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**Food and Agriculture  
Organization of the  
United Nations**

**Somalia Emergency Drought and Resilience Project (SEDRP)**

**Environmental and Social Management Framework (ESMF)**

**Component 2**

June 19, 2017

## Abbreviations and Acronyms

AAP	Accountability to Affected Populations
BENALPA	Benadir Livestock Professionals' Association
CAHW	Community Animal Health Workers
CBOs	Community-Based Organizations
CERELPA	Central Regions Livestock Professional Association
CIGs	Common Interest Groups
CMWG	Cash and Markets Working Group
CSOs	Civil Society Organizations
CTA	Chief Technical Advisor
DAP	Diammonium phosphate
DEWC	District Environmental Watch Councils and Villages
EIA	Environmental Impact Assessment
ESM	Environmental and Social Management
ESS	Environmental and Social Standards
FAO	Food and Agriculture Organization
FEWSNET	Famine Early Warning Systems Network
FGDs	Focus Group Discussions
FSNAU	Food Security and Nutrition Analysis Unit
FU	Field Units
HoA	Horn of Africa
ICRC	International Committee of the Red Cross
IPC	Integrated Phase Classification
ISR	Implementation Status Reporting
LTO	Lead Technical Officer
MoERD	Ministry of Environment and Rural Development
MoEWT	Ministry of Environment, Wildlife, and Tourism
NEWC	National Environmental Watch Councils
NGOs	Non-Governmental Organizations
O&M	Operations & Maintenance
OIG	Office of Inspector General
PDO	Project Development Objective
PEWC	Pastoralist Community Environmental Watch Councils
PL	Puntland
PTF	Project Task Force
REWC	Regional Environmental Watch Councils
RIMA	Resilience Index Measurement and Analysis
SCZ	South Central Zone
SEDRP	Somalia Emergency Drought and Resilience Project
SGP	Sheep and Goat Pox
SL	Somaliland
SOWELPA	South West Livestock Professional Association
SP	Service Providers
SWALIM	Somalia Water and Land Information Management
TLI	Tropical Livestock Unit

TPM	Third Party Monitoring
TPTR	Third Party Technical Review
WASH	Water, Sanitation, and Hygiene
WFP	World Food Programme

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## Executive Summary

The Somalia Emergency Drought and Resilience Project (SEDRP) includes support to FAO for strengthening rural food security and livelihoods resilience. The project will be implemented by extending multi-sector support to FAO for scaling up and strengthening their ongoing programmatic interventions for famine prevention, drought response and resilience building.

### **Component 2 – Programmatic Support to FAO for Immediate Drought Response and Recovery (US\$30 million)**

This component will support the FAO’s Famine Prevention and Drought Response Plan for 2017, with the objective of increasing immediate access to food, safeguarding livelihoods and assets, and supporting the sustainable recovery of agriculture and pastoral livelihood systems in target communities. Interventions under this component are designed to help address the immediate food needs of drought-affected households while also catalyzing recovery of productive assets, food production, and livelihood systems. Interventions are also designed to simultaneously deliver short-term emergency relief and support the safeguarding and recovery of assets (infrastructure, inputs, skills, labor) that underpin long-term resilience of agriculture production and rural livelihood systems.

Interventions under this component are as follows:

**Sub-component 2.1 – Cash-for-work for immediate food needs and water infrastructure restoration (US\$ 6.44 million):** This sub-component will support the scaling up of FAO’s cash-for-work programs which provide vulnerable households cash for immediate access to food and water and engage them for twelve weeks of paid work. Activities supported through the work will include restoring water catchments, rehabilitating existing small secondary and tertiary irrigation canals, constructing contour bunds to control erosion, shoring up breaks in river embankment to decrease flooding, and rehabilitating water harvesting and storage infrastructure. Beneficiaries will receive cash upon registration, equivalent to two weeks of paid labor. Households unable to participate in work projects due to age, health, or other considerations will receive unconditional cash.

**Sub-component 2.2 – Emergency Cash and Agricultural Livelihood Support (US\$9.66 million):** This sub-component will support the recovery of agricultural production systems and improve food access of riverine communities by supporting the scale up of FAO’s “Cash+” program. This program provides unconditional cash transfers and livelihood inputs for families to meet their immediate food needs while restoring their own crop production or access to fish. This combination of assistance helps farmers restore their productive asset base through provision of seeds and other inputs, and prepares them for the next growing season. By providing cash together with farming inputs, farming households will be able to cover their short-term food needs until crops can be harvested following current and upcoming crop cycles. In areas where well-functioning markets exist, voucher systems will be leveraged to stimulate demand and market-driven supply of needed inputs (seeds, fertilizers) and services (land preparation, irrigation pumps). The vouchers will be redeemable only at markets in the recipient’s home

community where they were settled prior to the drought, which will also help incentivize returns of displaced populations. In addition, the program will target vulnerable households in riverine communities, by providing the cash transfers alongside riverine fishing kits. Increasing fish consumption will enrich diets with vital proteins, vitamins and micronutrients, including calcium, iron, zinc and vitamins A, B12 and D. This will diversify diets which otherwise tend to focus primarily on carbohydrates.

**Sub-component 2.3 – Restoration of Pastoral Livelihoods (US\$8.05 million):** To safeguard livestock assets and pastoral livelihoods, this sub-component will support the scale up of FAO’s ongoing emergency livestock interventions across Somalia. Animals in target areas will be vaccinated/treated against a variety of debilitating conditions that threaten livestock productivity, value, health and survival. Rangeland cubes will be provided to improve the health of animals. Training may be provided to increase the number of veterinary teams able to recognize the signs of malnourishment and disease in livestock and provide appropriate treatments and vaccinations. Other interventions that may be supported under this component include restocking of small ruminants in the medium-term, once livestock health has improved and weather conditions are conducive.

To increase overall availability of feed in drought and non-drought periods, this sub-component will provide assistance for cooperative and community level fodder production through the provision of appropriate seeds and equipment for sowing, growing, harvesting and storing fodder and training farmers to increase overall fodder production.

**Sub-component 2.4 – Strengthening Disaster Preparedness, Monitoring and Early Warning Systems (US\$1.61 million):** To improve the ability of vulnerable communities, government, and humanitarian and development partners to prepare for and respond to drought, this sub-component supports a range of activities that will improve current and future drought response and famine prevention activities. Under this sub-component, vulnerable communities will be supported to develop community-level drought preparedness and response plans, weather monitoring and forecasting capabilities will be strengthened through the FAO’s existing water and land management information management system initiative (SWALIM), and the generation, management, and dissemination of early warning data will be improved through support of the Food Security and Nutrition Analysis Unit (FSNAU).

**Sub-component 2.5 – Project Management (US\$4.24 million):** This sub-component will finance the following activities: (i) direct operating costs for project design and implementation; (ii) direct operating costs for FAO; and (iii) Indirect costs, or overall project servicing and administration costs.

### **Project Component 2 Financing**

<b>Sub-Component</b>	<b>Component Description</b>	<b>WB (US\$M)</b>
2.1	Cash-for-work for Immediate Food Needs and Water Infrastructure Restoration	6.44
2.2	Emergency Cash and Agricultural Livelihood Support	9.66
2.3	Restoration of Pastoral Livelihoods	8.05

2.4	Strengthening Disaster Preparedness, Monitoring and Early Warning Systems	1.61
2.5	Project Management	4.24
<b>Total</b>		<b>30.0</b>

## **Institutional and Implementation Arrangements**

FAO Somalia will be responsible for the implementation of all activities under Component 2 based on the project design, and the procurement, financial management, disbursement, and safeguards procedures of FAO as the implementing UN agency will apply. A strong partnership is already in place between the World Bank and the FAO, which has enabled successful implementation of previous IDA-financed projects. Moreover, the activities detailed under Component 2 fall under the scope of FAO’s Famine Prevention and Drought Response Plan for 2017, which aims to provide lifesaving interventions and emergency livelihood support to (i) meet immediate food and water needs while rehabilitating productive infrastructure through cash-for-work; (ii) support livelihoods with cash and inputs (Cash+); and (iii) save livestock assets and related food and income.

FAO Somalia will be in charge of overall coordination and implementation of project activities in Component 2 through its field staff and subcontracts with local implementation partners (NGOs, CBOs, professional associations). FAO Somalia’s Country Office in Nairobi and Mogadishu, under the leadership of the FAO Representative in Somalia, will provide overall oversight and quality insurance to ensure successful implementation of the project, including all fiduciary aspects, safeguards, monitoring, and reporting of the project’s progress.

### ***Targeting and Implementation Approach***

Component 2 of the SEDRP will be implemented across all districts that FAO is currently active in as part of its ongoing emergency Famine Prevention and Drought Response program, and where implementation is possible through local NGO partners. The concentration of funds and activities for cash transfers and agricultural livelihood support will be based on three levels of targeting. First, for district level targeting, FAO will work through the Food Security Cluster to examine IPC Level 3 and 4 caseloads, identifying where needs are most urgent and where there are gaps in coverage. Within the districts, through consultations with the District Commissioner, partner NGOs, and other local stakeholders, FAO determine where response actors are operating within the district and where needs are greatest. Finally, FAO will work with NGOs and with village elders to identify specific needs at the village level, resulting in a list of individual beneficiaries. As part of this village-level targeting, FAO will ensure minimum coverage inclusion of women and women-headed households, as well as other vulnerable groups, including but not limited to elderly and handicapped individuals.

### **Objectives of the Environmental and Social Management Framework (ESMF)**

The purpose of the ESMF is to ensure that environmental and social management is integrated into the development cycle of individual subprojects. Since exact sub-projects are not determined at the onset of project, but will be decided during project implementation based on

demand and consultations with the concerned communities, the ESMF is the appropriate instrument under the Bank Operational Policy OP 4.01 on Environmental Assessment. The ESMF is intended to serve as a practical tool to guide identification and mitigation of potential negative environmental and social impacts of proposed investments and serve as a platform for consultations with stakeholders and potential project beneficiaries. The ESMF has been prepared in compliance with the Bank's OP 4.01 as well as the FAO Environmental and Social Management Guidelines.

The ESMF will be also applicable for the Bank's Operational Policy on Pest Management (OP 4.09). The ESMF includes a screening tool to identify subprojects that might require the preparation of a simple pest management plan (PM); and provides guidance for the preparation of an PM. The ESMF identifies the policy triggers for the project, the screening criteria for sub-projects, the environmental and social impacts for the likely subprojects and the mitigation measures to mitigate the identified risks, assessment of the institutional capacity of the implementing agency and measures for capacity-filling gaps, and an estimate of the budget needed for the implementation of the ESMF.

### **World Bank Safeguard Policies**

The SEDRP is classified as environmental Category B according to the World Bank Operational Policy OP 4.01 on environmental assessment. The project is expected to have significant positive environmental and social impacts, with relatively minor and localized negative impacts. The ESMF has been developed to ensure environmental and social due diligence for subprojects. The Bank safeguard policies on Environmental Assessment (OP 4.01) and Pest Management (OP 4.9) are triggered by SEDRP Sub-Components 2.1, 2.2, and 2.3. Sub-Component 2.4 and 2.5 do not present environmental or social risks.

### **FAO's Environmental and Social Management Policies and Procedures**

The SEDRP is classified as moderate risk according to FAO's Environmental and Social Management Guidelines<sup>1</sup>. To ensure the project does not pose any negative environmental and social impacts, some mitigation actions are necessary. The proposal triggers FAO safeguard 3 Plant Genetic Resources for Food and Agriculture.

### **Public Consultations and Disclosure**

The World Bank and FAO require that stakeholder consultations be undertaken during planning, implementation and operation phases of the project. As part of the SEDRP preparation, consultations have been an ongoing process with key stakeholders and other beneficiaries. Under the participatory approach to be used during project implementation, consultation with beneficiary communities will be an integral part of sub-project identification, selection, design, implementation, and monitoring.

### **ESMF Findings**

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<sup>1</sup> FAO's Environmental and Social Management Guidelines, available at: <http://www.fao.org/3/a-i4413e.pdf>

The ESMF outlines the process for identification and evaluation of the potential environmental and social impacts of sub-projects (and activities) and their mitigation measures. The ESMF concluded that most of the planned sub-projects are expected to have none or very few and minor negative impacts, and presents mitigation measures for those potential negative impacts. By design, the project is expected to have far greater environmental benefits than adverse environmental impacts. However, it is recognized that small negative impacts can accrue into larger impacts if they are not identified early during the planning cycle, and their mitigation measures integrated into the project planning and implementation. The sub-projects that have negative environmental and/or social impacts will have a specific Environmental and Social Management Plan (ESMP) to set forth the mitigation, monitoring and institutional measures to be taken during different stages of the project (design, construction and operation). The SEDRP FAO implementation team will work with communities to develop the site-specific sub-project ESMPs as needed as part of the sub-project identification and preparation process. A third party will be contracted to provide independent technical and programmatic monitoring during implementation.

Safeguards performance reporting will be made public as part of the Implementation Status Reporting (ISR) dissemination process, available on the [www.worldbank.org](http://www.worldbank.org) website, on the Somalia country page, under the “projects” tab.

## Section 1. Detailed Project Components and PDO

The Project Development Objective is to “to address the immediate needs of the drought affected people of Somalia, and support resilient recovery through the provision of livelihood opportunities and the restoration of agricultural and pastoral production”. This objective will be achieved through (a) a surge of high-impact, immediate interventions while humanitarian operations continue in tandem, and; (b) activities that transition toward medium-term recovery via the reconstitution of productive assets, production capacity and livelihoods. The project will be implemented by extending multi-sector support to the selected supported partners, FAO and ICRC, for scaling up and strengthening their ongoing programmatic interventions for drought recovery and resilience building.

### **Component 2 – Support to FAO for Strengthening Rural Food Security and Livelihoods Resilience (US\$ 30 Million)**

The objective of this component is to increase immediate access to food, safeguard livelihoods and assets, and support the sustainable recovery of agriculture and pastoral livelihood systems in target communities. Interventions under this component are designed to help address the immediate food needs of drought-affected households while also catalyzing recovery of productive assets, food production, and livelihood systems. These interventions also align with and effectively scale up FAO’s current famine prevention and drought response operations so that the needed resources can reach affected communities with maximum speed and efficiency.

Interventions are also designed to simultaneously deliver short-term emergency relief and support the safeguarding and recovery of assets (infrastructure, inputs, skills, labor) that underpin long-term resilience of agriculture production and rural livelihood systems. This project component is designed with built-in flexibility, offering a range of response options to be selected based on real-time needs and priorities on the ground, as they evolve. This will allow the project to adjust to seasonal requirements (linked to the agricultural calendar), needs and coverage by other partners, as well as fill critical gaps in assistance. An indicative breakdown of WB’s financing across various sub-components is shown below.

Targeting under this component will be determined through consultations with local stakeholders, including district level authorities, partner NGOs and others, as appropriate. The beneficiary selection process will also be guided by continuous social and gender analysis, through improved geographical targeting upstream to ensure minimum thresholds for the inclusion of vulnerable groups, including minority clans, women-dependent households, returnees/internally displaced people and communities recently affected by shocks or displacement.

## **Project Components Estimation of Financing**

<b>Activity</b>	<b>Estimate (\$USM)</b>	<b>Category</b>
<b>Sub-Component 2.1: Cash-for-work for immediate food needs and water infrastructure rehabilitation</b>	<b>6.44</b>	
Cash transfer cash for immediate access to food, water and assets	3.93	Goods
Distribution of cash	2.51	Services
<b>Sub-Component 2.2: Emergency Cash and Agricultural Livelihood Support</b>	<b>9.66</b>	
Unconditional cash transfer	3.86	Goods
Distribution of Cash	2.50	Services
Agricultural inputs package	2.80	Goods
Provisioning of Fishing kits	0.50	Goods
<b>Sub-Component 2.3: Restoration of Pastoral Livelihoods</b>	<b>8.05</b>	
Livestock Vaccinations and treatments	2.80	G&S <sup>2</sup>
Livestock Feed	2.40	G&S
Goats	2.00	G&S
Fodder inputs & equipment	1.10	G&S
<b>Sub-Component 2.4: Strengthening Disaster Preparedness, Monitoring and Early Warning Systems</b>	<b>1.61</b>	Services
<b>Sub-component 2.5 Project Management</b>	<b>4.24</b>	

### **Sub-component 2.1 – Cash-for-Work for Immediate Food Needs and Water Infrastructure Restoration (US\$6.44 million)**

Due to extensive crop failure and livestock losses, rural households lack food and income to buy food. In pastoral areas, livestock conditions are so poor that most animals are no longer marketable. When sold or traded for other food items, livestock are fetching little in return due to declining livestock-to-grain Terms of Trade. In southern Somalia, most families already have little to no food stocks and are increasingly relying on market purchases for food. Unless the “Gu” rains (April to June) are more favorable than projections, food insecurity and low labor wage rates will likely worsen through the second half of the year.

