern technologies. Crops like spring onion (red onion), chilies, potatoes, tobacco, vegetables, banana, and grapes are cultivated for commercial purposes.

The main irrigation water source for agriculture is from wells (often hand-dug) but there are comparatively many deep wells in use by farmers in the Valikamam area. There are about 28,000 dug wells in the district; having an average depth of 3 to 5 metres with water being available all year. The main crops in the area are potatoes, tobacco, and red onion. In addition, fruit crops (e.g., banana, grape, and mango) are grown on a commercial scale.

C. PROJECT JUSTIFICATION

Need for the project (What problem is the project going to solve) 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.

This document introduces the proposed technologies and infrastructure to both increase and process of production of potatoes and onions for the national market (import substitution) and to also deliver quality products that meets the proposed local market's requirements. Furthermore, the proposed technology will reduce the level of water use, use of chemical and increase land use practices.

Of particular importance is to establish, assist and provide support through farmers' organisations that are to be self-managed, but with external assistance for start-up and when required afterwards. The management of farmers' organisations will be important to ensure that the farmers' products meet the required quality standards in the quantities required and within the essential timeframe. Establishment of PUC will ensure the sustainability of the proposed investment in the cluster and empowerment of farmers including female and youths in the cluster.

This CDP is prepared under ASMP Component 2, which is for productivity enhancement, diversification and demonstration to support smallholder farmers to produce competitive and marketable commodities, improve their ability to respond to market requirements and move towards an increase in commercialisation. Agriculture Technology Demonstration Parks (ATDPs) will support farmers to: (a) develop professional producer associations; (b) achieve economies of scale in production and exports; (c) improve marketing and value addition; and (d) achieve greater efficiency in the provision of technical and other support services. Farmers are expected to directly benefit through improved production capacity and input supply/management, better and more efficient technologies for production and postharvest, improved market linkages as well as opportunities for value addition. Furthermore, farmers would benefit from capacity building through farmer business and marketing training.

Purpose of the project

(What is going to be achieved by carrying out the project) This CDP is prepared under ASMP, which is for productivity enhancement, diversification and demonstration to support smallholder farmers to produce competitive and marketable commodities, improve their ability to respond to market requirements and move towards an increase in commercialisation.¹

The main objective of the subproject is to develop Agriculture-related livelihood by achieving below objectives:

- Introduce new technologies to increase yield
- Land preparation
- Water conservation/Management
- Disease control
- Use of weedicides, pesticides
- Enhancement of productivity and Quality of chilli
- To minimise postharvest losses
- To increases sustainable farm income
- Create new employment opportunities
- Identify international market opportunities

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- a. develop professional producer associations
- b. achieve economies of scale in production and exports
- c. improve marketing and value addition
- d. achieve greater efficiency in the provision of technical and other support services.

Farmers are expected to benefit directly through improved production capacity and input supply/ management, better and more efficient technologies for

¹ ASMP Project Appraisal Document.

production and postharvest, improved market linkages as well as opportunities for value addition. Furthermore, farmers would benefit from capacity building through farmer business and marketing training.

This cluster development will reduces the share of imported seed potato by replacing high-quality locally produced seed potato at a low price and saving the import cost. Further, increase the volume of onion production which helps reducing the imports of onions.

The ultimate effort of the ASMP is motivating farmers for using good agriculture practices (GAP) in their cultivation activities by introducing new technologies.

The Jaffna Potato and Onion Cluster will bring a change into the process of cultivation, processing and sale of these crops, primarily so that the quality is sufficient to replace some of the imported produce, thus helping farmers to have a better market that is both sustainable and rewarding.

Beneficiarie s

Most of the identified farmers for potato and onion cultivation are members of FO, or in certain cases, farmers' sons and daughters and those who are living as a family unit have identified for the cluster.

The PPMU has played a key role in identifying areas for the cluster, and it was agreed to proceed the programme in the identified cluster area after the acceptance of feasibility study report. Selection of potential villages with interested farmers were carried out by the district coordinator and cluster coordinators with the active support of AIs in the relevant areas under the direction of PPMU and international service provider (ISP) consultants. The FOs also have been consulted in this process.

Table 3: Basic information on the areas and number of farmers identified for the cluster

No	DS division	Farmer organisation	GN division	No. of farmers selected	Extent under crop ha
1	Valikamam East	Achelu	Achelu	40	13.6
	Last	Siruppiddy west	Siruppiddy west	12	3.12
		Avarankal west	Avarankal west	6	1.21
		Navakiri	Navakiri	98	34.3
		Achchuvely West	Achchuvely West	63	20.8
		Achchuvely North	Achchuvely North	3	0.6
		Idaikaadu	Idaikaadu	4	1.26
		Valalai	Valalai	19	4.38
		Pathameni	Pathameni	55	17.6
		Thampalai	Thampalai	2	1.2
		Neervely south	Neervely south	12	5.0
		Urelu	Urelu	21	4.8
		Nervely north	Nervely north	3	1.2
		Urumpirai North	Urumpirai North	2	0.8
		Neervely west	Neervely west	9	3.6

		Kopay North	Kopay North	25	1.74
		Kopay South	Kopay South	14	5.6
		Urumpirai South	Urumpirai South	2	0.9
		Urumbirai East	Urumbirai East	4	1.7
		Kopay Centre	Kopay Centre	2	0'5
		Urumpirai west	Urumpirai west	1	0.5
2	Valikamam South	Kuppilan south	Kuppilan south	11	1.56
	South	Kuppilan North	Kuppilan North	4	0.86
		Punnalaikadduva n south	Punnalaikadduv an south	18	4.48
		Eevenai	Eevenai	5	1.0
		Earlalai Centre	Earlalai Centre	1	6.0
		Earlalai East	Earlalai East	32	11.0
		Earlalai west	Earlalai west	10	1.62
		Earlalai south	Earlalai south	20	3.6
		Kuppilan North	Kuppilan North	1	0.3
		Earlalai Centre	Earlalai Centre	3	0.4
		Earlalai East	Earlalai East	3	0.6
3	Valikamam	Vasavilan	Vasavilan	38	7.6
	North				
	Total			543	174 ha

Even though the suggested number of farmers is 500 for the cluster, 543 farmers were identified assuming that there would be some drop out due to inability to fulfil the eligibility requirements.

The PPMU has already selected 150 farmers to cultivate potato on about 60 ha and taken steps to commence the cultivation during 2021/22 Maha Season. From next season onwards, all farmers would cultivate the entire extent in the cluster area under this programme. Due to the unavailability of suitable lands and conversion of some lands for other crops, there is a problem of meeting the required area under the project as planned.

Since the project is very keen on women's participation, high priority was given to selecting women-headed families which have a minimum of 0.4 hectares of land. The project will target to ensure that at least 35% of the selected beneficiaries would be women. More than Six thousand females were counted in the selected area and make about 23.5% of the total families. However, due to cultural restrictions in the region, it would be a real challenge to engage 35% female farmers in this program. Women headed families and low-income families exposed to the project and its benefits will be expected to gain economically.

Infrastructure development includes improvements of rural roads which get direct and indirect benefits for the other farmers on their agricultural activities. Further, public transportation and smooth access to the community will be advantages for the surrounding community. Organic fertiliser facilities and post-harvest processing facilities will provide direct and indirect employment opportunities for the surrounding community.

Alternatives considered

Kopay, Uduvil, and Tellipalai have a well-established farmer organisation already and the production of Potato and Onion. The main sources of water for agriculture

(Different ways to meet the project need and achieve the project purpose) irrigation are from shallow dug wells and some deep boreholes. Average depth of a dug well is about 3 to 5 metres with year-round available water. Main crops grown are potato, tobacco and red onion in addition to commercial-grown fruit crops such as banana, grapes and mango. Jaffna District is considered one of the major red onion producing areas of the island. By studying agriculture scenario, suggests that this cluster area contributes to around 50% of it. It also indicates that this cluster area is also the main potato and banana growing area of the district. Accordingly, more than 75% of the total potato cultivation area in the district is located in this cluster area, and it is also instrumental in selecting the three proposed DS divisions for these projects. Selecting a different area will cause many other issues including environmental destructions such as clearing jungle. Further, the soil quality of these selected areas is very suitable than other areas in Jaffna district. Therefore, selecting these areas are considerably favourable in terms of environmental safeguards.

The "technology alternative" would mean different technology applications to meet the project needs at the selected cluster. New On-farm technology package introduces will reduces invasion of pesticides, weedicides and insecticides. New and improved quality-enhancing technologies and Productivity Enhancing Technologies such as drone technology, water-conserving, and low-pressure drip, basic flood prevention and drainage field techniques, new planting patterns with high population densities, precision fertilisation techniques, pest and disease control based on integrated pest management (IPM) practices and modern spray techniques and precision agriculture practices to be introduced to meet the expected project outcomes.

The "no-action" alternative would mean that no Potato/Onion Cluster Development is undertaken by the ASMP and hence no financial, technical, and market support for the existing Potato/Onion Cultivators in Kopay, Uduvil, and Tellipalai. Therefore, conventional farm practices such as floor irrigation which wastes huge volume of water, low productivity, low quality, high use of chemicals, poor land use management, less tolerance to pests and diseases and low income will continue to dominate the economy of the farmers, and the agriculture sector will not develop in Jaffna.

D. PROJECT DESCRIPTION

Proposed start date	January 2022
Proposed completion date	December 2023
Estimated total cost	LKR 226 million
Land ownership	Private Farmlands, Lands with Deed and Leased Lands Rural Roads – Local Authorities Collection Centre and Compost Yard – Department of Agriculture
Planned interventions	Development of Potato/Onion cluster includes modern agriculture technological package such as preparation of lands, drainage management, irrigation management,

seeds, planting, use of fertilizers, maintenance, harvesting, post-harvesting and marketing. In addition, improvements of rural road network, collection system, establishment of institutional set-up, training of farmers, etc will also include to the entire package which Potato/Onion cluster will receive. All agriculture technology package and infrastructure improvements proposed are given below:

Table 4: Recommendations for improved technology package for potatoes

Main technology	tions for improved technology pack Practice (s)	Comments
Varieties	 Red LaSoda – red potato – US Sassay – white potato – France 	These two varieties have been proven successful in Jaffna as seed tubers
Land preparation	 Deep ploughing using mould board plough Application of compost Deep ploughing again using mould board plough (perpendicular to first ploughing) Disking or harrowing (two perpendicular passes) Micro levelling to facilitate drainage works Raised beds 0.9 m wide and 0.5 m high with special bed making tractor pulled accessory 	Improved land preparation practices. Mechanised becomaking using implement pulled by tractor. This innovation will significantly reduce labour requirements and will speed up land preparation tasks considerably. Increased bed height will improve internal drainage and aeration in the root zone. This environment will prevent soil borne diseases that are very important in potato cultivation
Flood prevention and drainage field techniques	Site micro levelling using laser levelling machinery, quick water evacuation ditches, surface drainage techniques (removal of wet spots)	On-farm drainage works avoid water from standing in the field for long periods of time preventing waterlogging
Low pressure drip tape irrigation systems	 White UV (ultraviolet) resistant drip tape Computer controlled heads for water application scheduling supported by fertility sensors, soil moisture sensors and evapotranspiration measuring devices Design based on local agriclimatic conditions and soil physical properties Precision fertigation with liquid organic compounds based on soil analysis Precision application of liquid pesticides in the vicinity of the root zone as 	Drip tape is a low-cost drip irrigation system very well suited for the production of vegetables. Is very easy to install and remove from crop cycle to crop cycle

1			
	Precision planting	required i.e. control of soil borne diseases • Anti-clogging flushing components • One drip tape lateral in the middle of planting rows • Construction type twine to demarcate planting rows, planting templates with plant spacing measurements	Practical tools and aids assure accurate precise field layout and measurements of planting distances to assure desired population densities which are the foundation of productivity
	High-density planting of chillies	 Raised beds 0.9 m wide including buffer zone (0.3 m) Two planting rows in a bed Plant spacing within a planting row 0.30 m Potato population density is 74,592 plants per ha 	Modern horticulture is based on high-density planting. High population densities are the building block for productivity and greatly improve land utilisation efficiency, a serious problem in developing countries that has a large effect on the food security of a country
	Precision fertilisation	Fertigation with organic liquid fertilisers supplemented with fertilisation and/or fertigation with chemical fertilisers	Formulation of fertiliser regimes based on complete soil tests and foliar analyses
	Pesticide free, eco- friendly insect control	Sticky insect traps placed systematically inside the crop, along the planting beds, at a spacing of 10 m	Pesticide free, non-toxic insect control that also allows for the determination of insect population dynamics used in IPM practices to schedule spraying operations
	Integrated pest management (IPM) Precision harvesting	Pest population and pest damage assessment surveys to evaluate pest and disease intensity/quantity factors for damage prevention and to determine pest population threshold status for rational application of pesticides Harvesting following market	 IPM practices are combined with modern spray techniques, when necessary, i.e. ultra-low volume spray using drones Pesticide application through irrigation system
	, in the second	Harvesting following market quality specifications with respect to size	Precision harvesting is a key practice to create and preserve quality and extend shelf life
	Postharvest technology	Field heat removalCold chain managementTransport to market	These practices are utilised to preserve optimum quality and shelf life throughout value chain

Quality monitoring	Quality score	The quality monitoring
and evaluation	Tally of defects	and evaluation system
system	Value chain feedback loop	provides data for quality
5) 500111		management and creates a
		feedback mechanism to
		correct quality problems
		to ensure and maintain
		high potato quality
		throughout the value
		chain

Table 5: Improved technology package for green onions						
Main technology	Practice (s)	Comments				
Varieties	MIBO/1	True seeds locally produced by the ASMP				
Open field nursery husbandry	Seedlings are produced for transplant in an open field nursery using true seeds produced in Matale by the ASMP	Imported seeds are also available, but local seeds give better results				
Low pressure drip tape irrigation systems	 White UV resistant drip tape Computer controlled heads for water application scheduling supported by fertility sensors, soil moisture sensors and evapotranspiration measuring devices Design based on local agri-climatic conditions and soil physical properties Precision fertigation with liquid organic compounds based on soil analysis Precision application of liquid pesticides in the vicinity of the root zone as required i.e. control of soil borne diseases 	Drip tape is a low-cost drip irrigation system very well suited for the production of vegetables. Is very easy to install and remove from crop cycle to crop cycle				

		1
Land preparation	 Anti-clogging flushing components Two drip tape laterals in the planting row Deep ploughing using mouldboard plough Application of compost Deep ploughing again using mouldboard plough (perpendicular to first ploughing) Disking or harrowing (two perpendicular passes) Micro levelling to facilitate drainage works Raised beds 0.9 m wide and 0.5 m high with special bed making tractor pulled accessory 	Improved land preparation practices. Mechanised bed making using implement pulled by tractor. This innovation will significantly reduce labour requirements and will speed up land preparation tasks considerably. Increased bed height will improve internal
		root zone. This environment will prevent soil borne diseases that are very important in onion
		cultivation
Flood prevention and drainage field	Site micro levelling	On-farm
techniques	using laser levelling	drainage works
	machinery, quick water	avoid water
	evacuation ditches,	from standing
	surface drainage	in the field for
	techniques (removal of	long periods of
	wet spots)	time preventing
		waterlogging
High-density planting	• Raised beds 0.9 m	Farmers already
	wide including buffer zone (0.3 m)	use ultra-high-

	 Plant spacing is 10 cm within a row, 7 rows per bed Population density is approximately 784,000 plants per ha 	density planting for onions
Precision fertilisation	Fertigation with organic liquid fertilisers supplemented with fertilisation and/or fertigation with chemical fertilisers	Formulation of fertiliser regimes based on complete soil tests and foliar analyses
Pesticide free, eco-friendly insect control	Sticky insect traps placed systematically inside the crop, along the planting beds, at a spacing of 10 m	Pesticide free, non-toxic insect control that also allows for the determination of insect population dynamics used in IPM practices to schedule spraying operations
Integrated pest management (IPM)	Pest population and pest damage assessment surveys to evaluate pest and disease intensity/quantity factors for damage prevention and to determine pest population threshold status for rational application of pesticides Most common diseases of onions are damping off, purple blotch. stemphylium leaf blight, colletotrichum blight/ anthracnose/twister disease, fusarium basal rot/basal rot, white rot	IPM practices are combined with modern spray techniques when necessary, i.e. ultralow volume spray using drones Pesticide application through irrigation system

Precision harvesting	(sclerotial rot), pink root rot, black mould. Postharvest diseases include bulb rots, botrytis rots, black mould and bacterial soft rot Harvesting following market quality specifications for size (diameter)	Consumers prefer smaller onions
Storage	Onions are stored in cold rooms at 25°C and 75% relative humidity	Onions can be stored for more than 3 months under the recommended temperature and relative humidity regimes
Quality monitoring and evaluation system	Quality score Tally of defects Value chain feedback loop	The quality monitoring and evaluation system provides data for quality management and creates a feedback mechanism to correct quality problems to ensure and maintain high onion quality throughout the value chain

Following rural farm access roads are proposed to improve in terms of facilitating smooth access to the cluster farmlands:

Table 6: Access roads identified for repair in Jaffna, potato cluster

No	Location	Unit	Length	
1	Urelu Siva road	km	0.69	
2	Road in Ravatgiri GN division	km	1.14	
3	Kadipulam road	km	0.78	
4	Myilankandu road – road 2	km	0.24	
5	Myilankandu road – road 1	km	0.10	
6	Nilavarni road – 2	km	0.70	
	Total length of roads identified	km	3.65	

Note: Farm access roads identified for repair are marked in orange.

Table 7: Summary of Project Interventions in the Cluster

#	Project component	Key Activities	Approx. extent / quantity	Implementation responsibility
1	Cultivation of Banana (Refer table 3 and 4)	Land Preparation Irrigation pipe laying Installation of drip- irrigation system	174ha	ISP PPMU
2	Improvements of Rural Roads (Rehabilitation) (Refer table 5)	Trimming, levelling and compaction of sub grade Supplying and pilling approved gravel Spreading and compaction gravel Paving interlocks	6 road sections Total length 3.65km	Contractor LAs Civil Engineer – ISP PPMU Engineer - PMU
3	Construction of Cluster Collection Centre	Laying interlock tiles Widening the existing entrance gate Provision of equipment	1 Collection Centre	Contractor FO Civil Engineer – ISP PPMU Engineer - PMU
4	Construction of Compost Production Unit	Fencing Construction of building Disposal yards Mixing yards Leachate management	1	Contractor FO Civil Engineer – ISP PPMU Engineer - PMU

Beneficiary selection criteria and process

In preparation of this CDP, the Provincial Project Management Unit (PPMU) of ASMP has collaborated with Chief Secretary of Northern Province, Provincial Director of Agriculture (Northern Province), District Secretary, Jaffna, Deputy Commissioner of Agrarian Development, Jaffna who are responsible for all the development coordination activities and agriculture extension works the cluster area. Consultation was also held with the private sector involved in input supplies, marketing and transportation of agricultural products. Most importantly, attention has been paid on the existing situation of FO and their role and functions in fertiliser distribution for cultivation.

Certain criteria were taken into consideration in the identification of farmers for the cluster.

- Availability of legally owned land
- Farming experience
- Water source with year-round availability of water
- Minimum 40% women farmers as per project requirement

Jaffna has a well-established farmer organisations and farm practices for vegetables including potato and onion. There are experienced potato farmers and the majority of farmers of Valikamam East, Valikamam North and Valikamam South rely on vegetable cultivation as the main livelihood. Most of the farmers have large-scale, low-flat farmer-based lands with plenty of water with fewer drainage concerns.

Further, an attitude and market-led vision of field staff are highly acceptable. Hence, the selected area is highly supportive to meet the project needs within a short period with the expected quality.

The selection criteria looked at the farmers' available lands with priority being given to those having a minimum of 0.4 hectares of land.

As mentioned, the project is keen on female participation, so high priority was given to select women-headed families having a minimum of 0.4 hectares of land. The project aims to have a minimum of 40% of beneficiaries being women. Additionally, vulnerable and marginalized disabled farmers having a minimum of 0.4 hectares of land will be selected as long as they can work the land. Further, the willingness of participation of existing farmers and youth was considered as a key selection criterion to become a member of the project. Hence, vulnerable groups and youth will also be given importance in the selection criteria

Vulnerable groups and Gender

The selected District Secretariat Divisions have 106 Grama Niladari (GN) divisions and a population of about 45,244. There are 14,522 families included in the entire area. The selected cluster comprises 12 GNDs in these three DSDs, with more than 543 vegetable farmers cultivating 174 hectares in parcels of 0.4 ha minimum size land area.

The inclusion of women farmers, youths, and other vulnerable has already been mentioned and will include as described in previous sections.

As mentioned above, the estimated headcount poverty index (2012/13) under Sri Lanka's official poverty varies from 0.6% to 21.2% among the DS Divisions in Jaffna District. The selected DS division poverty headcount index falls in the range of 12.5% to 21.2%. It clearly shows the importance of having economically stable agricultural projects to these selected areas. This indicates how economically vulnerable the communities are. Modernising the farming practices from the land preparation to the marketing of high demanded crops involving youths will create positive impacts on the annual income of farming families. Implementation of potato/onion rotation, under the project by targeting local market and value-added products to the international market will increase the income of the farmers of selected areas and future expansions will help to reduce the poverty headcount index under the Sri Lankan's poverty line of the selected DS Divisions.

The project creates many opportunities for unemployed people to have daily basis employment opportunities and some of them will get the opportunity to work as skilled farm labourers. Further, there will be employment opportunities at the post-harvesting processing centres. Hence, the development of potato/onion rotation cultivation will provide a good prospect for the youths to have a stable income and it prevents local and foreign employment migrations. Both male and female youths should be encouraged by conducting training and awareness to actively engage in the cultivation of these crops. In addition, explore new/innovative areas within the banana sector that would create more employment opportunities or incomegenerating options for youth and women in the area.

In all three divisions, FOs are actively engaged in providing services. Further, there are other community levels organisations such as Rural Development Society, Women's Rural Development Society, youth clubs, community centres, sports clubs, cultural clubs, and temple societies that are functioning well and supporting the community in many ways. Paddy is cultivated in the areas, not for commercial purposes but their consumption. It is not possible to convert these lands for

cultivating other crops. Since the project is looking for about 35% representation of female-headed households for the development plan, these areas could be targeted for assistance. Modernisation of the agriculture sector increase or stabilise monthly income and other income-generating opportunities in the agriculture sector should attract the school leavers, male and female youths in the area.

