

LIVELIHOODS FOR YOUTH – COMMUNITY SUPPORT PROJECT
(P165286)

Environmental and Social Management Plan

Introduction

The purpose of the Environmental and Social Management Plan (ESMP) is to identify the environmental and social management and mitigation actions required to implement the project in accordance with the requirements of the World Bank and Kyrgyz legislation. The plan was developed by the Public Foundation Kyrgyzstan Mountain Societies Development Support Programme (MSDSP) specialist responsible for the environmental matters of the *Livelihoods for Youth – Community Support Project*. The draft was posted publicly in Kyrgyzstan on www.donors.kg between 30th March and 10th April 2018 allowing for comments and suggestions from NGO's, CSO's, donor community, general public, the relevant government agencies. Further avenues for input from the community were provided through community meetings on 11th April 2018 in Karool Ayil AO (Uzgen District of Osh oblast) and on 12th April 2018 in Kulatov AO (Nookat District of Osh oblast). The final ESMP Checklist was subsequently disclosed on 25th April 2018 and submitted to the World Bank for subsequent disclosure via the World Bank Infoshop.

Project Description

The project is comprised of three components:

Component 1: Preparing Youth for the Labor Market

Component 2: Creating Market Opportunities for Youth

Component 3: Project Management and Administration, M&E and Knowledge Dissemination

Component 1: Preparing Youth for the Labor Market

Component 1 will support the supply side of the market system and prepare youth for the labor market. It will be disaggregated into two subcomponents: (i) assisting youth to join the traditional economy; (ii) assisting youth to join the e-economy. Through participatory assessments and provision of skills development for employment, the component aims at preparing youth to become active actors in the traditional and e-economies.

Opportunities for skills development will be identified using a combination of participatory and technical assessments, cognizant of the differing needs of women and men. Areas of youth interest in the target areas have been researched through the consultative gender-sensitive Youth Needs Assessment carried out during preparation and will be further established through the participatory Youth Development Plans that will be developed in the CASA-1000 CSP. These assessments will highlight needs regarding employment, and will be compared with technical market assessments. These market and needs assessments will be carried out by the youth themselves to identify promising trades for skills development. Drawing on the Youth Development Plans, interested beneficiaries will then be required to develop individual market assessments for their chosen area of training as part of the selection process. The project will identify appropriate service providers relevant to the target sectors, and strengthen their capacity to deliver relevant skills development programs and better prepare youth to enter the labor market.

Component 2: Creating Market Opportunities for Youth

The interventions under this component will increase opportunities for young women and men in the marketplace by working with demand-side actors in youth-centric value chains, facilitating local value addition, and creating new opportunities for micro and small enterprises in target areas. These interventions are broadly divided into two subcomponents along the same breakdown of traditional and e-support: (i) facilitating value-addition in selected value chains; and (ii) developing e-firms and enterprise capacity.

Component 3: Project Management and Administration, M&E and Knowledge Dissemination

The implementing agency (IA) will be responsible for preparing work plans and operational manuals, managing the budget, managing relations with local authorities and communities, and developing terms of reference for the necessary consultancies. In addition, the IA will be responsible for tracking the progress of the project, carrying out semi-annual assessments of outcomes and results, and communicating and reporting regularly on the progress of the project to relevant audiences. This subcomponent will support the recruitment of project-specific staff and consultants, operational support mechanisms, financial management at the national, oblast and district levels, travel, telecommunications, printing and other office expenses, as well as managerial oversight and internal and external audits. The project will not purchase new vehicles, but will provide travel allowances and/or apportion costs for the use of existing vehicles.

This subcomponent will support the monitoring of the results framework, an agreed set of output indicators, quarterly reporting to the World Bank, Midterm Review/Implementation Completion Report, as well as reflections on lessons learned and openness to adapt processes that are not working. A comprehensive monitoring, evaluation and learning plan will measure impacts and outcomes and monitor ongoing progress of project implementation

Project potential environmental and social impacts. Under Component 2, the project will provide matching grants to private lead entrepreneurs and community interest groups (CIG) (producer groups) to finance introduction of new technologies, such as upgrade of existing equipment, to improve productivity and value-addition. Prior to the installation of these equipment, grant applicants may have to do small renovation to their current facilities. Environmental impacts will include those typically associated with small construction works such as generation of dust, noise, vibration, generation of small amount of construction waste, temporary disruption of community transport system due to a transportation of goods to the construction site, small discharge of the wastewater, hazards associated with asbestos management.