To prevent famine by providing vulnerable households through Cash for Work with immediate cash to buy food and water while at the same time rehabilitating water-related productive assets like small-scale irrigation canals or water catchments to cater for livestock water needs, this sub-component will support the scaling up of FAO’s ongoing cash-for-work programs. The component can support approximately 8,500 acutely food insecure households (51,000 individuals) in districts of Somalia facing food security ‘Crisis’ and ‘Emergency’ (Integrated Phase Classification (IPC) Phases 3 and 4). FAO will identify the most vulnerable individual

<sup>2</sup> G&S: Goods & Services

households at the district level facilitated by the implementing partner, in collaboration with local authorities and other stakeholders, including other agencies implementing activities in the districts.

FAO's cash-for-work programs provide cash relief so families can meet their immediate food needs, while engaging them to rebuild infrastructure needed to safeguard and/or restore livelihoods. Since January 2017, cash-for-work programs have repaired 15 irrigation canals, which have scope to boost local maize production by around 80 percent. Additionally, over 100 water catchments have been repaired, able to store water for more than 200,000 animals for an entire dry season. These programs also provide rural families with the means and incentive to remain in rural areas, preventing further displacement and destitution.

Under FAO's cash-for-work programs and based on lessons learned from the 2011 drought response, FAO will adjust its cash-payment schedule to reflect the extremely poor food security situation and the urgent need for cash. For example, families to engage in cash-for-work activities will receive cash upon registration, equivalent to two weeks of paid labor. This front-loaded payment will enable families to improve their food intake immediately, and will be on top of the 12 weeks of paid work.

With a focus on access, use and management of water, activities supported under this component include restoring water catchments to preserve water for livestock throughout the dry months, constructing contour bunds to control erosion and improve efficiency of water use, shoring up breaks in river embankment to decrease flooding, and rehabilitating small-scale irrigation canals and water harvesting and storage infrastructure. The cash for work component covers both the pastoral areas in the north and the dryland agro-pastoral systems in the south (through the water catchments and contour bunds) as well as irrigated agricultural areas along the rivers in the south (through rehabilitation of the irrigation canals).

Targeted beneficiaries will engage in cash-for-work activities six days per week (for a period 12 weeks), paid at the rate established by the Cash and Markets Working Group (CMWG). Rates will be determined by a calculation of 80 percent of the cost of the minimum expenditure basket. Families unable to engage in work due to age, health or other constraints will receive unconditional cash without the requirement to engage in the infrastructure works. This will ensure that the most vulnerable households are not left behind, such as those headed by ill family members, pregnant women, the elderly and people with disabilities. The cash amount will be of equal quantity and duration as under cash-for-work schemes. FAO estimates that around 20 percent of households targeted will receive unconditional cash. However, this is scalable depending on the distinct needs and vulnerabilities in targeted communities and relative changes in the food security situation.

Activities at district level will begin with the identification of communities/beneficiaries most affected by the current crisis, through consultations with local stakeholders, including district level authorities, partner NGOs and others, as appropriate. The FAO's digitalized fingerprint (biometrics) with photo-supported voucher systems will be used, wherever possible. Beneficiary payments will be undertaken through designated money vendor offices. Occasionally, the money vendor will be requested to travel and make payments at the work sites, especially when the sites/villages are located far from the main offices, in coordination with the selected

implementing partners. This arrangement to make payments at village locations will ensure no extra burden is added (e.g. walking or travelling to distant places to collect funds), especially for women who have demanding schedules due to their regular daily caretaking roles within the household. FAO will pay travel allowances to beneficiaries to collect payments from the designated money vendor office. Money vendor payments at the village level will not include any transport allowance; instead, money vendors will be covered for additional costs for security and delivery of payments.

### **Sub-component 2.2 – Emergency Cash and Agricultural Livelihood Support (US\$9.66 million)**

To deter displacement and keep farmers productive on their land, households urgently need: i) cash to meet their immediate food needs; and ii) farming inputs for the upcoming “Deyr” season (October-December 2017). Thus, interventions under this sub-component will support the recovery of agriculture production systems through scale up of FAO’s “Cash+” program.

The program will support approximately 9,800 vulnerable households, within districts classified to be in IPC 3 and 4 in Somalia’s southern breadbasket (riverine farming and agro-pastoral areas) and in northwest agro-pastoral areas (Somaliland). This includes around 1,000 riverine households to receive cash transfers combined with fishing kits and trainings on their appropriate use.

The program will provide food insecure riverine farming and agro-pastoral households with unconditional cash transfers. This will be delivered on a monthly basis for three months (i.e., the full duration of a growing season until the harvest becomes available), plus phased agricultural input support at the beginning and end of the planting season (i.e., first, quality seeds to plant, then hermetic bags to store their harvest; in irrigated areas, also fertilizer vouchers will be included). This intervention will discourage displacement and ensure that farmers have cash to meet their immediate food needs and the means to grow crops to meet their own food and income needs in the near term. For cash transfers, the registration and payment modalities indicated for cash-for-work, under Sub-component 2.1, will be applied. In addition, the program will also target vulnerable households in riverine communities, by providing the cash transfers with fishing kits. Increased fish consumption will enrich diets with vital proteins, vitamins and micronutrients, including calcium, iron, zinc and vitamins A, B12 and D. This will diversify diets otherwise eclipsed by carbohydrates.

For cash transfers, the registration and payment modalities indicated for cash-for-work, under Sub-component 2.1, will be applied. In areas where well-functioning input markets exist, voucher systems will be leveraged to stimulate demand and market-driven supply of needed inputs (seeds, fertilizers etc.) and services (land preparation and irrigation support).

FAO will use voucher schemes to provide farmers with access to seeds, fertilizers, land preparation and irrigation support. In areas where well-functioning input markets exist, voucher systems will be leveraged to stimulate demand and market-driven supply of needed inputs (seeds, fertilizers etc.) and services (land preparation and irrigation support). Serialized vouchers will be generated by FAO in line with the needs identified in each district and will include the quantity and type of inputs entitled to each household. FAO will ensure that each household receives one voucher for each input type to be redeemed from pre-selected traders

at village level, and will adopt stringent checks and controls during the voucher distribution process. Traders will retain the vouchers to claim payment from the money vendors. FAO has quality control mechanisms in place to ensure that the inputs distributed meet FAO technical specifications. The voucher scheme is built on a rationale whereby beneficiaries benefit from high quality inputs provided in a timely manner to enable early planting while maximizing returns. It will also contribute to building the resilience of seed supply markets by stimulating local demand. Beneficiaries will also receive training in good agricultural practices (e.g. from planting to harvest). For the fisheries inputs, riverine fishing kits will be procured by FAO and delivered to implementing partners, who will distribute them to beneficiaries directly in nearby urban centers. These kits will include hooks, lines, fishing weights, knives, a solar-powered torch, cooler, chopping board and solar powered fridges, accompanied by training in their proper use.

The Cash+ livelihood packages will include:

- 3 months' cash, i.e. the duration of a growing season, from sowing to harvest;
- Seeds and storage bags for farming and agropastoral households, including:
  - a. sorghum (15kg) in agropastoral areas
  - b. maize (20 kg) in riverine areas plus irrigation vouchers (18 hrs/hh)
  - c. cowpea (10kg)
  - d. vegetable (240g)
  - e. fertilizer (100 kg Urea, 100 kg Diammonium phosphate(DAP)) in riverine areas only
  - f. 3 hours of tractor land preparation (Somaliland only)
- fishing kits in riverine areas (as detailed above).

### **Sub-component 2.3 – Restoration of Pastoral Livelihoods (8.05 million)**

Consecutive seasons of poor rainfall have caused widespread shortage of water and pasture. In most regions, access to food and income among pastoralist and agro-pastoralists has declined drastically as herds are sold or die off, milk production drops, livestock prices diminish while water and grain prices rise, leading to a drop in livestock-to-grains terms of trade. Livestock survival during the dry season is not the only challenge. Once rains return, weak animals will be at high risk of hypothermia. Therefore, this component will scale up FAO's emergency supportive livestock treatment program to keep animals alive, healthy and productive. The objective is to preserve vital food and income sources among food insecure households. Rapid scale up is critical, as the sooner animals are treated and vaccinated against major diseases (e.g. PPR/SGP) the sooner they will become productive again and regain value.

The range of activities indicated under this component are illustrative and depending on various factors (such as rainfall status, epidemiology, livestock migration, etc.) the activities will be prioritized and implemented as needed. Accordingly, there will be a need to consider reallocation of the budget across sub-component activities throughout the project lifecycle.

This sub-component will support FAO to:

- i) vaccinate sheep and goats against common diseases (i.e. PPR and SGP); and/or

- ii) provide emergency supportive treatment to livestock (all species), including the provision of multivitamins, deworming, ecto-parasite control and antibiotic treatments.

The component will also support the procurement and provision of veterinary drugs, essential vaccines, and veterinary supplies and equipment. Veterinary teams will be deployed to the field to deliver these interventions and conduct community awareness campaigns whereby local communities will be sensitized on the project objective, activities and implementation plans, covering all districts of the targeted regions. The project will work through, wherever feasible, existing veterinary service systems; including veterinary professional’s associations and Community Animal Health Workers (CAHWs). Through Letters of Agreement, FAO will contract regional veterinary associations to undertake the PPR/SGP vaccinations (sheep and goats) and treatment (all species). In the second half of 2017, planned targets include the vaccination and/or treatment of up to 8.5 million livestock (belonging to 212 500 households). The veterinary treatment entails provision of multivitamin, deworming and antibiotic treatments to avert further loss of livestock.

The livestock vaccination and treatment campaign would target animals in central and southern Somalia. The intervention would indirectly benefit around 212,500 households who own (and depend on) the assisted animals.

**Livestock vaccination targets by location**

Administrative entities	Number of animals (HHs) targeted for PPR/SGP vaccination	Implementing partner
Central Somalia	4,000,000	CERELPA <sup>3</sup>
South Somalia	4,000,000	SOWELPA <sup>4</sup>
Banadir region	500,000	BENALPA <sup>5</sup>

In certain high risk area, rangeland cubes will be provided to safeguard animals and stave off mortality. Pastoral and agropastoral families in Puntland (Nugal and Mudug) and Somaliland (Awdal, Woq Galbeed and Togdheer) will benefit from the provision of rangeland cubes for their sheep and goats as short-term supplemental feed during the current drought period. The concept is to provide additional protein, energy, minerals and vitamins given that there are hardly any pastures available following the long spells of drought, for an estimated 12,500 households. FAO will contract service providers through LoAs to facilitate in the distribution and provision of relevant technical information to targeted beneficiaries.

In some targeted areas, livestock restocking interventions may be mobilized wherein vulnerable households will be provided with productive goats (8 female goats and 2 male goats) to rebuild their livestock assets. Healthy productive goats shall be procured in-country or in the

<sup>3</sup> CERELPA: Central Regions Livestock Professional Association

<sup>4</sup> SOWELPA: South West Livestock Professional Association.

<sup>5</sup> BENALPA: Benadir Livestock Professionals' Association

neighboring regions of the targeted areas, depending on their availability. The goats shall be vaccinated against PPR/SGP, dewormed and quarantined by Livestock Professional Associations before distribution.

Other interventions that may be supported under this component include i) capacity building support to Community Animal Health Workers (CAHWs) and Veterinary Professional Associations, and iii) support for fodder production.

This sub-component may also:

- a. Provide target communities selected for fodder production with fodder seeds, land preparation, irrigation support and other tools (e.g. bale boxes) for extensive fodder production for own use, marketing support to link them with downstream traders/buyers and a potential buy out by FAO for safeguarding livestock during drought.
  - b. Train farmer groups in fodder processing, conservation (hay and silage) and nutrient enrichment of crop residues
  - c. Train local artisans to build capacity for production of fodder, processing and conservation equipment and tools to enhance accessibility.
- To better inform the above indicated fodder production interventions, the component, as appropriate, will receive technical assistance on fodder value chain development opportunities from FAO experts.

For the fodder production interventions, farmers will form common interest groups (CIGs) as entry points but involve a farmer-participatory process where farmers will be fully involved. Incorporating the concerns of pastoralist women in project design and ensuring women's active participation and involvement will be a consideration in the design of the proposed interventions.

#### **Sub-component 2.4 – Strengthening Disaster Preparedness, Monitoring and Early Warning Systems (US\$1.61 million)**

To improve the ability of all stakeholders to take early action for droughts, this sub-component will:

- i) support the development of community drought preparedness and response plans;
- ii) strengthen weather monitoring and forecasting through the existing water and land information management system initiative (SWALIM); and
- iii) strengthen the generation, management and dissemination of early warning data through supporting the Food Security and Nutrition Analysis Unit (FSNAU).

To promote resilience to drought, affected communities will be engaged to develop community-level drought preparedness and response plans. Building on community-specific contexts, drought preparedness plans will guide communities on:

- i) how to implement systems for monitoring drought impacts;
- ii) establishing regular communication on drought conditions across communities and with monitoring agencies, and
- iii) specific actions to take before, during and after a drought. Preparedness planning will

have specific benefits for communities, including improved water management and food storage, increased drought awareness, greater protection from flooding, and reduced future livelihood losses due to protection of feed, animals, and crops from drought impacts.

Programmatic support will be provided to SWALIM, which is playing a vital role in the ongoing famine prevention and drought response in Somalia. For example, SWALIM is monitoring the weather parameters (rainfall, temperature, humidity, sunshine, soil moisture), providing weather forecasts and early warning for droughts and seasonal riverine floods, and updating water source conditions (boreholes, reservoirs, etc.), which facilitates targeting of migrating pastoralists for immediate and livelihood assistance. SWALIM is furthermore supporting and training land and water information centers inside the ministries, which in turn provide information to the government disaster management agencies. SWALIM is also supporting the newly established Drought Operation and Coordination Centers with information, staffing, mapping tools, etc.

Activities will include:

- Updating the Somalia water sources database (commonly referred to as the Somalia water sources live map) and providing data through an online client service platform.
- Monitoring daily river levels at different locations along the Juba and Shabelle rivers and providing the information on an online platform (<http://systems.faoso.net/frirms/>).
- Analyzing Juba and Shabelle rivers using Very High Resolution (VHR) satellite images to identify the locations and size of the breakages on their banks.
- Training community, staff and development agencies on quality data collected using georeferenced mobile data collection devices.
- Performing remote monitoring of Cash for Work activities using SWALIM's well-developed geo-spatial analytical capacity.

The programmatic support will enable FSNAU to monitor 32 markets across Somalia on a weekly basis, conduct monthly food security monitoring across the country, conduct seasonal and follow up food security, nutrition and mortality assessments, and deliver the training of government staff in these assessments. The support will also be used to strengthen FSNAU's Early Warning -Early Action database and dashboard, which was established in 2016 in order to strengthen the linkages between early warning and early action in Somalia.

### **Sub-component 2.5 – Project Management (US\$4.24 Million)**

This sub-component will finance the following activities:

- i) direct operating costs for project design and implementation, including technical design; supervision and monitoring costs; rental of warehouses and office space; utilities and communication charges;
- ii) direct operating costs for FAO, including independent Third-Party Technical Review and evaluation as activities are ongoing and completed, including end of project evaluation;

FAO's overall management, operations and coordination of the project; supervision, quality control and contract management of components; support for communications and information management systems; coordination mechanisms to ensure complementarity with other partner activities and avoid duplication of efforts and enhance public relations; support and strengthening of existing grievance redressal systems for beneficiaries; audits and studies to identify and mitigate potential adverse environment and social impacts and assessments required under various project components; and the incremental operating costs arising under the project on account of vehicle operation for supervisors, monitors, and related travel costs and per diems; and

iii) indirect costs, or overall project servicing and administration costs.

## Section 2. Environmental, Social, and Conflict Baseline Conditions

### 2.1 Environmental Baseline Conditions

**Climate:** The Somali climate is hot, arid to semi-arid. There are two wet seasons (Gu April to June, and Deyr October to November) with approximately 500 mm rainfall annually in the northern highlands, 50-150mm along coast, and 300-500 mm in the southwest. With the impact of climate change extreme weather patterns such as droughts and floods (see also natural disasters) are likely to increase in frequency and magnitude.

**Land Forms:** The Somali region is characterized by a rather uniform scope of land forms, comprising mostly flat plateaus and plains, coastal plains, and few mature mountain ranges with moderate elevation and relief, particularly the Golis range that spans northern Somaliland and Puntland. The Juba and Shabelle are the main rivers and only permanent ones. Due to the soft valley and ridge topography in large parts of the basins, these rivers have large catchment areas that contribute to high peak floods during the wet seasons. Somaliland and Puntland are incised with significant dry river valleys (wadis) that flow only during the wet seasons.

**Land Use:** 13% of the country is considered potentially arable (2001), of which 20-30,000 ha is irrigated. Permanent pastures (dry and wet season areas) constitute over 50% of Somalia's land surface.

**Vegetation, forests and woodlands:** The vegetation in Somaliland and Puntland is predominantly dry deciduous bushland and thicket dominated by species of *Acacia* and *Commiphora*, with semi-desert grasslands and deciduous shrub land in the north and along much of the coast.

About 12% of the Somali region is under forest (or woodland) cover, subject to an average deforestation rate of 0.97% per annum. Extensive areas of riverine forest and areas along major wadis have been cleared for agriculture, and localized dryland forest clearance occurs driven by charcoal production. Endemic juniperous mist forests in the north are the only true forests (with adapted forest ecosystems) and are considered vulnerable. There is increased pressure on

forests for charcoal production for which – especially in urban areas – there is huge demand, combined with a growing export trade.