Valikamam East, 19 registered FOs are having 2,184 members with 26.3% of members being female.

In Valikamam South and North, there are 25 registered farmer organisations in the DS division and 2,293 farmers are members of these FO. Nearly 13.6% of these members are females.

Accordingly, engaging female, youth, and differently-abled groups who are interested and possess required land will indicate a positive impact on society due to the project.

E. DESCRIPTION OF THE SOCIOECONOMIC ENVIRONMENT

Community Profile

Farmers for this potato/onion rotation cluster have been selected from three DS divisions in Jaffna District consisting of several GN divisions. Hence, this section will discuss the demographic characteristics of the DS divisions instead of GN divisions. The project has selected 140 farmers form these three GN divisions for this potato season and planned to increase the number up to 500 farmers in 2022 season by incorporating more GN divisions in future. Hence, it is justifiable to look at the demographic characteristic at DS level rather than GN level.

Valikamam North DS division has 45 GN divisions, comprising 14,522 families and estimated population of about 45,244.² The entire population from this DS division was displaced during the conflict initially with the extension of the strategic Palaly airport, Myliddy Fisheries harbour and Kankesanthurai harbour and later in 1995 with the Jaffna displacement. After the capture of Jaffna District by Sri Lankan forces people were resettled in phases. Twenty-four GN divisions have been fully resettled while some GN divisions have been partially resettled. The resettlement process is still going on and there are still a few more GN divisions to be resettled.

Valikamam South DS division has 30 GN divisions consisting of 17,477 families with total population of 52,776. Valikamam East DS division has 31 GN divisions consisting of 24,001 families and 76,944 population. All the selected farmers in this cluster have agreed to release 0.2 ha of land for cultivating these crops in rotation and have either their own dug well or shared dug well or tube well as their source of water for cultivation. Moreover, the majority of them are cultivating these selected crops in traditional methods. Majority of selected farmers own their lands with title deeds; others have leased lands, while 10–15% of the farmers are practising cultivations on both types of lands. As stated above, currently 146 farmers have been selected for this season from more than 25 GN divisions in these three DS divisions and it is expected to increase these to 500 farmers by next season from many more GN divisions. The number of families and the gender breakdown in the selected DS divisions is shown below in Table 5. Further, there are 10,665 female-headed families out of 45,335 families which represents 23.52% of the total number of families in the three DS divisions. In addition, there is a large percentage of youths

² Resource profile, Divisional Secretariat 2021.

(23–25%) in the 20–34 age group in these DS divisions, potentially providing a good opportunity to become involved in potato/onion cultivation. The majority of the population (91.9%) in the selected DS divisions are Hindus followed by Christians (8.1%). Almost 99.97% of the total population is Tamil and there are very few Muslims and Sinhala families in these divisions. Social characteristics of the selected cluster are shown in the Table 8.

Households	Number
Male head	45,335
Female head	10,665
% female head	23.52
Total	174,964
Agricultural population	
Male	16,126
Female	6,002
Total	22,128

In discussions with farmers, they highlighted the local migration of youths who were looking for different types of employment opportunities with soft skills rather than engage in agriculture. Further, they claimed that the existing agricultural activities do not ensure a consistent and stable monthly income.

Table 8: Household and agricultural population in the selected DS divisions in potato/onion cluster in Jaffna District

Households	Number
Male head	45,335
Female head	10,665
% female head	23.52
Total	174,964
Agricultural population	
Male	16,126
Female	6,002
Total	22,128

Source: Statistical Handbook 2021 three DS divisions.

Modernisation in the agriculture sector would be a key point to get the attraction of the educated youths. As per the information,³ there are 1,949 government and around 779 private employees in Valikamam North and 2,994 government and 1,962 private employees are found in Valikamam South DS divisions. Further, around 2,632 were found as an unemployed in two DS divisions. In Valikamam East you find 3,084 government employees and 1,907 private sector workers while 2,483 people are unemployed. Table 8 summarises the livelihood situation in all three DS divisions. The daily wage category includes the farm labour and others who are partially unemployed or under employed.

Table 9: Livelihood status of the cluster

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³ Statistical Handbook, Valikamam North and Valikamam South Divisional Secretariat 2021.

	GoSL	Private	Farmers	Skilled	Unskilled	Foreign emp.	Daily wage	Unemployment
Valikamam North	1,949	779	2,646	2,342	3,787	841	2,559	1,989
Valikamam South	2,994	1,962	2,870	3,479	3,281	751	5,113	643
Valikamam East	3,084	1,907	6,218	5,101	4,829	781	5,302	2,483

Source: Statistical Handbook 2021 three DS divisions.

The project creates many opportunities for unemployed people to have daily basis employment while others may get the opportunity to work as skilled farm labourers. Further, there will be employment opportunities at the postharvesting processing centres. Hence, development of potato/onion cultivation will provide a good prospect for the youth to have a stable income; and it can prevent local employment migrations both male and female youths should be encouraged by conducting training and awareness to actively engage in the cultivation of these crops. In addition, exploring new/ innovative areas within potato/onion sector would create more employment opportunities or income-generating options for youth and women in the area.

There are no published household income and expenditure details specific to the farmers in these DS divisions or farmers engaged in cultivating potato or onion cultivation. However, income data is published in different forms in different DS division. In Valikamam North 8,597 families have a monthly income of less than LKR 10,000. There are 10,317 families in Valikamam South and 16,359 families in Valikamam East earning less than LKR 10,000 per month. In general, the household income and expenditure statistics in Jaffna District 2006/07, published by the Department of Census and Statistics in 2016, shows that the mean household monthly income in 2016 of Jaffna is about LKR 47,731 while the mean income per household in Sri Lanka was LKR 62,237. Even though there are no specific family income details relevant to the potato/onion cluster in Valikamam area, dependency rate in these three divisions range from 36.44% in Valikamam North to 32.48% in Valikamam East which is high compared to the national rate. Farmers do not pay income tax and they never disclose their actual income levels; they do not keep proper accounting or income and expenditure statements for anyone to assess their income over expenditure. In the Census and Statistical Department published data shows that the mean per capita income of income receivers in Jaffna is LKR 22,692 while the median per capita income is LKR 16,000 in 2016.

Table 10: No. of families and population breakdown with gender

DS divisions	No of GNDs	No of families	Population	Male	Female
Valikamam North	45	14,522	45,244	21,963	23,281
Valikamam South	30	17,477	52,776	25,528	27,248

Valikamam	21	24,001	76,944	36,955	39,989
East	31	24,001	70,944	30,933	39,969

Source: Resource profiles, of all three Divisional Secretariats 2021

In the selected DS divisions of 24,001 families in Valikamam East DS division, 9,408 families are receiving 'Samurdhi' benefits from the Department of Samurdhi Development and more than 50% of the families are receiving LKR 3,500 package while another 22.5% of families are receiving LKR 2,500 per month. It appears that the Samurdhi development programme has not been implemented in the other two DS divisions because the resettlement activities are still in progress. However, social assistance programmes provide some financial assistance for people suffering from certain non-communicable diseases and elders' payment by the Social Service Department are being provided in all three DS divisions. As per 'the Spatial Distribution of Poverty in Sri Lanka' published by Department of Census and Statistics, Sri Lanka in 2015, estimated head count index (2012/13) under Sri Lanka's official poverty varies from 0.6% to 21.2% among the DS divisions in Jaffna District. The selected DS division Poverty Head Count Index falls in the range 12.5–21.2%. It clearly shows the importance of having economically stable agricultural projects to these selected areas. Modernising the farming practices from the land preparation to marketing of high demanded crops involving youths will create positive impacts for the annual income of farming families. Implementation of potato-onion rotation cultivation, under the project by targeting import substitution and exporting the excess to international market will increase the income of the farmers of selected area and future expansions will help to reduce the Poverty Head Count Index under the Sri Lankan's poverty line of selected DS divisions.

The road networks in the selected DS divisions are providing connectivity to every village which are owned and maintained by Road Development Authority and local authorities of respective DS divisions. Some local authorities require repairs and maintenance. The source of water for cultivations is a dug well in the fields with a varying depth of 6 to 10 m. But to ensure a continuous water supply for irrigating their crops, the majority of farmers have sunk tube wells inside their dug wells. This draws more ground water, but there is an issue of increasing water salinity in future. Almost all the farmers have their own dug wells but in certain areas small percentage of them have traditional water-sharing rights, using the well water in rotation.

Electricity supply is available in the farming lands but only a few farmers have connections to electric water pumps; the majority of farmers use kerosene pumps to pump water to their crop lands. In Valikamam North 96.2%, Valikamam South 99.2% and in Valikamam East 96.0% of the housing units have electricity connections irrespective of the status or type of houses. Others use kerosene for lighting. Firewood is the major cooking fuel in these DS divisions, but small percentage of the households use kerosene and liquid petroleum gas (LPG) for cooking. In Valikamam East 1,546, in Valikamam South 21 and in Valikamam North 36 households have pipe born water supply.

Main source of drinking water in all three divisions is open dug wells, and tube wells. Table 7 shows the electricity distribution and the availability of water sources across the selected areas. However, 319 households in Valikamam North, 260 in Valikamam South and 1,599 in Valikamam East were found without land. These households do not have houses or toilets and their living conditions are poor. Many dwellers using telephones as the main communication facility: majority of households use mobile phones although a few have permanent landlines provided by

Sri Lanka Telecom and Dialogue.⁴ The majority of houses have either a radio or a television for entertainment.

There are: 1 base hospital, 2 divisional hospitals, 1 primary medical care unit (PMCU); 1 MOH office and 7 primary health care centres in Valikamam North. However, there are 5 PMCUs 1 MOH office, 4 public health care centres, 1 rural ayurvedic hospital; 3 central ayurvedic dispensaries in Valikamam South; and 2 divisional hospitals 2 central dispensaries and 1 ayurvedic dispensary in Valikamam East. These institutions provide services to the public by the required medical and non-medical staff. According to the information provided by Assistant Director of Planning of the DS divisions there are 45 schools in Valikamam North, but only 41 are functioning: 4 are not functioning, and 3 are displaced and functioning in different locations. Total student population is 9,264 with 765 teachers, giving student/teacher ratio of 12:1. In Valikamam South there are 34 schools, but two are not functioning. Total number of students is 7,423 supported by 643 teachers, again giving student/teacher ratio of 12:1). In Valikamam East the number of schools is apparently 40 and all are functioning. The student number is 9,439 and the number of teachers serving in these schools amounts to 800. Giving a student/teacher ratio of 12:1. All are schools provincial schools.

There is a National Teachers College and Government Teacher's Training College in Valikamam East DS division.

School leavers of the selected areas should be encouraged to contribute to the potato/onion cultivation or to get employment opportunities as skilled farmers or opportunities at postharvesting processing activities. Modernisation of agriculture sector increases or stabilises monthly income and other income-generating opportunities in the agriculture sector, which should attract both male and female school leavers, in the area.

Table 11: Social characteristics of the cluster

DS division	Characteristic	Description	Percentages or numbers
Valikamam North		Male	48.54%
v alikalilalii Nolul		Female	51.46%
Valikamam South	Gender	Male Female	48.40%
Vankamam Soum	Gender		51.6%
Valikamam East		Male	48.03%
Vankamam East		Female	51.97%

Table 12: Age wise distribution of population

DS division	Age group	Numbers
	Below 19 years	12,259
Vali North	20–64 years	27,210
	0ver 64	5,775
	Below 19 years	15,116
Vali South	20–64 years	31,218
	Over 64	6,442
	Below 19 years	24,123
Vali East	20–64 years	44,673
	Over 64	8,148

⁴ Visual observations and Statistical Handbook of all three DS divisions 2021.

In this cluster, it is expected incorporate 500 farmers with minimum of 0.2 ha plots from all three DS divisions and likely to bring 100 to 125 ha of land under cultivation during next season.

Table 13: Housing, electricity, toilets, and water supply

	No. of Housi	Electri availab	•	Water sources and toilets					
DSD	ng units	Yes	No	Toilets	Comm on wells	Open wells	Tube wells	Piped water	
Valikamam North	12,232	11,759	473	11,937	2,322	7,129	5,284	31	
Valikamam South	14,832	14,713	119	12,566	209	7,087	3,423	21	
Valikamam East	19,330	18,557	773	18,577	871	16,913	NA	1,546	

Source: Statistical handbooks all three DS divisions.

Potato will be cultivated in Maha season, and it will be followed by onion cultivation. During the field visit it was observed that the selected farmers were engaged in land and bed preparation. However, heavy rain in certain areas has delayed the bed preparation. The farmers were not satisfied with the imported planting material. As per the resource profile of these three DS divisions, the land is red soil and all types of traditional crops are being planted and harvested by farmers. In Valikamam East there are two Agrarian Service Centre (ASC) divisions comprising 9,586 farm famines and paddy, field crops, vegetables and fruits are cultivated in these two ASC areas. Plantain is the dominant fruit crop cultivated on 290 ha followed by grapes – 85 ha. Other crops such as mung bean, cowpea and maize cultivation are also found in the selected area. In this division there are 19 registered farmer organisations (FO) having 2,184 members. Out of this, 26.3% of the members are females.

There are approximately 3,100 families actively engaged in farming in Valikamam South DS division, cultivating potato and onion as the dominant crops. In 2019/20 Maha season, 245 ha onion were cultivated while in Yala 2020, 130 ha was planned, but only 37 ha of potato were cultivated. Further, beetroot is the dominant vegetable cultivated in both seasons. Paddy and other field crops such as kurrakan (finger millet), black gram, green gram and cowpea are also grown in the area. In Valikamam North, paddy was cultivated in 245 ha in 2019/20 Maha season. Other crops such as green gram, black gram, ground nut, gingerly, cowpea and finger millet are cultivated during both seasons. In fact, all types of vegetables are cultivated but red onion is the dominant crop. For fruit crops, banana and papaw are important crops in the area. There are 25 registered FO in the DS division with 2,293 farmers and nearly 13.6% of these members are females.

In all three divisions, FO are actively engaged in providing services. Further, there are other community-level organisations such as RDS, WRDS, youth clubs, community centres, sports clubs, cultural clubs and temple societies, which are functioning well and supporting the community in many ways. Paddy is cultivated in the area not for commercial purpose but for household consumption. It is not possible to convert these lands for cultivating other crops. Since the project is looking for about 40% representation of female-headed households for the development plan, these will be targeted for assistance.

Project Benefits

- Increase yield through the introduction of new and improved technologies
 - ✓ Productive land preparation methods such as laser levelling
 - ✓ Water conservation/management through introduction of drip irrigation which reduces the water use about 60% and water accessibility will be improved by ensuring the accessibility for every farmer throughout the year
 - ✓ New disease control techniques will be introduced such as drone technology
 - ✓ Effective use of weedicides, pesticides (IPM)
- Introduction of new quality enhancing technologies such as on-farm and offfarm technologies proposed above
- Introduction and provision of irrigation system (micro sprinkling)
- Introduction of post harvesting practices to minimise post-harvest losses
- Increase engagement or participation of Youth and reduce unemployment in the area
- Increase Women involvement and empower marginalised groups (minimum 40% female)
- Ensure sustainability of the project initiatives though benefits of development of Public Unlisted Company (PUC).
- Training, awareness and capacity building programmes which leads to
 - ✓ Increase the quality of production
 - ✓ Improve Innovativeness
 - ✓ Increase Business professionalism and empower farmers
 - ✓ Increase Legal compliance
- Increase sustainable income through increasing the yield, good market price, stable market, reduce input material cost, etc
- Identify and establishment of international market linkages
- Improvements to rural roads which will smooth farm accessibility and associated other benefits such as reduce loss/damage of postharvest
- Establishment of intermediary collection centres in the locality to reduce the transport cost to the farmers
- Establishment of compost yards which encourages the use of organic fertilisers and reduce cost for chemical fertilisers and reduce the volume of solid waste generation
- Training and awareness will strengthen skills, talents and knowledge to undertake and manage all activities of commercial organisation
- District level post-harvest facilities provide storage and hitec post harvesting facilities to keep products in market acceptable standards

Increase and improve the marketing and communication within the cluster

Social Impacts and Mitigation Measures

Social impact due to proposed interventions namely agricultural and infrastructure development area of both positive and negative. The project creates mainly positive impacts to local, regional and national level but there are few specific social concerns which are to be addressed to maximize the project benefits and sustainability. Some of the identified social concerns are as follow:

1. Possibility of excluding vulnerable farmers during beneficiary selection

There is a higher possibility of excluding needy and most vulnerable people during beneficiary selection due to many reasons including biasness, poor awareness of eligibility criteria, influences, etc. Therefore, engaging and allowing real needy groups to be benefitted is really important. Impact of the project will showcase visibly if real needy groups are been empowered. Proper awareness of edibility criteria's, transparent selection methods, etc should be adhered to reduce the possibility of excluding the vulnerable people.

- 2. Receive double benefits by farmer families which leads to unfair beneficiary selection and reduce opportunities for needy people in the area Similarly, there are possibility of receiving double benefits by single family due to biasness, influences, etc. Hence, selection procedure should be unbiased and transparent. Final list selected beneficiaries could be displayed at several common places for people to review. In the meantime, adhering to selection criteria's, avoid influences, etc. will be steps which the issue can be mitigated.
- 3. Reduce social cohesion among the community in the area due to biasness and unfair distribution of benefits

The potentials for disturbing the social cohesion due to distribution of benefits. Selection of beneficiary is the vital step of reducing the said potentials. Unbias and transparent beneficiary selection procedure will maintain the cohesion among the farmers in the area.

4. Labour influx during cultivation, harvesting, post harvesting activities and infrastructure improvement activities

Labours will be hired where possible from the local community and contractor 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 Gender-Based Violence (GBV). Contractor will implement robust measures to prevent sexual harassment/GBV including training of workforce and sanctions for non-compliance (e.g., termination).

5. Temporary disturbances to the local communities during construction activities such as rural roads

Temporary disturbances/public nuisance especially due to construction activities will be a considerable impact due to proposed interventions. However, due to proposed agricultural activities such potentials are very minimum. Temporary disturbances/public nuisance such as access issues, dust emission, and increased noise levels are critical out all and adherence to the proposed EMP would mitigate the significance and magnitude of the impacts.

6. Risks to the general public due to construction health and safety hazards 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 Government, WHO and WB guidelines by all construction workers. Existing usage practices of fertilisers and chemicals may cause acute or/and chronic health impacts to the farmers. Use of drone technology, training and awareness will reduce the direct exposure to minimise the risk.

Table 14: Social Risks & Impacts and Mitigation Measures

	•		·					
Activities	Land requirements	Risk of exclusion of vulnerable groups	Receiving Double Benefits by Farmers	Temporary Impacts due to Constructions	Risks due to labour influx	Reduce Social Cohesion	Public/ occupational health and safety hazards	COVID19 risks
Beneficiary selection	land owned by beneficiary	Yes	Yes			Yes		
Cultivation Activities								
 Land preparation Fencing (if applicable) Micro levelling Drainage Labour Raised Beds Planting 	land owned by beneficiary				Yes		Yes	Yes
 Introduction of basic flood prevention and drainage field techniques Quick water evacuation ditches Surface drainage techniques (removal of wet spots) 	land owned by beneficiary				Yes		Yes	Yes
 Use of fertilisers and chemicals Application of fertilisers Application of weedicides Application of pesticides Other Spray 	land owned by beneficiary				Yes		Yes	Yes
Manual weed control	land owned by beneficiary				Yes		Yes	Yes
 New and improved quality enhancing technologies Introduction of water conserving and drip irrigation systems Polythene mulch 	land owned by beneficiary			Yes	Yes		Yes	Yes
Construction Activities								
Improvements of rural Roads	owned by Govt			Yes	Yes	Yes	Yes	Yes
Construction of Collection Centre	owned by Govt			Yes	Yes	Yes	Yes	Yes
Establishment of compost production units	owned by Govt			Yes	Yes	Yes	Yes	Yes

Activities	Land requirements	Risk of exclusion of vulnerable groups	Receiving Double Benefits by Farmers	Temporary Impacts due to Constructions	Risks due to labour influx	Reduce Social Cohesion	Public/ occupational health and safety hazards	COVID19 risks
Mitigation Measures	-Review ownership details – confirm with DS -Consent/ approval letters GoSL -agreement to donate for private as per policy framework guidance	-equitable beneficiary criteria and transparent selection process (Refer SOCIAL MANAGEMENT PLAN (SMP) mitigation measures)	- adhering to selection criteria's, avoid influences, etc - display selected farmer list (Refer SMP mitigation measures)	-implementation of EMP and good construction practices (Refer SMP mitigation measures)	-prioritise hiring local labour -Code of Conduct (Refer SMP mitigation measures)	-Transparent selection procedure, display selected farmer list (Refer SMP mitigation measures)	- Documented consultations/consent/ agreement with all stakeholders (Refer SMP mitigation measures)	WHO/SL/WBO Safety measures (Refer SMP mitigation measures)

F. STAKEHOLDERS ENGAGEMENT AND PUBLIC CONSULTATION

01. Stakeholders' engagements

The PPMU of ASMP has discussed with the Chief Secretary of Northern Province, Provincial Director of Agriculture (Northern Province), District Secretary, Jaffna, Deputy Commissioner of Agrarian Development, Jaffna who are responsible for all development coordination activities and agriculture extension works in the cluster area. The consultation was also held with the private sector representatives who are involved in input supplies, marketing, and transportation of agricultural products. Most importantly, attention has been paid to the existing situation of FOs and their role and functions in fertiliser distribution for cultivation. Most of the identified farmers for potato and onion cultivation are members of existing FOs. Another specific setup observed in this cluster is the implementation of some activities such as coordination of local markets and marketing through cooperative society functioning under the Department of Cooperative Department. This will also be taken into consideration while developing the proposed PUC. The Divisional Secretary, Department of Agriculture, and the GN of the area will engage in the monitoring of the project.

Selection of potential villages with interested farmers was done by District Coordinator with the active support of AIs in the relevant areas under the direction of PPMU and ISP consultants. The FOs have also been consulted in this process.