Additionally, there might be occupational health and safety risks associated with the operation of equipment. Such hazards include slips and trips, caught-in or – between, falls from heights, being struck by falling, swinging, rolling or flying objects, respiratory issues due to the presence of dust at the work place, exposure to occupational noise. Minor anticipated environmental issues would include spills of lubricants and fuel from machinery and equipment, generation of production food and packaging waste, dust, increase in traffic pollution due to transportation of goods to and from the facilities.

Support will be provided to CIG for the provision agricultural inputs (seeds, fertilizers, pesticides, etc.) that are needed to help them to establish long-term business relationship with the lead entrepreneurs. This pose certain risks associated with the type of pesticides fertilizers and pesticides to be procured and their proper handling and application. In particular, pesticides have a potential to contaminate soil, water and other vegetation. In addition to killing insects or weeds, pesticides can be toxic to a host of other organisms including birds, fish, beneficial insects, and non-target plants. Fertilizers may deplete the quality of soil, lead to eutrophication in and contaminate the nearest water bodies. In addition, persons who deal with pesticides in the day-to-day operations may develop acute and chronic adverse health conditions.

All anticipated environmental and social impacts under the project are expected to be minor, short lived and localized and can be easily managed with generally accepted good agriculture and construction

practices. To control the risks mentioned above, they will be identified based on the sub-project specifics, assessed in terms of probability and severity of harm. Mitigation measures will be defined and included into the site-specific ESMPs.

Purpose of the ESMP. The present ESMP is aimed at providing overall guidance for conducting environmental and social assessment of the grant activities. It specifies the set of mitigation, monitoring, and institutional responsibility measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The generic ESMP checklist-type format ("ESMP Checklist") will be used to cover typical preventive and mitigation approaches to common civil works contracts with localized impacts, the use of processing equipment and chemical pesticides and fertilizers.

ESMP Checklist structure. The ESMP has three sections:

- **Part 1** constitutes a descriptive part ("*site passport*") that describes the project specifics in terms of physical location, the institutional and legislative aspects, the project description, inclusive of the need for a capacity building program and description of the public consultation process.
- **Part 2** includes the environmental and social screening in a simple Yes/No format followed by mitigation measures for any given activity.
- **Part 3** includes a plan for procedures to mitigate risk related to plant modernization, including a monitoring plan.
- **Part 4** includes a health and safety risk management plan, including monitoring plans, in the eventually of the purchase of processing equipment.
- **Part 5** includes a pesticides and fertilizers management plan, including a monitoring plan, in case of purchase of pesticides and fertilizers.

Integration of the ESMP Checklist into project documents. The ESMP Checklist, including Part 3 – 5, will be included in grant applications from each lead entrepreneurs and CIG, should there be any renovation works, purchase of processing equipment and procurement of pesticides and fertilizers, both in specifications and bills of quantities. The ESMP will be verified and used as part of the micro-grant selection process by specialized staff within MSDSP charged with determining eligibility of micro-grants. The first three ESMP Checklists will have to be reviewed and approved by the World Bank team.

Monitoring subprojects. The monitoring of the implementation of the different plans during project implementation provides information about the project environmental and social impacts and the effectiveness of mitigation measures. Such information enables the client and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. The monitoring section of the ESMP provides: (a) details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements; and, (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Environmental and social supervision and reporting of subprojects. Prior to the provision of grants, lead entrepreneurs and CIG together with the MSDSP staff will verify the availability and quality of the ESMP checklists. MSDSP will draw on its existing personnel to build the capacity of project staff to verify the checklists and oversee project implementation. This includes on-staff engineers and agronomists familiar with relevant agro-machinery. Where necessary, MSDSP will seek technical input from local training providers and technical experts, including from ARIS, District Agricultural Departments, Association of Fruits and Vegetable Enterprises, among others. Using a cascading approach, trained staff will then build the capacity of relevant CIG members and lead entrepreneurs on appropriate environmental and social safeguards. Additionally, during the implementation of the grant

project, MSDSP staff will monitor the enforcement of the mitigation measures. This supervision work will be complemented by the WB (during its supervision missions) and by the local ecological and construction safety inspectors. Semiannually the implementing agency will present short information about the ESMP implementation and subprojects' environmental performance as part of the Progress Reports to be presented to the WB by the Client.