**Biodiversity and Conservation:** Only 0.8% of Somalia is under some form of protection (2000). A National Conservation Strategy used to exist, but is now extremely low on the country's agenda. Somalia is part of Conservation International's Horn of Africa Hotspot which has over 60 endemic genera and over 2,750 endemic species. Somalia is a part of Somalia-Masai steppe geographic region of plant endemism (savannas and shrub lands) and has 24 important bird areas. Generally fauna has been depleted due to hunting and culling to protect livestock. Invasive species (e.g. *Prosopis* spp. and the Indian House crow, *Corvus splendens*) have widespread effects on local fauna and flora and are important to address, where *Prosopis* could be used to substitute endemic trees for charcoal production.

**Water and wetlands:** Annual internal renewable water resources are estimated as 1,700 m<sup>3</sup> per person per annum, but this distribution is highly skewed<sup>6</sup> and Somaliland and Puntland are both highly water stressed. Drought is a recurrent problem. Water is a critical resource ultimately determining livelihoods. Historically water management was closely integrated with livestock management, and larger planning strategies have been absent due to the civil war. Unplanned water supply construction (berkd, Balli, wells), many of which are individually owned, may increase pressures on rangelands but provide for household water security.

Somaliland and Puntland are arid or semi-arid where inter-annual variability of rainfall is high and which characterizes these regions as predominantly non-equilibrium rangelands. Rainwater is harvested but surface water tends to last for only a few months of the year; although some improved dams exist whose bottoms and sides are cemented and covered to ensure that water is not lost to evaporation and seepage (Amuyunzu, 1997). Underground aquifers are also widely exploited, either through boreholes, shallow wells or at natural springs and these permanent sources provide for the majority of town supplies and act as buffers to drought.

**Geology:** Mesozoic to Recent sediments, such as limestones, marls, sandstones and cherts make up most of the exposed rocks of Somalia. Two isolated uplifted Neoproterozoic and early Cambrian complexes occur to the west of Mogadishu in the Bur region (Bur Massif), and in northern Somalia paralleling the Gulf of Aden. The Bur Massif in central Somalia consists of metamorphic rocks such as gneisses, amphibolites, quartzites and marbles, intruded by igneous rocks, mainly granites. It is part of the Neoproterozoic Mozambique Belt system. The northern regions are geologically highly complex with outcropping basement crystalline rocks, including the Darkainle complex that is part of an early Paleozoic folded belt<sup>7</sup>.

Generally, clastic and marine Jurassic sediments (sandstones, limestone) overlie the Precambrian and early Paleozoic igneous and metamorphic series. Cretaceous to Tertiary sediments with clastic sequences (sand- and siltstones, greywacke), evaporites (salt deposits) and marine successions (limestone, marls and silt/claystones) cover large parts of the region and constitute the major aquifers. Small areas with young basaltic to liparitic volcanics are

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<sup>6</sup> [http://www.fao.org/nr/water/aquastat/countries\\_regions/SOM/index.stm](http://www.fao.org/nr/water/aquastat/countries_regions/SOM/index.stm)

<sup>7</sup> [http://www.fao.org/nr/water/aquastat/countries\\_regions/SOM/index.stm](http://www.fao.org/nr/water/aquastat/countries_regions/SOM/index.stm)

exposed close to Djibouti and in the Gulf of Aden area, as well as in an area close to the Ethiopia/Kenya/Somalia border junction<sup>8</sup>.

**Soils:** The types of soil vary according to climate and parent rock. The arid regions of Puntland and eastern Somaliland have mainly thin and infertile desert soils. The limestone plateaus of the interfluvial areas have fertile, dark gray to brown, calcareous residual soils that provide good conditions for rain-fed agriculture. The most fertile soils in Somalia are found on the alluvial plains of the Jubba and Shabelle rivers. These deep vertisols (black cotton soils) have a high water-retention capacity and are mainly used for irrigation agriculture.

There are also large areas of dark cracking clays (vertisols) in the southern part of Somalia that appear to have a higher water-holding capacity than the generally sandy soils found elsewhere. According to both the FAO and USDA soil taxonomy, a vertisol is a soil in which there is a high content of expansive clay mineral known as montmorillonite. This soil forms deep cracks in drier seasons or years. Alternate shrinking and swelling of the soil causes self-mulching, where the soil material consistently mixes itself. This heaving of the underlying material to the surface often creates micro-relief known as “gilgai”.

**Natural disasters:** Effects of droughts and floods are the most frequent and serious natural disasters. From 1961-2004 it is reported that 18 recorded floods directly killed 2,600 people, and 12 recorded droughts directly killed 19,600 people.<sup>9</sup> With land conversion (for irrigation, charcoal, urban needs), effects of droughts are likely to be progressively exacerbated. Massive coral bleaching occurred worldwide in 1998 due to climate change and resulted in widespread coral mortality, which is likely to have impacted Southern Somalia and Gulf of Aden coast of Somaliland and Puntland.

**Current Environmental Issues, Concerns and Problems:** The following key environmental issues, risks, problems and ongoing negative impacts are notable for Somalia (IUCN 2006):

- a. Unsustainable tree use through clearing for agriculture, charcoal production both for local use and export, where export is driving much of the deforestation activities. Due to the poor transport infrastructure in Somalia, much of the charcoal production is concentrated around urban areas.
- b. Regulating charcoal export is a key issue to slow the depletion of woodland areas, especially in areas with easy access to seaports and through those to the Gulf states.
- c. Expansion of land for cultivation into areas inappropriate for cultivation, creating increased risk of damage from flood and drought.
- d. Irrigation resulted in clearing of riverine forests without concern for broader landscape management. This is a historical issue, which nevertheless needs to be linked into wider, contemporary environmental management.

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<sup>8</sup> [http://www.fao.org/nr/water/aquastat/countries\\_regions/SOM/index.stm](http://www.fao.org/nr/water/aquastat/countries_regions/SOM/index.stm)

<sup>9</sup> IUCN (2006) “Country Environmental Profile for Somalia”, Prepared for: The European Commission Somalia by IUCN Eastern Africa Regional Office, Nairobi, Kenya.

- e. Insecurity means that environmental issues are not considered a priority by governments and the populations.
- f. Due to a lack of security in terms of rights to land and natural resources, and clarity in land tenure, land access is often dominated by the well-connected and powerful.
- g. Illegal offshore waste dumping (oil, industrial and municipal waste, some of which toxic) by international fleets, though evidence difficult to substantiate.
- h. Illegal, unregulated and unsustainable fishing by international fleets (especially trawlers from Asia and Europe), but also at artisanal level.
- i. Unplanned private water development (especially for berkedes) increasing pressures on surrounding rangelands, exacerbated by increased use of private enclosures for grass which curtails grazing routes.
- j. Donor attention to environment not given seriousness and support needed – seen as mainstreaming, but need for accountable indicators to the environment in all such activities and so identification of priority intervention areas and sectors. Need to go beyond the rhetoric.
- k. Invasive species need to be managed as these could encroach and degrade the landscape – especially *Prosopis* spp. in Puntland and Somaliland
- l. Policy and legislative framework for environmental issues weak to non-existent.
- m. Biodiversity and conservation not seen as important for its own sake.
- n. Management of both energy and more broadly urban emissions as a result of expanding urbanization and effects on ground water, waste management, pollution.
- o. Soil erosion, and erosion of gullies and wadis depletes pastureland and may create secondary hazards (steep relief, geotechnical instabilities).

## 2.2 Socio-Economic Baseline Conditions

**Agriculture:** Somalia has a total area of about 137,600sqkms. Land under cultivation is currently estimated at 3% of the total geographical area. Another 7% has potential for agricultural development. The rainfall, soil (fertility and depth), and topography are the main determinants of these estimates.

The agricultural system in Somalia is predominantly subsistence in nature. The principal crops are sorghum and maize grown mostly for household consumption. Fruit and horticultural farming, which is relatively small, is mainly commercial. Here, farmers grow most of the time tomatoes, lettuce, onions, peppers, cabbages, oranges, lemons, and papaya. Rain-fed farming accounts for 90% of the total area cultivated, while the area under irrigation constitutes only 10%.

The sector is dominated by smallholder farmers who tend small farms ranging from 2 to 30 hectares in area. The size of the average farm is approximately 4 hectares. Somaliland's agriculture was practically destroyed during the civil war from 1982 to 1991 - agricultural equipment and farmers' property were looted, and infrastructure was devastated. The majority of the farmers fled as refugees to neighboring countries and returned home only when the

conflict ended. Although some recovery has been made in the past 20 years, a lot more remains to be done.

During the war, the institutional capacity of the Ministry of Agriculture (MoA) was eroded severely because of the brain drain resulting from the migration of professionals to other countries, looting of assets, and the destruction of ministry's facilities. The reduced capacity of the agricultural sector to produce food for the nation is clearly demonstrated by the total cultivated area under Sorghum and maize, the two main crops, which in 2009 was less than 23,000 hectares, and average yields were only 0.5 tons per hectare.

***Rain-Fed Farming and Irrigation:*** Rain-fed farming is the main agricultural production system. The main crops grown are cereals. Sorghum is the principal crop, utilizing approximately 70% of the rain-fed agricultural land. Another 25% of the land is used for maize. Other crops such as cowpeas, millet, groundnuts, beans, and barley are also grown in scattered marginal lands. Irrigation farms are mainly situated along the banks of streams (togs) and other water sources close to the riverbanks. Channeling from the source to the farm is mainly done by diversion of perennial water (springs) to the farm through rudimentary earth canals or floods. The cultivable area of these farms is subject to floods and is, therefore, in danger of being washed away. Most of the irrigated farms have in them areas set aside for the cultivation of vegetables and fruits for commercial purposes.

**Livestock:** The economy of Somalia mainly depends on livestock production, which has historically and culturally been the mainstay of livelihood for the majority of the people. The livestock production system in Somaliland is predominantly pastoral and agro-pastoral, with the industry, providing 29.5% of GDP in Somaliland and employing 27% and 20% of the female and male workforce, respectively in Somaliland.

Livestock is the source of livelihood for pastoralists, contributes to the Government revenues, and provides employment to a wide range of professionals and other service providers. Somaliland has a long history of live animal export to the Arabian Gulf states through Berbera port on the Red Sea.

There are several types of livestock production and management systems in Somalia, depending on a number of factors such as the area, availability of labour, and the sizes and types of livestock raised. However, in general, there are two main production systems: one based on nomadic pastoralism and the other on agro-pastoralism.

Nomadic pastoralism is the system practiced by most of the rural population and revolves around the seasonal migration of herders in continual search of pasture and water. The movement of these pastoralists is often organized and follows a regular pattern in which clan-based groupings have their traditional grazing areas and/or common watering points and temporary camps. In some parts of the country, pastoralists co-habit with farmers to access crop residues for their animals. In other places, the pastoralists take advantage of heavy rains and floods for agricultural purposes, planting crops in areas cleared for the production of forage

or grain.

**Fisheries:** A very small number of Somalia's population is engaged in fishing for livelihood and the majority of these are limited to small-scale artisan fishing. They operate from 10 coastal settlements on a permanent basis and use about 450- 500 small vessels of which roughly two- third are motorized and the remaining one-third are canoes. The sizes of the boats range from 6.4 to 8.5 meters in length. The size of the available vessels is one of the limiting factors to reach offshore resources and prevents fishermen from fishing during certain seasons of the year when the seas are rough. Traditionally, this sector uses gillnets, hooks for large fish and shark, hand-lines, and to a lesser extent, traps and seine nets.

The main commercial fish normally landed by artisan fishermen comprise many demersal and pelagic species. The most important groups include the following families:

Serranidae: Groupers, Sea basses, Rock cod, Hinds, Combers, Coral trout, Lyretails and Soap fish.

Carangidae: Jacks, Trevallies, Scads, Queen Fish, Runners and Pompos.

Lutjanidae: Snappers, Job fish.

Haemullidae: Grunts, Sweet lips, Rubber lips and Hot lips.

Lethrinidae: Emperors, Breams, Pig face, and Large eye breams.

Mullidae: Goat fish.

Scombridae: Albacores, Bonitos, Kawa kawa, Mackerels, Tuna and Waho.

The coral reef on the coast of Somaliland is also a habitat for other non-traditional marine resources, such as Mollusca's and Crustaceans. Though, the commercial viability of these resources is not known, giant clams, abalones and mussels are known to be found. Artisan fishermen around Berbera and Karin supply local urban markets in Burao, Hargeisa, and Berbera through several small fishing companies, which sell up to 90 MT per month in these markets.

### *2.3 Conflict Baseline Conditions*

**Social and Resource Conflict Issues:** The social impacts and potential aggravation of resource-related conflicts is well documented in a range of pastoralist and agro-pastoralist assessments carried out in the Somali region.<sup>10</sup> A review of these during the preparation of the project raised the following main findings regarding the nexus of access to water and conflict:

**Reducing Resources-based Conflict by Enhancing State Service Delivery Capability:** Access to water and pasture is a fundamental source of both conflict and co-operation between clans and civil authorities throughout the Somali region. In terms of conflict, extensive trans-boundary movements of livestock and limited access to the combination of water and pasture is one of

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<sup>10</sup> Lewis (1961) A Pastoral Democracy. Lewis (1998) Understanding Somalia. DfID (2005) Somalia: Drivers of Conflict. Gomes (2006) Access to water for pastoral resources management

the primary drivers of conflict across the Horn of Africa and within Somalia. Long and well documented records of conflict and cooperation over access to water and pasture in pastoralism domain exists<sup>11</sup>. Following decades of low investment in Somaliland and Puntland, water points with adequate surrounding pasture are especially scarce, claimed by clans, fiercely guarded and intrinsically linked to resource conflict.

Due to the overall State fragility and instability and historic conflicts between clans, the Government's capacity to develop and manage water points in rural Somaliland and Puntland is limited. Water supply and sanitation services underpin multiple aspects of human and economic development. To prevent resources-based conflicts, especially between pastoral nomadic and settled communities, they require public intervention to complement community based measures that ensure adequate and equitable supply, benefit from economies of scale and are highly visible services.

Thus creating additional water resources should implicitly constitute both a key component of a peace dividend and a basic indicator of state functionality.

**Social roles, Gender and Coping Mechanisms:** Differentiated social roles and responsibilities between men and women across livelihood systems have implications on the available mechanisms to cope and respond to external shocks such as drought. In the face of crisis, such as insecurity, drought or famine, men and women adopt different coping strategies to increase household resilience. Family splitting, for example, constitutes an important survival mechanism as families break up to spread economic risks and increase access to livelihood opportunities.<sup>12</sup> Men and older boys may take herds and migrate longer distances in search of water, resources, or possible alternative livelihoods, while women remain with small children, the elderly and weaker animals, or travel to IDP camps in search of access to resources and security.<sup>13</sup> Male household members may migrate to urban centers seeking economic opportunities. Alternatively, women sometimes travel to towns to engage in petty trade and engage in the informal economy.

Available economic opportunities, however, are still quite limited for both men and women and female-headed households remain among the most vulnerable populations. Unemployment rates remain particularly high for women, and especially female IDPs who often remain reliant on charity through social protection mechanisms and contributions from the diaspora in the form of remittances. Women who are engaged in income generating activities are often engaged in the informal sector and further bear the double domestic burden of earning an income and taking care of the home. The consequences of this burden often fall to girls in the

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11 E.g.: *A pastoral democracy*, Lewis (1961), *Understanding Somalia*, DFID (2005), *Somalia: Drivers of Conflict*, Gomes (2006), *Natural Resources & conflict management- the case of Land*, Economic Commission for Africa Sub-Regional Office for Eastern Africa (SRO-EA, 2012).

<sup>12</sup> Gardner, Judith. 2004. "Changing Roles and Responsibilities in the Family." In *Somalia – The Untold Story: The War through the Eyes of Somali Women*, ed. Judith Gardner and Judy El Bushra, 99-106. London: CIIR and Pluto Press.

<sup>13</sup> Ibrahim, Rhoda M. 2004. "Women's Role in the Pastoral Economy." In *Somalia – The Untold Story: The War through the Eyes of Somali Women*, ed. Judith Gardner and Judy El Bushra, 24-50. London: CIIR and Pluto Press.

family, who are expected to contribute to the maintenance of the home, often at the expense of girls' education and skills development.<sup>14</sup>

Coping and resilience strategies further give rise to security and protection challenges. Irregular migration of youth populations in search of resources of livelihoods, particularly from rural to urban areas may compound existing challenges linked to youth vulnerability and unemployment. Gender-based violence (GBV) also constitutes a significant challenge that, while prevalent throughout Somalia, is likely to be exacerbated by the drought-related crisis. Exposure to violence often increases in the context of shocks in part as women and girls travel longer distances without protection to find water, food, livelihoods and other resources, particularly for IDPs traveling outside formal or informal settlement areas. Increases in violence are further attributed, among other factors, to increased trauma and stress in the aftermath of disasters or climate-related events, as well as losses in economic opportunities and livelihoods particularly for men both in the short- and longer-term.<sup>15</sup> Under current drought conditions in Somalia, there are already reports of increases in varying forms of GBV region due to unmet needs and general hardships.