02. Public consultation

The consultation was held with the private sector involved in input supplies, marketing, and transportation of agricultural products. Most importantly, attention has been paid to the existing situation of farmer organisations and their role and functions in irrigation management and decision making. Community consultations were conducted by ISP-ASMP. Following concerns were arisen during the discussions held with farmers in the selected area.

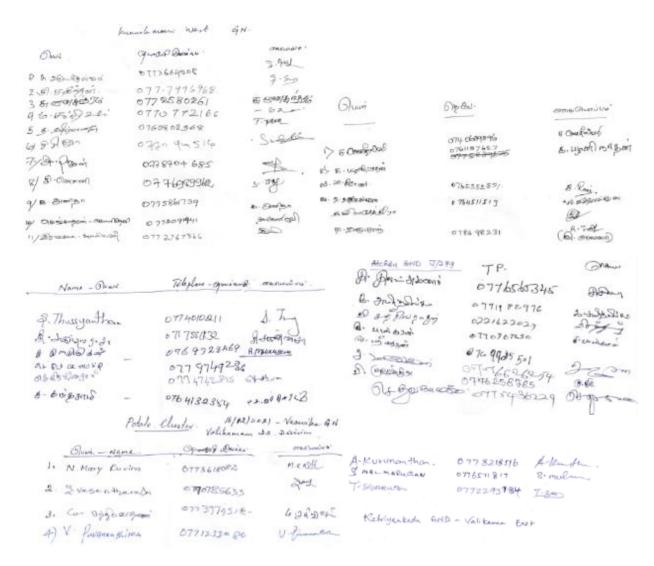


Figure 2: Attendance Sheets of Public Consultations

Table 15: Outcomes of the Public Consultations

#	Farmer's		Summary of Public Consultations
	Representat	ion	
1	Vasavilan	GN	Farmers mentioned that they are ready to alienate even more than
	divisions	J/244	½ an acre and that they are having ownership or lease rights for the
	Valikamam	North	lands they are cultivating. Further they said that they can easily
	DS Division		obtain legally valid lease document from the landowners. Water
			source is dug well and if it rains adequately in the rainy season of
			September-January water will be available throughout the next
			cultivation season. Most of the farmers have sunk tube well inside
			the wells to draw water from the deep ground water level.
			Otherwise, the farmers will face water shortage during try season.
			Hence, there is a danger of saltwater intrusion and possibility of
			changing the water quality. However, they mentioned with the
			introduction of drip irrigation in the project this issue could be
			resolved in future. Participants were asked to sit down and draw
			the community map of their GN divisions indicating all available
			infrastructure and the social, environmental, and cultural resources
			and to point out the issues they are facing regarding these

		resources. One community map was drawn, and they indicated the schools, major and minor roads, places of worships and the defence front line. They pointed out that their valuable fertile lands are still occupied by the army and the resettlement process in the released areas is also very slow due to lack of funds. Porcupine and wild boar from the uncleared areas intrude and causing damage to vegetables and jams cultivated in the cleared areas especially in the lands adjoining the DFL. They also mentioned that the government import policy regarding the subsidiary food crops cultivated by them during the time of harvest is causing huge losses and discouraging them. They insisted that the tax policy towards the subsidiary food crops should be stable and support the farmers and encourage them to cultivate more and get good prices for their produce. After the meeting the team visited the land close by to see the land preparation for cultivating potato. Met the field coordinators appointed for the clusters in the field as well.
2	Punnalaikadduwan South J/207 and Evinai J/209 in Valikamam South DS division	The farmers are ready to alienate minimum of ½ an acre of land and all the selected farmers have their own dug wells as their water source for cultivation. They were given a brief explanation of the project and found that they have understood the project objective of the ASMP well and ready to support the project. They are keen to adopt modern technology in potato-onion rotational cultivation to maximize their annual income. After the discussion the farmers from J/207 and J/209 started drawing their community map indicating their social, cultural, and environmental resources and indicated the problems they faced in their cultivation. They pointed out all their social and cultural infrastructures such as schools, cooperative, GN office, temples, post office, and common hall, in the map. The road network is also shown in the map. Men and women participated equally in the discussion. Their major problem was non availability of chemical fertilizer and insecticides. Another problem pointed out by the farmers was the uncertainty of government import policy or taxing policy. The farmers in the North feel that they are given step motherly treatment by the government and introduces policies that affect the market prices during the harvest time. Both the GN divisions were together few years back and divided into two recently.
3	Atchelu GN division J/279 in Valikamam East	They were keen in cultivating potato and onion in rotation. They are very much familiar in cultivating these crops in the traditional method and very keen in adopting the new methods of land preparation and planting introduced by the project. They were very much concern about the fertility of their soil and use lot of organic fertilizer during the land preparation. Land ownership is not a problem in the division. They have either deeds or legal ownership for the land. Since it is a red clay soil it will be soggy when watered and hard when dry. N water stagnation in the land. These crops are planted by farmers in the area in a traditional way and they have been struggling to earn adequate income for the family. If a high income is guaranteed by the modern farming technologies and practices the farmers are ready to adopt those technologies and farming practices without hesitation.

There are dug wells with tube wells inside the dug wells ensures the water requirement throughout the year. There are several ponds in the areas collecting water during the rainy season and recharge the ground water. The potato cultivators said that they send their produce to the commission agents in Colombo for marketing their produce. They pointed out the wrong taxation policy of the government which affect the prices of their produce in the past. They were asking us for an appropriate policy measure focusing on producers considering the seasonal variation of products in different regions. The farmers were in a hurry, and they were not able to draw the community map. After the discussion the team visited to see a land prepared for potato planting. He has alienated more than 1/2 an acre for the cultivation. He is having Cavendish banana plot as well. The plants were healthy and having long bunches of fruits supported by logs. The farmer said this variety of banana gets a stable price in the local market compared to Ambul or Kathali and Poovalai. It was raining and the team was not able to walk through the field.

4 Kalviyankadu GN division J/259 in Valikamam East DS division They were interested in mapping theirs GN division. Two of the participants are educated youth and very keen in farming. The FO Presidents wife also showed interest in drawing the community map after the discussion. The team discussed the project objectives and the process to achieve those objectives. Later the reason for the present visit was explained and requested the participants to tell us the social, environmental, cultural, and any other obstacles that may arise in the process of implementing the proposed methods of cultivation and technologies. The source of water for irrigating the crops is mainly dug wells with tube wells inside and they never encountered a problem of water scarcity. However, they believe that the drip irrigation system introduced in the project will use less water and be a solution for the thread. They envisage that the quality of the ground water may change in future and be a thread for cultivation. One selected farmer has received the planting material and he was not satisfied about the quality of the seed potato supplied to him. He showed the discarded potato seeds which were not good for planting. Due to the heavy rain the farmers in this area were not able to get their beds ready for planting. Land preparation process is delaying the planting in the area. The team visited the fields allocated for the planting.

The selected farmers have either deeds or legal right to cultivate the lands. In the community participants indicated few social and cultural locations including the Kopay police station. To some extent they have shown the areas where the potato farmers concentrated and the major road network in the map. In this discussion also they pointed out the discriminated import policy of the government towards Northern farmers. Despite these issues the farmers interested in cultivating all types of crops for the local market as well as the market outside markets.

Existing issues

Although at present farmers are getting comparatively low prices, they have a good potential to obtain higher prices for their produce if they could win again the "brand" of *Jaffna Potatoes* in the local markets as a high quality product. Technological problems and gaps in present potato cultivation practices of farmers that affect crop productivity and quality in Jaffna District are as follows:

- 1 Lack of adoption of new agronomic practices.
- 2 Risk of pest and diseases damages.
- 3 Low productivity of lands, labour and other inputs.
- 4 Excessive flood irrigation creates many problems such as waterlogged conditions, poor crop performances, high disease incidence and waste of water.
- 5 High risk of soil erosion due to prolonged flood irrigation.
- 6 Poor crop management practices and poor sanitation.
- 7 Difficulties in finding labour.
- 8 Most youth in the labour force have left the district or gone abroad for employment.
- 9 Reluctance of even the youth in the district to engage in agriculture.
- 10 Contamination of groundwater due to irregular application of chemical fertilisers and pesticides.
- 11 High cost of transport.
- 12 Low quality of product and grading is not practiced.
- 13 Lack of reasonable prices for the products.

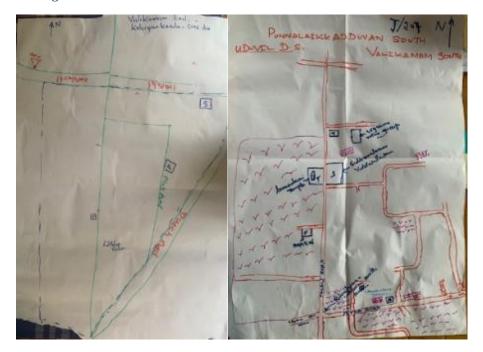


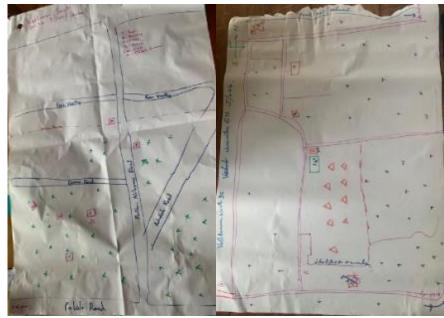






Figure 3: Public Consultations with Potato/Onion Cluster Farmers





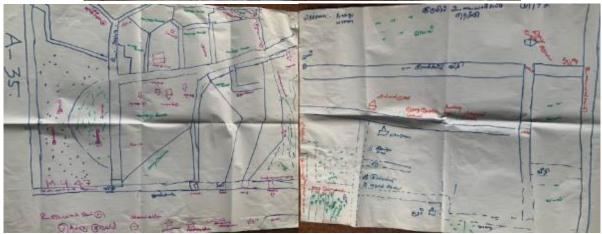


Figure 4: Community Mapping Outcomes





Figure 5: Existing Land Preparation for Potato/Onion Cultivations



Figure 6: Existing Water Sources

The project is not only focusing on the cultivation-related activities, but it also rehabilitates the existing damaged roads parallelly which are directly linked to the productivity improvement of the potato and onion cluster such as increased market access, the proper drain of water, etc. Further, it will create employment opportunities through the post-harvesting processing centres and the other cluster value chain facilities suggested by the project. In general, all community participants expressed their interest to implement this project in the area due to the above reasons. The farmer organisation representatives who participated in the consultation meeting voiced to cooperate with the project interventions and showed their willingness to be involved in maintenance after the project completion.

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 Farmer Organisations by keeping the registry on their premises. The ASMP, irrigation, and DS official will facilitate resolving the grievance. Further, ISP field level representatives will primarily address the issues, and failing will be captured by tier 2. The middle/tier 2 level grievances committee will operate at the provincial PMU/ regional project office to address the issues which are unsolved or when the affected person is not satisfied with the decision at the field level. Further, IPS national-level representatives are there to address the issues coming from the field level. The third tier of GRM will operate at PMU headed by the Project Director of ASMP with technical support from the Environmental and Social Safeguards Specialist to address the issues which are not solved at the initial stages.

H. SOCIAL IMPACT SCREENING CHECKLIST

Probable involuntary resettlement impacts	Yes	No	Not known	Details
Will the intervention include new physical construction work?	√ 			Small scale infrastructure facilities are proposed including improvements of rural roads, collection centres, and organic fertiliser units.
Does the intervention include upgrading or rehabilitation of existing physical facilities?	V			Land clearance will be there for the construction of small-scale cluster value chain infrastructure facilities. Further, rehabilitation of roads will be taken place
Is the intervention likely to cause any permanent damage to or loss of housing, other assets, resource use?		1		
Are the sites chosen for this work free from encumbrances and has the government/community land?		1		These lands include Private Farmlands, Lands with the deed, and Leased Lands. However, infrastructure developments are proposed on gvt lands.
Is this project intervention requiring private land acquisitions?		V		No land acquisition has 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

Probable involuntary resettlement impacts	Yes	No	Not known	Details
Are these landowners willing to voluntarily				N/A
donate the required land for this subproject?				
Whether the affected landowners likely to				N/A
lose more than 10% of their land/structure				
area because of donation?	,			
Is land for material mobilisation or transport				The accesses to proposed sites are free
for the civil work available within the				from other encumbrances. No extra land
existing plot/ Right of Way?				requirement identified by the
				engineering team as lower scale
		1		involvement to the infrastructures
Are there any non-titled people who are		V		
living/doing business on the proposed				
site/project locations that use it for civil				
work?	- 1			National distribution of the second of
Is any temporary impact likely?	V			Noise, vibration, dumping of excavated
				soil dumping, etc., Traffic and
				conveyance during construction of roads, and some interruption of
				conveying water during drainage
				rehabilitation in the construction and
				labour management measures area given
				in the SMP
Is there any possibility to move out, close of				
business/ commercial/ livelihood activities				
of persons during constructions?				
Is there any physical is the placement of				
persons due to constructions?				
Does this project involve the resettlement of				
many persons? If yes, give details.				
Will there be loss of /damage to agricultural				
lands, standing crops, trees?				
Will there be a loss of incomes and				
livelihoods?				
Will people permanently or temporarily lose				There will be minor temporary
access to facilities, services, or natural				interruptions to access during the
resources?				renovation of roads
Are there any previous land acquisitions that				
happened and the identified land has been				
already acquired?				
Are any indigenous people living in				
proposed locations or affected/benefited by				
the project intervention?				

I. IMPLEMENTATION AND MONITORING

1. Social auditing/monitoring committee

A social auditing committee will be established with the participation of the community and the stakeholders of the area. An awareness session will be conducted to select social auditing committees about the project interventions and they're responsible for project implementation. ISP Safeguards specialist will continue to monitor all activities. In addition, the Safeguards

Specialist of ASMP will periodically monitor the effectiveness of the implementation of ASMP.

2. Monitoring

Considering the magnitude of the proposed project interventions and the infrastructure development projects at the selected area, the anticipated social impacts of the proposed activities will be minor or insignificant. There are no significant negative social impacts envisaged from the proposed project during the farmland preparation stages as the proposed technological improvements are taking place on existing farming lands at non-cultivated periods. 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 about 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 following is recommended as a set up for a monitoring committee to monitor activities of the proposed project.

- Chairperson: Provincial Deputy Director of ASMP
- Members (representatives from the following institutions):
 - National Safeguards Specialist of ISP
 - o Environmental and Social Safeguards specialist of the ASMP or his representative
 - o Divisional Secretaries of Three DS or representative
 - o Department of Agriculture or Representative
 - o GN representation from each GND
 - o Farmer Organisation members
 - o Village representatives from each selected GNDs.

J. SOCIAL MANAGEMENT PLAN (SMP)

	Issues/ Impacts		Institutional	Mitigation	
№	and risks	Mitigation measures	Implementation	Supervision/ monitoring	cost
	Vulnerable groups in the beneficiary selection	 40% of project beneficiaries will be female farmers in the area who have a minimum of 0.4 hectares of lands Marginalise disabled farmers who have a minimum of 0.4 hectares of lands will be considered by analysing the ability to carry out the cultivation activities. Excluded farmer of the project will be covered through future expansions 	DOA, ISP, PPMU, GN, DS	PMU – Social and Environment Specialist	Included in EMP
	Receive double benefits by a single unit family	Receive double benefits by a family which hinders a needy family to receive the opportunity.	DOA, ISP, PPMU, GN, DS	PMU – Social and Environment Specialist	Included in EMP

	T /T /			Institutional	B.#*4* 4*		
№	Issues/ Impacts and risks		Mitigation measures	Implementation	Supervision/	Mitigation cost	
	and risks				monitoring	Cost	
		•	Selection criteria should not				
			allow two farmers selected from				
			a single unit of a family.				
		•	Selection process should not be				
			biased and should be transparent.				
3	Disturbances to	•	Proper, transparent, non-bias	DOA, ISP,		Included in	
	the social		selection procedure should be	PPMU, GN,	and	EMP	
	confession among		followed to ensure fair selection	DS	Environment		
	farmers in the		of farmers to the program which		Specialist		
	villages		won't lead to any social				
			imbalances.	G : 1/	D) (I)	x 1 1 1 .	
4	Public complaints	•	Residents in the area will be	Social/	PMU	Included in	
	and lack of		briefed on the project, its purpose,			EMP.	
	community awareness and		design, and outcomes with	safeguard officer/ PPMU			
	support for the		comprehensive discussion.	Engineer			
	project		Consultations will be repeated once the contractor is mobilized.	Engineer			
	implementation	•	The GRM will be established to				
	mprementation		receive and resolve complaints/				
			grievances related to disturbances				
			caused by construction including				
			GBV related issues.				
		•	Awareness will be created of the				
		-	GRM among the community and				
			contact details will be publicly				
			displayed to report grievances				
5	Construction-	•	All measures in the EMP will be	Contractor	Social/	Included in	
	related		implemented regarding the		Environment	construction	
	disturbances from		management of construction-		safeguard	cost.	
	noise, Vibration,		related impacts including impacts		specialist		
	Dumping of		to the environment including				
	excavated soil &		pollution, deforestation, soil				
	dust including		erosion, and management of solid				
	disruption of		waste				
	access	•	Maintain safe access to houses or				
			provide alternate access				
		•	A copy of the SMP and EMP				
			should be available at all times at				
			the project supervision office on				
			site				
		•	An Officer will be appointed to				
			implement & monitor				
			social/environmental safeguards mitigations measures during				
			construction				
6	Labour Influx	•	Local labour will be hired where	Contractor	Social/	Included in	
	related issues	-	possible and the contract will give		Environment	construction	
	(e.g. GBV)		priority to women when hiring		safeguard	cost.	
	6 - 7	•	Worker Code of Conduct (Refer		specialist		
			Annexed) will be included as part				

	Issues/ Impacts		Institutional	responsibility	Mitigation
№	and risks	Mitigation measures	Implementation	-	cost
	and risks			monitoring	Cost
7	Public/ occupational health and safety Hazards, and on impacts on the environment	of the employment contract - that defines workers' commitment in attitudes and behaviour preventing, combating, and responding to GBV • Contractor will implement robust measures to prevent sexual harassment/GBV including training of workforce and sanctions for non-compliance (e.g. termination) • All measures in the EMP will be implemented regarding management. • Introduction of drone technology to conduct disease surveys and to apply pesticides by minimising human contact • Provide training and awareness on the safe use of fertilisers and chemicals. Monitoring of handling practices/equipment handling by safeguard specialist and providing onsite training • Necessary COVID19 safety measures and protocols will be implemented as per Government, WHO, and World Bank (WB) guidelines by all construction	Contractor	Social/ Environment safeguard specialist	Included in construction cost.

K. SCREENING DECISION ON CATEGORISATION

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

Key project activities	Potential social effects	Significance of social effect with mitigation in place
 Land preparation Fencing (if applicable) Micro levelling Drainage Labour Raised Beds Planting 	Increase the income generation due to the increment of productivity and the quality with land preparation techniques	• SP
Introduction of basic flood prevention and drainage field techniques	Enhance the productivity and the product quality	• SP

Key project activities	Potential social effects	Significance of social effect with mitigation in place
 Quick water evacuation ditches Surface drainage techniques (removal of wet spots) 		
 Use of fertilisers and chemicals Application of fertilisers Application of weedicides Application of pesticides Other Spray 	Exposure to health hazardous chemicals	• NS
Manual weed control	No significant impacts	• NS
New and improved quality enhancing technologies Introduction of water conserving and drip irrigation systems	Less exposure to health hazardous chemicals	• SP
Polythene mulch		
	ents of Rural Roads and Construction of Collection Centr	r ·
Vegetation clearing	Clearing of vegetation will collect a significant amount of waste which will lead to several environmental issues such as blockage of drainage, siltation of downstream, damage to habitats, spreading of invasive species, etc. and public inconvenience	• NS
Material transportation and storage	Emission of dust, generation of noise, disturbance to natural drainage, traffic congestion, public inconvenience	• NS
Embankment Construction	Emission of dust, generation of noise and vibration, disturbances/blockage of natural drainage paths, public inconvenience	• NS
Disposal of waste	Pollution of waterways, blockage of drainage, siltation of downstream damage to habitats, and public inconvenience	• NS
Wastewater	The proposed agricultural activities will be undertaken using only organic fertiliser and integrated pest management practices. Therefore, the application of chemical fertiliser, pesticides, and insecticides will be minimised. Hence the soil and ground/surface water will not be polluted. Further, health impacts will be negligible	• NS

Key:

- 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

Are any vulnerable households affected? [$\sqrt{\ }$] No. [] Yes.

If yes, please briefly describe their situation with estimated numbers of the head of household (HH)?....