LIVELIHOODS FOR YOUTH – COMMUNITY SUPPORT PROJECT
(P165286)

CHECKLIST ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

PART 1: INSTITUTIONAL & ADMINISTRATIVE				
Country	Kyrgyz Republic			
Project title	Livelihoods for Youth – Community Support Project			
Scope of project and activity				
Institutional arrangements Name & Contacts		Project Management Overall the grant will be managed and implemented by the Public Foundation Kyrgyzstan Mountain Societies Development Support Programme (MSDSP).	Local Counterpart and/or Recipient Youth, lead entrepreneurs, local business development providers, including TVET school in 20 sub-district of Jalal-Abad, Osh and Batken oblast where more than 263,500 people. The project will directly benefit 4,000 youth aged 18-28 years.	
Implementation arrangements Name & Contacts Arslanbek Miiashev Executive Director	Safeguard Supervision Overall safeguards supervision responsibilities will be the responsibility of MSDSP.	Local Counterpart Supervision 20 CIGs and 20 lead entrepreneurs in agriculture value-chains	Local Inspectorate Supervision State Inspection on environmental and technical safety of the Kyrgyz Republic	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location	Attachment 1: Site Map [] Y [] N			
Who owns the land?				
Geographic description				
Will workers hired mostly or exclusively locally?				
LEGISLATION				
Identify national & local legislation & permits that apply to project activity	<p><i>The Law on Environmental Protection:</i> requires that in the process of designing, placing, construction, re-construction, putting into operation facilities, and other activities having a direct or indirect impact on environment, the actions for protection, use and restoration of the environment and natural resources shall be identified and undertaken “according to ecological norms”. The Law also requires that an EIA be prepared for a planned activity (Article 17).</p> <p><i>The Law on Ecological Expert’s Review:</i> states that EIA means the identification,</p>			

	<p>analyses, assessment, and taking into consideration possible impacts of development activities (Article 1). Article 10 defines the activities that require EIA and the process for the project proponent to undertake the EIA.</p> <p><i>Temporary Instruction for Procedure for Performance of Environmental Impact Assessment of Planned Economic and Other Activities:</i> the documentation prepared must reflect the full extent of the project and meet the specified requirements for EIA, while to ensure consistency of EIA reports;</p> <p><i>Instruction on Procedure for Performance of Environmental Impact Assessment of Planned Activity:</i> states the EIA documents should be fully consulted</p> <p>The EIA must include:</p> <ul style="list-style-type: none"> · Description of the project or planned activity; · Possible alternatives for the project or planned activity; · Description of the existing environment; · Types and degree of impact on environment and population; · Forecast any possible changes in environmental quality; · Description of socio-economic and ecological consequences; and · Actions to prevent environmental damage or mitigate the level of ecological risk. <p><i>Law of the Kyrgyz Republic "On the application of chemicals and plant protection"</i> defines the general legal, economic, environmental, social and organizational principles for the use of chemicals and plant protection in the interest of protection of public health, animals, environment, prevention or elimination of the consequences of soil, plant and animal products pollution.</p> <p><i>The Technical Regulations "On industrial safety"</i> defines the main technical regulations in the field of industrial safety provisions aimed at preventing accidents at hazardous production facilities and the preparedness of organizations to localize their consequences</p>
PUBLIC CONSULTATION and COMMUNITY ENGAGEMENT	
Identify when / where the public consultation process took place	Community meetings took place on 11th April 2018 in Karool Ayil AO (Uzgen District of Osh oblast) and on 12th April 2018 in Kulatov AO (Nookat District of Osh oblast)
Describe materials shared with the population and dates of local disclosure	<i>Please see the file attached below.</i>
Key issues raised during the consultations and corresponding responses from project proponent	 <p>Minutes_ESMP Consultations_April 20</p>
INSTITUTIONAL CAPACITY BUILDING	
Will there be any capacity building?	<p><input type="checkbox"/> N or <input type="checkbox"/> Y if Yes, Attachment 2 includes the capacity building program</p> <p>On the job training to be provided by the WB Safeguards Specialists to MSDSP. Trained MSDSP staff will also build the capacity of 20 individual lead entrepreneurs and least one member of the 20 CIG to be supported.</p>

PART 2: ENVIRONMENTAL /SOCIAL SCREENING			
Will the activity include/involve any of the following:	Activity	Status	Additional references
	A. General Conditions	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section A below
	B. General Rehabilitation and /or Construction Activities	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section B below
	C. Individual wastewater treatment system	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section C below
	D. Historic building(s) and districts	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	See Section D below
	E. Hazardous or toxic materials ¹	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section E below
	F. Impacts on forests and/or protected areas	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section F below
	G. Handling / management of medical waste	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section G below
	H. Traffic and Pedestrian Safety	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section H below
	I. Acquisition of land: ² E 1 Will the project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section I below
	E.2 Will the project reduce people's access to their economic resources, such as land, pasture, water, public services or other resources that they depend on?	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section I below
	E.3 Will the project result in the temporary or permanent loss of crops, fruit trees and household infrastructure (such as granaries, fences, outside toilets and kitchens, etc.)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section I below
	J. Impact community life	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section J below
	K. Will externally hired workers reside in workers' camp?	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section K below
	L. Include the use of processing equipment	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section L below
	M. Use of pesticides and fertilizers	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section M below