**Drought, Displacement and Assets:** Drought conditions are contributing to already pronounced rates of acute and protracted displacement. More than 278,000 people have been displaced in March alone within Somalia due to the drought, bringing the total number to approximately 585,630 since December 2016.<sup>16</sup> Puntland and Somaliland has experienced huge losses of livestock, resulting in pastoral dropouts and displacement. The little rain in December 2016 in some areas of Puntland resulted in a huge migration of pastoralists to benefit from the rains.

While data on the demographic profile of migrating populations is needed, it is likely these drought-related internal displacements may be from minority clans, who have lost assets including their homes, livestock, and livelihoods. Camps are heavily congested and have also proportionally received the largest number of new arrivals.<sup>17</sup> Displaced women and girls are among the most vulnerable populations and face multiple constraints including lack of access to adequate shelter, livelihoods and access to critical resources, including land. The attendant separation of many women and girls from community and familial support structures, as well as from traditional livelihoods activities, also contributes to an increased reliance particularly of women on marginal, inconsistent and hazardous livelihood strategies, which often increases exposure to violence.

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<sup>14</sup> Interagency Working Group on Disaster Preparedness for East and Central Africa.

<sup>15</sup> World Bank. 2010. "The Gender Dimensions of Poverty and Climate Change Adaptation." From *Social Dimensions of Climate Change*, edited by Robin Mearns and Andrew Norton

<sup>16</sup> UNHCR, UN Habitat, IOM, JIRA and Local Ministries of Interior, IOM and The World Bank, 2017

<sup>17</sup> JRIA, 2016

## Section 3. Legal, Policy, and Administrative Framework

### *3.1 Somali National Laws and Regulations*

In all Somali territories policy and legislation with respect to the environment is evolving, in terms of assessing the potential impact of such policies on the environment, or how they could contribute to environmental conservation and sustainable livelihood improvement.

In recent years Somaliland has effected a constitution within which article 12 addresses: Public Assets, Natural Resources and Indigenous production. Although there are no Environmental Policy and Act in place, an Environmental and Social Assessment Framework has been produced through the SDF program. Protection and use of Somaliland water resources is the responsibility of the Ministry of Water Resources that has put a policy, act and regulatory framework in place. In Puntland an Environmental Policy was produced in 2014 and framework documents for EIA guidelines and regulations put in place.

For both Somaliland and Puntland the institutions at National, Regional and District Levels responsible for the implementation and monitoring compliance of both national and international agreements are shown below and include:

- a. The Minister, in consultation with the Parliamentary Environment committee and civil society organizations working in the environment shall establish Environmental Watch Councils at National level (NEWC).
- b. The Ministry of Environment and Rural Development (MoERD) in Somaliland and the Ministry of Environment, Wildlife and Tourism (MoEWT) in Puntland with consultation with Regional Authorities, in consultation with civil society, at the Regional level, and communities shall establish the Regional Watch Councils (REWC).
- c. The MoERD and MOEWT in consultation with the Local Government Councils/ District Governor, local Community-Based Organizations (CBOs) and the community shall establish the District Environment and Environment Watch Council (DEWC).
- d. The members of the Council shall come from both genders and should be Somaliland citizens in good standing in the community and are environmentally conscientious. The council shall serve five-year terms at a time and can be re-appointed.

The environmental licensing process in Somaliland and Puntland is regulated by the Ministries. The key principles are:

- a. The MOERD (Somaliland) and the MOEWT (Puntland) or any person authorized by him/her may grant any of the licenses enumerated. Every license shall be subject to such conditions as may be specified therein.
- b. The Minister or any person authorized by him/her may at any time cancel or suspend any license granted by or on behalf of the Minister, the holder of which has been on reasonable grounds suspected by the Minister or such other authorized person, to have infringed any of the conditions upon or subject to which said license has been granted, and may at any time vary the conditions of any such license.

- c. Any person aggrieved by any order under this Article may appeal to the Minister of MOERD for Somaliland and MOEWT for Puntland whose decision shall be final.

The scope of activities requiring licenses include charcoal production, mining and quarrying, collection of plants and grasses, collection of gums and resins, and investment projects including sectors such as waste, wastewater, roads, and energy infrastructure.

For the project implementation the E&S management will fully rely on FAO’s environmental and social standards.

### 3.2 Somali National Environmental Roles and Responsibilities

Although Somalia national environmental safeguards systems are not being used for this project, the following table gives a brief overview on roles and responsibilities on environmental management.

Table 1: Institutional Arrangements in Environmental Decision Making

Institution	Mandate
Somali Federal Government	Signs International Conventions
Council of Ministers	Approves National Strategic Climate Strategy
Parliament	Approval of Environment Acts and Laws
<b>A. Central Level</b> MoERD (Somaliland) MoEWT (Puntland)	<ul style="list-style-type: none"> <li>• Prepares Strategic Climate, Environment and Social Strategy</li> <li>• Environmental Policies / Plans</li> <li>• Guidelines - Approves EAs</li> <li>• Liaison with Regional level Institutions</li> <li>• Monitoring and Evaluation</li> </ul>
<b>B. Regional Level:</b> Regional Environmental Watch Councils (Somaliland) Environmental committees and pastoral associations (Puntland)	<ul style="list-style-type: none"> <li>• Implement Regional Policies</li> <li>• Implement Sectoral Laws (National or State Laws) - Approval of all development activities</li> </ul>
<b>C. Local Level:</b> District Environmental Watch Council and Villages/ Pastoralist Community Environmental Watch Councils (DEWC/ PEWC)	<ul style="list-style-type: none"> <li>• Implement local orders on Public Health, District natural resources</li> <li>• Implement Regional Laws</li> <li>• Approval of projects at District Level</li> <li>• Mobilize local communities</li> <li>• Submit requests for development activities to REWC</li> </ul>

## Section 4. World Bank and FAO Safeguards Policies

Environmental and social impact assessment (ESIA) is required for projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to

improve decision making. FAO implements an environmental and social safeguard policy in order to identify, evaluate and manage the environmental and social risks of a project, adopt a mitigation hierarchy and promote sustainable agriculture and food systems.

The executive summary of the ESMF will be translated into Arabic and the final ESMF, including the Somali Executive Summary, will be disclosed on the Bank's and FAO's websites as per the Bank's requirement. FAO requirements for moderate risk projects require disclosure of relevant project information (before appraisal formally begins) that is accessible and culturally appropriate, placing due attention to the specific needs of community groups which may be affected by project implementation (such as literacy, gender, differences in language or accessibility of technical information or connectivity). For moderate risk projects FAO releases the applicable information as early as possible.

#### *4.1 Applicable World Bank Safeguards Policies*

ESIA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental and social impact of the proposed project. ESIA evaluates a project's potential environmental risks and social impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation.

The World Bank safeguard policies include:

- OP 4.01 Environmental Assessment
- OP 4.04 Natural Habitats
- OP 4.09 Pest Management
- OP 4.11 Physical Cultural Resources
- OP 4.12 Involuntary Resettlement
- OP 4.10 Indigenous People
- OP 4.36 Forests
- OP 4.37 Safety of Dams
- OP 7.50 Projects on International Waterways
- OP 7.60 Projects in Disputed Areas

The safeguard policies were checked against the proposed components and their activities. The following discussion of the Policies explains which ones are triggered as a result of project activities. In preparing this ESMF, all categories of subprojects were screened against the Bank safeguard policies and it was determined that the following policy is triggered by SEDRP. OP 4.01 on Environmental Assessment. For further details on World Bank safeguard policies, please refer to [www.worldbank.org](http://www.worldbank.org)

SEDRP is also classified as a category "B" project as its potential impacts are anticipated to be site-specific, reversible; and mitigation measures can be readily designed. The Category "B" ESMF is to examine the project's potential negative and positive environmental impacts and

recommend any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.

Analyzing the World Bank Environmental Assessment policy and the national environmental law and regulations shows similarities regarding the requirement for categorizing, screening, assessing environmental impacts for any new project with potential negative impacts on the environment. Nevertheless, main gaps between the law and WB OP 4.01 include requirement for monitoring and public participation.

**Environmental Assessment Safeguard Policy (OP 4.01):** The project is expected to have significant positive environmental social impacts, in particular in most activities, with only relatively minor negative impacts. The OP 4.01 has been triggered because there is the potential that implementation of SEDRP sub projects may lead to some negative environmental impacts. The ESMF has however determined that there will be no potential large-scale, significant or irreversible environmental impacts associated with the project. The potential impacts identified are mainly localized impacts associated with activities, including the involvement of communities on a purely voluntary and demand basis, which can be effectively mitigated and are addressed using the screening criteria and environmental and social management plan (ESMP). For any minor negative impacts, the SEDRP will be in compliance with this OP 4.01, provided the actions prescribed in the sub-project ESMP are implemented.

Safeguard Policies	Applicable?	Justification
<b>Environmental Assessment OP/BP 4.01</b>	Yes	Policy is triggered as the project is expected to include small-scale infrastructure and activities relating to soil and water management such as terraces, construction of water harvesting structures (e.g. cisterns), and small-scale spate irrigation sub-projects. Because the locations of the sub-projects are not known at this stage, an Environmental and Social Management Framework (ESMF) has been prepared. Generic Environmental and Social Management Plans (ESMPs) will be applied during implementation and before implementation of sub-projects/construction as required.
<b>Natural Habitats OP/BP 4.04</b>	No	The policy is not triggered. The project activities will not cause conversion or degradation of natural habitats or critical natural habitats as defined by the policy.
<b>Forests OP/BP 4.36</b>	No	Policy is not triggered as the project will not be implemented in any forested areas.
<b>Pest Management OP</b>	Yes	The project activities are not expected to result in the use of pesticides. However, Pest Management OP 4.09 has been

<b>Safeguard Policies</b>	<b>Applicable?</b>	<b>Justification</b>
<b>4.09</b>		triggered as a precaution.
<b>Physical Cultural Resources OP/BP 4.11</b>	No	Policy is not triggered as the project will not be implemented in areas of cultural heritage sites.
<b>Indigenous Peoples OP/BP 4.10</b>	No	Policy is not triggered as indigenous people as defined in the policy are not present in project areas.
<b>Involuntary Resettlement OP/BP 4.12</b>	No	Policy is not triggered. No involuntary resettlement is anticipated in the Project. The project will not finance any activities which involve involuntary taking of land and involuntary restriction of legally designated parks and protected areas. Land for project activities will be free of squatters/encroachers. It is expected that land needed for any subprojects will be in small scale and owned by the government. In case of private owned land, the project will obtain the land through voluntary donation by local communities. The guidelines for safeguards screening, voluntary land donation and negative project list will be developed and included in the Operational Manual and the PAD, and a GRM for land donation will be put in place. The client will conduct due diligence to ensure that no involuntary settlements will take place. Verification of the voluntary nature of land donation will be obtained and reviewed by the Bank.
<b>Safety of Dams OP/BP 4.37</b>	No	Policy is not triggered as the proposed community sub-projects will not include construction or rehabilitation of dams as defined by the policy.
<b>Projects on International Waterways OP/BP 7.50</b>	No	Policy is not triggered as the project will not undertake any activities in the catchment areas of international waterways and shared aquifers.

## *4.2 Applicable FAO Environmental and Social Safeguards*

FAO Environmental and Social Management System is based on the “Environmental and Social Management Guidelines 2015”<sup>18</sup>. At the programme and field level, the environmental and social Standards are designed to help manage and improve environmental and social performance through a risk and outcome based approach. The nine standards set out specific requirements relating to different social and environmental issues:

- 1 Natural Resource Management
- 2 Biodiversity, Ecosystems and Natural Habitats
- 3 Plant Genetic Resources for Food and Agriculture
- 4 Animal - Livestock and Aquatic - Genetic Resources for Food and Agriculture
- 5 Pest and Pesticide Management
- 6 Involuntary Resettlement and Displacement
- 7 Decent Work
- 8 Gender Equality
- 9 Indigenous Peoples and Cultural Heritage

SEDRP underwent a screening process against the 9 environmental and social standards and it was determined the project classifies as moderate risk, as it triggered safeguard 3 on Plant Genetic Resources for Food and Agriculture.

The project involves the importing or transfer of seeds and/or planting materials for cultivation. sorghum, maize and cowpea will be locally procured through voucher schemes. Assorted vegetable seeds (tomato, carrot, onion, capsicum, okra, amaranths, Ethiopian mustard and water melon) will be imported from Kenya by local traders using voucher scheme.

For this, FAO requires that technical specification for seeds be cleared by the competent technical unit in FAO HQ (AGPMG) and any seed treatments applied must be cleared by AGPMC schemes.

The project foresees rehabilitation of existing small secondary and tertiary canals only by desilting the canal beds and the traditional water harvesting infrastructure (all manual earthworks). Changes in land tenure and ownership are not expected, nor changes on traditional water rights; as the SEDRP does not include land acquisition nor changes in water allocations. Further to this, no new canals will be developed. The work performed by the communities will restore the water retention capacity in the water systems. Moreover, the project will maintain an inventory of registered beneficiaries, with related land tenure information for post project impact assessment.

The use of pesticides is not foreseen due to procurement of untreated assorted vegetable seeds (i.e. seeds will not be dressed/treated with any chemical or pesticide) from neighboring countries and local seeds procured using voucher scheme will also be untreated. Regarding use of fertilizer, the targeted areas fall under rainfed farming system and therefore, use of fertilizer

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<sup>18</sup> Available online at: <http://www.fao.org/environmental-social-standards/en/>

is not foreseen under this project. However, OP 4.09 has been triggered in order to provide guidance should the types of sub-projects be modified during the course of implementation

Also, the level of risk may change during project preparation and/or implementation. Project task force will monitor in order to identify indirect, cumulative and associated impacts as relevant and inform FAO ESM Unit of any changes.

## **Section 5. Institutional Arrangements**

Component 2 of the proposed SEDRP will be implemented by FAO. FAO Somalia will be responsible for the implementation of all activities under Component two based on the project design, and the procurement, financial management, disbursement, and safeguards procedures of FAO as the implementing UN agency will apply. A strong partnership is already in place between the World Bank and the FAO, which has enabled successful implementation of previous IDA-financed projects. Moreover, the activities detailed under Component 2 fall under the scope of FAO's Famine Prevention and Drought Response Plan for 2017, which aims to provide lifesaving interventions and emergency livelihood support to (i) meet immediate food and water needs while rehabilitating productive infrastructure through cash-for-work; (ii) support livelihoods with cash and inputs (Cash+); and (iii) save livestock assets and related food and income.

FAO Somalia will be in charge of overall coordination and implementation of project activities in Component 2 through its field staff and subcontracts with local implementation partners (NGOs, CBOs, professional associations). FAO Somalia's Country Office in Nairobi and Mogadishu, under the leadership of the FAO Representative in Somalia, will provide overall oversight and quality insurance to ensure successful implementation of the project, including all fiduciary aspects, safeguards, monitoring, and reporting of the project's progress. FAO has sufficient technical expertise in the Nairobi office to integrate environmentally and socially sustainable techniques into the types of small-scale interventions to be implemented in the SEDRP.

### ***Targeting and Implementation Approach***

Component 2 of the SEDRP will be implemented across all districts that FAO is currently active in as part of its ongoing emergency Famine Prevention and Drought Response program, and where implementation is possible through local NGO partners. The concentration of funds and activities for cash transfers and agricultural livelihood support will be based on three levels of targeting. First, for district level targeting, FAO will work through the Food Security Cluster to examine IPC Level 3 and 4 caseloads, identifying where needs are most urgent and where there are gaps in coverage. Within the districts, through consultations with the District Commissioner, partner NGOs, and other local stakeholders, FAO determine where response actors are operating within the district and where needs are greatest. Finally, FAO will work with NGOs and with village elders to identify specific needs at the village level, resulting in a list of individual beneficiaries. As part of this village-level targeting, FAO will ensure minimum coverage inclusion of women and women-headed households, as well as other vulnerable groups, including but not limited to elderly and handicapped individuals.

To facilitate beneficiary verification when collecting payments, at the time of identification beneficiaries will be registered with biometrics (thumbprint) where possible, and registration into the Form Management Tool, which includes name of household focal person, village, phone number, and photographs. Biometric information and photographs will be integrated into the vouchers provided to beneficiaries that must be presented to money vendors for payment distribution. On limited occasions in highly insecure districts, FAO will authorize for biometric data not to be collected, in which case money vendors can confirm identity via the photograph.