Any estimate of the likely number of households that will be affected by the subproject?
• [$\sqrt{\ }$] No. [] Yes. If yes, approximately how many?
• No. of HHs losing <10% of their productive assets - N/A
• (land/cowshed/shops)
• No. of HHs losing 10% or more of their productive assets?
What are the needs and priorities for the social and economic betterment of vulnerable people who are affected by this project? N/A
After reviewing the answers above it is determined that the project is:

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

- [] Categorised as a 'B' project, an Abbreviated Resettlement Action Plan is required
- $[\sqrt{\ }]$ Categorised as a 'C' project, no Aquatic Resource Alteration Permit is required, only the Social Screening/ Due Diligence Report is required

L. DETAILS OF APPROVAL AND SUBMISSION

Screening report completed by	Date				
J.A.P. Jayaweera	July 2022				
National Safeguards Specialist	A /				
ISP/ASMP					
Name/Designation/Contact information	Signature				
Screening report reviewed by	Date				
D.M. Sanjaya Bandara	August 2022				
Environment and Social Safeguard	6				
Specialist	Szepa,				
Agriculture Sector Modernization Project					
Name/Designation/Contact information	Signature				
Screening report Approved by	Date				
Dr. Rohan Wijekoon	August 2022				
Project Director					
Agriculture Sector Modernization Project					
Name/Designation/Contact information					
	Signature				

ANNEX 1: INSTITUTIONAL MECHANISM

Agency/private sector	Officer responsible	Expected role in cluster development				
Provincial Department of Agriculture (North)	Provincial director (agriculture)	Lead and provide guidance to relevant officers and FPO Coordinate all line agencies at district level				
	Deputy director (agriculture)	Provide guidance to relevant officers and FPO Provide extension services and inputs. Solving farmer problems. Coordinate all line agencies at cluster level				
	8 Agriculture Instructors	Maintain close link with farmers in the cluster area. Training of farmers Play the role of farmer facilitator				
Divisional Secretariats (Valikamam North, East and South)	3 Divisional Secretaries	Make representation for review committees to assist DC (agriculture) Settlement of land issues and grant land permits, if necessary Make required services available to FPO from other agencies				
	3 Land officers	Settlement of land disputes. Clearing boundary demarcations				
	33 Grama Niladaris	Assist to identify eligible legal farmers. Organise farmer meetings				
Agrarian Development Department	4 Agrarian development officers	Get the involvement for input supplies such as seeds, organic and chemical fertilisers, and machinery For effective cooperation from existing FOs Gather agrarian related farmer information				
Research Centre, Thinnaveli	Deputy director, pathologist, entomologist and soil scientist, irrigation agronomist	Provide research support to farmers when a problem emerged				

ANNEX 2: PROJECT AREA MAPS



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ANNEX 3: BENEFICIARY LIST

No	Name of the Farmer	Gen der	NIC	DSD	GN Division	Contact No	Land Extent (lach)	Land Extent (acre)	Type of water source	Land coordinates		Water coordinates	
										East	North	East	Nort
1	Valli Nagenthirarajah	M	702013070V	Valikamam East	Achchelu	779910559	16.00	1.00	Well	397602	1077627	397583	1077594
2	Sinnaththurai Uthayakumar	M	772193440V	Valikamam East	Achchelu	779720605	8.00	0.50	Well	398149	1077180	398171	1077194
3	Kunaraththinam Piratheepan	M	812711334V	Valikamam East	Achchelu	776630471	8.00	0.50	Well	397737	1076963	397711	1076969
4	Balasuntharam Sasitharan	M	852784091V	Valikamam East	Achchelu	778333184	32.00	2.00	Well	398380	1077057	398434	1077025
5	Sinnaththurai Uthayashankar	M	782934732V	Valikamam East	Achchelu	769650905	10.00	0.63	Well	398817	1077801	398344	1077784
6	Kanthaiya Vairavanathan	M	693591538V	Valikamam East	Achchelu	779392566	27.00	1.69	Well	397616	1077055	397621	1077030
7	Thurairasa Nimalan	M	843562337V	Valikamam East	Achchelu	772933958	20.00	1.25	Well	398572	1076995	398551	1076974
8	Manoharan Niroshan	M	893280782V	Valikamam East	Achchelu	771721514	12.00	0.75	Well	397635	1075964	397629	1075953
9	Sinnappodi Thevathasan	M	622253194V	Valikamam East	Achchelu		8.00	0.50	Tubewell	398629	1077361	398619	1077339
10	Sellakkili Sureshkumar	M	782103128V	Valikamam East	Achchelu	778131635	8.00	0.50	Well	397343	1076325	397376	1076322
11	Selathurai Sivarathan	M	642074150V	Valikamam East	Achchelu	769965501	8.00	0.50	Well	397625	1070874	397635	1076830
12	Thevathasan Jasikaran	M	862581636V	Valikamam East	Achchelu	761029637	24.00	1.50	Well	398968	1077972	398974	1078021
13	Sinnaththurai Rasenthiram	M	673063870V	Valikamam East	Achchelu	771740168	12.00	0.75	Well	398132	1077070	398116	1077074
14	Kanakasabai Amirthalingam	M	601780682V	Valikamam East	Achchelu	771982976	20.00	1.25	Well	397751	1076991	397711	1076970

15	Rasathurai Pushpakaran	M	823171250V	Valikamam East	Achchelu	775074772	15.00	0.94	Well	398281	1076374	398296	1076369
16	Murugan Theiventhiram	M	552603222V	Valikamam East	Achchelu	773565924	8.00	0.50	Tubewell	398676	1077582	398702	1077591
17	Peratharan Kirijanan	M	962132944V	Valikamam East	Achchelu	771936784	16.00	1.00	Tubewell	398126	1077262	398120	1077251
18	Ponnambalam Radha	M	602211363V	Valikamam East	Achchelu	775803721	8.00	0.50	Well	397807	1076578	397832	1076582
19	Nadarajah Karunakaran	M	840442470V	Valikamam East	Achchelu	770869670	12.00	0.75	Well	397836	1076751	397823	1076776
20	Ramanathan Nanthakumar	M	842931215V	Valikamam East	Achchelu	779282524	8.00	0.50	Well	398583	1077596	398613	1077588
21	Selvaraththinam Navaraj	M	850440417V	Valikamam East	Achchelu	776183242	32.00	2.00	Well	397691	1076997	397709	1076973
22	Sinnappa Thirunavukkarasu	M	570211011V	Valikamam East	Achchelu	771262207	20.00	1.25	Well	398585	1077275	398616	1077223
23	Balan Rasathurai	M	501420859V	Valikamam East	Achchelu	769992404	16.00	1.00	Well	398839	1077233	398825	1077194
24	Suntharam Vilvarajah	M	581062664V	Valikamam East	Achchelu	772153983	16.00	1.00	Well	397724	1076488	397706	1076531
25	Raththinasingam Sevaraththinam	M	660741640V	Valikamam East	Achchelu	768045971	12.00	0.75	Well	398497	1076963	398448	1076966
26	Ramu Thevarajah	M	632774117V	Valikamam East	Achchelu	773591459	20.00	1.25	Well	398084	1077001	398116	1077074
27	Vaiththilingam Sivanantharajah	M	852545810V	Valikamam East	Achchelu	771538394	20.00	1.25	Well	398769	1076493	398823	1076541
28	Rasaraththinam Eladsumanar	M	482362486V	Valikamam East	Achchelu	776565345	8.00	0.5	Well	397697	1076735	397695	1076764
29	Krishnapillai Srivijayasiththiraravi Jegatheeswary	F	671092058V	Valikamam East	Achchelu	776912307	8.00	0.5	Well	397600	1076366	397628	1076370
30	Poopalarajah Puvaneshvararajah	M	530664147V	Valikamam East	Achchelu	776162306	8.00	0.5	Well	398991	1077929	398861	1077905

31	Ponnuththurai Thavanesan	M	583164669V	Valikamam East	Achchelu	777047207	8.00	0.5	Well	398945	1076816	398957	1076790
32	Sabaratnam Achchuthan	M	800622409V	Valikamam East	Achchelu	777046170	8.00	0.5	Well	398956	1076679	398899	1076684
33	Maniokaran Nirojan	M	893280782V	Valikamam East	Achchelu	771721514	8.00	0.5	Well	397620	1075954	397615	1075952
34	Sathasivam Manokaran	M	562453962V	Valikamam East	Achchelu	776626254	8.00	0.5	Well	398935	1076858	398955	1076866
35	Vishwalingam Saththiyanathan(Phone no)	M	653381395V	Valikamam East	Achchelu	771627079	8.00	0.5	Well	398750	1077321	398712	1077284
36	Ramalingam Sownthararajan	M	551643670V	Valikamam East	Achchelu	776155988	8.00	0.5	Well	399067	1076569	399032	1076590
37	Ladsumanan Jedmaranjan	M	693495059V	Valikamam East	Achchelu	778704089	8.00	0.5	Well	398387	1077772	398384	1077813
38	Balan Rasarathinam	M	560900570V	Valikamam East	Achchelu	779205862	8.00	0.5	Well	399834	1076743	399800	1076731
39	Kunasingam Rani	F	19596350097	Valikamam East	Achchelu	770307254	8.00	0.5	Well	398874	1077566	398888	1077601
40	Visayarathinam Venukopan	M	833164821V	Valikamam East	Achelu	773031037	8.00	0.5	Well	398845	1077729	398882	1077744
41	Murugesu Vimalanathan	M	820752465V	Valikamam East	Sirupiddy west		8.00	0.5	Well	399437	1076874	399411	1076712
42	Pillaiyan Ruvendra	M	642001728V	Valikamam East	Sirupiddy west	776258785	8.00	0.5	Well	399588	1077189	399556	1077207
43	Sivalai Raththineswaran	M	682572671V	Valikamam East	Siruppiddy West	772813759	10.00	0.63	Tubewell	399460	1070841	399415	1070843
44	Kaththi Tharumarajah	M	563612347V	Valikamam East	Siruppiddy West	770322277	10.00	0.63	Well	400137	1076011	400116	1076076
45	Sellan Thevan	M	19700480194 8	Valikamam East	Siruppiddy West	770620115	20.00	1.25	Well	399739	1076853	399734	1076857
46	Markkandu Manorajah	M	682013826V	Valikamam East	Siruppiddy West	760364711	10.00	0.63	Well	399376	1076942	399407	1076915

47	Sinnaththambi Sellan	M	561700834V	Valikamam East	Siruppiddy West	770413484	10.00	0.63	Well	399583	1077134	399601	1077127
48	Ponnaiya Maheswaran	M	680460710V	Valikamam East	Siruppiddy West	771244748	15.00	0.94	Tubewell	399580	1076855	399555	1076874
49	Sinnaththambi Sribaskaran	M	632622260V	Valikamam East	Siruppiddy West	779049683	8.00	0.50	Well	400005	1076713	400020	1076738
50	Selvam Selvarajah	M	772644388V	Valikamam East	Siruppiddy West	775589135	9.00	0.56	Tubewell	399455	1076808	399415	1076843
51	Shanmuganathan Satheeswaran	M	810271876V	Valikamam East	Siruppiddy West	777211914	8.00	0.50	Tubewell	399899	1076615	399911	1076614
52	Selvarajah Selvaruban	M		Valikamam East	Siruppiddy West	777061305	8.00	0.50	Tubewell	399747	1075930	399759	1075925
53	Selvathisanayakam Thavanayakam	M	572691233	Valikamam East	Sirupiddy East	775436229	8.00	0.50	Well	400093	1076573	400062	1076575
54	Rasenthiran Pirasath	M	901013390	Valikamam East	Navakiri	770076223	8.00	0.50	Well	400280	1079097	400333	1079072
55	Suppar Kalananthan	M	622602431V	Valikamam East	Navakiri	766762907	16.00	1.00	Well	399882	1078394	399836	1078428
56	Sellappah Sivalingam	M	591532804V	Valikamam East	Navakiri	771094546	8.00	0.50	Well	400102	1079063	400102	1079063
57	Kanthasamy Rasakulasingam	M	491364521V	Valikamam East	Navakiri	778210199	15.00	0.94	Well	399760	1078306	399760	1078306
58	Velupillai Kugarasa	M	530034615V	Valikamam East	Navakiri	770728471	10.00	0.63	Well	401219	1079304	401018	1079266
59	Manikkan Tharmalingam	M	632832699V	Valikamam East	Navakiri	773954074	8.00	0.50	Well	400307	1079078	400333	1079072
60	Sellathurai Uthayasuriyan	M	813523353V	Valikamam East	Navakiri	776235404	15.00	0.94	Well	400281	1079097	400333	1079072
61	Sinnathurai Satheeshkanthan	M	812382888V	Valikamam East	Navakiri	771770707	20.00	1.25	Well	401810	1079305	401822	1079340
62	Shanmuganathan Mahenthiran	M	850664366V	Valikamam East	Navakiri	779411696	8.00	0.50	Tubewell	399756	1079033	399756	1079033
63	Jeyaparan Yashmina	F	876642204V	Valikamam East	Navakiri	740451518	20.00	1.25	Tubewell	400332			

64	Shanmuganathan	M		Valikamam					Well	399710	1079099	399686	1079107
0-1	Sabanathan	171	713054429V	East	Navakiri	762161327	26.00	1.63	VV CII	377710	1077077	377000	10/710/
65	Azhagarathinam Subramaniyam	M	531605012V	Valikamam East	Navakiri	764751346	10.00	0.63	Well	400230	1078489	400230	1078476
66	Vaithilingam Kanthasamy	M	19482091005 5	Valikamam East	Navakiri	760690702	12.00	0.75	Well	400412	1079064	400410	1079036
67	Kanapathipillai Sathiyanathan	M	19752890472 8	Valikamam East	Navakiri	775367774	20.00	1.25	Well	399703	1079013	399703	1079013
68	Aananthi Sounthararajan	F	738452615V	Valikamam East	Navakiri	779116049	10.00	0.63	Well	400106	1079408	400106	1079349
69	Sinnathamby Suntharalingam	M	482913121V	Valikamam East	Navakiri	773374563	8.00	0.50	Well	401414	1079051	401414	1079051
70	Sinnaiah Azhagarathinam	M	540993696V	Valikamam East	Navakiri	764822439	14.00	0.88	Well	401423	1079145	401448	1079186
71	Kumuthini Kopalathaas	F	19807470192 9	Valikamam East	Navakiri	773634360	15.00	0.94	Well	400325	1078473	400317	1078470
72	Ilayathamby Sulochanathevi	F	795505535V	Valikamam East	Navakiri	767104442	10.00	0.63	Tubewell	400618	1078993	400633	1078969
73	Thiruchelvam Vipulananthan	M	650772466V	Valikamam East	Navakiri	769081904	16.50	1.03	Well	399997	1078616	400007	1078624
74	Thiyagarasa Balakrishnan	M	732272550V	Valikamam East	Navakiri	773268132	32.00	2.00	Tubewell	400119	1079171	400119	1079171
75	Vinasithamby Thiruchenthuran	M	770323479V	Valikamam East	Navakiri	776313644	10.00	0.63	Well	401466	1079078	401451	1079086
76	Seevarathinam Vijayakumar	M	812643134V	Valikamam East	Navakiri	779293709	16.00	1.00	Well	398765	1078098	398743	1078076
77	Thiyagarasa Yogeswaran	M	19662880239 9	Valikamam East	Navakiri	767124235	20.00	1.25	Well	399581	1078973	399567	1078975
78	Kathiravelu Kuganesan	M	612380589V	Valikamam East	Navakiri		50.00	3.13	Well	399894	1079368	399931	1079420
79	Arumairasa Vaseegaran	M	781164682V	Valikamam East	Navakiri	760144935	8.00	0.50	Well	400467	1079849	400477	1079874
80	Velupillai Sriskantharasa	M	53326335V	Valikamam East	Navakiri	774357429	16.00	1.00	Well	401118	1079347	401080	1079323

81		M	0005444547	Valikamam		7 51 105155	10.00	0.50	*** "	404404	4050255	404000	1050000
	Mahalingam Arushkumar		803544476V	East	Navakiri	761486466	10.00	0.63	Well	401121	1079357	401080	1079323
82	Nadarasa Kirubakaran	M	781894419V	Valikamam East	Navakiri	776728443	30.00	1.88	Tubewell	399857	1078177	399857	1078177
83	Ponnambalam Jeganathan	M	630023114V	Valikamam East	Navakiri	766576362	12.00	0.75	Well	400407	1079311	400412	1079298
84	Ariyakutty Thadchanamoorthy	M	591263110V	Valikamam East	Navakiri	763673486	15.00	0.94	Well	400458	1079291	400425	1079311
85	Iyakutty Yogeswaran	M	691660257V	Valikamam East	Navakiri	774407107	8.00	0.50	Well	401685	1079270	401650	1079288
86	Sivalingam Azhageswaran	M	742064093V	Valikamam East	Navakiri	776510844	10.50	0.66	Well	400489	1079342	400496	1079333
87	Kunarathinam Gowshikan	M	930794376V	Valikamam East	Navakiri	768723514	30.00	1.88	Well	400709	1079192	400724	1079198
88	Jegatheeswaran Kokila	F	908274725V	Valikamam East	Navakiri	768786574	8.00	0.50	Well	400318	1079646	400354	1079635
89	Apputhurai Rakunathan	M	19652940246 6	Valikamam East	Navakiri	774933564	10.00	0.63	Well	401623	1079390	401631	1079392
90	Uthayanathan Yogeswary	F	676183850V	Valikamam East	Navakiri	767024598	7.00	0.44	Well	400515	1079103	400542	1079120
91	Rasathurai Shankar	M	19782990342 9	Valikamam East	Navakiri	776569570	8.00	0.50	Tubewell	399813	1079045	399825	1079047
92	Thavakumar Krishanthy	F	19925200105 7	Valikamam East	Navakiri	771042739	8.00	0.50	Well	401626	1079410	401618	1079392
93	Rasathurai Balasingam	M	542243015V	Valikamam East	Navakiri	773934518	12.00	0.75	Well	400404	1079279	400412	1079298
94	Thiyagarasa Gnaneswaran	M	19681740397 9	Valikamam East	Navakiri	764459746	20.00	1.25	Well	400085	1078979	400114	1079015
95	Apputhurai Arunthavarasa	M	710362882V	Valikamam East	Navakiri	774530790	22.00	1.38	Well	400047	1079137	400052	1079125
96	Sivabalasingam Rajeswary	F	738212240V	Valikamam East	Navakiri	762219015	24.00	1.50	Well	400186	1078799	400203	1078806
97	Jeyarathinam Kantharuban	M	822022936V	Valikamam East	Navakiri	776633937	8.00	0.50	Well	399953	1078589	399957	1078550

98	Moothambi	M	512004 <i>C</i> 7XI	Valikamam	NI. alia	772550621	10.00	0.63	XX7 . 11	400617	1070220	400641	1070270
	Raththinasingam		51280467V	East	Navakiri	773558631		0.63	Well	400617	1079339	400641	1079370
99	Vijayaraththinam Eswarythevi	F	596373020V	Valikamam East	Navakiri	776199897	7.00	0.44	Well	399523	1079125	399523	1079125
100	Tharmarasa Baleswary	F	568114191V	Valikamam East	Navakiri	762249260	10.00	0.63	Well	400807	1078406	400794	1078387
101	Kantharuban Nirosha	F	8476723802 V	Valikamam East	Navakiri	776258093	10.00	0.63	Well	399884	1078525	399879	1078517
102	Selvarasa Thiruparasan	M	19751370430 5	Valikamam East	Navakiri	776197291	12.00	0.75	Well	399639	1078537	399631	1078490
103	Tharmarathinam Ramesh	M	801981720V	Valikamam East	Navakiri	771534814	10.00	0.63	Well	400660	1079875	400646	1079881
104	Sinnappu Thanabalasingam	M	551631303V	Valikamam East	Navakiri	741618137	12.00	0.75	Well	401462	1079114	401451	1079086
105	Sellathurai Tharmaraththinam	M	571123398V	Valikamam East	Navakiri	778760644	10.00	0.63	Well	401534	1079012	401451	1079086
106	Vallipuram Balasubramaniyam	M	600203714V	Valikamam East	Navakiri	772699155	14.00	0.88	Well	400643	1079844	400646	1079881
107	Sellappa Kiritharan	M	19771870348	Valikamam East	Navakiri	770260161	10.00	0.63	Well	401395	1078734	401361	1078729
108	Suppaiyah Vaikunthan	M	821883270V	Valikamam East	Navakiri	777741795	8.00	0.50	Well	401724	1078934	401687	1078975
109	Ranganathan Rakulan	M	821244153V	Valikamam East	Navakiri	776089784	10.00	0.63	Well	399981	1078782	399972	1078779
110	Sellathurai Sivachelvayoganathan	M	633501041V	Valikamam East	Navakiri	776002402	13.00	0.81	Tubewell	401407	1079201	401407	1079201
111	Rajenthira Rajeswaran	M	793571283V	Valikamam East	Navakiri	776313680	0.50	0.03	Well	400283	1079064	400333	1079072
112	Velupillai Tharmasri	M	611423535V	Valikamam East	Navakiri	777990009	30.00	1.88	Well	400228	1079373	400228	1079373
113	Paramalingam Mathiniyar	M	804353788V	Valikamam East	Navakiri	777155840	20.00	1.25	Well	399645	1078896	399635	1078913
114	Thiyagarasa Nadarasa	M	511700697V	Valikamam East	Navakiri	776184043	10.00	0.63	Well	400261	1079375	400253	1079352

115		M		Valikamam									
	Rasaratnam Kandeepan		783535220V	East	Navakiri	773472644	20.00	1.25	Well	400252	1078776	400252	1078776
116	Thambirasa Uthayanan	M	730152000V	Valikamam East	Navakiri	779615705	20.00	1.25	Well	400847	1078817	400851	1078815
117	Moothambi Raththinasingam	M	51280467V	Valikamam East	Navakiri	773558631	10.00	0.63	Well	400422	1079180	400425	1079192
118	Thambaiya Nirmalanantham	М	561303959V	Valikamam East	Navakiri	771631294	0.50	0.03	Well	401087	1079806	401095	1079787
119	Thillainadarasa Thurairathnam	M	452562431V	Valikamam East	Navakiri	777498307	30.00	1.88	Well	400692	1078898	400677	1078866
120	Annamalai Logeswaran	М	762575027V	Valikamam East	Navakiri	775264674	28.00	1.75	Well	399802	1078763	399801	1078771
121	Nadarasa Viththiya	F	905913166V	Valikamam East	Navakiri	760599150	18.00	1.13	Well	400261	1079375	400283	1079352
122	Uthayakumar Karththika	F	858333644V	Valikamam East	Navakiri	774680532	12.00	0.75	Well	399710	1078703	399700	1078989
123	Thiyagarasa Mahenthiranathan	M	19771190391 9	Valikamam East	Navakiri	767024598	6.00	0.38	Well	400568	1079094	400546	1079125
124	Azhagarathinam Sivakumar	M	620233650V	Valikamam East	Navakiri	770551806	40.00	2.50	Well	399991	1078201	399984	1078205
125	Murugesu Kamalathevi	F	527082897V	Valikamam East	Navakiri	776059864	16.00	1.00	Well	400864	1078827	400864	1078827
126	Kanagasabapathy Sayanthan	M	733253215V	Valikamam East	Navakiri	770774250	9.00	0.56	Well	401423	1079057	401449	1079090
127	Poothan Markandan	M	582451966V	Valikamam East	Navakiri	776459187	10.00	0.63	Well	401013	1079692	401022	1079683
128	Sivaneswaran Mahaludchumy	F	716271978V	Valikamam East	Navakiri	764482305	16.00	1.00	Well	400270	1079076	400333	1079072
129	Thavarasa Saseelathevy	F	697203516V	Valikamam East	Navakiri	778268543	10.00	0.63	Well	400054	1079394	400094	1079394
130	Kanapathy Selvarasan	M	19481531005 1	Valikamam East	Navakiri	776385358	8.00	0.50	Well	401362	1078983	401377	1078989
131	Kanthan Thevarasa	M	732000496V	Valikamam East	Navakiri	775809076	12.00	0.75	Well	400692	1079628	400699	1079638