¹ Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

² Land acquisition includes displacement of people, change of livelihood, encroachment on private property, impacts on communal or privately owned or used assets (e.g., fruit trees, crops, gardens, structures and fences, etc.) and access to communal resources. It covers both temporary and permanent impacts. It includes impacts on land that is purchased/transferred/used and affects people who are living on, using/or operate a business (kiosks) on land that is being acquired/used. It applies whether the affected person has formal ownership status over the land/asset or not (e.g., informal users/squatters).

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
A. General Conditions	Notification and Worker Safety	<ul style="list-style-type: none"> (a) The local construction and environment inspectorates and communities have been notified of upcoming activities (b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) (c) All legally required permits have been acquired for construction and/or rehabilitation (d) All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) (f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
B. General Rehabilitation and /or Construction Activities	Air Quality	<ul style="list-style-type: none"> (a) During interior demolition use debris-chutes above the first floor (b) Keep demolition debris in controlled area and spray with water mist to reduce debris dust (c) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site (d) Keep surrounding environment (sidewalks, roads) free of debris to minimize dust (e) There will be no open burning of construction / waste material at the site (f) There will be no excessive idling of construction vehicles at sites
	Noise	<ul style="list-style-type: none"> (a) Construction noise will be limited to restricted times agreed to in the permit (b) During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible
	Water Quality	<ul style="list-style-type: none"> (a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	<ul style="list-style-type: none"> (a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. (b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. (c) Construction waste will be collected and disposed properly by licensed collectors (d) The records of waste disposal will be maintained as proof for proper management as designed. (e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)
C. Individual wastewater treatment system	Water Quality	<ul style="list-style-type: none"> (a) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities (b) Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment (c) Monitoring of new wastewater systems (before/after) will be carried out

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
D. Historic building(s)	Cultural Heritage	(a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation (b) Ensure that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds.
E. Toxic Materials	Asbestos management ----- Toxic / hazardous waste management	(a) If asbestos is located on the project site, mark clearly as hazardous material (b) When possible the asbestos will be appropriately contained and sealed to minimize exposure (c) The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust (d) Asbestos will be handled and disposed by skilled & experienced professionals (e) If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately (f) The removed asbestos will not be reused ----- (a) Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information (b) The containers of hazardous substances should be placed in an leak-proof container to prevent spillage and leaching (c) The wastes are transported by specially licensed carriers and disposed in a licensed facility. (d) Paints with toxic ingredients or solvents or lead-based paints will not be used (e) Fellow national requirements and regulations on toxic/hazardous waste management
F. Affects forests and/or protected areas	Protection	(a) All recognized natural habitats and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities. (b) For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees (c) Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences (d) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.
G. Disposal of medical waste (not applicable)	Infrastructure for medical waste management	(a) In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to: <ul style="list-style-type: none"> ▪ Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal; and ▪ Appropriate storage facilities for medical waste are in place; and ▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational
H. Traffic and	Direct or indirect hazards to	(a) In compliance with national regulations the contractor will insure that the construction site is properly

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
Pedestrian Safety	public traffic and pedestrians by construction activities	secured and construction related traffic regulated. This includes but is not limited to <ul style="list-style-type: none"> ▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards ▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. ▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement ▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. ▪ If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours ▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.
I. Acquisition of Land	Loss of private land and/ or assets	(a) If land acquisition was not expected but is found to be necessary, required, or if loss of access to income of legal or illegal users of land was not expected but may occur, the Bank’s Task Team Leader shall be immediately consulted. Designs have to change or subproject has to be dropped since land acquisition is not allowed under the project.
J. Local Community Management	Disturbance to local community life	<ul style="list-style-type: none"> ▪ The Employer ensures the following: <ul style="list-style-type: none"> ▪ At project sites there is a poster in local language with: name of intervention, owner, duration, contact information including the Grievance Redress Mechanism (e.g. email, phone, address). ▪ Local communities are consulted to identify and pro-proactively manage potential conflicts between an external workforce and local people. ▪ GRM accessible to local people is established and the Contractor address concerns raised through GRM within the designated timeline if they are liable. (b) The Contractor will conduct the following: <ul style="list-style-type: none"> - Assign local liaison person who is in charge of communication with and receiving requests/ complaints from local population.
K. Worker Accommodation Management	Labor management	<ul style="list-style-type: none"> (a) Where required, and to the extent possible, work camps should not be located in close proximity to local communities. (b) Siting and operation of worker camps should be undertaken in consultation with neighboring communities. (c) The Contractor recruit unskilled or semi-skilled workers from local communities to the extent possible. Where and when feasible, worker skills training, should be provided to enhance participation of local people. (d) The Contractor provide adequate lavatory facilities (toilets and washing areas) in the work site with adequate supplies of hot and cold running water, soap, and hand drying devices. A temporary septic tank system should be established for any residential labor camp and without causing pollution of nearby watercourses