Through an FAO established Call Centre, which conducts surveys, FAO verifies information throughout the project cycle. The first surveys focuses on the verification of beneficiary eligibility by contacting Council members, village elders and beneficiaries by phone. Initially the survey verifies and ensures the beneficiaries identified in the selection process meet the selection criteria (male, female, age, IDP, household heads, etc.) of the project. In a second stage, the survey focuses on the work performed (site, number of days, tools used, type of infrastructure, supervision, payments received from the money vendor, etc.). In a third stage the Call Centre will focus on further work performed and verifies that the payments or benefits that were to be received by beneficiaries from earlier stages of the project, were in fact received. Based on validation and clearances of the Call Centre data, the contractual payments will be made to the Service Provider (SP, also called implementing partner, i.e. the selected NGO) and the beneficiaries. Any diversions or lack of compliance with contractual obligations will result that a payment requested by the SP or due to the beneficiaries will be put on hold until an analysis/evaluation of the results found by the Call Centre is clarified or found to be justified. Were required the payments due to the SP or the beneficiaries will be adjusted in cases where compliance with contractual obligation(s) is weak or lacking.

Distribution of beneficiary payments will be undertaken through designated money vendor offices, which will occasionally be requested to travel and make payments directly at the targeted sites, especially when the villages are located far from the main offices, in coordination with the selected implementing partners. This approach to make payments at the village level will be used to ensure that no additional burden, such as walking or traveling to distant places, is placed upon the vulnerable populations in need of assistance. This is especially key for women who have demanding schedules due to their regular daily caretaking roles within the household, as well as their roles in processing and selling goods. In the cases where the money vendor must travel, they will be covered for the additional costs of travel, security, and delivery of payments. For other cases in which the village is not located far from the designated money vendor, FAO will provide travel allowances to the beneficiaries to collect their payments.

At the time of payment, verification of beneficiaries will take place through multiple, complementary approaches. Money vendors will be able to verify beneficiaries against

biometrics, or through the signed beneficiary list provided by the FAO implementing partner and the Form Management Tool generated list. Integration of beneficiary photographs into the vouchers serves as an additional verification measure, or a primary verification measure where biometric information cannot be collected or is waived for security reasons.

To provide agricultural inputs as part of the Cash+ livelihood support, vouchers will be utilized in areas where well-functioning input markets exist. These vouchers will be serialized and tailored to the needs identified in each district to include the quantity and type of inputs the household is entitled to with the voucher. Traders who will accept the vouchers will be pre-selected at the village level, and will be able to claim payment from the vouchers through the money vendors. Fishing kits provided to riverine communities under this sub-component will be provided as direct inputs, procured by FAO and delivered through implementing partners. To facilitate verification of beneficiaries receiving vouchers or fishing kits, FAO has introduced photographs of the beneficiaries into the vouchers. For fodder production support, FAO will provide inputs (seeds, land preparation and irrigation as applicable, equipment for harvesting and processing) and training through local qualified NGOs.

Given the migratory nature of pastoralist communities, rather than utilizing the three-level targeting process used for cash transfer, targeting for livestock support for pastoralists will have to be done based on a combined understanding of drought affected areas, geographically specific reports of livestock loss, functional and accessible water points, and typical migratory and trade routes. FAO will procure and position veterinary drugs, essential vaccines, veterinary supplies, and equipment. These inputs will be provided to veterinary teams, typically belonging to regional veterinary associations, who will be contracted to administer treatments and vaccinations. In the central and southern regions, for as far as drugs and instruments for treatment are concerned, procurement from available veterinary input suppliers will be done by the associations themselves against prices and standards pre-established by FAO. To facilitate monitoring by FAO Field Monitors and the FAO Call Centre in Nairobi, the contracted veterinary association will develop a deployment framework and work plan for the veterinary teams to undertake the treatment activities

#### ***FAO NGO and Beneficiary Selection Criteria***

FAO implementing partner selection is based on the results of a pre-qualification exercise undertaken by FAO's Procurement Unit in coordination with sector staff. The pre-qualified NGOs are requested to submit financial proposals based on targets at the district level. The lowest bidder is further examined through well-articulated FAO risk management measures. The selected partners in each district participate in an extensive training and inception workshop before being engaged to implement activities.

FAO beneficiary target selection is based on IPC projections regularly released by FSNAU. Based on this analysis, FAO prioritizes rural households in IPC phase 3 and 4 and further actualizes the targets at the District level taking into consideration households already covered by other Agencies and where necessary complement their activities. At the District level, the supported

partner coordinates with district authorities and other implementing agencies to either avoid the villages where others are implementing cash and food interventions or to ensure complementarity. FAO also coordinates with the Food Security Cluster, World Food Programme (WFP) and major NGOs on coverage and targeting to avoid coverage gaps and duplication. The below criteria apply for identifying households targeted with cash-based interventions:

- Populations in IPC Phases 3 and 4;
- Riverine and agropastoral smallholders and fisher folk who depend primarily on subsistence farming/fishing activities in drought-affected areas (primarily targeted with Cash+);
- Pastoralists with small herds, at or below the subsistence level;
- Women-dependent households;
- Households from marginalized and minority clans and sub-clans or ethnic groups;
- Households that are residents of the local village/district or internally displaced people recognized by the host community, and returnees.

The below are beneficiary selection criteria are specific to unconditional cash transfer activities:

- Female headed households where the mothers are pregnant and/or lactating;
- Households with disabled persons;
- Vulnerable households that have lost a considerable amount of assets like livestock or crops (any loss between 75-100 percent will be considered as significant loss);
- Vulnerable households with children under 5 years (2 or more children under 5 years).

Selection of community water facilities and infrastructure to be rehabilitated through the cash-for-work program will be determined through discussion between FAO service providers and community members in the areas targeted for support. The service provider together with the community will discuss the different possible infrastructures assets that require rehabilitation, and prioritize those assets that will benefit the community at large (excluding privately owned infrastructures). After the communities select the infrastructure assets, for each asset the SP will prepare the bill of quantities indicating the amounts of work needed and the beneficiaries impacted by rehabilitation for approval by FAO.

To support the sustainability of the infrastructure rehabilitation works, FAO, through its service providers and community consultations, will select at least nine people per infrastructure asset to form a WASH committee that will be responsible to ensure the sustainability of the improved water facilities. This committee, which must consist of at least three to four women, will be provided training so they have the necessary skills and knowledge to maintain the infrastructure as well as help other community members understand the importance of proper management, operation, and maintenance of these improved facilities.

### ***Gender Considerations***

FAO aims to ensure that at least 30 percent of projects' direct beneficiaries are women. To ensure that assistance is tailored to the distinct needs and realities of women and men, FAO projects employ gender analysis before activities start to integrate the concerns of women and men of all ages. The needs assessment, design, implementation, monitoring and evaluation of

FAO's projects involve single-sex consultations. FAO Somalia has developed a standard operating procedure for gender mainstreaming and provides its implementing partners with gender training, guidelines as well as checklists to ensure the do-no-harm principle is observed.

To further promote incorporation of gender concerns and prevention of gender based violence, all FAO contracts with partners have standard clauses, which are monitored by the FAO Somalia Compliance and Risk Management unit and feedback and project steering information is provided timely to Project Managers and Responsible Officers.

For the cash for work component FAO seeks to ensure that rehabilitation sites are close to homesteads to minimize the burden of walking too far and prioritizes emerging employment opportunities for women. The beneficiary selection process is guided by continuous qualitative and quantitative gender analysis, through improved geographical targeting upstream and ensuring minimum thresholds for the inclusion of vulnerable groups, including minority clans, women-dependent households, returnees/internally displaced people and communities recently affected by shocks or displacement. FAO ensures that women engage in key project activities, such as trainings and supervision of works. In addition, a sensitization component and supporting complaint/feedback mechanisms are included in FAO's cash-for-work program to reduce the risk of gender-based violence. FAO has developed practical gender checklists and mainstreaming guidelines that all implementing partners must follow to ensure gender considerations are fully adopted in program implementation. FAO has made provisions for vulnerable women and men to designate an able member of the family to work on their behalf, while remaining the recipients of cash-for-work payments.

For the Cash+ component which includes farming inputs and fishing kits, priority will be given to female headed households and women farmers during the beneficiary selection process. The input package includes a vegetable seed component – designed to engage women both in the production and in promoting vegetable consumption by family members, which will boost nutrition and wellbeing particularly of women, children and elderly people. Both men and women engage in riverine fishing, with primarily men fishing along the rivers and women involved in the post-harvest handling, preservation, preparation or sale of the catch. Importantly, women play a key role in integrating fish into a nutritious household diet. In addition to fishing hooks and lines, the kit includes basic fish processing equipment such as knives, a chopping board and a cooler that will be primarily used by women. Both men and women will receive training in the use of the fishing kits.

For the livestock support component, the vaccination targets sheep and goats, which – in particular in agro pastoral systems – are mainly managed by women. Before the campaign begins, sensitization is carried out at the community level which encourages women to present their animals for vaccination and treatment. Implementing partners are also encouraged to involve women that have the professional capacity to be part of the veterinary teams that treat the animals. Improved animal health makes animals more productive (e.g. milk), which has positive impacts on women's livelihoods, income, household food security and nutrition. Additionally, possible goat restocking interventions deliberately target vulnerable female-headed households. For the improved fodder production, some of new and existing producers'

groups will be led by women. Fodder production will target areas within acceptable distance from the homesteads, which ensures that women can actively participate.

## **Section 6. Sub-Projects Positive List, Impacts, and Mitigations**

### *6.1 Positive List of Sub-Projects*

The following is a positive list of sub-projects to be considered for financing:

Small-scale water infrastructural rehabilitation:

- restoring water catchments;
- rehabilitating existing small secondary and tertiary irrigation canals;
- constructing contour bunds to control erosion;
- shoring up breaks in river embankment to decrease flooding; and
- and rehabilitating water harvesting and storage infrastructure.

Agricultural and fisheries livelihood support:

- Provision of seeds, fertilizers and other farming inputs;
- Vouchers to finance land preparation and irrigation pumps; and
- Fishing kits and trainings on their appropriate use.

Pastoral/livestock livelihood support:

- Provision of rangeland cubes;
- Provision of appropriate seeds and equipment for sowing, growing, harvesting and storing fodder;
- Livestock treatments and vaccinations; and
- Targeted goats restocking (in the medium-term).

Activities above may be adjusted to seasonal requirements (linked to the agricultural calendar), needs and coverage by other partners, as well as fill critical gaps in assistance.

## 6.2 Sub-Projects Impacts and Mitigations Tables

Impact Monitoring and Mitigation for Small-Scale Agricultural Sector Activities			
Category	Problem	Root Cause	Mitigation Measure
<b>Land degradation</b>	Loss of soil from agricultural land	Water- and wind-induced soil erosion	<ul style="list-style-type: none"> <li>• Improve overall farming system</li> <li>• Match land use to land capability</li> <li>• Apply appropriate soil and water conservation measures</li> </ul>
	Loss of soil from marginal areas	Water- and wind-induced soil erosion combined with inappropriate land use	<ul style="list-style-type: none"> <li>• Reduce pressure on marginal areas through alternative income sources and/or changed land uses</li> <li>• Encourage revegetation of degraded and marginal areas to reduce runoff</li> </ul>
	Soil infertility: significant increase in fertilizers necessary for crop production	Nutrient exhaustion due to farming techniques	<ul style="list-style-type: none"> <li>• Rotate crops</li> <li>• Allow land to lie fallow</li> <li>• Intercrop with legumes or other nitrogen-fixing species</li> <li>• Practice low-tillage farming</li> <li>• Combine crop and tree production (agroforestry)</li> </ul>
	Overgrazing leading to erosion, vegetation loss and gully formation	Noneconomic reasons for large herds (e.g., prestige, marriage dower) Lack of alternative fodder sources	<ul style="list-style-type: none"> <li>• Increase average animal productivity through health and nutrition Improve market options for culls</li> <li>• Improve grazing management systems</li> <li>• Improve communal land management</li> </ul>
	Land barrenness: sand dunes encroaching on productive agricultural land	Desertification due to climate change, poor land-use practices and farming techniques	<ul style="list-style-type: none"> <li>• Use trees, grass, grass mats, or mesh to stabilize dunes and prevent their spread</li> <li>• Plant vegetative windbreaks to reduce soil erosion from wind</li> <li>• Revegetate denuded areas to reduce soil erosion from runoff</li> <li>• Take other conservation and prevention measures, such as more efficient use of fuel, improved dryland farming, and livestock improvement programs, to reduce crop and herd quantities and improve quality</li> </ul>

**Impact Monitoring and Mitigation for Small-Scale Agricultural Sector Activities**

<b>Category</b>	<b>Problem</b>	<b>Root Cause</b>	<b>Mitigation Measure</b>
<b>Runoff from land use</b>	Polluted and eutrophic lakes and rivers Low fishery yields	Poor water quality caused by being downstream from livestock farms; agrochemical and fertilizer use on cropland	<ul style="list-style-type: none"> <li>• Vegetate areas around fields to prevent nutrient runoff from croplands</li> <li>• Vegetate riparian areas to prevent erosion along stream banks, leaving 50-m-wide strips between waterways and croplands</li> <li>• Collect agricultural wastewater from intensive livestock operations in holding lagoons</li> </ul>
	Pollution of exposed wells and springs	Increased incidence of waterborne disease	<ul style="list-style-type: none"> <li>• Implement minimum setback limits for grazing and agriculture around water sources</li> <li>• Ensure that wellheads and springs are properly constructed and protected</li> </ul>
	Contamination of environment, especially soil and water	Subsidies for farm inputs Inappropriate input packages	<ul style="list-style-type: none"> <li>• Improve training of farmers in input use, especially chemicals</li> <li>• Train providers and vendors of agricultural inputs</li> </ul>
<b>Siltation</b>	Flooding and decreased navigability of rivers and waterways	Deposition of silt in rivers and water bodies from erosion	<ul style="list-style-type: none"> <li>• Revegetate critical watershed areas and apply soil and water conservation measures to the upstream areas for better erosion control</li> </ul>
	Flooding and soil erosion after rainstorms	Watershed destabilized due to deforestation and reduced area or capacity of wetland	<ul style="list-style-type: none"> <li>• Revegetate degraded and marginal areas to reduce runoff</li> <li>• Vegetate riparian areas to prevent erosion along stream banks</li> <li>• Maintain condition of existing wetlands and construct additional artificial wetlands if appropriate</li> </ul>
	Changes to river deltas, coastlines, and estuaries	Destruction of coastal areas from erosion and siltation	<ul style="list-style-type: none"> <li>• See above measures for erosion control along river and critical watershed areas</li> <li>• Protect mangroves from agricultural and other uses</li> </ul>

Impact Monitoring and Mitigation for Small-Scale Agricultural Sector Activities			
Category	Problem	Root Cause	Mitigation Measure
Importing of seeds for cultivation only	Poor seed quality	Unknown source, age, and properties of seeds	<ul style="list-style-type: none"> <li>• Obtain clearance from HQ Technical Unit for technical specifications of seed to be purchased. In case of purchase of Seed that has been treated it also requires technical clearance from the competent technical unit in FA</li> <li>• Local traders trained on FAOs' technical specification requirements and are required to produce certification documents for vegetable seeds (i.e. Phytosanitary certificate, seed testing documents etc.) before distribution to the beneficiaries.</li> <li>• FAO will sample and test seed from local traders in order to guarantee the quality of seed delivered to farmers. FAO will use an independent service provider that will sample and test quality of seed in a laboratory cleared by HQ technical unit.</li> </ul>

Impact Monitoring and Mitigation for Small-Scale Fisheries Sector Activities			
Category	Problem	Root Cause	Mitigation Measure
Capture Fisheries	Over-harvesting	Subsidies for fishing inputs	<ul style="list-style-type: none"> <li>• Set minimum size limit for harvested fish.</li> <li>• Use bag limits</li> <li>• Use appropriate fishing gear</li> <li>• Close seasons during critical stages in fish life cycles</li> </ul>

Impact Monitoring and Mitigation for Small-Scale Livestock Sector Activities	
Negative Impacts	Mitigation Measures
<ul style="list-style-type: none"> <li>• Uncertain source of supply (risk of introduction of new diseases)</li> <li>• Diseases related to poor hygiene conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Animal health certification issued by a resident veterinary</li> <li>• provide a transit center for imported animals • build lodgings according to the standards and ensure hygiene and cleanliness</li> </ul>

<b>Impact Monitoring and Mitigation for Small-Scale Livestock Sector Activities</b>	
<b>Negative Impacts</b>	<b>Mitigation Measures</b>
<ul style="list-style-type: none"> <li>• Bad conservation of veterinary drugs and feeds stocks.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan for material for good conservation of veterinary drugs and training.</li> <li>• Avoid the prolonged storage of animal feeds already mixed in the farm</li> </ul>
<ul style="list-style-type: none"> <li>• Insufficient knowledge of basic veterinary techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Training in veterinary techniques</li> <li>• Management of the pharmaceuticals</li> </ul>
<ul style="list-style-type: none"> <li>• Intake of unknown diseases in the workplace</li> <li>• Non-environmentally adapted animals</li> <li>• Extraction of construction materials, excessive consumption of wood</li> <li>• Risk of contamination by pharmaceuticals poorly preserved</li> <li>• Pollution of the environment by livestock waste processing products</li> </ul>	<ul style="list-style-type: none"> <li>• To ensure that imported animals are disease-free</li> <li>• Compensation reforestation</li> <li>• Training and availability of casing for the conservation of medicines and veterinary equipment</li> <li>• Pools of waste management</li> </ul>

### Impact Monitoring and Mitigation for Small-Scale Livestock Sector Activities

Negative Impacts	Mitigation Measures
<ul style="list-style-type: none"> <li>• Overloads of pasture</li> <li>• Recurring charges of animal health protection</li> <li>• Permanent training of veterinarians and other agents of veterinary services</li> <li>• Funding loans requests for the installation of private veterinary practices</li> <li>• Costs of veterinary services not subject to competition;</li> <li>• Breach to the pastures' carrying capacity</li> <li>• Worsening of erosion</li> <li>• Degradation of the vegetation around water points</li> <li>• Excessive withdrawal from groundwater</li> <li>• Solid and liquid waste disposal if in lairage (fattening)</li> <li>• Logical deficit of veterinary services economically justifying animal productions</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitate animals destocking;</li> <li>• Establishment of a funding mechanism based on the lucrative sectors such as meat, poultry</li> <li>• A recycling program based on the needs expressed and funded by a mechanism to study;</li> <li>• A support program for the installation of all livestock farming professionals;</li> <li>• An accurate assessment of the need for professionals of all levels for a relevant distribution in areas of livestock farming;</li> <li>• Develop a support program for the improvement of the performance of animal production such as the feeder, and poultry. This program can be funded with the assistance of mentoring organizations</li> <li>• Multiply sources of water, such as wells</li> <li>• Waste management (recovery) plan</li> </ul>

## Section 7. Environmental and Social Management Plan

For moderate risk projects, FAO requires the development of an environmental and social management plan to set out the measures and actions required for the project to manage and effectively mitigate environmental and social risks and achieve compliance with the triggered ESS.