132		M		Valikamam									
	Kidinan Vanarasa		643082047V	East	Navakiri	772195381	10.00	0.63	Well	401612	1079933	401652	1079942
133	Sinnappu Thuraisingam	M	473455218V	Valikamam East	Navakiri	779266162	10.00	0.63	Well	401445	1079088	401449	1079090
	Rasasamy		19551390256	Valikamam	T (W / WILLI	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10.00	0.02	,, 011	.010	1077000	.01	10,7070
134	Kalyanasuntharam	M	2	East	Navakiri	772195261	7.50	0.47	Well	400564	1079027	400528	1079016
135	Tharmarathinam	M		Valikamam									
133	Rajkumar	171	850763127V	East	Navakiri	779769246	10.00	0.63	Well	400691	1079796	400691	1079796
136	Seevarathinam	F		Valikamam									
130	Parameshwary	1	-	East	Navakiri	778448338	16.00	1.00	Well	400430	1079086	400546	1079125
137	Velupillai	M		Valikamam									
137	Sivasubramaniyam	171	481384060V	East	Navakiri	776059864	24.00	1.50	Well	400439	1079179	400425	1079192
138	Puvanenthiranathan	F		Valikamam									
136	Maheswary	1	467322575V	East	Navakiri	776569711	14.00	0.88	Well	400876	1078903	400895	1078911
139		M		Valikamam									
139	Selvarasa Thiruparanjan	1V1	840804771V	East	Navakiri	772332555	12.00	0.75	Well	399701	1078722	399700	1078705
140		M		Valikamam									
140	Thambu Senthilnathan	1V1	722944437V	East	Navakiri	779228821	8.00	0.5	Well	399722	1078854	399707	1078857
141	Sellathurai			Valikamam									
141	Sivaselvayoganathan	M	633501041V	East	Navakiri	776002402	8.00	0.5	Well	401394	1079179	401401	1079199
142				Valikamam									
142	Tharmasri Sajen	M	890640052V	East	Navakiri	774222101	8.00	0.5	Well	399192	1077739	399224	1077772
143		M	19782040371	Valikamam									
143	Rasaiyah Sivakumar	171	4	East	Navakiri	779116049	8.00	0.5	Well	399951	1078763	399974	1078769
144				Valikamam	Avarangal								
144	Vellaiyan Amirthalingam	M	550871840V	East	West	776716474	8.00	0.5	Well	401596	1080196	401571	1080191
145	Ramanathan	M		Valikamam	Avarangal								
143	Satheeskumar	1V1	830264310V	East	West		8.00	0.5	Well	401837	1079105	401839	1079086
146		M		Valikamam	Avarangal								
140	Rsaiyah Amirthalingam	1V1	563513020V	East	West	771274730	8.00	0.5	Well	400209	1079538	400252	1079537
147				Valikamam	Avarangal								
14/	Thangavelu Ajandan	M	820095081 V	East	West	776176915	8.00	0.5	Well	401812	1079606	401830	1079626
148				Valikamam	Avarangal								
140	Arumugam Annathurai	M	791675162V	East	West	764206826	8.00	0.5	Well	400580	1080783	400539	1080722

149	Rayappu Anton			Valikamam	Avarangal								
149	Mariyathas	M	530080030V	East	West	778072006	8.00	0.5	Well	400490	1080725	400509	1080713
150	Krishnapillai			Valikamam	Achchuvel								
130	Uthayakumar	M	682881879V	East	y west	760362767	8.00	0.5	Well	400584	1080736	400539	1080722
151		M	19537750287	Valikamam	Achchuvel								
131	Kamaladevi Ganalingam	IVI	4	East	y West	763967675	8.00	0.5	Well	401350	1078982	401350	1078982
152		M	19782050354	Valikamam	Achchuvel								
132	Sivalingam Uthayakumar	IVI	0	East	y West	771548270	8.00	0.5	Well	400834	1081514	400834	1081514
153		M		Valikamam	Achchuvel								
133	Arasarthnam Emil Dayas	IVI	753504508 V	East	y West	773624650	8.00	0.5	Well	401132	1081219	401132	1081219
154	Ganapiragasham	M		Valikamam	Achchuvel								
134	Diluxshan Nevilkumar	1V1	780760389 V	East	y West	766785513	8.00	0.5	Well	400894	1081475	400894	1081475
155		M	19683071006	Valikamam	Achchuvel								
133	Kanapathipillie Selvarasa	IVI	0	East	y West	774040740	8.00	0.5	Well	401246	1081036	401225	1081047
156		M	19502400304	Valikamam	Achchuvel								
130	Kanapathi Selvarathnam	IVI	4	East	y West	776154485	8.00	0.5	Well	401570	1081485	401562	1081492
157		M		Valikamam	Achchuvel								
137	Kanapathi Sinnarasha	IVI	532194261 V	East	y West	773115083	8.00	0.5	Well	401403	1080744	401403	1080744
158		M		Valikamam	Achchuvel								
136	Veluppillie Perinpadevan	1V1	530203662 V	East	y West	760021629	8.00	0.5	Well	402282	1080283	402304	1080336
159		M		Valikamam	Achchuvel								
139	Palan Sinnathampi	1V1	550411814 V	East	y West	774698911	8.00	0.5	Well	401820	1080074	401797	1080094
160		M		Valikamam	Achchuvel								
100	Kunalan Piratheepan	171	826971550 V	East	y West	764803245	8.00	0.5	Well	402172	1080270	402172	1080270
161		M		Valikamam	Achchuvel								
101	Nagamuththu Vimalrajh	171	840611302 V	East	y West	779892510	8.00	0.5	Well	401439	1080649	401439	1080649
162		M		Valikamam	Achchuvel								
102	Innasimuththu Killienroj	171	702922488 V	East	y West	774799415	8.00	0.5	Tubewell	401570	1080935	401559	1080944
163		M	701442334	Valikamam	Achchuvel								
103	Thurirasa Anantharasa	171	V	East	y West	776454483	8.00	0.5	Tubewell	402146	1080453	402146	1080461
164		F		Valikamam	Achchuvel								
104	Thanieya Puvaneswaran	1	683223271 V	East	y West	771182582	8.00	0.5	Well	400527	1079323	400491	1079331
165		M		Valikamam	Achchuvel								
103	Sellan Thurisingam	141	532903106 V	East	y West	776918950	8.00	0.5	Tubewell	401751	1080321	401751	1080321

166	Sepasthithasan Anton	M		Valikamam	Achchuvel					400	4004250	400.450	
	Feransis		753053662 V	East	y West	776012995	8.00	0.5	Well	400678	1081278	400678	1081278
167	Rajeswaran Immanuvel	M		Valikamam	Achchuvel					404.504			
	Vethanajagam		753333878 V	East	y West	778001283	8.00	0.5	Well	401381	1081163	401384	1081162
168	Antony Mariyathas	M		Valikamam	Achchuvel								
	Danicies Jenarthan		831891009 V	East	y West	776057177	8.00	0.5	Well	400393	1080998	400393	1080998
169		M		Valikamam	Achchuvel								
	Rathnam Vignesvararasa		433270099 V	East	y West	771641535	8.00	0.5	Well	401689	1080145	401689	1080145
170		M		Valikamam	Achchuvel								
	Amrthanathan Edvin Joch		561723346 V	East	y West	771374995	8.00	0.5	Well	401694	1081321	401673	1081332
171		M	19580220339	Valikamam	Achchuvel			1.88					
	Kanapathi Tampirasa		7	East	y West	771857982	30.00	1.00	Well	401580	1078958	401570	1078923
172		M		Valikamam	Achchuvel			1.56					
	Sarvanatham sriteepan	1,1	791733715 V	East	y West	772830998	25.00	1.00	Well	401726	1078731	401768	1078721
173		M		Valikamam	Achchuvel			2.50					
173	Kanthiya Satheskumar	111	771640974 V	East	y West	777419560	40.00	2.50	Well	402177	1078623	402130	1078562
174		M		Valikamam	Achchuvel			0.75					
1/4	Manigam Thiruselvan	171	640973854V	East	y West	769812772	12.00	0.75	Well	401320	1078757	402270	1078779
175		M		Valikamam	Achchuvel			0.50					
173	Karuthar Ponniya	171	410451824 V	East	y West	773824971	8.00	0.50	Well	402346	1079162	402372	1079133
176	Sevarathinam	M		Valikamam	Achchuvel			2.00	Tubewell				
170	Sathiyathasn	171	721940543 V	East	y West	771641850	32.00	2.00	Tubewen	401743	1079531	401749	1079531
177		M		Valikamam	Achchuvel			0.94					
1//	Manigan Rasu	171	611773935V	East	y West	775825262	15.00	0.94	Well	402069	1079047	402102	1079051
178		M		Valikamam	Achchuvel			0.94					
176	Ielayavan Sathasivam	1V1	523007216 V	East	y West	763113317	15.00	0.54	Well	402101	1079150	402077	1079138
179		M		Valikamam	Achchuvel			0.63					
1/9	Kanthan Sellakandu	IVI	502593196V	East	y West	775300283	10.00	0.03	Well	401489	1078912	401481	1078912
180		M	19523231006	Valikamam	Achchuvel			1.25					
180	Nielan Markandu	IVI	1	East	y West	779065659	20.00	1.23	Well	401349	1078760	401346	1078735
181	Thuraiyan	М		Valikamam	Achchuvel			0.63					
181	Thavamugunthan	M	792714595 V	East	y West	778429554	10.00	0.03	Well	401641	1078797	401651	1078803
182		M	19480870329	Valikamam	Achchuvel			0.63					
182	Thampiya Subramaniyam	1 VI	7	East	y West	767673187	10.00	0.03	Well	402307	1079017	402329	1079027

183	Visvalingam	M		Valikamam	Achchuvel			0.63					
105	Sivanantham	1,11	550962098 X	East	y West	767260556	10.00	0.05	Well	402172	1078597	402190	1078562
184	Majurugan Paramasingaram	M	443022732 V	Valikamam East	Achchuvel y West	212058110	14.00	0.88	Well	402210	1078944	402201	1078994
185	Sayanthan Tarsana	M	916540850 V	Valikamam East	Achchuvel y West	770601101	15.00	0.94	Well	401929	1079370	401931	1078288
186	Selliya Ramasanthiran	M	513204396 V	Valikamam East	Achchuvel y West	778488391	12.00	0.75	Well	401732	1079473	401826	1079499
187	Nagamuthu nallanathan	M	551542203 V	Valikamam East	Achchuvel y West	774799415	8.00	0.50	Well	400407	1079425	400354	1079454
188	Jeyapalan Kowsala	M	776700754 V	Valikamam East	Achchuvel y West	772444417	11.00	0.69	Well	402276	1078600	402286	1078619
189	Thgavelu Kiritharan	M	800702062 V	Valikamam East	Achchuvel y West	778543710	15.00	0.94	Well	401568	1078910	401570	1078923
190	Kalingarasa Balaventhan	M	761391950 V	Valikamam East	Achchuvel y West	776169902	15.00	0.94	Well	402034	1078897	402036	1078916
191	Muthulingam Vignesvaralingam	M	782043099 V	Valikamam East	Achchuvel y West	770174204	15.00	0.94	Well	402023	1078894	402045	1078923
192	Poologarasa Kajan	M	833664883 V	Valikamam East	Achchuvel y West	772224376	8.00	0.50	Well	401674	1079263	401659	1079284
193	Kanagasabi Mohanathas	M	781372404 V	Valikamam East	Achchuvel y West	779309707	20.00	1.25	Well	402224	1078369	402228	1078374
194	Sinnathurai Balanathan	M	690443376 V	Valikamam East	Achchuvel y West	773717208	20.00	1.25	Well	401959	1048847	401909	1078798
195	Sivarajathuri Vignesvaran	M	563280794 V	Valikamam East	Achchuvel y West	777164823	16.00	1.00	Well	401842	1078929	401797	1078916
196	Amirthalingam Mathuranthagan	M	841862058 V	Valikamam East	Achchuvel y West	776505129	20.00	1.25	Well	402070	1079274	401999	1079292
197	Kiddinan Rasarathinum	M	491822155 V	Valikamam East	Achchuvel y West		17.00	1.06	Well	401792	1080040	401777	1080004 1
198	Sivasothi Sivatharsan	M	841862058 V	Valikamam East	Achchuvel y West	773604206	10.00	0.63	Tubewell	401778	1079004	401778	1079012
199	Manikan Rasanayagam	M	661012994 V	Valikamam East	Achchuvel y West	772083756	20.00	1.25	Well	399958	1079140	399992	1079160

200	Kathiresu Pologarasa	M	642973738 V	Valikamam East	Achchuvel y West	772224376	8.00	0.50	Well	401634	1079180	401608	1079194
201	Kanthasami Vasikaran	M	851694919 V	Valikamam East	Achchuvel y West	778037565	12.00	0.75	Well	402205	1078440	402220	1078470
202	Ganam Uma	M	715084554 V	Valikamam East	Achchuvel y West	773557105	16.00	1.00	Well	401951	1079173	401951	1079173
203	Taventhirum Santhiravathana	M	757584093 V	Valikamam East	Achchuvel y West	770713048	12.00	0.75	Well	401919	1079898	401914	1079876
204	Kanapathi Katkandu	M	19450391005 7	Valikamam East	Achchuvel y West	770713048	15.00	0.94	Well	401924	1079846	401914	1079876
205	Sellan Nadarasa	M	532454735 V	Valikamam East	Achchuvel y West	766989361	20.00	1.25	Tubewell	401592	1079107	401545	1079096
206	Kathiravelu Ketheswaran	M	693441064 V	Valikamam East	Achchuvel y West	763619148	20.00	1.25	Well	402275	1078566	402275	1078566
207	Murugan Tangavelu	M	441342292V	Valikamam East	Achchuvel y West	778124259	10.00	0.63	Well	402142	1078608	402132	1078558
208	Palan Magilvaganam	M	463062692 V	Valikamam East	Achchuvel y West	777210674	35.00	2.19	Well	401564	1078907	401570	1078231
209	Kanapathipillie Sellathurai	M	551111270 V	Valikamam East	Achchuvel y West	761420042	12.00	0.75	Well	402124	1078581	402132	1078558
210	Kanapathipillai Srikantharasa	M	503321610V	Valikamam East	Idaikadu	779116111	18.00	1.13					
211	Vellupillai Murukupillai	M	452041901V	Valikamam East	Idaikaadu	776872589	8.00	0.5	Well	401633	1082319	401655	1082336
212	Veerieasvaran Thanuseegan	M	953191059V	Valikamam East	Valalai	774515851	8.00	0.5	Well	401763	1083058	401775	1083049
213	S.Rajanikanth	M	832254452V	Valikamam East	Achchuvel y North	771905776	8.00	0.5					
214	Kunasingam Ragikaran	M	730624573V	Valikamam East	Achchuvel y North	777283967	8.00	0.5	Well	401292	1080575	401286	1080557
215	Subramaniyam Piratheepan	M	7606603716 V	Valikamam East	Achchuvel y North	779910154	8.00	0.5	Well	401050	1080253	401020	1080222
216	Imayakanth Sukanya	F	1.97765E+11	Valikamam East	Achchuvel y North	766899438	8.00	0.5	Well	402063	1080690	402082	1080676

217	Selvanayagam			Valikamam	Paththamen								
217	Vijayakumar	M	793521847V	East	i	774380787	8.00	0.5	Well	401946	1082368	401967	1082388
218				Valikamam	Paththamen								
218	Erampu Atputham	M	671730984V	East	i	774841538	8.00	0.5	Well	401968	1082049	401931	1082068
219	Ladsukanthan			Valikamam	Paththamen								
219	Vasantharaj	M	821143390V	East	i	779116010	8.00	0.5	Well	401853	1081626	401882	1081615
220	Rajamoorthy			Valikamam	Paththamen								
220	Paramaanatham	M	781474134V	East	i	769701673	8.00	0.5	Well	401572	1081533	401561	1081489
221	Parameswaren			Valikamam	Paththamen								
221	Thananjeyan	M	932694620V	East	i	779137505	8.00	0.5	Well	401776	1081850	401774	1081872
222				Valikamam	Paththamen								
222	Sivaganam Sivapalan	M	792353150V	East	i	779048945	8.00	0.5	Well	402390	1082152	402428	1082153
223		M	6912706100	Valikamam									
223	Paalkandu Indiralingam	101	V	East	Pathameni	768095103	28.00	1.75					
224		M	19811530305	Valikamam									
224	Kanthasamy Jegatheesan	101	0	East	Pathameni	778234515	21.00	1.31	Tubewell	402374	1082395	402371	1082395
225	Kanakalingam	M		Valikamam									
223	Imayanathan	101	800065046V	East	Pathameni	770280593	8.00	0.50	Tubewell	402427	1082291	402369	1082239
226	Sinnathurai	M		Valikamam									
220	Srisurenthiran	101	641012238V	East	Pathameni	212058358	10.00	0.63	Well	402921	1082072	402915	1082120
227	Sachithanantham	M		Valikamam									
221	Sajeepan	171	872051651V	East	Pathameni	775013124	35.00	2.19	Tubewell	401050	1082584	401036	1082577
228		M		Valikamam									
220	Velupillai Navarathinam	171	551020878V	East	Pathameni	774574057	18.00	1.13	Well	401818	1082330	401818	1082330
229	Vickneshvaran	F		Valikamam									
22)	Aananthakumary	1	685770806V	East	Pathameni	771236044	28.00	1.75	Well	401726	1082121	401734	1082144
230	Yoganathan	F	19545411001	Valikamam									
230	Sakunthalathevi	1	2	East	Pathameni	774322333	20.00	1.25	Well	401785	1081573	401771	1081602
231		M		Valikamam									
231	Balan Varatharasa	141	521063629V	East	Pathameni	777408896	8.00	0.50	Well	402919	1082135	402915	1082120
232		M	19712970464	Valikamam									
232	Masilamani Sritharan	141	8	East	Pathameni	764656093	9.00	0.56	Well	402578	1082244	402591	1082178
233		M		Valikamam									
233	Sellapu Murukaiya	141	571742402V	East	Pathameni	771754440	18.00	1.13	Tubewell	402273	1082394	402273	1082394

234	Karunakaran	F		Valikamam									
	Selvamathivathany		867272321V	East	Pathameni	777872064	8.50	0.53	Well	402393	1082211	402393	1082211
235	Sivapatham Nanthakumar	M	31046836	Valikamam East	Pathameni	777740691	13.00	0.81	Well	402543	1082268	402525	1082286
236	Kaaralasingam Kugeshwaran	M	19641460395 7	Valikamam East	Pathameni	771758855	16.00	1.00	Well	402236	1082136	402236	1082136
237	Kaneshamoorthy Kirubakaran	M	750461190V	Valikamam East	Pathameni	778750394	10.00	0.63	Well	401843	1082273	401843	1082273
238	Murukupillai Sivarasan	M	651152313V	Valikamam East	Pathameni	779336332	8.00	0.50	Well	401854	1081472	401845	1081471
239	Gnanasekaram Kunaseelan	M	670722066V	Valikamam East	Pathameni	766730820	10.00	0.63	Well	402285	1081396	402319	1081622
240	Kanthasamy Thavamoorthy	M	601313448V	Valikamam East	Pathameni	774147699	20.00	1.25	Tubewell	401904	1081551	401904	1081551
241	Kamalathevi Seevaraththinam	F	597233442V	Valikamam East	Pathameni	768869368	20.00	1.25	Tubewell	401867	1081509	401867	1081509
242	Sivakumaran Tharshika	F	866252190V	Valikamam East	Pathameni	779773086	10.00	0.63	Well	401653	108162	401653	108642
243	Muthukumar Parameshwaran	M	611873190V	Valikamam East	Pathameni	764645529	20.00	1.25	Well	401792	1081857	401780	1081873
244	Raththinam Tharsan	M	922302910V	Valikamam East	Pathameni	774164793	10.00	0.63	Well	401641	1081989	401641	1081981
245	Thampipillai Chanthirakumar	M	562673563V	Valikamam East	Pathameni	774443217	10.00	0.63	Well	401984	1081630	401984	1081630
246	P Harikaran	M	19893230336 60	Valikamam East	Pathameni	773650158	18.00	1.13	Well	401668	1081580	401668	1081569
247	Navarathinam Thanushan	M	932053004V	Valikamam East	Pathameni	774574057	18.00	1.13	Well	401920	1081683	401920	1081683
248	Rasappu Selvarathinam	M	472994670V	Valikamam East	Pathameni	774542605	8.00	0.50	Well	400949	1081253	400949	1081253
249	Rasathurai Kunasothinayagam	M	19493331001 5	Valikamam East	Pathameni	757400578	20.00	1.25	Well	403315	1081434	403315	1081434
250	Kanakarathinam Thevarasa	M	581003552V	Valikamam East	Pathameni	769657286	8.00	0.50	Tubewell	401812	1082328	401812	1082328