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		(e) The Contractor raise awareness of workers on overall relationship management with local population, establish the code of conduct in line with international practice and strictly enforce them, including the dismissal of workers and financial penalties of adequate scale (f) Contractor should avoid hiring people at the gate and when necessary will set up a recruitment office in a nearby urban area to discourage camp followers.
L. Use of processing equipment	Use of machinery	In line with International Labor Organization Guideline on Safety and Health in the Use of Machinery, the entrepreneurs will, but not limited to: (a) Take the measures necessary to ensure that machinery is suitable for the work to be carried out, or otherwise properly adapted for its intended purpose, and is safe for workers. (b) Ensure that machinery is correctly installed and safeguarded and that protective devices and markings are used so that workers are protected from danger to their safety and health. (c) Ensure that workers are adequately trained and competent. (d) Ensure adequate and competent supervision of work and work practices, including adherence to work procedures.
	----- Maintenance	In line with International Labor Organization Guideline on Safety and Health in the Use of Machinery, the entrepreneurs will, but not limited to: (a) Take all necessary measures to ensure that, throughout its working life, machinery is maintained in a condition such that it continues to meet the relevant safety requirements (b) Ensure the safety of machinery through a system of preventive maintenance, including regular inspections and testing, where appropriate, of protective devices and guards and emergency stops. Any defects should be rectified promptly. In the event that serious defects are noted, the machinery should not be used until the defects have been corrected Other consideration include: (a) The manufacturer’s instructions should be taken into account when maintenance is carried out. (b) Where appropriate, the maintenance systems should include written procedures and communication on how the work can be carried out safely (for example, “permit to work” systems, procedures for working in confined spaces and lock-off procedures) (c) Ensure that maintenance is performed safely and that, where appropriate: (i) the work is performed in accordance with the relevant special; instructions and procedures; (ii) before the work begins, approval is given by the appointed supervisor; and (iii) the necessary arrangements have been made at the workplace to ensure that the work being carried out will not endanger the maintenance workers or other persons (d) Where there are specific hazards such as electricity, pressure differentials, poor air quality or radiation, employers should ensure that such hazards are identified and controlled so that workers and other persons in the workplace are not endangered (e) Emergency prevention, preparedness and response arrangements should be established and maintained in relation to the use of machinery. These arrangements should identify the potential for General obligations, responsibilities and duties accidents and emergency situations. They should be made according to the size and nature of activity of the organization