In this case, the ESMP will list the commitments and actions the SEDRP will undertake to achieve compliance with World Bank OP 4.01 (Environmental Assessment), OP 4.09 (Pest Management), and FAO Safeguard 3 (Plant Genetic Resources for Food and Agriculture) throughout the entire life of the project.

In case a reclassification of the project takes place and new risks are identified, the ESMP will be reviewed accordingly.

### *7.1 Environmental Mitigation Measures*

By design, the project is expected to have far greater environmental benefits than adverse environmental impacts. The potential adverse environmental impacts from the project are likely to be small and limited. Spatial and temporal distribution of impacts that would result from the project activities, as well as the sub-projects requires attention especially during screening.

However, it is recognized that such impacts can accrue into larger impacts if they are not identified early during the planning cycle, and their mitigation measures integrated into the project planning and implementation. Given the fact that minimum impact sub-projects are eligible and the level of available fund, such impacts could be mitigated using sensible site selection criteria, good construction practices in harmony with the local culture and diligent management practices in the operational phase.

As mitigation measures must be taken into account as part of the sub-project design and costs, the ESMP does not need a separate budget allocation. However, it is imperative that activities' costs reflect the resources needed to fully implement the ESMP.

If and as activity-level ESMPs are needed, the ESMPs will be implemented by incorporating EMP actions into FAO technical guidance provided on the ground to cash-for-work recipients. To disseminate these actions, FAO may also create one- or two-pagers to explain technical guidance which incorporates environmentally and socially sustainable practices.

**Mitigation Table for OP 4.01 Environmental Assessment**

Sub-Projects Measures	Potential Environmental or Social Impacts	Proposed Mitigation Measures	Monitoring Requirements (including supervision)	Means of insurance and compliance	Institutional Responsibility (including enforcement/coordination)	Time Frame or Schedule for Monitoring	Cost Estimate for Mitigation
<p><b>Small-scale spate irrigation using traditional techniques, including: (i)</b> restoring water catchments; rehabilitating existing small secondary and tertiary irrigation canals; and rehabilitating water harvesting and storage infrastructure.</p>	<p>Special concern for alteration or damaging natural habitat during construction, contamination may occur from building materials, run-off surface water obstacles and divert to cause other flooding hazards.</p> <p>Generation and improper dumping of construction waste</p> <p>More possibility of accidents</p>	<p>Avoiding damaging natural habitat, cultural, historical, religious places during constructions or minimize it (proper site selection, use mooring system, use environmentally friendly materials, prepare materials off-site, etc.). Good practice in design to be observed.</p> <p>Collect generated solid waste and transport them to locally designated and authorized dump site</p> <p>Provide workers with proper protective clothing.</p>	<p>FAO will monitor the design and supervision consultant 's reports to ensure safeguards compliance, World Bank 3<sup>rd</sup> party advisers will also conduct monitoring to ensure safeguards compliance, undertaking field visits or further investigations as necessary.</p>	<p>FAO</p>	<p>FAO with support from Governorate Units</p>	<p>Monthly</p>	<p>To be covered as part of subproject design or construction cost</p>
<p><b>Constructing contour bunds to control erosion;</b></p> <p><b>Shoring up breaks in river</b></p>	<p>Special attention to alteration or damaging natural habitat during construction, contamination may occur from</p>	<p>Special concern for avoiding damaging natural habitat during constructions or minimize it (proper site selection, use environmentally friendly</p>	<p>FAO with World Bank will also conduct its own monitoring</p>	<p>FAO oversees construction and operation activities</p>	<p>FAO with support from Governorate Units</p>	<p>Monthly</p>	<p>To be covered as part of subproject design or construction</p>

**Mitigation Table for OP 4.01 Environmental Assessment**

Sub-Projects Measures	Potential Environmental or Social Impacts	Proposed Mitigation Measures	Monitoring Requirements (including supervision)	Means of insurance and compliance	Institutional Responsibility (including enforcement/coordination)	Time Frame or Schedule for Monitoring	Cost Estimate for Mitigation
<b>embankment to decrease flooding;</b>	constructions materials, run-off surface water obstacles and divert to cause other flooding hazards  More possibility of accidents	materials, prepare materials off-site, etc.) Good practice in design to be observed.  Protect site from trespassers. Provide proper support for terraces sides to avoid collapsing. Provide workers with protective clothing.					on cost
<b>Small-scale agricultural and pastoral / livestock support activities</b>	<ul style="list-style-type: none"> <li>- introduction of alien species</li> <li>- change biological balance</li> <li>- waste</li> <li>- Odor</li> <li>- storage and handling of veterinary drugs (vaccines)</li> </ul>	ESMP will be developed for each activity under each sub-component, and will include: Measures taken to minimize pollution (on-site water/soil quality monitoring, ensure proper design of the fencing, etc.). No alien species are allowed; Regular monitoring of species; Use a warning system with environmental monitoring indicators. Measures taken to treat waste using biological methods. Apply best environmental practice to avoid odor and diseases; Apply proper feeding	FAO; World Bank will also conduct its own monitoring	FAO will oversee construction and operation activities	FAO with support from Governorate Units	As required	60,000 USD/Year for Environmental and Social Consultant

**Mitigation Table for OP 4.01 Environmental Assessment**

Sub-Projects Measures	Potential Environmental or Social Impacts	Proposed Mitigation Measures	Monitoring Requirements (including supervision)	Means of insurance and compliance	Institutional Responsibility (including enforcement/coordination)	Time Frame or Schedule for Monitoring	Cost Estimate for Mitigation
	More possibility of accidents	practices for ruminant. Safe management of veterinary drugs.  Provide workers with protective clothing.					
<b>Access to natural resources (water, grazing lands, fisheries)</b>	Access to natural resources may be changed, and some beneficiaries could see their access negatively affected (particularly water). This could result in conflict.	Before sub-project implementation starts, a beneficiary committee is established. The role of this committee is to ensure no activities can start unless it's free from any social conflict that could hinder the project implementation. They prepare a consent form among beneficiaries to clarify the land ownership and any potential social conflict, especially with regard to water resources.	FAO will monitor the sub project interventions will not result in negative impacts to any of the stakeholders.	FAO	FAO/with support from Governorate Units	As required	--

**Mitigation Table for FAO Safeguards 3: Plant Genetic Resources for Food and Agriculture.**

	<b>Risk Classification</b>	<b>Risk Description in the project</b>	<b>Mitigation Action (s)</b>	<b>Indicators</b>	<b>Progress on mitigation action</b>
Importing of seeds for cultivation only	Moderate	<p>The project will provide assorted vegetable seeds which will be imported from neighbouring country by local traders using voucher scheme in untreated form.</p> <p>FAO will be not responsible for the seed imported to the country.</p> <p>FAO will be responsible for the quality of the seed distributed by local dealers that will have to meet the technical specifications provided by FAO.</p>	<p>Obtain clearance from HQ Technical Unit for technical specifications of seed to be purchased. In case of purchase of Seed that has been treated it also requires technical clearance from the competent technical unit in FAO</p>	<p>Technical specifications form per species and variety cleared by HQ technical unit.</p>	<p><i>To be completed during progress report</i></p>
			<p>Local traders trained on FAOs' technical specification requirements and are required to produce certification documents for vegetable seeds (i.e. Phytosanitary certificate, seed testing documents etc.) before distribution to the beneficiaries.</p>	<p>Local traders are trained and aware of the quality requirements of seed requested by FAO</p>	<p><i>To be completed during progress report</i></p>
			<p>FAO will sample and test seed from local traders in order to guarantee the quality of seed delivered to farmers. FAO will use an independent service provider that will sample and test quality of seed in a laboratory cleared by HQ technical unit.</p>	<p>Results of quality of seed from samples taken at distribution point fulfil the technical requirements. Results endorsed by HQ Technical unit.</p>	<p><i>To be completed during progress report</i></p>



## 7.2 Pest Management Plan

Procurement of pesticides is not envisaged under the project. However, the project could include sub-projects relating to enhancement of agricultural productivity and introduction of high value crops, support seed banks and beekeeping. These activities could result in the use of pesticides and therefore OP 4.09 is triggered. The ESMF has included a screening tool to identify subprojects that would need to prepare a simple pest management plan (PMP). Such subprojects will prepare the PMP before they are approved for implementation. The Project will include relevant training at the field level such as in PM, selecting disease free seeds, bee keeping, etc. A mechanism will be put in place to demonstrate Integrated Pest Management procedures and to develop a farmer education program that stresses good and safe practices for storage and application of pesticides.

The project will use the FAO Guidance document provided in Annex 4 for identifying the need to prepare an PMP for a sub-project. A separate PMP is needed if expected quantities of pesticides to be used are significant from health and environment standpoint; or if pesticide use or other non-indigenous biological control into an area will be introduced; or if hazardous products (WHO Class Ia and Ib) will be financed. The PMP consists of the following components:

- Activities
- Actors and partners
- Institutional arrangements for implementation
- Phasing plan
- Cost estimates

The activities of the PMP are designed to ensure that implementation of the SAPREP project complies with the World Bank's Safeguard Policy on Pest Management, OP 4.09.

- Activity 1 – If feasible, study tours will be organized to similar programs/agency where farmer participatory Pest Management (PM) programs have been successfully implemented. The study tour will be organized for representatives of selected areas. A national PM workshop will be organized to share experiences gained during the study tour and to facilitate the implementation of the PMPs.
- Activity 2 - Promoting the adoption of /PM practices
  - Supporting activities of the Community PM Action Committees
  - Developing PM training capacity in the extension services
  - Developing PM capacities amongst PIU and farmer Groups
  - Production of field brochures, PM posters, field guides and other IPM promotional materials; purchase of various PM Extension Guides publications.

- Public awareness programs and PM networking amongst the project stakeholders
- Activity 3 - Training in pesticides management; safe use of pesticides
  - Making decisions to use pesticides
  - Transport, storage, handling and distribution of pesticides
  - Safe application of pesticides
  - Risks in the handling and use of pesticides
  - Managing risks and pesticide poisoning
  - Protective gear; use and maintenance
  - Public awareness on safe use of pesticides; radio talks, etc.
- Activity 4 - Strengthening national regulatory frameworks and institutional capacities
  - Support PIU to assist with national coordination of PMP activities of the SAPREP project.
  - Support to the MAI to participate effectively in the implementation of the PMP
- Activity 5 - Integrated Vector Management: surveillance of disease vector populations in the environment of small irrigation schemes
  - Surveillance teams to be set up in villages around the water sources and irrigation sites to conduct regular surveys on the incidence of water borne diseases.
  - Training in environment management for the control of water borne diseases

## Section 8. ESMP Monitoring

### *8.1 Project Monitoring*

Currently FAO M&E conducts multiple impact assessment studies for the project they implement: Baseline Surveys, Post-Distribution Assessments and Impact Assessments. The Baseline Surveys, conducted regularly, will employ a hybrid approach that uses FAO Field Monitors (currently about 15 across Somalia) and independent consulting firm as a Service Provider which is contracted and overseen by FAO. The use of out-sourcing contractor will increase the study access by reaching districts that are inaccessible to FAO staff and by reaching more locations and households for studies that require a relatively high sample size. An Impact Assessment<sup>19</sup> to evaluate the project will be conducted once all data has been analyzed, programs implemented and results validated by FAO Somalia.

In addition to the above robust M&E system, the project will deploy an independent Third-Party Technical Review (TPTR) Agent to assess overall project implementation and impact. The TPTR

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<sup>19</sup> The impact assessment report shall present the detail evaluation include key number such as Food Consumption Index, the dietary diversity score and the increase in Tropical Livestock Unit (TLU). The data collection will likely be using the RIMA-based questionnaire (RIMA – Resilience Index Measurement and Analysis).

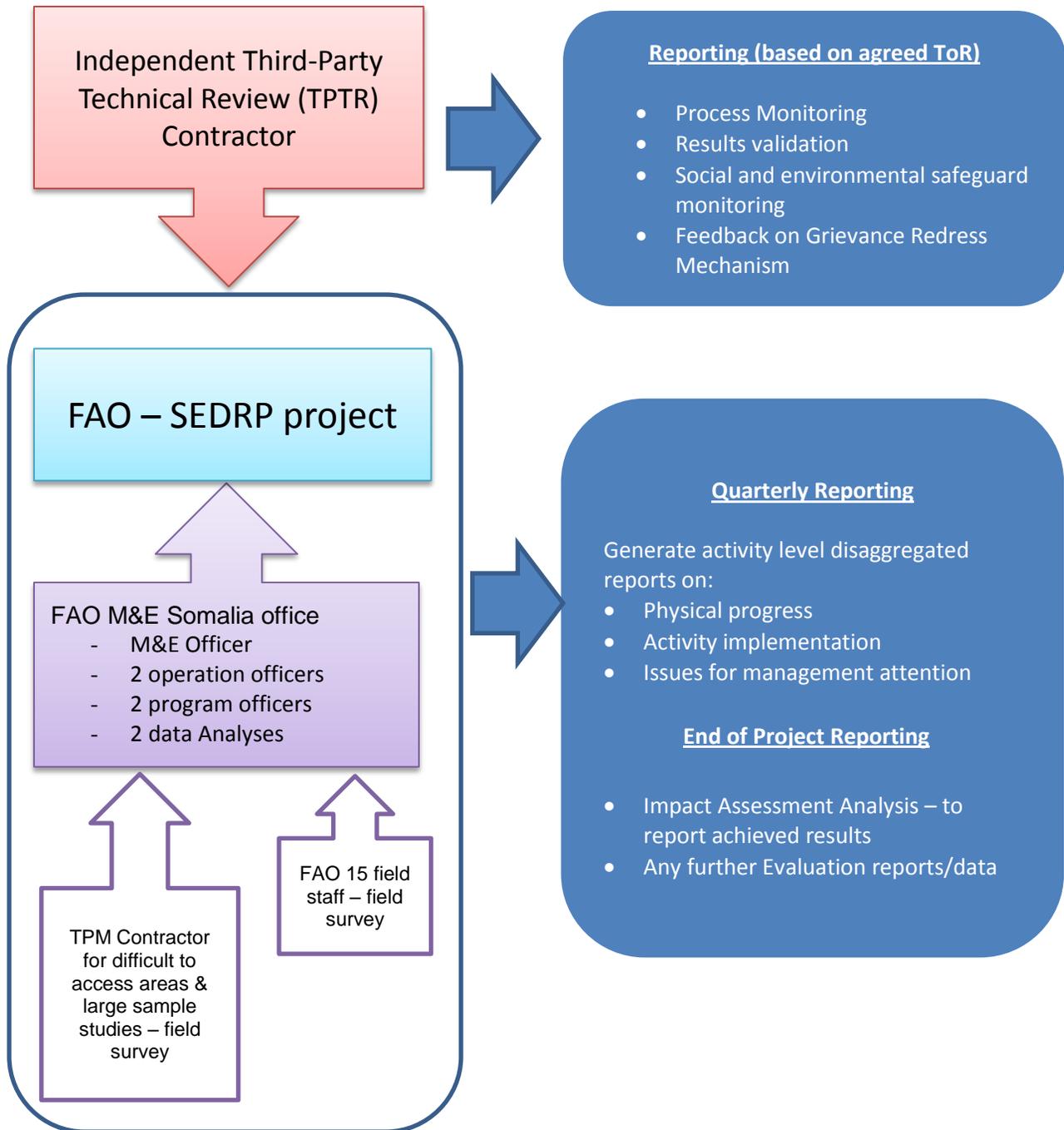
team will include environmental safeguards as well as a social specialist expertise. The Terms of References (ToRs) will be developed and agreed upon with FAO Somalia. The TPTR will be hired and managed by FAO in line with the TORs and the reports will be shared with the WB, and will include actions taken to address implementation issues identified by the TPM.