251	Sinnathurai	M		Valikamam									
	Thiruchelvam		682973838V	East	Pathameni	771592098	8.00	0.50	Well	401612	1082192	401613	1082213
252	Kumaranantham Kirubananthan	M	771251528V	Valikamam East	Pathameni	774684027	8.00	0.50	Tubewell	402036	1082178	402036	1082178
253	Nanthakumar Vinushan	M	20031360001 9	Valikamam East	Pathameni	779121491	8.00	0.50	Well	402080	1081905	402027	1081881
254	Kathirkamanathan Nitharshan	M	952453351V	Valikamam East	Pathameni	769062474	10.00	0.63	Well	401835	1081983	401793	1082003
255	Ponnaiyah Jaseenthiran	M	802341180V	Valikamam East	Pathameni	777906268	8.00	0.50	Well	401779	1081986	401793	1082003
256	Rasanayagam Thanushiyan	M	980892638V	Valikamam East	Pathameni	774738541	20.00	1.25	Well	401939	1081957	401906	1081956
257	Sivagnanam Prabakaran	M	761091611V	Valikamam East	Pathameni	775237129	8.00	0.50	Tubewell	402144	1081954	402144	1081954
258	S Rasanayagam	M	561772010V	Valikamam East	Pathameni	774738541	7.00	0.44	Well	401952	1081900	401952	1081900
259	Rasaiya Rajamohan	M	19783350416 0	Valikamam East	Pathameni	772865601	16.00	1.00	Well	402911	1082140	402923	1082125
260	Sivagnanam Kajakaran	M	901480729V	Valikamam East	Kaliyanai	777549617	8.00	0.50	Well	402030	1081891	402028	1081886
261	Sivarasa Sivakumar	M	761644181V	Valikamam East	Achchuvel y	779593397	9.00	0.56	Tubewell	401270	1082947	401214	1082947
262	Sivakumar Thanurash	M	20001210039 0	Valikamam East	Achchuvel y	773530263	10.00	0.63	Tubewell	401208	1082975	401214	1082947
263	Veerakathipillai Sivasubramaiyam	M	572594491V	Valikamam East	Achchuvel y	772782812	10.00	0.63	Well	401167	1082623	401125	1082596
264	Ponnampalan Thanapalasingam	M	521335106V	Valikamam East	Achchuvel y	776034513	10.00	0.63	well	401934	1083778	401949	1083787
265	Pathmanathan Arunanthi	M	810281669V	Valikamam East	Achchuvel y	773426040	10.00	0.63	Tubewell	401353	1082912	401381	1082935
266	Kumarasamy Prabakaran	M	19803450342 0	Valikamam East	Achchuvel y	773111478	10.00	0.63	Tubewell	401698	1083205	401711	1083213
267	Thambirasa Kaneshamoorthy	M	4511922817 V	Valikamam East	Neervely South	774146213	8.00	0.50	Well	397208	1075256	397163	1075274

268		M	19853050430	Valikamam	Neervely								
208	Raveenthiran Vaakeesan	M	5	East	South	777448617	20.00	1.00	Well	398083	1074336	398123	1074301
269	Balasubramaniyam	M		Valikamam	Neervely								
209	Shanthiramohan	IVI	773510768V	East	South	774550773	70.00	0.50	Well	397977	1075600	397961	1075660
270	Manikavashakar	M		Valikamam	Neervely								
270	Tharmarasha	171	582760462V	East	South	773341004	0.00	0.00	Well	399190	1076847	399170	1076854
271	Shenathirasha	M		Valikamam	Neervely								
2/1	Pulenthiran	171	652461026V	East	South	779234535	20.00	1.25	Well	397682	1075842	397932	1075839
272		M		Valikamam	Neervely								
272	Pulenthiran Parankunran	171	922421366V	East	South	779597233	25.00	1.56	Well	398329	1074389	398321	1074395
273	Muththaiyah	M		Valikamam	Neervely								
273	Pathmanathan	171	542514060V	East	South	779986410	20.00	1.25	Well	397315	1076712	397343	1076670
274	Vijayashankar	M	19931350309	Valikamam	Neervely								
274	Thanabalasingam	171	8	East	South	765651951	42.00	2.63	Well	397254	1074873	397247	1074876
275	Rsasenthiram	M		Valikamam	Neervely								
213	Vaitheeswaren	171	572323005V	East	South	773664365	8.00	0.5	Well	397135	1075090	397115	1075093
276		M		Valikamam	Neervely								
270	Paramanathan Sujakan	171	942120281V	East	North		8.00	0.5	Well	398967	1075771	398972	1075767
277		M		Valikamam	Neervely								
277	Suntharalingam Kabilan	171	933260488V	East	West	777965565	8.00	0.5	Well	397054	1075110	397029	1075102
278		M		Valikamam	Neervely								
270	Rathinam Suthakaran	171	810141840V	East	West	771630988	8.00	0.5	Well	397227	1075497	397226	1075529
279		M		Valikamam	Neervely								
217	Sinnaiyah Manokaran	171	791771510V	East	West	774186860	8.00	0.5	Well	397274	1075439	397230	1075455
280	Shankarapillai	M		Valikamam	Neervely								
200	Shanthirasoodi	171	670271523V	East	West	772562813	25.00	1.56	Well	398228	1075634	398224	1075625
281		F		Valikamam	Neervely								
201	Kirusha Thayaseelan	1	875634453V	East	West	775961049	22.00	1.38	Well	397244	1075374	397242	1075367
282	Kanakarathnam	M		Valikamam	Neervely								
202	Kamalenthira	171	751910584V	East	West	775851437	20.00	1.25	Well	397015	1075364	397006	1075301
283	Subramaniyam	M		Valikamam	Neervely								
203	Rashaiyah	171	501561009V	East	West	773835420	30.00	1.88	Well	398059	1075586	398042	1075587
284		M		Valikamam	Neervely								
204	Vijayakumaran Kavithas	171	942342390V	East	West	778133039	11.00	0.69	Well	397284	1075622	397272	1075641

285	Kathirkamanathan	F		Valikamam	Urumpirai								
263	Thamiliny	1,	855193060V	East	North	775388469	20.00	1.25	Well	394726	1074971	394741	1075008
286		M		Valikamam	Urumpirai								
200	Thampu Appuththurai	171	562610317V	East	North	770183869	25.00	1.56	Well	394250	1075342	394296	1075342
287		M		Valikamam									
207	Arumugam Vaseekaran	1,11	641412120V	East	Urelu	771632561	16.00	1.00	Well	395347	1077114	395364	1077125
288		M		Valikamam									
	Kirishnan Selvarooban		812632450V	East	Urelu	774013959	8.00	0.50	Well	395053	1077108	394975	1077100
289	Guganeshwaran	M		Valikamam									
	Karunakaran		861533220V	East	Urelu	777577262	10.00	0.63	Well	396631	1076020	396611	1076010
290	Amirthalingam	M		Valikamam									
	Kannathasan		653011512V	East	Urelu	770856536	16.00	1.00	Well	396702	1076117	396683	1076154
291		M		Valikamam									
	Vigneshwaran Gowsikan		870200404V	East	Urelu	772203110	16.00	1.00	Well	396702	1076587	396735	1076578
292		M		Valikamam				0.70					
	Nagamuththu Rashaiya		462223099V	East	Urelu	775827701	8.00	0.50	Well	396462	1077202	396459	1077175
293		M		Valikamam _									
	Pasupathi Rashenthiram		520023428V	East	Urelu	776735994	8.00	0.50	Well	396886	1076615	396863	1076634
294	Sinnaththmphy	M		Valikamam	** 1		0.00	0.70	*** **	20.55%	105654	20.5544	1056510
	Santhirakumar		582521352V	East	Urelu	776735994	8.00	0.50	Well	396656	1076764	396641	1076748
295		M	40000004044	Valikamam	** 1	550550054	0.00	0.70					
	Ponnaiyan Tharmarasa		490820248V	East	Urelu	770569974	8.00	0.50					
296	Sivasubramaniyam	M	7222502201	Valikamam	TT 1	770050000	0.00	0.50	XX7 11	205140	1076527	205120	1076520
	Suthakaran		732250328V	East	Urelu	770050890	8.00	0.50	Well	395148	1076527	395138	1076529
297	Santheeswaran Thanushan	M	0.6001215437	Valikamam	T.T 1		0.00	0.50	337 . 11	206660	1076631	20.6664	1076620
			862213154V	East	Urelu		8.00	0.50	Well	396660	1076621	396664	1076629
298	Sivasubramaniyam	M	70022205031	Valikamam	T.T 1	776172420	0.00	0.50	337 . 11	205074	1075765	205001	1075711
	Satheeskumar		780233958V	East	Urelu	776172430	8.00	0.50	Well	395874	1075765	395901	1075711
299	A i A A	M	99040222237	Valikamam	I I mala		9.00	0.50	XV - 11	206564	1076150	206540	1076175
	Amirthalingam Arunraj		880403222V	East	Urelu		8.00	0.50	Well	396564	1076159	396549	1076175
300	Sownthirathevan	M	02271200537	Valikamam	I I male		0.00	0.50	XX7 . 11	204227	1076645	20.4260	1076640
	Piratheepan		833612905V	East	Urelu		8.00	0.50	Well	394327	1076645	394360	1076649
301	Thomasin com Dimension	M	92260220937	Valikamam	Limala	771220000	9.00	0.50	XX7 - 11	206555	1076604	206522	1076600
	Tharmalingam Pirasanna		832692298V	East	Urelu	771230099	8.00	0.50	Well	396555	1076604	396533	1076600

302	G: 1: N: 1	M	01220470034	Valikamam	17. 1	77.6172002	0.00	0.50	XX 11	205402	1076006	205416	1076002
	Sivalingam Nimal		812394789V	East	Urelu	776172892	8.00	0.50	Well	395402	1076006	395416	1076002
303	Selvanayagam Suthaharan	M	853214698V	Valikamam East	Urelu	777421397	8.00	0.50	Well	396346	1076363	396291	1076293
304	Thurairasha Vigneshwaran	M	543243507V	Valikamam East	Urelu	778435154	8.00	0.50	Well	396507	1076507	396504	1076524
305	Puvaneshwaran Gowsalyan	M	873604557V	Valikamam East	Urelu	770257893	8.00	0.50	Well	396623	1076073	396639	1076061
306	Kannathasan Renugan	M	943631727V	Valikamam East	Urelu	770856536	8.00	0.50	Well	396680	1076137	396683	1076157
307	Malini Amirthayogan	F	656950552V	Valikamam East	Urelu	769269207	8.00	0.50	Well	396285	1076342	396291	1076293
308	Arasalingam Arunthavatheesan	M	602795179V	Valikamam East	Urelu		8.00	0.50	Well	396578	1076275	396577	1076289
309	Sinnaththurai Srikantharasha	M	19751910060 6	Valikamam East	Urelu		8.00	0.50	Well	395919	1076305	395915	1076310
310	Illayathamby Jatheeswaran	M	652602142V	Valikamam East	Urelu	764481896	8.00	0.50	Well	396601	1077286	396617	1077276
311	Eithayakumar Premini	F	838073409V	Valikamam East	Urelu	779239488	8.00	0.50	Well	396397	1076579	396411	1076569
312	Subramaniyam Muhunthan	M	740871099V	Valikamam East	Kopay North	776204719	30.00	1.88	Well	399612	1076100	399596	1076068
313	Selvarasa Thayalan	M	19820280071 7	Valikamam East	Kopay North	775407770	24.00	1.50	Well	396819	1074405	396831	1074437
314	Thirunavukkarasu Perinpanathan	M	603221443V	Valikamam East	Kopay North	776653089	12.00	0.75	Well	397627	1074152	397637	1074145
315	Tharmalingam Sivotharan	M	19790120295 0	Valikamam East	Kopay North	762163854	15.00	0.94	Well	397579	1074182	397580	1074148
316	Sellathurai Paramalingam	M	490644253V	Valikamam East	Kopay North	775008162	12.00	0.75	Well	396695	1074134	396712	1074094
317	Raththinam Thavaselvan	M	19791290424 0	Valikamam East	Kopay North	773548314	10.00	0.63	Well	398144	1073815	398187	1073790
318	Tharmalingam Yogeshwaran	M	771812732V	Valikamam East	Kopay North	776452466	8.00	0.50	Well	397603	1074175	397580	1074148

319	Veerabahu Rasalingam	M	512373453V	Valikamam East	Kopay North	776731746	10.00	0.63	Well	398144	1073815	398187	1073790
320	Sellathurai Kesavarasan	M	842362334V	Valikamam East	Kopay North	776346753	16.00	1.00	Well	395834	1073422	395795	1073441
321	Veluppilal Kanthasamy	M	500633301V	Valikamam East	Kopay North	774086253	12.00	0.75	Well	397237	1074681	397269	1074720
322	Annalingam Jeyakumar	M	712834668V	Valikamam East	Kopay North	773056620	10.00	0.63	Well	396861	1074667	396859	1074700
323	Nalliah Thayaparan	M	742360563V	Valikamam East	Kopay North	774053118	12.00	0.75	Well	397031	1074326	397033	1074349
324	S Kayatheepan	M	890742360V	Valikamam East	Kopay North	779580051	16.00	1.00	Well	398237	1072832	398243	1072835
325	Illayathamby Pathmanathan	M	572401251V	Valikamam East	Kopay North		8.00	0.5	Well	398442	1076147	398420	1076132
326	Subramaniyam Kanthasamy	M	540624038V	Valikamam East	Kopay North	765477145	8.00	0.5	Well	397061	1074646	397034	1074622
327	Kumarasamy Thayaparan	M	710482373V	Valikamam East	Kopay North	779580213	8.00	0.5	Well	398049	1075141	398056	1075149
328	Sasikaran Thadshini	F	827751073V	Valikamam East	Kopay North	772778215	8.00	0.5	Well	397122	1076311	397183	1076374
329	Sinnathamby Selvam	M	551173720V	Valikamam East	Urumbirai South	777167898	8.00	0.5	Well	395363	1073377	395388	1073395
330	Arumainayagam Suthan	M	883023390V	Valikamam East	Urumbirai West	779056955	8.00	0.5	Well	394128	1074129	394152	1074119
331	Selvaretnam Shanmugarathinam	M	663640160V	Valikamam East	Urumbirai East	770641234	12.00	0.75	Well	396105	1074783	396087	1074813
332	Thurairasasingam Ramesh	M	801842860V	Valikamam East	Kopay South	770921654	25.00	1.56	Well	395140	1071540	395172	1071540
333	Rasarathinam Yogarathinarasa	M	623262855V	Valikamam East	Kopay South	776701203	8.00	0.50	Well	395837	1072357	395840	1072387
334	Sivaloganathan Theivarani	F	676900837V	Valikamam East	Kopay South	775177555	8.00	0.50	Well	394922	1071630	394940	1071581
335	Aruchunan Kokilathasan	M	782153218V	Valikamam East	Kopay South	778365832	25.00	1.56	Well	395038	1071667	395039	1071658

336	Senthamilselvan Pushparani	F	19728230380	Valikamam East	Kopay South	778365832	25.00	1.56	Well	395336	1071506	395306	1071571
337	Murukesu Kanagalingam	M	410111640V	Valikamam East	Kopay South	774728003	10.00	0.63	Well	395749	1072585	395752	1072594
338	Tharmalingam Sivakumaran	M	19760130455 4	Valikamam East	Kopay South	776848187	22.00	1.38	Well	394989	1071604	394983	1071586
339	Gunasekaram Piranavan	M	830404414V	Valikamam East	Kopay South	773284906	20.00	1.25	Well	396865	1071185	396856	1071191
340	Kanaku Thayalan	M	691263002V	Valikamam East	Kopay South	774134583	23.00	1.44	Well	395199	1073293	395146	1073305
341	Ramanathan Sivakumaran	M	773564728V	Valikamam East	Kopay South	771965794	8.00	0.50	Well	395128	1071899	395120	1071932
342	Vellupillai Varnathasan	M	713023663V	Valikamam East	Kopay South	779586696	8.00	0.50					
343	Sellathurai Malmaruhan	M	641501743V	Valikamam East	Kopay South		8.00	0.50	Well	395368	1071835	395357	1071813
344	Aruchunan Kurunathan	M	951541478V	Valikamam East	Kopay South		8.00	0.50	Well	395726	1072263	395711	1072276
345	Thiyagarasa Sivaruban	M	872263217V	Valikamam East	Kopay South	772293184	8.00	0.50	Well	394909	1071632	394939	1071581
346	Thillaiyampalam Bamathran	M	673440386V	Valikamam East	Kopay Center	770386871	8.00	0.50	Well	396298	1073075	396293	1073041
347	Rasasekaram Jeyamalar	F	787712916V	Valikamam East	Kopay Center	776981623	8.00	0.50	Well	395560	1072684	395586	1072709
348	Yogarasa Tharsigan	M	933290735V	Valikamam East	Kopay Center	772938386	8.00	0.50	Well	395673	1072714	395665	1072756
349	Kaneshalingam Irayutham	M	19820070010 0	Valikamam East	Kopay Center	779122660	8.00	0.50	Well	395792	1072919	395824	1072939
350	Kayuraj Kanagalingam	M	831711078V	Valikamam East	Kopay Center	77041757	8.00	0.50	Well	395807	1072963	395824	1072939
351	Jeyarasasekaram Sritharan	M	761003666V	Valikamam East	Kopay Center	772549001	12.00	0.75	Well	395779	1073271	395828	1073264
352	Kumaravel Navarathinakumar	М	711801502V	Valikamam East	Kopay Center	776949846	8.00	0.50	Well	395815	1073299	395827	1073266

353	Markanndu Kengatharan	M	580694390V	Valikamam East	Urumbirai South	776120273	8.00	0.50	Well	395182	1073348	395228	1073315
354	T Paran	M	711363017V	Valikamam south	Elarlai Centre	779819650	8.00	0.50	Well	394906	1079060	394879	1079063
355	Kumarasingam Premathas	M	721041255V	Valikamam south	Earlalai Centre	773541837	8.00	0.50	Well	395286	1079130	395275	1079154
356	Tharmalingam Vickneswaran	M	693374324V	Valikamam South	Earlalai West	775416950	8.00	0.50	Well	394886	1079119	394864	1079144
357	Sabapathy Paramanathan	M	722884019V	Valikamam South	Earlalai West	779422056	8.00	0.50	Well	394782	1079173	394739	1079185
358	Tharmalingam Gnaneswaran	M	612833010V	Valikamam South	Earlalai West	772846830	8.00	0.50	Well	394919	1079091	394927	1079068
359	Balasingam Pirasath	M	971383011V	Valikamam South	Earlalai West	773327385	8.00	0.50	Well	395035	1078714	395023	1078730
360	Thevarasa Sarvananthan	M	833665170V	Valikamam South	Earlalai West	771027479	8.00	0.50	Well	394759	1078508	394815	1078497
361	G Vinothan	M	952582224V	Valikamam south	Earlalai West	770321793	8.00	0.50	Well	394799	1079232	394798	1079236
362	T Tharmakulasingam	M	601040948V	Valikamam south	Earlalai West	773794583	6.00	0.38	Well	394795	1079246	394798	1079236
363	S Sivakumaran	M	730232900V	Valikamam south	Earlalai East	778439796	5.00	0.31	Well	394876	1079160	394870	1079146
364	S Murukappan	M	662191701V	Valikamam south	Earlalai East	775952689	12.00	0.75	Well	395290	1078009	395298	1078000
365	S Subatheeswaran	M	19810720459 5	Valikamam south	Earlalai East	777349252	8.00	0.50	Well	395884	1078018	395884	1078018
366	Thanabalasingam Tharaneetharan	M	791133025V	Valikamam South	Earlalai South	774125171	8.00	0.50	Well	394877	1078496	394887	1078467
367	Perampalam Varatharasan	M	653552599V	Valikamam South	Earlalai South	776758637	8.00	0.50	Well	395542	1077714	395516	1077740
368	Thanabalasingam Thangapalan	M	19780720350 5	Valikamam South	Earlalai South	775530030	8.00	0.50	Well	394830	1078545	394840	1078553
369	Perampalam Uthayakumaran	M	633362904V	Valikamam South	Earlalai South	770360184	8.00	0.50	Well	395113	1077936	395127	1077913

370		M		Valikamam	Earlalai			0.50					
370	N Vellivel	IVI	420890226V	south	South	740796876	8.00	0.50	Well	395751	1078143	395729	1078181
371		M		Valikamam	Earlalai			0.50	Well				
	T Balachandran	1,1	493234048V	south	South	770813264	8.00	0.00		394870	1077962	394885	1077958
372		M		Valikamam	Earlalai			0.63	Well	395388	1078060	395385	1078055
	K Manivannan		710301255V	south	South	776141764	10.00						
373	D G 1 " '	F	02040101617	Valikamam	Earlalai	55 0520001	0.00	0.50	Well	395742	1078172	395729	1078189
	R Subajini		828491016V	south	South	770530801	8.00						
374	C Almodia:	F	19887740084	Valikamam	Earlalai	77.6292024	20.00	1.25	Well	394992	1077969	394990	1077982
	S Ajanthini		3	south	South	776283924	20.00						
375	S Sumathini	F	805753030V	Valikamam south	Earlalai South	763961694	8.00	0.50	Well	395727	1078184	395729	1078189
	S Sumatnini		805/53030V	Valikamam	Earlalai	/03901094	8.00						
376	N Thesingarasa	M	522336213V	south	South	778973302	8.00	0.50	Well	395626	1077111	396626	1077111
	Perampalam		322330213 V	Valikamam	Earlalai	110913302	8.00						
377	Rasarathinam	M	490233806V	south	South	774945376	8.00	0.50	Well	395415	1077543	395409	1077557
	Rasaratimam		470233800 ₹	Valikamam	Earlalai	7742370	0.00						
378	K Uthayasooriyan	M	7104346654	south	South	773768860	8.00	0.50	Well	394837	1077714	394824	1077670
	11 Culay assoring an		19861980258	Valikamam	Earlalai	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.00						
379	T Vaheesan	M	0	south	South	771029568	8.00	0.50	Well	395970	1078316	395960	1078286
200		3.5		Valikamam	Earlalai			0.70	*** 11	20.40.62	4055005	20.40.55	1055010
380	K Nishanthan	M	931554336V	south	South	779212176	8.00	0.50	Well	394962	1077897	394966	1077919
201		М	19632990281	Valikamam	Earlalai			0.50	W/-11	204059	1077092	204066	1077010
381	M Nagarathinam	M	5	south	South	768078822	8.00	0.50	Well	394958	1077982	394966	1077919
382		M		Valikamam	Earlalai			0.50	Well	394860	1077727	394824	1077670
362	K Vimalasooriyan	IVI	763414582V	south	South	775768435	8.00	0.30	Well	394000	10///2/	394624	1077070
383		M	19713071003	Valikamam	Earlalai			1.25	Well	395488	1078124	395497	1078097
363	R Raveenthirarasa	IVI	6	south	South	771629725	20.00	1.23	WCII	393400	1070124	393491	1070097
384		M	19773030380	Valikamam	Earlalai			0.75	Well				
304	S Senthees	141	3	south	South	773867543	12.00	0.75	***************************************	394591	1078512	394582	1078498
385		M		Valikamam	Kuppilan			0.75	Well				
	E Kajan	1.1	850314764V	south	North	770781337	12.00	0.7.0		395913	1077567	395905	1077567
386		M		Valikamam			_	0.50	Well				
	S Perumal		631837867V	south	Earlalai	764679460	8.00			395066	1078145	395080	1078148