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
	Competence, education and training of workers	<p>In line with International Labor Organization Guideline on Safety and Health in the Use of Machinery, the entrepreneurs will, but not limited to:</p> <ul style="list-style-type: none"> (a) Ensure that workers have received the necessary training, information and instructions to perform the work competently and safely. Taking into account information provided by the manufacturer and supplier, the training, information and instructions should include information on: <ul style="list-style-type: none"> (i) risks which the use of the machinery may entail; (ii) risk avoidance and foreseeable abnormal situations; (ii) safe working procedures (b) Make sure that workers will be instructed on how to obtain and use the information provided to prevent accidents (c) Ensure that training programs will: (i) cover all workers at the workplace, including managers and supervisors, migrant and temporary workers and contractors, as appropriate;(ii) be conducted by competent persons and provided during working hours; (iii) include effective and timely initial and refresher training at appropriate intervals; (iv) include participant evaluation for comprehension and retention of the matters (d) Provide training required by national law and practice, as appropriate (e) Carry out training, instruction and information in an appropriate manner using written, oral, visual and participative approaches in order to ensure that workers have understood the material, and should be given in a language understood by the workers
M. Use of pesticides and fertilizers	Stocking	<p>In compliance with the ILO guidelines on Safety and Health in the Use of Agrochemicals, the contractor will ensure that:</p> <ul style="list-style-type: none"> (a) Staff who transport pesticides and fertilizers will use gloves when handling to avoid skin contact (b) Safe and secure storage ensure correct siting to allow easy access for the delivery of agrochemicals and transfer to farm vehicles. If the store is within a general-purpose building it should be separated from other stocks such as flammable materials. The location of the store should also take account of possible pollution risks from leaks and spillages. It should be situated away from living accommodation and surface waters such as rivers, streams and reservoirs used for the supply of drinking or irrigation water
	Dispensing	<ul style="list-style-type: none"> (a) Dispensing agrochemicals requires particular care to ensure that it is carried out safely and efficiently. This includes but is not limited to <ul style="list-style-type: none"> ▪ Reading the label in order to work out what equipment, such as measuring jugs, funnels, stirrers and protective clothing, is required ▪ Setting out the agrochemical and dispensing equipment at an uncluttered place away from homes or livestock, and which could be cleaned of any spillage should it occur ▪ Reading the label again to work out the correct dose rates and dilutions and how this can be achieved with the dispensing equipment available ▪ Wearing appropriate protective clothing, particularly gloves, as specified on the label or recommended in information sheets ▪ Adding the dispensed agrochemical to the applicator in such a way that it is part full of water or any other diluting fluid recommended. This would prevent any accidental splash-back of the

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
	<p style="text-align: center;">Application</p>	<p style="text-align: center;">concentrated substance</p> <ul style="list-style-type: none"> ▪ Carefully emptying packs of agrochemical dusts and powders into applicators to avoid their becoming airborne and being inhaled <hr style="border-top: 1px dashed black;"/> <p>In compliance with the ILO guidelines on Safety and Health in the Use of Agrochemicals, the contractor will ensure that:</p> <p>(a) All agrochemical users must ensure that they are properly trained as sprayer operators. If a helper is at hand he or she should also be trained. Users should ensure that the training has adequately covered the following aspects of application: Choice of equipment; Checking of equipment to ensure proper functioning; Filling the applicator with the agrochemical; Calibrating; Operating; Safety precautions and emergency measures in the event of malfunction or accident</p> <p>(b) Pre-spraying precautions include, but not limited to:</p> <ul style="list-style-type: none"> ▪ Read and understand labeled instructions and any other information provided with either the agrochemical, the application equipment or the protective clothing. ▪ Assess the risks of application to people, animals and the environment and decide what action is necessary to reduce or eliminate them. Apart from the points covered in this guide there may be others because of the many, varied and sometimes unique circumstances of pesticide application. Seek the necessary advice before you commence application. ▪ Ensure that the user is competent and that he or she has received effective training in application techniques and the precautions to be observed. The user should also be familiar with the requirements under the law and guidance given in codes of practice. <p>(c) Arrange such health monitoring as may be necessary for certain hazardous agrochemicals based on their frequency of use. Precautions during application includes, but not limited to:</p> <ul style="list-style-type: none"> ▪ Do not apply agrochemicals without adequate training. ▪ Wear appropriate protective clothing as prescribed on the label or information sheet for handling concentrated products. ▪ Avoid blow-back from granule or powdered materials when transferring container contents into the application unit. A slow, steady release causes least disturbance of air and reduces the risk of particles becoming airborne and being inhaled. ▪ Mix only the correct amount of agrochemical required for a particular task so as to avoid the need to dispose of any surplus.

PART 3: PLAN FOR PROCEDURES TO MITIGATE RISKS RELATED TO PLANTS MODERNIZATION

Plant Modernisation Phase					
<i>Activities</i>	<i>Expected impact on the environment</i>	<i>Proposed measures aimed at reducing the negative impact</i>	<i>Cost of measures</i>	<i>Responsibility for implementation of measures aimed at reducing the negative impact</i>	<i>Implementation period of the measures aimed at reducing the negative impact</i>
1.					
2.					
...					
Operation Phase					
1.					
2.					
...					

MONITORING PLAN

Construction Phase				
What? <i>What are the parameters to be monitored?</i>	Where? <i>Where will parameters be monitored?</i>	How? <i>How will monitoring of the parameters be performed? (methodology and tools)</i>	When? <i>When will monitoring be performed (time and frequency)</i>	Who? <i>Who will perform the monitoring of parameters? (responsibility)</i>
1.				
2.				
...				
Operation Phase				
1.				
2.				
...				