The contractor of the Third Party Technical Review (TPTR) will be informed of the safeguards of FAO and the WB and this will be reflected in the ToR and contract. In addition, FAO will submit to the WB technical report on the project activities every six months via an agreed upon template and the TPTR contractor will be reporting on quarterly basis.

### *8.2 Sub-Project Monitoring and Evaluation*

Monitoring and reporting will be supervised by FAO staff. Members of the community, through their representatives, should be trained to undertake both compliance monitoring and impact monitoring. This will be done throughout the sub-project cycle namely:

- During the planning phase, communities will participate in the identification of indicators for monitoring the mitigating measures;
- During the implementation phase, monitoring the execution of any works with respect to environmental aspects,
- During the operation and maintenance phase, the overall environmental monitoring (including monitoring human-natural resources conflict) and alerting on any emerging environmental hazards in conjunction with the ongoing sub-project activities. Communities will pass on their observations and concerns through the local FAO Project staff.



## Section 9. Stakeholder Engagement

### 9.1 Stakeholder Consultations

The project will be managed through FAO, which had good coordination with strong ties to government, academia and CSOs. This ensures smooth flow of information between the community and the managing bodies of the project. A basic step in this regard is public consultations and/or Focused Group Discussions (FGD) with the local communities and all other relevant stakeholders during the screening process (and during sub-project implementation). These consultations/FGD should identify key issues and determine how the concerns of all parties will be addressed. The concerns of local people, vulnerable and marginalized groups must be taken into account fully in sub-project planning. Further public consultations and/or Focused Group Discussions (FGD) with the local communities and all other relevant stakeholders will be conducted during the screening process for each proposed subproject.

To facilitate meaningful consultations and/or FGD, FAO will provide all relevant material and information concerning the sub-projects activities in a timely manner prior to the consultation, in a form and language that are understandable and accessible to the groups being consulted. Once a proposed subproject has been reviewed the FAO field units will inform the public about the results of the review.

For all sub-projects that will be implemented at the community level, the FAO field units will be responsible for disclosing the findings and recommendations of the environmental and social screening process to the communities. FAO field units' staff will be responsible for taking minutes of the public disclosure meetings along with list of participants and photos if possible and will produce and distribute copies of the minutes to offices at the community level. A summary of the outcome of this public disclosure meeting will be posted at appropriate places in communities. To ensure that an appropriate public consultation and/or FGD mechanism is developed, the environmental and social screening process will include:

- Development of individual sub-project ESMP (if required);
- Once the sub-project activities have been cleared by the FAO project teams, the FAO field units will inform the communities about the results of the review;
- In the context of the Monitoring Program, the FAO field units will undertake both compliance monitoring and impact monitoring throughout the sub-project cycle.

The table below explains the setup of these consultations and/or FGD:

Phase role	Responsible body
Design phase – using the checklists, assist each applicant to identify potential environmental and social impacts resulting from proposed sub-projects activities, and to subsequently redesign proposals to avoid/minimize such impacts or include mitigation measures	FAO field unit and FUs under coordination of the social mobilizer team (male and female) to ensure that both men and women are consulted with the community committee/community facilitator
Screen proposals - based on environmental and social	FAO with support of relevant CBOs

Phase role	Responsible body
checklists, either approve sub-project proposals for implementation, or stipulate that an ESMP is necessary	
Draft an ESMP if necessary	FAO
Review and approve ESMP and implementation arrangements	FAO before submitting for clearance by the Bank
Monitoring the implementation of sub-projects activities	FAO with support of FUs and relevant CBOs

## 9.2 Grievance Redress Mechanisms

FAO is committed to ensuring that its programs are implemented in accordance with the Organization’s environmental and social obligations. In order to better achieve these goals, and to ensure that beneficiaries of FAO programs have access to an effective and timely mechanism to address their concerns about non-compliance with these obligations, the Organization, in order to supplement measures for receiving, reviewing and acting as appropriate on these concerns at the program management level, has entrusted the Office of the Inspector-General with the mandate to independently review the complaints that cannot be resolved at that level.

FAO will facilitate the resolution of concerns of beneficiaries of FAO programs regarding alleged or potential violations of FAO’s social and environmental commitments. For this purpose, concerns may be communicated in accordance with the eligibility criteria of the Guidelines for Compliance Reviews Following Complaints Related to the Organization’s Environmental and Social Standards, which applies to all FAO programs and projects (Guidelines for Compliance Reviews Following Complaints Related to the Organization’s Environmental and Social Standards).

Concerns must be addressed at the closest appropriate level, i.e. at the programme management/technical level, and if necessary at the Regional Office level. If a concern or grievance cannot be resolved through consultations and measures at the project management level, a complaint requesting a Compliance Review may be filed with the Office of the Inspector-General (OIG) in accordance with the Guidelines for Compliance Reviews.

Program and project managers will have the responsibility to address concerns brought to the attention of the focal point regarding environmental and social standards laid down in FAO ESS according to the *Guidelines for Compliance Reviews Following Complaints Related to the Organization’s Environmental and Social Standards*, available at: <http://www.fao.org/aud/en/> and <http://www.fao.org/aud/48643/en/>

Should the complainant not receive an acknowledgement of receipt within seven working days, they should forward their matter to the following addresses dependent on their region: Africa [FAO-RAF@fao.org](mailto:FAO-RAF@fao.org). The Environmental and Social Risk Management Unit will be responsible for providing technical assistance to the program, country and regional offices to the concerns and complaints raised by beneficiaries regarding compliance with the ESS.

In those cases where a concern is not resolved through consultation with the program/project management, country office or regional office as set out above, beneficiaries may file a complaint with the FAO Office of the Inspector-General (OIG), which will conduct an independent review. Contacts and details for filing complaints can be found in <http://www.fao.org/aud/>. Email: [Investigations-hotline@fao.org](mailto:Investigations-hotline@fao.org)

In addition to facilitating monitoring of beneficiary payments, the FAO has established a Hotline through their Call Center to provide beneficiaries a venue for grievance redressal. The Hotline telephone number is communicated by FAO Service Providers (partner NGOs, Money Vendors) to beneficiaries and is printed on all FAO Payment vouchers. Through the hotline number, FAO directly receives complaints, requests for new assistance and other important feedback for programs through a dedicated Call Center staff member. Awareness campaigns of FAO's programs and benefits are communicated through the local radio stations. In addition, the FAO Service Providers, through the agreed contractual engagement, undertakes mobilization exercises that further clarifies the FAO Project through posters and meetings with elders, local authorities and beneficiaries. The combination of these communication tools has proved to be powerful and reliable, particularly because the Hotline number is also included in all of the vouchers, radio messages and on signboards as put near cash-for-work sites, and thus available to all beneficiaries or others possible complainants.

The process pays special attention to Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA). The FRSOM focal point for GBV and SEA is a female staff in the Call Centre to ensure women engagement and cultural sensitivity. Reports on GBV are directed to and addressed only by female staff of the Call Centre and Technical Sectors and Units. Complaints/grievances regarding GBV are communicated back to service provider management by female sector staff. In instances of grave concerns of GBV, the FAO Rep OIG and/or the FAO Ethics office will be informed.

### *9.3. Stakeholder Engagement*

FAO is committed to ensuring meaningful, effective and informed participation of stakeholders in the formulation and implementation of FAO programs and projects.

Stakeholder engagement as an on-going process that involves, in varying degrees, identification of stakeholders, disclosure and establishment of a mechanism by which people can make comments on project proposals and performance or raise grievances.

The need for and nature of any specific consultation will be determined on the basis of the stakeholder identification. For example, where Indigenous Peoples are present in a proposed project area or have a collective interest, FAO will undertake special consideration as stipulated in ESS 9. FAO will maintain adequate documented evidence of stakeholder engagement.

A stakeholder Engagement Plan should be included to better understand how stakeholders are to be actively involved through the project. In addition, a stakeholder engagement plan should adequately document disclosure undertaken (which information, through which channel). A description of an adequate grievance mechanism and its communication to stakeholders is also necessary.

#### *9.4 Disclosure*

Disclosure of relevant project information helps stakeholders effectively participate. FAO will disclose information in a timely manner, that is accessible and culturally appropriate, placing due attention to the specific needs of community groups which may be affected by project implementation (such as literacy, gender, differences in language or accessibility of technical information or connectivity).

FAO has established a website to publicly disclose its environmental and social safeguards and related documents, including environmental and social analyses, environmental and social impact assessments, Environmental and Social Commitment Plans, Indigenous Peoples Plans and other relevant documents. The website is: <http://www.fao.org/environmental-social-standards/en/>.

## **Annex 1: Environmental and Social Screening Checklists**

### **Environmental and Social Screening Form/Checklists for Subprojects under Component 2 (to be completed by FAO in consultation with community)**

Title of the subproject:

.....

Type of subproject (activities):

.....

Department implementing subproject:

.....

Governorate and District where subproject is to be implemented:

.....

Number of villages/settlements/households who will benefit from the subproject:

.....

Estimated cost of subproject:

.....

Screening Checklist Completed By (Name and Title):

.....

Date:

.....

Category of subproject assigned by FAO (B or C):

.....

Name of Approving Authority (if functioning):

.....

#### **1. Brief Description of Subproject (activities)**

Please provide information on the type and scale of subproject (subproject area, area of required land, approximate size of total building floor areas, etc.)

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## 2. The Natural Environment

(a) Describe the land formation, topography, vegetation in/adjacent to the subproject area (e.g. is it a low lying land, water logged, rocky, swampy or wetland, etc.)

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(b) Estimate and indicate whether vegetation might need to be cleared.

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(c) Are there any environmentally sensitive areas or threatened species that could be adversely affected by the subproject (specify below)?

(i) Intact natural forests Yes \_\_\_\_\_ No \_\_\_\_\_

\_\_\_\_\_

(ii) Riverine forest Yes \_\_\_\_\_ No \_\_\_\_\_

(iii) Wetlands (lakes, rivers, seasonally inundated [flooded] areas) Yes \_\_\_\_\_ No \_\_\_\_\_

(iv) If yes, how far are the nearest wetlands (lakes, rivers, seasonally inundated [flooded] areas)?

\_\_\_\_\_ km

(v) Habitats of endangered species for which protection is required under Yemeni laws and/or international agreements Yes \_\_\_\_\_ No \_\_\_\_\_

(vi) Others (describe) (e.g. cultural sites, burial places, etc.) Yes \_\_\_\_\_ No \_\_\_\_\_

## 3. Fauna and Flora

- Will subproject involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)? Yes \_\_\_\_\_  
\_\_\_\_\_ No \_\_\_\_\_

- Will the subproject lead to the destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development? Yes \_\_\_\_\_ No \_\_\_\_\_

- Will the subproject lead to the disruption/destruction of wildlife through interruption of migratory routes, disturbance of wildlife habitats, and noise-related problems? Yes \_\_\_\_\_  
\_\_\_\_\_ No \_\_\_\_\_

#### 4. Destruction/Disruption of Land and Vegetation

- Will the subproject lead to unplanned use of the infrastructure being developed? Yes \_\_\_\_\_ No \_\_\_\_\_

- Will the subproject lead to long-term or semi-permanent destruction of soils in cleared areas not suited for agriculture? Yes \_\_\_\_\_ No \_\_\_\_\_

- Will the subproject lead to the interruption of subsoil and overland drainage patterns (in areas of cuts and fills)? Yes \_\_\_\_\_ No \_\_\_\_\_

- Will the subproject lead to landslides, slumps, slips and other mass movements in road cuts? Yes \_\_\_\_\_ No \_\_\_\_\_

- Will the subproject lead to erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains? Yes \_\_\_\_\_ No \_\_\_\_\_

- Will the subproject lead to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles? Yes \_\_\_\_\_  
\_\_\_\_\_ No \_\_\_\_\_

#### 5. Protected areas

- Does subproject area (or components of the project) occur within/adjacent to any protected areas designated by government (national park, national reserve, world heritage site, etc.)

Yes

\_\_\_\_\_ No \_\_\_\_\_

- If subproject is outside of, but close to, any protected area, is it likely to adversely affect the ecology within the protected area (e.g. interference with the migration routes of mammals or birds) Yes

\_\_\_\_\_ No \_\_\_\_\_

## 6. Geology and Soils

- Based upon visual inspection or available literature, are there areas of possible geologic or soil instability (erosion prone, landslide prone, etc.)? Yes \_\_\_\_\_ No \_\_\_\_\_

- Based upon visual inspection or available literature, are there areas that have risks of large-scale increase in soil salinity? Yes

\_\_\_\_\_ No \_\_\_\_\_

## 7. Historical, archaeological or cultural heritage site

Based on available sources, consultation with local authorities, local knowledge and/or observations, could the subproject alter any historical, archaeological or cultural heritage site or require excavation nearby? Yes

\_\_\_\_\_ No \_\_\_\_\_

## 8. Resettlement and/or Land Acquisition

- Will the subproject require land acquisition? Yes \_\_\_\_\_ No

\_\_\_\_\_

- If so, will this land acquisition be involuntary? Yes \_\_\_\_\_ No

\_\_\_\_\_

- If so, will this involuntary land acquisition lead to relocation or loss of shelter, loss of assets, or access to assets? Yes \_\_\_\_\_ No

\_\_\_\_\_

- If so, will this involuntary land acquisition lead to loss of income sources or means of livelihood (whether or not affected persons must move to another location)? Yes

\_\_\_\_\_ No \_\_\_\_\_

-If so, will this involuntary land acquisition lead to loss of income sources of vulnerable groups such elderly people, women headed family, etc.)? Yes  
\_\_\_\_\_ No \_\_\_\_\_

- Will subproject lead to involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on livelihoods of displaced persons?  
Yes \_\_\_\_\_ No \_\_\_\_\_

9. Loss of Household Infrastructure

- Will subproject result in permanent or temporary loss of household infrastructure (such as granaries, outside toilets and kitchens, etc.)? Yes  
\_\_\_\_\_ No \_\_\_\_\_

-If these impacts on granaries, outside toilets and kitchens are lost due to acquisition of land they fall under OP 4.12 and thus ineligible for project financing.

10. Will the subproject lead to child labor less than 18 or forced labor? Yes \_\_\_\_\_ No  
\_\_\_\_\_

-If so, then this subproject will be ineligible for financing

10. Noise pollution during Construction and Operations

Will the operating noise level exceed the allowable (ambient) noise limits? Yes \_\_\_\_\_ No  
\_\_\_\_\_

11. Solid or Liquid Wastes, including Medical Waste

- Will subproject generate large amounts of residual wastes (solid or liquid wastes), including medical waste? Yes  
\_\_\_\_\_ No \_\_\_\_\_

- If "Yes", does subproject include a plan for collection/disposal? Yes \_\_\_\_\_ No  
\_\_\_\_\_

12. Pesticides, Insecticides, Herbicides or any other Poisonous toxic or Hazardous Chemicals.

- Will the subproject require the use of such chemicals? Yes \_\_\_\_\_ No  
\_\_\_\_\_

- If, "Yes", does subproject include a plan for safe handling, use and disposal? Yes \_\_\_\_\_ No  
\_\_\_\_\_

- If, "No" the subproject is ineligible for financing under this project.

### 13. Water and Soil Contamination

- Will subproject require large amounts of raw materials/construction materials? Yes \_\_\_ No \_\_\_

- Is the proposal for constructing large scale project e.g. road, public sewage treatment plant, dams i.e 10 meters height or more? If, yes, the subproject is ineligible. Yes  
\_\_\_\_\_ No \_\_\_\_\_

- Will subproject generate large amounts of residual wastes, construction material waste or cause soil erosion? Yes \_\_\_\_\_ No  
\_\_\_\_\_

- Will subproject result in soil or water contamination (e.g. from oil, grease and fuel from equipment)? Yes  
\_\_\_\_\_ No \_\_\_\_\_

- Will subproject lead to contamination of ground and surface water bodies by herbicides for vegetation control and chemicals for dust control? Yes  
\_\_\_\_\_ No \_\_\_\_\_

- Will subproject lead to an increase in suspended sediments in streams affected by road cut erosion, decline in water quality and increased sedimentation downstream? Yes  
\_\_\_\_\_ No \_\_\_\_\_

- Will subproject lead to the destruction of vegetation and soil in the right-of-way; borrow pits, waste dumps, and equipment yards? Yes \_\_\_\_\_ No  
\_\_\_\_\_

- Will subproject lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquitoes? Yes \_\_\_\_\_ No  
\_\_\_\_\_

Signature of community representative:

Date:

\_\_\_\_\_  
\_\_\_\_\_

Signature of FAO/SFD environmental/social risk specialist:

Date:

\_\_\_\_\_  
\_\_\_\_\_

## Annex 2: FAO Environmental and Social Risk Identification

### FAO Trigger questions

	Question	YES
1	<p>Could this project:</p> <ul style="list-style-type: none"> <li>• result in the degradation (biological or physical) of soils or undermine sustainable land management practices; or</li> <li>• include the development of a large irrigation scheme, dam construction, use of waste water or affect the quality of water; or</li> <li>• reduce the adaptive capacity to climate change or increase GHG emissions significantly; or</li> <li>• result in any changes to existing legitimate tenure rights<sup>20</sup> (formal, informal and customary<sup>21</sup>) of individuals, communities or others to land, fishery and forest resources?</li> </ul>	
2	<p>Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the ecosystem functionality, use alien species, or use genetic resources?</p>	
3	<p>Could this project:</p> <ul style="list-style-type: none"> <li>• introduce crops and varieties previously not grown, and/or;</li> <li>• provide seeds/planting material for cultivation, and/or;</li> <li>• involve the importing or transfer of seeds and or planting material for cultivation <u>or</u> research and development;</li> <li>• supply or use modern biotechnologies or their products in crop production, and/or</li> <li>• establish or manage planted forests?</li> </ul>	
4	<p>Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?</p>	
5	<p>Could this project:</p> <ul style="list-style-type: none"> <li>• result in the direct or indirect procurement, supply or use of pesticides<sup>22</sup>: <ul style="list-style-type: none"> <li>– on crops, livestock, aquaculture, forestry, household; or</li> <li>– as seed/crop treatment in field or storage; or</li> <li>– through input supply programmes including voucher schemes; or</li> </ul> </li> </ul>	

<sup>20</sup> Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests

<sup>21</sup> Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.

<sup>22</sup> Pesticide means any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth.

	<ul style="list-style-type: none"> <li>– for small demonstration and research purposes; or</li> <li>– for strategic stocks (locust) and emergencies; or</li> <li>– causing adverse effects to health and/or environment; or</li> <li>• result in an increased use of pesticides in the project area as a result of production intensification; or</li> <li>• result in the management or disposal of pesticide waste and pesticide contaminated materials; or</li> <li>• result in violations of the Code of Conduct?</li> </ul>	
6	Could this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?	
7	Could this project affect the working conditions or job prospects of project beneficiaries or others who may be impacted by it, or will the project directly or indirectly employ hired labour?	
8	Could this project risk be overlooking existing gender discrimination or inequalities in terms of men’s and women’s participation in decision making and/or their differential access to productive resources, services and markets?	
9	<p>Would this project:</p> <ul style="list-style-type: none"> <li>• have <i>indigenous peoples</i><sup>23</sup> living <i>outside the project area</i><sup>24</sup> where activities will take place; or</li> <li>• have indigenous peoples living in the project area where activities will take place; or</li> <li>• adversely or seriously effect indigenous peoples’ rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (<i>physical</i><sup>25</sup> and <i>non-physical or intangible</i><sup>26</sup>) inside and/or outside the project area; or</li> <li>• be located in an area where cultural resources exist?</li> </ul>	

<sup>23</sup> FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).

<sup>24</sup> The phrase “outside the project area” should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples’ irrespective of *physical* distance. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer “YES” to the question.

<sup>25</sup> Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.

<sup>26</sup> Non-physical or intangible defined as “the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage”

## Annex 3: Sub-Project Environmental and Social Management Plan for Category “B” Sub-Projects

**1. Activity Name:**

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**2. Activity Type:**

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**3. Brief description of the activity** (activity components including assisting services, scope of service, number of beneficiaries, etc.)

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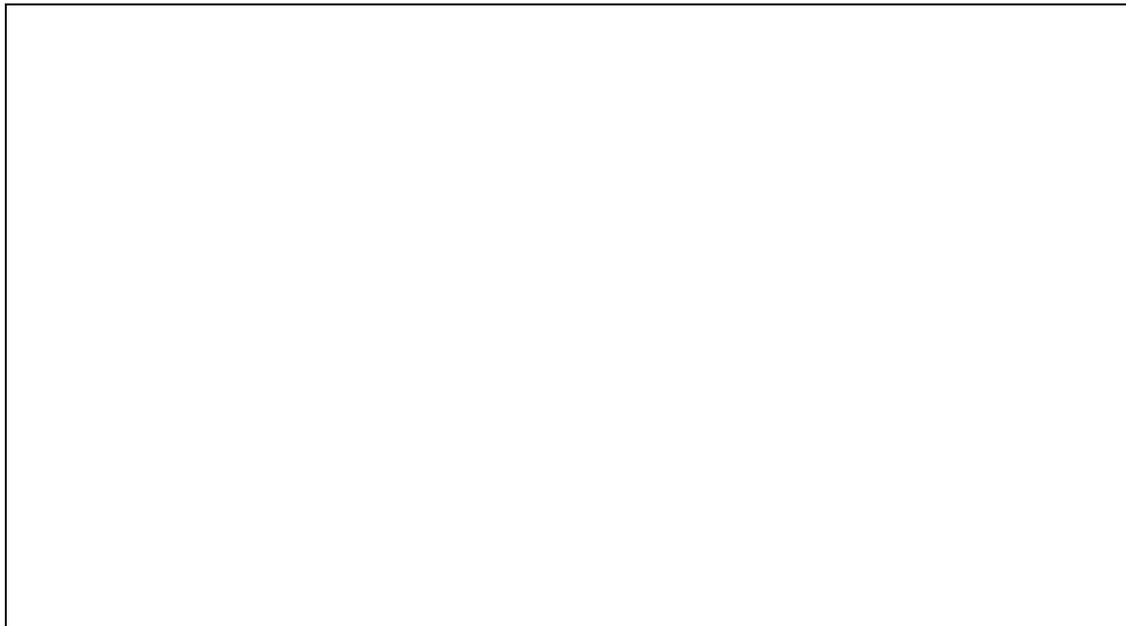
**4. Brief description of the activity's location and geographical features** (nature of location: rocky or dusty, the previous usage of the location):

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**5. Description of the activity typical surrounding area:** for a circle of 50m radius from the drainage point, especially locations of environmental sensitivity (utilities, constructions, land usage, water sources) etc.).

(Sketch drawing of the project)



**6. Environmental Impacts & Mitigation Measures\* (Construction & Operation Phase)**

Activity's Phase	Parameter	Influencing Factor	Mitigation Measure	Institution Responsibility for Execution
Design				
Construction				
Operation				

\* Example for design phase: Parameter: Water, influencing factor: Disposal of wastewater, mitigating measure: design proper wastewater treatment, Responsibility: Consultant

**7. Does the activity need monitoring during its operation? (in case there is a probability of polluting water resources, or soil or air) yes  No**

**8. In case the answer is yes, mark the monitoring issues applicable to your activity:**

- Monitoring water sources
- Monitoring the performance of health care waste disposal
- Monitoring the performance of sanitary drainage system
- Monitoring the cleanness of the building's yard
- Monitoring the planting of trees in the building's yard
- Monitoring access to natural resources by eligible beneficiaries

**Table for Environmental monitoring during activity implementation**

Parameter	Indicator	Location	No. of samples	Intervals	Responsibility

## Annex 4: FAO Guidance Document for Pest and Pesticide Management in Field Projects

This guidance document has been prepared by the FAO Plant Production and Protection Division (AGPM) and replaces a Field Programme Circular from 8/92 on Pesticides Selection and Use in Field Projects.

It provides guidance on pest management and the selection and use of pesticides in FAO projects. Its objective is to reduce reliance on pesticides through promotion of Pest Management (PM) and to avoid that pesticides procured by FAO, or on the advice of FAO, cause harm to people, animals, plants or the environment. As such, it also serves to limit reputational risk and liabilities for FAO.

The outlined rules and procedures apply to all pesticide procurement, and advice on pesticide procurement, within the framework of FAO field projects, including emergency assistance and activities implemented by subcontractors. It involves an established procedure for mandatory clearance of such projects and activities by the Deputy Director AGP, as specified below.

### Background

**Pesticides** require special attention because they are toxic and their distribution and use should always involve managing the risks to human health and the environment. Furthermore, inappropriate use of pesticides may reduce agricultural productivity and result in pesticide residue levels that become a constraint to marketability of crops both on domestic and export markets.

Although most countries have pesticide legislation, many may still lack capacity to ensure appropriate selection, management, use and disposal of pesticides. Circumstances in developing countries often make it difficult for farmers to follow recommended practices regarding personal protection, use and cleaning of application equipment, storage of pesticides, and disposal of obsolete pesticides and empty containers.

In many cases, use of pesticides is still unnecessarily high, uneconomic and unsustainable. Available non-chemical techniques and PM approaches often can help reduce pesticide use.

The overall framework for sound pest and pesticide management is provided by the FAO/WHO International Code of Conduct on Pesticide Management<sup>27</sup> and its accompanying technical guidelines.

## **Pest management**

The protection of plants from pests is an integral part of agriculture. The presence of pests does not automatically require control measures, as pest populations are usually under some form of natural control and actual economic damage may be insignificant. When plant protection measures are deemed necessary, available non-chemical pest management techniques should be considered with preference before a decision is taken to use pesticides, even if the cost is higher or specialist inputs are required that make use of non-chemical options more complex.

Proper comparison of pest management strategies requires a full assessment of costs that takes into account additional private costs (e.g. personal protection, storage, health effects on users) and public costs (negative effects on public health and the environment).

Where possible, pest management strategies should be based on an PM approach. Pesticides should only be supplied following a detailed assessment of the actual field situation, the nature and the impact of the pest, and an evaluation of available pest management options.

## **Selection and procurement of pesticides**

If pesticides are deemed to be the best or only available option, then careful and informed consideration should be given to the selection of pesticide products. Factors to be taken into account include efficacy and likelihood of development or presence of resistance by the target organism. Overriding importance should be given to reducing negative effects on human health and the environment.

FAO does not maintain a list of permitted or non-permitted pesticides. However, in line with the provisions of the FAO/WHO International Code of Conduct on Pesticide Management and relevant multilateral environmental agreements that include pesticides, the following list of criteria will need to be met in order for a pesticide to be considered for use in an FAO project:

1. The product should not be subject to the Stockholm Convention on Persistent Organic Pollutants. The list of pesticides concerned can be found at: <http://chm.pops.int>.
2. The product should be registered in the country of use. If specified in the registration decision, the product should be permitted for the crop-pest combination concerned.

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<sup>27</sup> AGPM Website: FAO/WHO International Code of Conduct on Pesticide Management (2014): <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code/en/>

3. Users should be able to manage the product within margins of acceptable risk. This means that FAO will not supply pesticides that fall in WHO Hazard Class 1 or GHS Class 1 and 2. Pesticides that fall in WHO Hazard Class 2 or GHS Class 3 can only be provided if less hazardous alternatives are not available and it can be demonstrated that users adhere to the necessary precautionary measures<sup>28</sup>.
4. Preference should be given to products that are less hazardous, more selective and less persistent, and to application methods that are less hazardous, better targeted and requiring less pesticides. Products listed in Annex 3 of the Rotterdam Convention should for instance be avoided.

Any international procurement of pesticides must abide with the provisions of the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Pesticides listed in Annex III of the Convention and subject to the PIC procedure, and requirements of the Convention, can be found at the website of the Secretariat of the Rotterdam Convention:

<http://www.pic.int/Implementation/Pesticides/tabid/1359/language/en-US/Default.aspx>

### **Pesticide management**

The following requirements apply to all pesticides that are being supplied directly by FAO and to pesticides supplied by others within the framework of FAO projects.

1. Procurement of pesticides should be preceded by a thorough risk assessment, which should lead to adequate measures to reduce health and environmental risks to acceptable levels.
2. Quantities to be provided should be based on an accurate assessment of actual needs in order to avoid over-use or accumulation of stockpiles that may become obsolete. Pesticides should not be provided as fixed components of input packages of projects, credit schemes or emergency assistance.
3. Appropriate application equipment and protective gear should be provided in adequate quantities along with the pesticides, unless it is explicitly confirmed that the recommended equipment and gear is already sufficiently available.

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<sup>28</sup> The hazard classification concerns the formulated product. Formulations with a low concentration of active ingredient are less hazardous than formulations with a high concentration of the same active ingredient. The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification

([http://www.who.int/ipcs/publications/pesticides\\_hazard/en/](http://www.who.int/ipcs/publications/pesticides_hazard/en/)) classifies technical products based on acute oral and dermal toxicity. It includes a conversion table that allows determination of the hazard class for the pesticide formulation under consideration. Towards 2008, this list will be replaced by the Globally Harmonized System of Classification and Labelling of Chemicals, which in addition to acute toxicity also takes into consideration chronic health risks and environmental risks ([http://www.unece.org/trans/danger/publi/ghs/ghs\\_welcome\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html)) The term "pesticide formulation" means the combination of various ingredients designed to render the product useful and effective for the purpose claimed; the form of pesticide as purchased by users. The term "active ingredient" means the biologically active part of the pesticide.

4. Training of users may be required to ensure they are capable of handling the supplied pesticides in a proper and responsible manner.
5. Proper storage of pesticides in accordance with FAO guidelines should be ensured for all supplies.

## Clearance

The following documents and activities require clearance from the respective FAO Sub- and/or Regional Coordinator and Plant Protection Officer. Review and clearance of pesticide purchase requests including treated seeds and treatment of stored agricultural products will be carried out in close collaboration with FAO HQ based Pest and Pesticide Management Group (AGPMC) (c/o Senior Officer Pesticide Risk Reduction Group (AGPMC)):

- All orders for pesticides to be procured by FAO, regardless of whether bought through Headquarters order, field project order or local purchase.
- Project documents that envisage procurement of pesticides.
- Terminal reports for projects that involved pesticide supply.

Requests for clearance should be submitted to the respective FAO Sub-/Regional Coordinator and Plant Protection Officer (focal point for pesticides and crop protection). Requests for procurement of pesticides must include a completed Request for Procurement of Pesticides (Annex I: Pesticide check list) for each pesticide.

In addition, clearance must be obtained from the respective FAO Sub-/Regional Coordinator and Plant Protection Officer for any contemplated collaboration with a pesticide company or other entity of the pesticide industry (e.g.: in designing or implementing training). This in addition to the established general procedure for OPC approval of collaboration with the private sector as described in DGB 2014/14.

## Conditions to be met for purchase and use of pesticides

For the purchase and use of any pesticide product, it must be assured, that the following conditions are met:

- The product must be registered in the *target country* by the respective national authority;
- The company providing the pesticide has to declare that they are observing the **FAO/WHO International Code of Conduct on Pesticide Management**, especially its provisions on labelling <sup>29</sup>, as well as packaging and transport of pesticides;

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<sup>29</sup> Reference to Guideline on Good labelling practice for pesticides:  
<http://www.fao.org/ag/AGP/AGPP/Pesticid/Code/Download/label.pdf>

- Individuals involved in applying the pesticide will be trained in the use of protective equipment, use of the pesticide application equipment and protection of health and the environment from exposure to pesticides;
- The protective equipment supplied to applicators complies with EC, US or appropriate internationally accepted standards;
- Suitable application equipment that permits pesticide applicators to apply the pesticide in the correct dose without causing human and environmental exposure, will be used or provided if it is not available;
- All empty pesticide containers will be triple rinsed and punctured in accordance with FAO guidelines<sup>30</sup>

If pesticides are to be purchased for seed treatment (seed storage chemical or seed treatment), the following conditions must be met:

#### **At the seed treatment facility:**

- Each pesticide seed treatment product must be cleared by AGP and must be registered in *Countries concerned (importing/exporting country)* by the relevant national authority/authorities.
- The company providing the pesticide has to declare that they are observing the **FAO/WHO International Code of Conduct on Pesticide Management**, especially its provisions on labelling, as well as packaging and transport of pesticides or pesticide-treated seeds.
- Users of seeds treated with pesticides must adhere to the necessary precautionary measures described on the product labels (e.g. wearing a protective mask, goggles and gloves).
- The treatment of seeds must be done in an appropriately equipped facility that ensures full containment of the pesticides.
- Users of seed treatment equipment should be provided with suitable application equipment and instructed on calibration, use and cleaning of the equipment.
- Treated seeds must be dyed using an unusual and unpalatable color to discourage consumption.
- All packages containing treated seeds must be clearly marked "*Not for human or animal consumption*" and with the skull and crossbones symbol for poison.

#### **At the point of use of the treated seeds:**

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<sup>30</sup> Reference to Guideline on Management options of empty pesticide containers :  
[http://www.fao.org/fileadmin/templates/agphome/documents/Pests\\_Pesticides/Code/Containers08.pdf](http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Containers08.pdf)

- Those handling treated seeds should be informed that the seeds are treated with pesticides which can have toxic effects on their health, the health of others and on the environment.
- Handlers should be advised to wear clothes that fully cover their body (long sleeves, long trousers/skirt and closed shoes), and -if not available- be provided with gloves and dust masks and instructed on their use and advised to wash themselves and their clothes after handling the seed.
- Packaging from treated seeds should not be reused for any purpose.

### **Further guidance**

Further guidance on all aspects of pesticide distribution, handling and use, is provided by the International Code of Conduct on Pesticide Management, and the Technical Guidelines that have been produced in support of the Code itself (Copies are available from the AGPMC website: <http://www.fao.org/agriculture/crops/core-themes/theme/pests/en/>).

The Plant Production and Protection Department (AGPM) and Pest and Pesticide management group/Pesticide Risk Reduction team (AGPMC) and Sub-, Regional Plant Protection Officers will be available to provide further clarification.