387	K Abarasuthan	M	19790700324 3	Valikamam south	Kanthi Mahal, Mayilanka du	768460210	16.00	1.00	Well	395309	1078226	395328	1078221
388		M		Valikamam	Soorawatth ai, Chunnaka			0.63	Well				
	T Thiyagarasa		580454046	south	m	778696939	10.00			394641	1078449	394657	1078443
389	S Jegatheeswaran	M	19810860465 6	Valikamam south	Soorawatth ai, Chunnaka m	773944748	20.00	1.25	Well	394969	1077974	395002	1077988
390	V Kanthasamy	M	563614889V	Valikamam south	Siththiyam puliyadi, Thellippala i East	770034744	8.00	0.50	Well	394862	1078932	394867	1078950
391	N Thanesma	F	19241283786	Valikamam south	Siththiyam puliyadi, Thellippala i East	769899306	5.00	0.31	Well	394911	1078954	394900	1078932
392	S Kaneshan	M	473255251V	Valikamam south	Punnalaika duvan South	775034935	8.00	0.5	Well	396819	1078571	396808	1078580
393	S Vickneswaran	M	751408720V	Valikamam south	Punnalaika duvan South	776411571	8.00	0.5	Well	396914	1078618	396945	1078645
394	K Manjulathevi	F	747593698V	Valikamam south	Punnalaika duvan South	770346835	8.00	0.5	Well	396817	1078577	396808	1078540
395	Kathiravelu Sathiyaruban	M	7818454683 V	Valikamam south	Punnalaika duvan South		8.00	0.5	Well	398580	1079240	398598	1079252

					Punnalaika								
396		M		Valikamam	duvan				Well				
	S Krishnakumar		711830197V	south	South	774742815	8.00	0.5		396860	1077687	396860	1077689
					Punnalaikk								
397		M		Valikamam	adduvan				Well				
	Selvarathinam Sasikumar		782792806V	south	South	777242580	8.00	0.5		397269	1078506	397269	1078506
					Punnalaika								
398	Saravanamuthu	M		Valikamam	duvan				Well				
	Kanthasamy		572732746V	south	South	764132351	8.00	0.5		397966	1077875	397966	1077897
					Punnalaikk								
399		M		Valikamam	adduvan				Well				
	S Selvarasa		653052467V	south	South	771163256	10.00	0.5		397084	1078677	397084	1078689
					Punnalaikk								
400		F		Valikamam	adduvan				Well				
	T Inparani		575750923V	south	South	763501549	20.00	0.5		397585	1078570	397364	1078546
					Punnalaikk								
401		M		Valikamam	adduvan				Well				
	S Kanthasamy		441335563V	south	South	765556537	8.00	0.5		396544	1078390	396544	1078390
					Punnalaikk								
402		M		Valikamam	adduvan				Well				
	S Kamal		822861253V	south	South	770552709	8.00	0.5		396765	1078279	396094	1078273
					Punnalaikk								
403		M		Valikamam	adduvan				Well				
	K Sabeshkaran		750083013V	south	South	761423905	15.00	0.5		397014	1077588	391019	1077577
					Punnalaikk								
404		M		Valikamam	adduvan		• • • • •	0.7	Well				40-00-0
	K Vathsan		850321477V	south	South	779906261	20.00	0.5		397620	1078229	397620	1078229
10.5					Punnalaikk				*** **				
405	0.77.11	M		Valikamam	adduvan	55 0540204	4 7 00	0.5	Well	20 400	1050551	20 500	1070551
	S Krishnamoorthy		670152731V	south	South	779749286	15.00	0.5		396887	1078654	396987	1078654
10.6				X 2 1 1 1	Punnalaika								
406		M	65270100537	Valikamam	duvan	777500000	0.00	0.5	XX7 11	207701	1076021	20,602,6	1076056
	Sinnathurai Gnanasothy		652791905V	South	South	777520332	8.00	0.5	Well	396791	1076931	396826	1076956

					Punnalaikk								
407		M	19562511010	Valikamam	adduvan								
	Sinathurai Arunthavarasa		1	South	South	717551132	8.00	0.5	Well	397089	1077638	397117	1077656
					Punnalaikk								
408		M		Valikamam	adduvan								
	Arasaratnam Kajatheepan		852243015V	South	South	771385266	8.00	0.5	Well	397073	1077517	397095	1077546
					Punnalaika								
409	Sellathurai	M		Valikamam	duvan								
	Ganeshamoorthy		648371847V	South	South	771806161	8.00	0.5	Well	396723	1078645	396753	1078662
					Punnalaika								
410	Selvaskantharasa	M		Valikamam	duvan								
	Thushyanthan		808134073V	South	South	774010211	8.00	0.5	Well	396842	1077423	396874	1077430
411				Valikamam									
411	Ravichandran Puspajini	F	715171511V	South	Eevinai	777168573	8.00	0.5	Well	397998	1079000	398031	1079008
412				Valikamam									
412	Iyathurai Nithiyananthan	M	571060833V	South	Eevinai		8.00	0.5	Well	398261	1078775	398276	1078758
413				Valikamam									
413	Sivasampu Sivakumar	M	661211901V	South	Eevinai	777729019	8.00	0.5	Well	399524	1078411	399546	1078374
414				Valikamam									
414	Muthu Sriskantharasa	M	631812341V	South	Eevinai	765489118	8.00	0.5	Well	397075	1077035	397058	1077029
415				Valikamam									
413	Ragunathan Elamurugan	M	1.95932E+11	South	Eevinai	769328649	8.00	0.5	Well	397473	1077480	397412	1077447
416				Valikamam			8.00						
410	Thangarasa Suganthan	M	790655826V	south	Eevinai	774598131	8.00	0.5	Well	398473	1078867	398471	1078849
417		М		Valikamam	Kupilan								
41/	S Tharmalingam	M	540994250V	south	South	776610686	8.00	0.5	Well	396231	1079159	396252	1079802
410		Г		Valikamam	Kupilan								
418	T Rajarajeswary	F	556422451V	south	South	766434590	8.00	0.5	Well	396039	1079107	396239	1079107
410		1.1		Valikamam	Kuppilan		10.00						
419	K Nadesu	M	570704419V	south	South	771627023	10.00	0.5	Well	396164	1078267	396176	1078294
120			19701770327	Valikamam	Kuppilan		10.00						
420	S Chandran	M	6	south	South	772853707	10.00	0.5	Well	396493	1080113	396493	1080113
421		Г	19927470296	Valikamam	Kuppilan		0.00						
421	Kamalathas Mithusha	F	1	south	South	770063341	8.00	0.5	Well	396389	1078528	396373	1078510

422		M	19700480234	Valikamam	Kupilan		8.00						
722	Velupilai Mahalingam	171	0	South	south	776314557	0.00	0.5	Well	396015	1078413	396016	1078456
423	Santhirakanthan	M		Valikamam	Kuppilan		8.00						
423	Mayurakanth	171	891263554V	South	South	779672458	0.00	0.5	Well	396816	1079315	396781	1079321
424		M		Valikamam	Kupilan		8.00						
121	S Navarathinarasa	141	601943620V	south	South	777143077	0.00	0.5	Well	396407	1078501	396375	1078510
425		M		Valikamam	Kuppilan		10.00						
123	S Vickshan	141	942133880V	south	South	778756437	10.00	0.5	Well	396642	1079070	396642	1079090
426		M		Valikamam	Kupilan								
420	P Thevarasa	171	503424100V	south	South	763825143	8.00	0.5	Well	396021	1078330	395974	1078290
427		M		Valikamam	Kupilan								
727	S Ganeshanathan	171	743580559V	south	North	771822542	10.00	0.5	Well	396455	1078447	396442	1078449
428		M		Valikamam	Kupilan								
420	Nagamani Sounthararasa	171	700022641V	South	North	771038030	8.00	0.5	Well	397144	1080098	397168	1080139
429		M		Valikamam	Kupilan								
72)	Anandan Ajanthan	171	988103332V	South	North		8.00	0.5	Well	396442	1078402	396445	1078445
430	Narasingam	M	19670950209	Valikamam	Kupilan								
430	Ravichanthiran	1V1	6	South	North	774631122	8.00	0.5	Well	397208	1080044	397256	1080075
431		M		Valikamam	Earlalai								
431	T Pooranam	1V1	886252130V	south	East	779608965	8.00	0.5	Well	396033	1078492	366027	1078484
432		M		Valikamam	Earlalai								
432	N Rameshwaran	1V1	793091184V	south	East	777040184	10.00	0.5	Well	396103	1079099	396111	1079114
433		M		Valikamam	Earlalai								
733	S Mathiyalakan	171	850121613V	south	East	766554817	8.00	0.5	Well	396093	1079240	396155	1079260
434		M	7731717341	Valikamam	Earlalai					395952	1078943	395919	1078915
757	T Senthilkumaran	171	V	south	East	776006238	10.00	0.5	Well	373732	1070743	373717	1070713
435		M		Valikamam	Earlalai					396072	1078407	396083	1078707
433	N Baskaralingam	1V1	702162084V	south	East	770639224	8.00	0.5	Well	390072	1070407	390003	1076707
436		M	19521410123	Valikamam	Earlalai					396062	1079203	396049	1079104
430	M Kunarathinam	IVI	7	south	East	-	8.00	0.5	Well	390002	1079203	370047	10/3104
437		М		Valikamam	Earlalai					395960	1078460	395940	1078770
437	S Kaneshnathan	IVI	622231603V	south	East	776146462	8.00	0.5	Well	373700	1070400	373740	10/6//0
438		F		Valikamam	Earlalai					395891	1078950	395878	1078956
430	S Saraswathy	Г	487982822V	south	East	777060296	8.00	0.5	Well	373071	1070930	373010	1070930

439	K Tharmakulasingam	M	19632180068 3	Valikamam south	Earlalai East	777060296	8.00	0.5	Well	395903	1078973	385882	1078961
	K Hidiliakulasiligalii		3	Valikamam	Earlalai	777000290	8.00	0.5	VV C11			363662	
440	K Sivakumaran	M	752082740V	south	Eartaiai	770051257	8.00	0.5	Well	395720	1078580	395728	1078565
441		M		Valikamam	Earlalai					395971	1078759	395940	1078770
441	K Kathiramalainathar	1V1	632942214V	south	East	771333840	7.00	0.5	Well	393971	1070739	373740	1078770
442		M		Valikamam	Earlalai					396260	1079185		1079200
112	T Selvarasa	171	582502064V	south	East	770468658	10.00	0.5	Well	370200	1077105	396260	1079200
443		M		Valikamam	Earlalai					395699	1078699		1078639
	K Kannathasan		821775124V	south	East	770455731	13.00	0.5	Well	0,00,,	10,00,,	395720	10,000
444		F		Valikamam	Earlalai					396689	1078696		1078689
	S Nanthini		686162736V	south	East	779599987	13.00	0.5	Well			395720	
445		M		Valikamam	Earlalai		• 0 00	0.7		396033	1079190		1079194
	S Uthayakumaran		723460756V	south	East	774566675	20.00	0.5	Well			396040	
446	*****	M	19683410238	Valikamam	Earlalai		20.00	0.7	*** **	395947	1078777	20.5040	1078770
	K Maheswaran		4	south	East	771565294	20.00	0.5	Well			395940	
447	D G 4 11	M	0.605041051	Valikamam	Earlalai	772010020	20.00	0.7	*** 11	395720	1078888	395723	1078881
	P Sutheshkumar		860794187V	south	East	772019820	20.00	0.5	Well				
448	T Theiventhiram	M	653342470V	Valikamam	Earlalai East	768766679	15.00	0.5	Well	396003	1078890	396024	1078695
	1 Therventmram		053342470V	south	East	/08/000/9	15.00	0.5	weii				
449	G Manohari	F	745971709V	Valikamam south	Eariaiai	779608965	8.00	0.5	Well	396133	1079136	396157	1079260
-	G Mailonair		743971709 V	Valikamam	East	779008903	8.00	0.5	wen				
450	M Thevakumar	M	752172722V	south	East	778573928	30.00	0.5	Well	396047	1078645	396047	1078636
	Wi Thevakumai		732172722 V	Valikamam	Earlalai	110313920	30.00	0.5	VV CII				
451	T Nanthinithevi	F	785154070V	south	East	770506276	12.00	0.5	Well	395940	1078780	395940	1078765
	1 Tunuminutevi		7031310701	Valikamam	Earlalai	770300270		0.5	****				
452	T Amuthalingam	M	722273389V	south	East	776291439	20.00	0.5	Well	395959	1073964	395981	1078992
	1 7 middidingun		19827890131	Valikamam	Earlalai	770231133		0.0	****				
453	S Yogeswary	F	2	south	East	769936690	20.00	0.5	Well	395777	1078939	395919	1078915
	- 6 · · · · · · J		19703450271	Valikamam	Earlalai						1005555		100577
454	T Yogalingam	M	0	south	East	778422474	10.00	0.5	Well	396989	1080350	396957	1080351
155		М		Valikamam	Earlalai		0.00			205005	1070570	205900	1070545
455	K Kannan	M	691742644V	south	East	775985257	9.00	0.5	Well	395885	1078578	395890	1078545

456	S Mangayatkarashi	F	615643270V	Valikamam south	Earlalai East	763999610	20.00	0.5	Well	395724	1078582	395428	1078565
457	N Malar	F	547053206V	Valikamam south	Earlalai East	770417639	10.00	0.5	Well	396031	1078663	396047	1078636
458	N Kanakarathinam	M	19770630489 0	Valikamam south	Earlalai East	771042904	35.00	0.5	Well	396135	1078398	396130	1078388
459	N Kalanantharasan	M	19642340185 5	Valikamam south	Earlalai East	774501205	40.00	0.5	Well	395789	1079620	395840	1078659
460	K Thaneshwaran	M	19760310408 0	Valikamam south	Earlalai East	212059415	32.00	0.5	Well	396127	1073307	396195	1078811
461	K Kulasingam	M	652305092V	Valikamam south	Earlalai East	775985257	7.00	0.5	Well	395727	1078590	395728	1078565
462	R Yogarasa	M	488182821V	Valikamam south	Earlalai South	762474455	9.00	0.5	Well	396024	1078910	396038	1078893
463	R Sivarasa	M	4700600565	Valikamam south	Earlalai Centre	778095504	15.00	0.5	Well	396016	1078785	395949	1078765
464	R Annalingam	M	622562197V	Valikamam south	Navatkinat adi, Kupilan	779672600	8.00	0.5	Well	396188	1079317	396188	1079317
465	Jeyasuthan Thevakumar	M	861171400V	Valikamam North	Vasavilan	770703649	8.00	0.5	Well	399131	1080826	399143	1080836
466	Maniyam Arunthavalingam	M	691334628V	Valikamam North	Vasavilan	765766343	8.00	0.5	Well	399914	1079762	399907	1079745
467	Jeyakaran Sivaranjani	F	876061830V	Valikamam North	Vasavilan	770694402	8.00	0.5	Well	399997	1080367	400017	1080347
468	Ganapirakasam Robbin	M	19852720387 4	Valikamam North	Vasavilan	779089374	8.00	0.5	Well	399260	1080778	399260	1080778
469	Ponnu Balakobal	M	740693972V	Valikamam North	Vasavilan	776473740	8.00	0.5	Well	400637	1080391	400608	1080293
470	Suresh Nishanthan	M	932372894V	Valikamam North	Vasavilan	778347300	8.00	0.5	Well	400026	1080485	400066	1080515
471	Sellamuthu Kunam	M	630444730V	Valikamam North	Vasavilan	778040817	8.00	0.5	Well	400010	1080270	399993	1080260

472	 Valli Sivam	M	522754765V	Valikamam North	Vasavilan	771323925	8.00	0.5	Well	399987	1080373	400007	1080347
	vani Sivani		322134103 V	Valikamam	Vasaviiaii	111323923	8.00	0.5	Well				
473	Mahalingam Jeyan	M	673593909V	North	Vasavilan	778950168	8.00	0.5	Well	399403	1080639	399374	1080651
474	Muthuthambi	M		Valikamam						399140	1080984	399129	1080968
.,.	Navaradnaraja	141	562282653V	North	Vasavilan	761441515	8.00	0.5	Well	377110	1000701	377127	1000700
475	Manikam Sivarasa	M	701302613V	Valikamam North	Vasavilan	779906622	8.00	0.5	Well	400135	1080313	400145	1080243
476		M	19720570446	Valikamam									
470	Rasthinam Thevarasa	141	2	North	Vasavilan	771377113	8.00	0.5	Well	399106	1079850	399145	1079839
477	Rathinam Sivaganam	M	800515050V	Valikamam North	Vasavilan	770529265	8.00	0.5	Well	399442	107919	399449 1	1079906
470		F		Valikamam									
478	Ratheskaran Jenitha	F	915753523V	North	Vasavilan		8.00	0.5	Well	399774	1080728	399758	1080713
479		F		Valikamam									
477	Nanthakobi Sanitha	1	915663460V	North	Vasavilan	763783805	8.00	0.5	Well	399925	1080727	399915	1080710
480		F		Valikamam									
	Kugaseelan Sivaloganai		856053210V	North	Vasavilan	775364984	8.00	0.5	Well	399425	1080768	399391	1080773
481	Sellakandu Suresh	M	662562700V	Valikamam North	Vasavilan	-	8.00	0.5	Well	400068	1080339	400007	1080347
482	Rasu Tharmasekaram	M	740484311V	Valikamam North	Vasavilan	762224012	8.00	0.5	Well	400076	1080439	400004	1080430
	Kasu Inarmasekaram		/40484311V	Valikamam	Vasaviiaii	763224913	8.00	0.5	wen	400076	1080439	400084	1080430
483	Sinnapu Tharumarasa	M	521393602V	North	Vasavilan	_	8.00	0.5	Well	399375	1079887	399449	1079906
404	1	M	7517139924	Valikamam									
484	Ponnan Thabandran	M	V	North	Vasavilan	769343851	8.00	0.5	Tubewell	399285	1080166	399285	1080166
485		M		Valikamam									
.03	Sivasambu Nadarasa	171	620234788V	North	Vasavilan	767356855	8.00	0.5	Well	399913	1080720	399915	1080710
486	a. a.a	M	6025020251	Valikamam	X7 '1	7.55.600000	0.00	0.5	*** **	400002	1000071	400007	1000255
	Sinnamanyam Satkunam		693502837V	North	Vasavilan	765633230	8.00	0.5	Well	400082	1080371	400007	1080367
487	Nadarasa Nimal	M	770105102V	Valikamam North	Vasavilan	766895516	8.00	0.5	Well	399926	1080312	399926	1080312
488		M		Valikamam									
.00	Vijayarathinam Jeyaman	171	820882490V	North	Vasavilan	779853512	8.00	0.5	Well	400648	1080017	400684	1079989

489	N. G. 1	M	47116426784	Valikamam	X7 '1	770564607	0.00	0.5	XX 11	200.005	1000077	200605	1000077
	Nagan Sivakuru		471164267V	North	Vasavilan	770564697	8.00	0.5	Well	399695	1080977	399695	1080977
490	Thampan Mahadevan	M	521522321V	Valikamam North	Vasavilan	777699720	8.00	0.5	Well	399260	1080778	399679	1080979
491	Nithiyantharasa Marryrubina	F	675061343V	Valikamam North	Vasavilan	773618082	8.00	0.5	Well	399275	1080804	399252	1080848
492	Markanddu Jeyalingam	M	780891025V	Valikamam North	Vasavilan	777110652	8.00	0.5	Well	399942	1079883	399966	1079887
493	Velayutham Puvanendram	M	581841892V	Valikamam North	Vasavilan	771233080	8.00	0.5	Well	399975	1080763	400009	1080755
494	Indrakumar Rasi	M	715614561V	Valikamam North	Vasavilan	779292115	8.00	0.5	Well	399388	1080165	399362	1080151
495	Ponnan Thayalachandran	M	701733959V	Valikamam North	Vasavilan	773477249	8.00	0.5	Well	399300	1080168	399309	1080158
496	Maniyam Santhiravathanan	M	19732830450 8	Valikamam North	Vasavilan	773974518	8.00	0.5	Well	399762	1080985	399735	1080973
497	Shihamani Vasantharasa	M	803294933V	Valikamam North	Vasavilan	770785633	8.00	0.5	Well	399899	1081001	399894	1080985
498	Jeyaroshan Nilakshana	F	946192406V	Valikamam North	Vasavilan	771065298	8.00	0.5	Well	399534	1080921	399519	1080947
499	Yokeswaren Sutharsan	M	923411038V	Valikamam North	Vasavilan	779292115	8.00	0.5	Well	399411	1080150	399362	1080151
500	Udayakumar Vithees	M	962862900V	Valikamam North	Vasavilan	773997606	8.00	0.5	Well	399870	1080813	399870	1080813
501	S.Murukananthasothy	M	691183190X	Valikamam East	Avarangal East	776356563	8.00	0.5					
502	P.Kanmani	F	19546861009 7	Valikamam East	Avarangal East	774038371	8.00	0.5					
503	K.Bakeerathan	M	700310590V	Valikamam East	Avarangal East	778313656	8.00	0.5					
504	S.Sivatharshan	M	891094167V	Valikamam East	Avarangal	773604206	8.00	0.5					
505	S.Piratheepan	M	791733715V	Valikamam East	Avarangal West	772830998	8.00	0.5					

506				Valikamam	Achchuvel						
300	S.Ilango	M	762990148V	East	y North	770192904	8.00	0.5			
507				Valikamam	Siruppiddi						
307	M.Sritharan	M	753321616V	East	West	770869670	8.00	0.5			
508				Valikamam	Siruppiddi						
308	S.Mathiveniyan	M	810734515V	East	East	776231033	8.00	0.5			
509			19840580303	Valikamam	Siruppiddi						
309	S.Harishankar	M	1	East	East	779775650	8.00	0.5			
510				Valikamam							
310	K.Ajanthan	M	802811403V	South	Erlalai	776214468	8.00	0.5			
511				Valikamam							
311	K.Vimalathasan	M	840965023V	South	Evinai	779720601	8.00	0.5			
512				Valikamam				•			
312	S.Selvakesavan	M	821984432V	South	Evinai	779560276	8.00	0.5			

ANNEX 4: INTERIM GUIDELINES ON COVID-19 OF WORLD BANK

INTERIM GUIDANCE ON COVID-19

VERSION 1: APRIL 7, 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 selfreporting 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 <u>WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19</u>).
- 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 constructions
 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 <u>WHO interim guidance on water, sanitation and waste management for COVID-19</u>, and <u>WHO guidance on safe management of wastes from health-care activities</u>).