PART 4: OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT PLAN

Type of equipment:				
Function of the equipment:				
<i>Expected health and safety risk associated to its use for the employees</i>	<i>Proposed measures aimed at reducing the identified risk</i>	<i>Cost of measures</i>	<i>Responsibility for implementation of measures aimed at reducing the risk identified</i>	<i>Implementation period of the measures aimed at reducing the risk identified</i>
1.				
2.				
Type of equipment:				
Function of the equipment				
1.				
2.				
...				

MONITORING PLAN

Type of equipment:				
What? <i>What are the parameters to be monitored?</i>	Where? <i>Where will parameters be monitored?</i>	How? <i>How will monitoring of the parameters be performed? (methodology and tools)</i>	When? <i>When will monitoring be performed (time and frequency)</i>	Who? <i>Who will perform the monitoring of parameters? (responsibility)</i>
1.				
2.				
...				
Type of equipment:				
1.				
2.				
...				

PART 5: PESTICIDES AND FERTILIZERS RISK MANAGEMENT PLAN

Type of pesticide or fertilizer:				
Function:				
<i>Expected impact on the environment and human related to its use and storage</i>	<i>Proposed measures aimed at reducing the negative impact</i>	<i>Cost of measures</i>	<i>Responsibility for implementation of measures aimed at reducing the negative impact</i>	<i>Implementation period of the measures aimed at reducing the negative impact</i>
1.				
2.				
...				
Type of pesticide or fertilizer:				
Function:				
1.				
2.				
...				

MONITORING PLAN

Name of pesticide or fertilizer:				
What? <i>What are the parameters to be monitored?</i>	Where? <i>Where will parameters be monitored?</i>	How? <i>How will monitoring of the parameters be performed? (methodology and tools)</i>	When? <i>When will monitoring be performed (time and frequency)</i>	Who? <i>Who will perform the monitoring of parameters? (responsibility)</i>
1.				
2.				
...				
Name of pesticide or fertilizer:				
1.				
2.				
...				

SECTION C.1: LIST OF REGISTERED AND PROHIBITED PESTICIDES IN THE KYRGYZ REPUBLIC

Insecticides and acaricides
Aktellik (pirimiphosmethyl)
Ambuf (permethrin)
Anthio (25%) (phormotion)
Apollo (clophentyzin)
Applaud (buprophezin)
Arrivo (cypermethrin)
Benzophosphate (30%) (fozalon)
Be-58 (dimetoat)
Vismethrin (permethrin)
Volaton (foxym)
Gexasulfan (endosulfan)
Danitol (phenoropathrin)
Decis (deltamethrin)
Dilor (betadihydroseptachlorine)
Dimilin
(diflubenzuron)DNOK
(Dinitroortokrezol)
Zolon 35%, 30% (fozalon)
Incegar 25% (phenoxycarb)
Karate 5% (lyambdacyhalothrin)
Carbofos 50% (malathion)
Croneton 50% (ethiophencarb)
Mavric 2E 25% (fluvalinate)
Calcium Polisulphide
Mezox 25%, 50% (metoxychlorin)
Mitak 20% (Amitras)
Neoron 50% (Brompromilate)
Nossoran 10% (gexyithiazox)
Nitrafen 60% (nitroalkilphenolat)
Sulfur Omite 30%, 57% (propargit)
Oil
Ripcord 40% (cipermethrin)
Rovikurt 25% (permethrin)
Sunmite 20% (piridaben)
Sonet 10% (gexafluron)
Sumi-Alfa (esphenvalerat)
Sumiticin (phenvalerat)
Talstar 10% (biphenthrin)
Tiodan 35%, 50% (endosulfan)
Trebon 30% (etophenprox)
Festak 10% (alfamethrin)
Fenval 20% (phenvalerat)
Fenrio 20% (phenvalerat)
Fozalon 35% (fozalon)
Phosphoamid 40% (dimethoat)
Furi 10% (zetamethrin)

Khostakvik 50% (heptenophos)
Simbush 25% (cypermethrin)
Siperkil 25% (cypermethrin)
Sitkor 25% (cypermethrin)
Sherpa 25% (cipermetrine)
Aim 12% (chlorfluazuron)
Ecamet 50% (etrinphos)
Endosel 35% (endosulphan)
Herbicides
Alirox 80% (ERTS) 72% + antidot AD-67)
Acenit 50% (acetochlorus)
Bazagran 48% (bentazon)
Banvel 48% (dikamba)
Basta 20% (ammonium gluphosinate)
Gazargard-50, 50% (promethrin)
Dalapon 85% (dalapon)
Dual 96% (metalochlorus)
Zenkor 70% (methribuzin)
Kotoran 80% (fluometuron)
Kotofor 80% (dipromethrin)
Kuscid 97% (monochloracetate diethylenglycolium)
Nitran 30% (thrifluralin)
Olitref 25% (thrifluralin)
Ordam 6E 72% (molinate)
Pakhton 80% (dipromethrin)
Proemetrin 50% (promethrin)
Pripinat 85% (dilapon)
Risan 50% (benthiocarb)
Rozalin 50% (5-chlor-2- methilbenzimidazol)
Saturn 50% (benthiocarb)
Sonalan 33% (etalfluralin)
Stomp 33% (pendimetalin)
Totril 22,5% (ioxynil)
Treflon 24% (thryfluralin)
Fluometuron 80% (fluometuron)
Fuzilad 25% (fluaziphonbutil)
Eradican 6E 72% (ERTS 72% + antidot)
Yalan 60%, 10% (molinat)
Sherpa 25% (cypermethrin)
Aim 12% (chlorfluazurin)
Ekamet 50% (etrimphos)
Endosel 35% (endosulphan)
Zellek 12,5% (galoxyphonetoxetyl)
Zellek super, 12,5% (galoxyphonetoxyetyl)
Penitran 33% (pendimetalin)
Fungicides
Alto 40% (cyprokonazol)
Arcerid 60% (metalaxyl+policarbicin)
Afugan 30% (pirazophos)

Byleton 25% (triadimeffon)
Boricid 70%(sulfur+policarbycin)
Vitaxid 70% (oxadixil+polikhol)
Karatan FN-57b8b 25% (dinocap)
KMAX 50% (2- carbometoxiaminochinazol)
Copper sulphate 98% (copper sulphate)
Green vitriol (iron sulphate)
Calcium polysulphide
Oxichom (oxadixil + copper oxychloride)
Sulfur
Polichom 80% (policarbacyn 60% + copper oxychloride)
Ridopolichom 60% (metalaxyl + policarbacin)
Saprol 20% (triforin)
Scor 25% (diphenconazol)
Sportak 45% (prochloraz)
Tilt 25% (propiconazol)
Topaz 10% (penconazol)
Topcin-M 70% (thyophanatemethyl)
Copper oxychloride 90%, 50%
Euparen 50% (dichlofluand)
Derozal 50% (carbedazim)
DNOK 40% (Dinitriortokrezol)
Sulfatimis + calcium hydroxide
Nitraphen 60% (cytroalkilphenolate)
Chemicals for seed treatment
Agrocit 50% (benomal)
Apron 35, 38, 9% (metalaxyl)
Baytan 15% (triadimenol)
Botran 75% (dichloran)
Bronotac 12% (bronopol)
Vandidat 98% (potassium viniloxyethildithiocarbamate)
Vitavax 75% (carboxyn)
Derozal 50% (carbendazim)
Nitrafen 60% (nitroalkilphenolate)
Policarbacin 80% (complex of salts of ethilenbisdithiocarbamin + ethilenthuramdisulphate, 1:8)
Sumi-8 2% (diniconazol)
TMTD 80% (thiram)
Formalin 40% (formaldehyde)
Fundazol 50% (benomil)
Biological chemicals
Agri 50% (deltaendotoxycin bisilusa turingisa)
Baktospein (bisilusa turingisa)
Bitoxybacillin (exotokcin bisilusa turingisa)
Virin-OS (granulez virus + poliedroz virus of autumn warm)
Gomelin (bisilusa turingisa)
Dendrobacillin (bisilusa turingisa, dendrolimus variety)
Dipel (bisilusa turingisa, kurstaki variety)
Lepidocid (bisilusa turingisa, kurstaki variety)

Trichodermin (trichoderma, trichodermin, veridin, glitoxyl)
Trichodermin-BL (--»--)
Turingin-1 (exotoxyn bisilusa turingisa, turingensis variety)
Turingin-2 10% (exotoxyn bisilusa turingisa, turingensis variety) uricid (bisilusa turingisa)
Defoliants and desiccants
Basta 14% (gluphosinate ammonium)
Butylcaptax 80% (butilcaptax-2- nbutilbenzotianazol+ MSF+magnium chlorate)
Gemetrel 60% (derivatives of chloretylphosphone acid)
Dropp 50% (tidiazuron)
Drop-Turbo 20% (tidiazuron)
Threecarbamide chlorate of sodium
Khayot 85% (diaquatetracarbamidechlorate of calcium)
Harveid 25 F (dimedipin)
Magnium chlorate 60%
Calcium chlorate-chloride 42%, 62%