(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 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 interimguidance 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

- 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.

INTERIM GUIDANCE ON COVID-19

VERSION 1: APRIL 7, 2020

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

<u>ILO Standards and COVID-19 FAQ</u>, 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

INTERIM GUIDANCE ON COVID-19

VERSION 1: APRIL 7, 2020

KfW DEG COVID-19 Guidance for employers, issued on 31 March 2020

CDC Group COVID-19 Guidance for Employers, issued on 23 March 2020

ANNEX 5: INDIVIDUAL CODE OF CONDUCT FOR LABOUR CONTRACT

ENGLISH VERSION

Individual Code of Conduct

Implementing ESHS and OHS Standards

Preventing Gender-Based Violence

- 1. Consent to Police background check.
- 2. Attend and actively partake in training courses related to ESHS, OHS, and GBV as requested by my employer.
- 3. I will wear my protective equipment (PPE) at all times when at the worksite or engaged in project-related activities.
- 4. Take all practical steps to implement the contractor's environmental and social management plan (C-ESMP).
- 5. Implement the OHS Management Plan.

ADHERE TO A ZERO-ALCOHOL POLICY DURING WORK ACTIVITIES, AND REFRAIN FROM THE USE OF NARCOTICS OR OTHER SUBSTANCES WHICH CAN IMPAIR FACULTIES AT ALL TIMES.

- 6. Treat women, children (persons under the age of 18), and men with respect regardless of race, colour, language, religion, political or another opinion, national, ethnic or social origin, property, disability, birth, or another status.
- 7. Not use language or behaviour towards women, children, or men that are inappropriate, harassing, abusive, sexually provocative, demeaning, or culturally inappropriate.
- 8. Not sexually exploit or abuse project beneficiaries and members of the surrounding communities.
- 9. Not engaging in sexual harassment of work personnel and staff—for instance, making unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual nature is prohibited. E.g. looking somebody up and down; kissing, howling, or smacking sounds; hanging around somebody; whistling and catcalls; in some instances, giving personal gifts.
- 10. Not engage in sexual favours —for instance, making promises of favourable treatment (e.g. promotion), threats of unfavourable treatment (e.g. loss of job) or payments in kind or cash, dependent on sexual acts—or other forms of humiliating, degrading or exploitative behaviour.
- 11. Not use prostitution in any form at any time.
- 12. Not participate in sexual contact or activity with children under the age of 18—including grooming, or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
- 13. Unless there is full consent⁵ by all parties involved, I will not have sexual interactions with members of the surrounding communities. This includes relationships involving the withholding

⁵ **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained using threats, force or other forms of coercion,

- or promise of actual provision of a benefit (monetary or non-monetary) to community members in exchange for sex (including prostitution). Such sexual activity is considered "non-consensual" within the scope of this Code.
- 14. Consider reporting through the GRM or to my manager any suspected or actual GBV by a fellow worker, whether employed by my company or not or any breaches of this Code of Conduct.

About children under the age of 18:

- 15. Bring to the attention of my manager the presence of any children on the construction site or engaged in hazardous activities.
- 16. Wherever possible, ensure that another adult is present when working in the proximity of children.
- 17. Not invite unaccompanied children unrelated to my family into my home, unless they are at immediate risk of injury or in physical danger.
- 18. Not use any computers, mobile phones, video, and digital cameras, or any other medium to exploit or harass children or to access child pornography (see also "Use of children's images for work-related purposes" below).
- 19. Refrain from physical punishment or discipline of children.
- 20. Refrain from hiring children for domestic or other labor below the minimum age of 14 unless national law specifies a higher age, or which places them at significant risk of injury.
- 21. Comply with all relevant local legislation, including labour laws about child labour and World Bank's safeguard policies on child labour and minimum age.

Use of children's images for work-related purposes

When photographing or filming a child for work-related purposes, I must:

- 22. Before photographing or filming a child, assess and endeavour to comply with local traditions or restrictions for reproducing personal images.
- 23. Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this, I must explain how the photograph or film will be used.
- 24. Ensure photographs, films, videos, and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
- 25. Ensure images are honest representations of the context and the facts.
- 26. Ensure file labels do not reveal identifying information about a child when sending images electronically.

Sanctions

I understand that if I breach this Individual Code of Conduct, my employer will take disciplinary action which could include:

- 1. Informal warning.
- 2. Formal warning.
- 3. Additional Training.
- 4. Loss of up to one week's salary.
- 5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
- 6. Termination of employment.
- 7. Report to the Police if warranted.

abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even if national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

I understand that it is my responsibility to ensure that the environmental, social, health, and safety standards are met. That I will adhere to the occupational health and safety management plan. That I will avoid actions or behaviours that could be construed as GBV. Any such actions will be a breach of this Individual Code of Conduct. I do hereby acknowledge that I have read the foregoing Individual Code of Conduct, do agree to comply with the standards contained therein, and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV issues. I understand that any action inconsistent with this Individual Code of Conduct or failure to act mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature:	
Printed Name:	
Title:	
Date:	

SINHALA VERSION

<u>පුද්ගලානුබද්ධ චර්යාධර්ම පද්ධතිය</u>

<u>පාරිසරික, සමාජමය, සෞඛාහ, ආරක්ෂක සහ වෘත්තීය සෞඛාහයට සහ</u> ආරක්ෂාවට සම්බන්ධ පුමිතීන් කියාත්මක කිරීම

ස්තී පුරුෂ සමාජභාවය මත පදනම් වූ හිංසනයන් වැළැක්වීම

එබැචින් වෘාපෘතියේ සේවයේ නියුක්තව සිටින අතරතුර දී මෙහි සඳහන් ආචාර ධර්ම පිළිපැදීමට මම එකග වෙමි.

- 1. පොලීසිය විසින් සිදුකරනු ලබන පසුබිම් තොරතුරු සෙවීමට කැමැත්ත පළ කිරීම.
- 2. මාගේ සේවා යෝජකයාගේ ඉල්ලීම පරිදි ESHS, OHS සහ GBV සම්බන්ධ පුහුණු වැඩසටහන්වලට සහභාගි වීම සහ ඒවාට කිුයාශීලීව සම්බන්ධවීම.
- 3. වැඩබිමේ සිටින විට දී සහ වාහපෘතියට සම්බන්ධ කටයුතුවල නිමග්නව සිටිනා සෑම අවස්ථාවකදීම මාගේ පුද්ගලික ආරක්ෂක උපකරණ (PPE) පැළඳගෙන සිටීම.
- 4. කොත්තුාත්කරුගේ පාරිසරික සහ සමාජ කළමතාකරණ සැළැස්ම කියාත්මක කිරීමට අවශා සෑම පුායෝගික පියවරයන්ම ගැනීම.
- 5. රැකියාශිත සෞඛා ආරක්ෂණ කළමනාකරණ සැළැස්ම කිුයාත්මක කිරීම.
- 6. සේවයේ යෙදී සිටින අවස්ථාවන්හිදී මධෳසාර භාවිතයෙන් තොර පුතිපත්තිය අනුගමනය කිරීමට සහ මොළයේ කි්යාකාරිත්වයන් නිතරම අඩපණ කරන්නා වූ මත්දුවෳ හෝ වෙනත් අන්තරායකාරී ඖෂධ භාවිතයෙන් වැළකී සිටීම.
- 7. වර්ගය, ශරීර වර්ණය, භාෂාව, ආගම, දේශපාලන හෝ වෙනත් මතිමතාන්තර, ජාතික, ජනවාර්ගික හෝ සමාජ සම්භවය, දේපල වත්කම්, ආබාධිත බව, උපත හෝ වෙනත් තත්ත්වයන් සළකිල්ලට නොගෙන සියළුම කාන්තාවන්ට, වයස අවුරුදු 18ට අඩු ළමයින්ට, සහ පුරුෂයින්ට ගෞරවාන්විත ලෙස සැළකීම.
- 8. කාන්තාවන්ට, ළමයින්ට සහ පුරුෂයින්ට නොගැළපෙන හිංසාකාරී, දෝෂාරෝපණ-බැනවැදීම්, ලිංගික වශයෙන් පුකෝපකාරී, පහත් කොට සළකන්නා වූ, සංස්කෘතික වශයෙන් නුසුදුසු, ඇමතීම්වලින් හෝ හැසිරීම්වලින් වැළකී සිටීම.
- 9. වහාපෘති පුතිලාභීන් සහ අවට පුජාවන්හි සාමාජිකයින් ලිංගික සූරාකෑම්වලට හෝ අපයෝජනය කිරීමෙන් වැළකී සිටීම.
- 10. සේවක පිරිස හා කාර්ය මණ්ඩලයට ලිංගික හිරිහැර නොකිරීම. උදා- අතාරාධිත ලිංගික චර්යා සදහා පෙළඹවීම ලිංගික අනුගුහයන් නොපැතීම සහ ලිංගික ස්වභාවයේ වෙනත්

- වාචික හෝ ශාරිරික කිුයාවන් සපුරා තහනම් වේ. උදා- කෙනෙකු දෙස පාදාන්තයේ සිට කේශාන්තය දක්වා බැලීම්; සිපගැනීම්, උස් හඬින් කථා කිරීම හෝ ශබ්ද කිරීම; නුසුදුසු ලෙස කෙනෙකු ළඟ ගැවසීම; සුරුවම් බෑම සහ නොමනා ශබ්ද සහ ලිංගික ස්වභාවය හුවා දැක්වෙන අභිනයන්; සමහර විටෙක පෞද්ගලික තහාග ලබා දීම.
- 11. ලිංගික අනුගුහයන් හි නොයෙළීම උදා- විශේෂ සැළකිලි පිළිබඳ පොරොන්දු දීම (උදා-සේවයේ උසස් කිරීම වැනි), අයහපත් පුතිවිපාක දක්වන තර්ජන (සේවයෙන් පහ කිරීම) හෝ මූලාමය හෝ දුවාමය ගෙවීම්, වෙනත් ආකාරයේ නින්දිත, පහත් හැසිරීම් හෝ පළිගැනීම් සහගත හැසිරීම්.
- 12. කිසිම විටෙක කිසිම ආකාරයක ගණිකා වෘත්තිය භාවිතා නොකිරීම.
- 13. ඇදුම් පැළඳුමින් හෝ ඩිජිටල් මාධා හරහා සම්බන්ධවීම් ඇතුළුව වයස අවුරුදු 18ට අඩු ළමයින් සමඟ ලිංගික සම්බන්ධතා හෝ ලිංගික කි්යාවල නොයෙදීම. ළමයකුගේ වයස පිළිබඳව වැරදි නිශ්චය නිදහසට කාරණාවක් නොවේ. දරුවාගේ කැමැත්ත මත එවැන්නක් කිරීමද සමාවට හෝ නිදහසට කරුණක් නොවේ.
- 14. අදාළ සියළුම පාර්ශ්වයන්හි පූර්ණ කැමැත්ත⁶ නොමැතිව, අවට පුජාවන්හි සාමාජිකයින් සමඟ ලිංගික සබඳතා මා හට පැවැත්විය නොහැකිය. පුතිලාභ නොගෙවා රඳවා ගැනිම් හෝ සතා වශයෙන්ම පුජාවේ සාමාජිකයින්ට වන පොරොන්දු (මූලාමය හෝ මූලාමය නොවන) සතා පුතිලාභවල සැපයීම් (මූලාමය හෝ මූලාමය නොවන) රඳවා ගැනිම් හෝ ලබා දෙන බවට පොරොන්දුවීම් ආදියද මෙයට ඇතුළත් වේ.
- 15. GBV හිංසනයන් සතා වශයෙන්ම සිදුවීමේදි හෝ එවැන්නක් යැයි සැක කෙරෙන අවස්ථාවලදී මෙන්ම මෙම චර්යාධර්ම පද්ධතිය කිසියම් ලෙසකින් උල්ලංඝනය වන්නා වූ අවස්ථාවලදී එය සිදු කරන පුද්ගලයා මා අයත් සමාගමේ කෙනෙකු වූවත් නොවූවත් දුක්ගැනවිලි කම්ටුවට හෝ මාගේ කළමනාකරුට වාර්තා කිරීමට සැළකිළිමත් වීම.

වයස අවුරුදු 18 ට අඩු ළමයින් සම්බන්ධයෙන්:

- 16. ඉදිකිරීම් භූමියේ ළමයින් සිටී නම් හෝ අන්තරාදායක කියාකාරකම්වල යෙදි සිටී නම් ඒ බව මාගේ කළමනාකරුගේ අවධානයට යොමු කිරීම.
- 17. ළමයින් ආසන්නයේ වැඩ කරන විටදී වැඩිහිට් පුද්ගලයෙකු ඒ අසල සිටිය යුතු බවට හැකි සැමවිටකම වග බළා ගැනීම.
- 18. මාගේ ඥාති නොවන කිසිම දරුවෙකු, හදිසි තත්ත්වයක් මත වහාම පුතිකාර කිරීමට අවශා විටෙක හෝ ශාරිරික වශයෙන් අනතුරකට ලක්වීමේ අවදානමක සිටින අවස්ථාවක හැර මාගේ නිවසට තනිව කැඳවා ගැනිමෙන් වැළකී සිටීම.
- 19. ළමයින් ලිංගික සූරාකැමට හෝ හිරිහැරයකට ලක් කිරීමට හෝ ළමා අසැබි දර්ශන නැරඹීමට ඉඩ සළසන කිසිදු පරිඝණයක්, ජංගම දුරකථන, වීඩියෝ සහ ඩිජිටල් කැමරා හෝ වෙනත් මාධායයක් භාවිතා නොකිරීම (පහත සඳහන් "සේවා අවශානාවයන් සම්බන්ධයෙන් ළමා ඡායාරූප භාවිතා කිරීම" ද බලන්න).
- 20. ළමයින්ට ශාරිරික දඬුවම් කිරීමෙන් හෝ හික්මවීමෙන් වැළකී සිටීම.
- 21. නීතියෙන් ඉහළ වයස් සීමාවක් නියම කර නොමැති විටෙක අවම වයස් සීමාව අවුරුදු 14 ට අඩු ළමයින් ගෘහාශිත හෝ වෙනත් ශුම අවශාතා සඳහා කුලියට යොදා නොගැනීම;

⁶ පුද්ගලයෙකුගේ නිදහස් සහ ස්වේච්ඡාමය අභිපාය, පිළිගැනීම, යමක්කිරීමට එකඟවීම මත පදනම් වූ දැනුවත් තේරීම **කැමැත්ත** ලෙසට අර්ථ ගැන්වී ඇත. එවැනි පිළිගැනීමක් හෝ එකඟතාවයක්, තර්ජනය කිරීමෙන්, බලෙන් හෝ අන් ආකාර වල සංයෝජනයන්ගෙන්, බලෙන් පැහැරගෙන යාමෙන්, වංචාවෙන්, රැවටීමෙන්හෝ වැරදි ලෙස නිරුපණය කිරීමෙන් ලබා ගන්නා අවස්ථාවන්හිදී කැමැත්ත නොමැති බව සොයාගත හැක. චර්යාධර්ම පද්ධතිය හඳුන්වා දෙනු ලබන රටෙහි ජාතික නීති සම්පාදනයේ අඩු වයසක් දක්වා තිබුණද ලෝක බැංකුව එක්සත් ජාතීන්ගේ සංවිධානයේ ළමා අයිතිවාසිකම් පිළිබද සම්මුතිය අනුව යමින් වයස අවුරුදු 18ට අඩු ළමයින් යනු කැමැත්ත ලබා දිය නොහැකි අය බවට සලකනු ලබයි. ළමයකුගේ වයස පිළිබද වැරදි විශ්වාසය සහ ළමයාගේ කැමැත්ත නිදහසට හේතුවක් නොවේ.

- කෙසේ වෙතත් අනතුරක් වීමෙ සැළකිය යුතු අවදානම් තත්ත්වයකට පත් වීමට ඉඩ ඇති අවස්ථාවන්හිදී වයස අවුරුදු 14 ට වැඩි වුවද ළමයින් සේවයේ යොදා ගත නොහැක.
- 22. ළමා ශුමයට අදාළ කම්කරු නීති ඇතළු සියළුම දේශීය නීති සහ සහ ළමා ශුමය සහ අවම වයස පිලිබද ලෝක බැංකුවේ ආරක්ෂණ පුතිපත්තිවලට අනුකූලවීම.

සේවා අවශානාවයන් සම්බන්ධයෙන් ළමා ඡායාරූප භාවිතා කිරීම

රැකියා හා සම්බන්ධ අරමුණු සදහා දරුවෙකු ඡායාරූප ගත කිරීමේදී හෝ රූ ගත කිරීමේදී, මා විසින්

- 23. දරුවෙකු ඡායාරූපගත කිරීමට හෝ රූ ගත කිරීමට පෙර හෝ පෞද්ගලික ඡායාරූප පුතිනිර්මාණ කිරීමේදි දේශීය සම්පුදායන් හා සීමාකරණයන් අධායයනය කිරීම හා අනුගමනය කිරීමට ගතහැකි සියළු පුයත්නයන් දැරීම.
- 24. දරුවෙකු ඡායාරූපගත කිරීමට හෝ රූගත කිරීමට පෙර, දරුවාගෙන් හා දෙමාපියන්ගෙන් හෝ භාරකරුවෙකුගෙන් ඒ පිළිබඳව දැනුවත් කර නිසි කැමැත්ත ලබා ගැනීම. මේ සම්බන්ධයෙන් ඡායාරූපය හෝ චිතුපටය භාවිතා කරන්නේ කෙසේද යන්න පිළිබඳ තේරුම් කරදීමට වගබලා ගැනීම.
- 25. ඡායාරූප, චිතුපට, වීඩියෝ සහ ඩීවීඩී තැටි තුළින් ළමයින් නිරූපණය කිරීමේදී ළමයින්ගේ අභිමානය සහ ගෞරවය සුරක්ෂා වන පරිදි එය කිරීමට වග බලා ගැනීම. ඔවුන් අවාසි සහගත බලපෑම්වලට ලක් නොකිරීමට සහ යටහත් නොකිරීමට වග බලා ගැනීම. ළමයින් සුදුසු පරිදි පුමාණවත් ලෙස ඇදුම් ඇදිය යුතු අතර ලිංගික කාරණා ඉස්මතු නොවන ලෙස අදාළ ඉරියව්වලින් පෙනී සිටින ලෙසට වග බලා ගැනීම.
- 26. ළමා නියෝජනය කිරීමේදී ඒවා සන්දර්භය සහ සතාවාදී කරුණු සමඟ සංගතතාවයෙන් යුක්ත බවට තහවුරු කිරීම.
- 27. විදහුත් තැපැලෙන් ඡායාරූප යවන විට දරුවෙකු පිළිබඳ හඳුනා ගැනීමේ තොරතුරු ගොනු ලේබල මඟින් අනාවරණය නොවන බවට සහතික වීම.

දණ්ඩනයන්

මා මෙම පුද්ගලානුබද්ධ චර්යාධර්ම පද්ධතිය උල්ලංඝනය කළහොත්, මාගේ සේවා යෝජකයා මට විරුද්ධව විනය කිුයාමාර්ග ගන්නා බවත් ඒවාට පහත දැක්වෙන දණ්ඩනයන් ඇතුළත් විය හැකි බවත් දනිමි.

- 1. අවිධිමත් අනතුරු ඇඟවීම්
- 2. විධිමත් අනතුරු ඇඟවීම්
- 3. අතිරේක පුහුණු කිරීමේ
- 4. සතියක් දක්වා වැටුප් අහිමිවීම්
- 5. රැකියාව අත්හිටුවීම (වැටුප් නොගෙවා), අවම මාස 1 ක කාලයක සිට උපරිම මාස 6 ක කාලයක් දක්වා
- 6. රැකියාව අවසන් කිරීම
- 7. අවශා වුවහොත් පොලීසියට වාර්තා කිරීම

පාරිසරික, සමාජමය, සෞඛාවෙය සහ ආරක්ෂාවට අදාළ පුමිතින් සපුරාලීම සහතික කිරීමත්, වෘත්තීයට අදාළ සෞඛාව සහ ආරක්ෂක කළමනාකරණ සැලසුම පිළිපැදීමත්, එමෙන්ම ස්තුි පුරුෂ සමාජභාවය මත පදනම් වූ හිංසනයන් සේ හැඟවෙන කිුයාකාරකම්වලින් සහ චර්යාවන්ගෙන් වැළකී සිටීමත් මගේ වගකීම බව මම තේරුම් ගනිමි. එවැනි ඕනෑම කිුයාවක් මෙම පුද්ගලානුබද්ධ චර්යාධර්ම පද්ධතිය උල්ලංඝනය කිරීමක් බවට මම අවබෝධ කර ගෙන සිටිමි. ඉහතින් දක්වා ඇති පුද්ගලානුබද්ධ චර්යාධර්ම පද්ධතිය මා විසින් කියවා බැලූ බවත් එහි ඇති පුමිතීන්වලට අනුකූලවීමටත් මම එකඟවන බවත්, ESHS, OHS, GBV ගැටළු ඇති වීම වැළැක්වීමට සහ ඒවාට පුතිචාර දැක්වීමට අදාළ මාගේ කාර්යභාරයන් සහ වගකීම් මා විසින් පිළිගන්නා බවත් මෙයින් පුකාශ කර සිටිමි. මෙම පුද්ගලානුබද්ධ චර්යාධර්ම පද්ධතිය හා නොගැළපෙන කියාවක් සිදුකිරීම හෝ මෙම පුද්ගලානුබද්ධ චර්යාධර්ම පද්ධතියෙන් බලගන්වා ඇති පරිදි කියා කිරීමට අපොහොසත් වීම, විනයානුකූල පියවර ගැනීමට හේතු වන බවත් ඉන් දැනට මා නියුක්තව සිටින රැකියාවට කිසියම් අහිතකර බලපෑමක් සිදු විය හැකි බවත් මම අවබෝධ කරගෙන සිටිමි.

අත්සන:

මුදුිත නාමය:

තත්ත්වය/තරාතිරම:

දිනය: