



REPUBLIC OF YEMEN

GLOBAL AGRICULTURE AND FOOD SECURITY PROGRAM (GAFSP)

Public Sector Window

2019 Special Call for Proposals for Fragile and Conflict Affected Countries

**STRENGTHENING AGRICULTURE PRODUCTIVITY AND  
RESILIENCE PROJECT PLUS (SAPREP+)**

September 2019

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## LIST OF ABBREVIATIONS

Acronym	Name
ACAP	Agro-Biodiversity And Climate Adaptation Project
ADCRMP	Al Dhala Community Resource Management Project
AIDA	Agricultural Investment For Development Analyzer
AM	Adaptive Management
CAHW	Community Animal Health Workers
CERF	Central Emergency Response Fund
CfW	Cash for Works
CSCPS	Climate Smart Crop Production System
DPRDP	Dhamar Participatory Rural Development Project
EFRLP	Enhancement Of Food Security And Resilient Livelihoods Programme
ERRY	Enhanced Rural Resilience in Yemen
FAO	Food and Agriculture Organization of the United Nations
ESA	Environmental Safeguards Analysis
FFS	Farmer Field School
FIES	Food Insecurity Experience Scale
FSAC	Food Security And Agriculture Cluster
FSTS	Food Security Technical Secretariat
GDAHVQ	General Directorate of Animal Health And Veterinary Quarantine
GoY	The Government of the Republic of Yemen
GSCP	Groundwater and Soil Conservation Project
GSMC	General Seed Multiplication Corporation
HDDS	Household Dietary Diversity Score
HDI	Human Development Index
HFA	Humanitarian Food Assistance
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IPC	Integrated Phase Classification
IWRM	Integrated Water Resources Management
MAI	Ministry of Agriculture and Irrigation
MoF	Ministry of Finance
MFW	Ministry of Fish Wealth
MoPIC	Ministry of Planning and International Cooperation
MWE	Ministry of Water and Environment
NAIP	National Agriculture Investment Plan
NASS	National Agriculture Sector Strategy
NFSS	National Food Security Strategy
NHRRS	Northern Highland Regional Research Station
OTP	Outpatient Therapeutic Programs

PCU	Project Coordination Unit
PLW	Pregnant and Lactating Women
PMU	Project Management Unit
POA	Plan of Action
RALP	Rain-Fed Agriculture and Livestock Project
RWDGD	Rural Women Development General Directorate
SAPREP	Smallholder Agricultural Production Restoration and Enhancement Project
SBP	Sana'a Basin Project
SOs	Strategic Objectives
WUA	Water Users Associations
WB	World Bank
YHF	Yemen Humanitarian Fund
YHRP	Yemen Humanitarian Response Plan

## Proposal Document Preparation Team

The core proposal team was composed of a multi-disciplinary group of experts as detailed below. The team consulted with the World Bank (Mr. Rufiz Chiragzade, Sr. Agribusiness Specialist, Task Team Leader for the GAFSP SAPREP) through the preparation process and finalization of the proposal.

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## PART 1: SUMMARY OF OVERALL AGRICULTURE AND FOOD SECURITY STRATEGY AND ASSOCIATED INVESTMENT PLAN

### 1.1 Overall sector strategy and investment plan, and past performance

#### 1) Overall agriculture and food security strategies and their response to the country's fragility:

In recent years, Yemen has been experiencing severe political, societal, economic and security shocks.<sup>1</sup> Access to basic services such as food and economic livelihoods are still very limited. Prior to the escalation of the civil conflict in 2015, Yemen developed the National Agriculture Sector Strategy (NASS) (2012-2016, updated 2013) and related National Agriculture Investment Plan (NAIP) that aim to increase the volume of domestic food production, increase rural incomes and employment, and ensure sustainability of the environment and protection of natural resources. NASS was integrated into the National Food Security Strategy (NFSS) after the 2008 global food crisis in the wake of a worldwide economic depression.

The country is characterized by unprecedented fragility as it attempts to craft peaceful solutions for conflict resolution. For a variety of reasons –not least of which is several years of civil conflict– Yemen imports up to 90% of its food, despite the fact that 70% of its population lives in rural areas and depends on agriculture for their livelihood.<sup>2</sup> Yemen has only 3% of arable land; even that has very low productivity, mainly due to low rainfall and depletion of ground water and reservoirs, the lack of water for irrigation, and lack of investment in agriculture-related infrastructure. Common crops include millet, corn (maize), wheat, barley, and sorghum; myriad vegetables; average farm size is a mere 1.1 hectares. Like many developing countries, Yemen suffers inordinately from the detrimental effects of climate change; communities face recurring cycles of destructive droughts and flooding. This further undermines soil fertility and leads to soil erosion. Smallholder subsistence farming households suffer the most, stretched to their resiliency and coping limits as a result.

Yemen struggles in its continuing vulnerability and inability to meet people's basic needs. In 2014, for example, an estimated 14.7 million people in Yemen needed assistance to survive. Following an escalation of violence and civil war in 2015, more than 3 million people among subsistence farming families in rural areas have been displaced; since then 15% of the population have been forced to flee. The economic downturn has not yet been reversed; between September and October 2018 alone, the Yemeni Rial lost 65% of its value, commerce was disrupted and food imports were cut off. Fuel prices and costs for other commodities shot up, with costs of food and other essentials inflated by 150% and beyond the reach of most Yemenis. Between 2015 and 2019, those needing assistance to survive increased from 15.9 million to 24.4 million (or by 65%). The number of severely food insecure districts has risen 60% this year (now in 190 districts). In total, 230 of Yemen's 333 districts are now rated as food insecure, 148 of which are classified as phase 4 (emergency) under the Integrated Phase Classification (IPC) system, and 45 districts with families classified under IPC 5 (catastrophe).

As always, children living in chronic poverty suffer the most; more than half are now permanently stunted due to severe malnutrition. Due to civil unrest, the central, provincial and district government has been unable to consistently perform basic functions. As pockets of conflict subside in 2019, GoY officials are trying to reinstate basic services, but they have limited resources and operational space; there is still some in-fighting among political factions as the conflict winds down. Capacity building is needed to help GoY representatives update policies and strategies for this sector as tailored to conditions now and anticipated in the next few years. In response to conditions on the ground, GoY's development partners justifiably remain primarily focused on humanitarian assistance to alleviate the impact of the conflict and the desperate

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<sup>1</sup> According to the United Nations, Yemen ranks 168th out of 177 countries on the human development index (HDI), a measure of life expectancy, education, and standard of living, the lowest score among the Arab states.

<sup>2</sup> Yemen mostly imports fuels, wheat and corn, rice, meat, pharmaceutical products, sugar and vehicles.

livelihood and food situation. Yet there is hope that an opening for longer term development initiatives to lay the foundation for more peaceful conditions is at hand.

The Food Security and Agriculture cluster strategy under the Yemen Humanitarian Response Plan (YHRP), is the *de facto* interim sector strategy, informed by the NASS and by IPC analysis, along with the latest 2018 food security assessment by FAO and other development partners. These findings indicate the political, security, and economic situation in the country remains volatile. Despite the risk of worsening conditions in the coming year, there are new opportunities to improve the food security sector. GoY and its Technical Assistance partner FAO recognize that any sector strategy or intervention program in food security, nutrition and agriculture in Yemen needs to have inherent flexibility, agility, and responsiveness in its design, with frequent situational assessments conducted of security, political, economic, health and other conditions affecting food security and nutrition. An Adaptive Management approach will give GoY and its Technical Partner FAO the ability to adapt programmatic aspects quickly, should the latest data indicate ways to exploit recent gains or mitigate against increased risks and downturns.

Although it has expired, key elements of NASS and NAIP remain relevant.<sup>3</sup> With GoY, FAO developed the Yemen Plan of Action (2018-2020) (POA), a strategic planning tool that helps in designing and planning interventions along the emergency, short-term and longer-term development continuum in Yemen. It takes into account both the immediate humanitarian response, while strengthening and building resilience for the agriculture sector going forward. Together, the YHRP and POA serve as guidance finalized by consensus with GoY and other stakeholders. Concurrent with the proposed project SAPReP+, the Ministry of Agriculture and Irrigation (MAI), FAO and IFPRI will continue along a Roadmap over a two-year period working on updated policy and strategy documents that will become the new NASS and NAIP.<sup>4</sup> This will be done in a highly participatory manner with main line Ministries and Institutions related to agricultural sector; Multilateral Organizations such as the IFAD, UN Agencies and the World Bank; the private sector; and the civil society including international and local NGOs. And in doing so, capacity building of government counterparts will occur and equip them even better to prioritize resources and planning efforts to meet basic needs in this sector.

In the interim, there are four strategic areas that require continued and immediate attention if the current food crisis (IPC 3), emergency (IPC 4), and catastrophe (IPC 5) are to be addressed in significant ways, while aiming to reduce overall vulnerabilities and for longer-term improvements in food security and livelihoods:

- i. Water and land management to ensure the survival of communities and access to these resources to be able to feed themselves and re-start their livelihoods;
- ii. Rehabilitation of infrastructure, provision of inputs, and quality, context-responsive extension services to help crop and livestock farmers and fishers re-engage in their livelihoods and revitalize their value chains, when and where possible;
- iii. Support for improved nutrition and dietary practices at the community and household levels, primarily by targeting women and other caregivers of children; and
- iv. Institutional capacity building to reactivate critical government functions in support of the agriculture and fisheries sector, by strengthening surveillance and diagnostics systems, and renewing or updating of food security and sector strategies.

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<sup>3</sup> Although expired, the last updated NASS document from 2013 is also attached to the proposal

<sup>4</sup> Road Map: Development of a New National Agriculture Sector Strategy (NASS) and National Agriculture Investment Plan (NAIP) for Yemen, MAI.

As noted above, these are reflected in the YHRP, which describes programming by members of the food security and agriculture and nutrition clusters.<sup>5</sup> All five strategic objectives (SOs) relate to food security and the agriculture sector, but SO1 (Helping millions of destitute Yemenis overcome hunger) and SO5 (Preserving the capacity of public institutions in providing life-saving basic services) are particularly relevant to this project.<sup>6</sup>

## **2) Alignment of strategy objectives to reach global Sustainable Development Goals 1 and 2:**

Despite the best laid plans, Yemen is unlikely to reach any of the SDGs by 2030 due to recent set-backs. The World Bank estimates that Yemen's economic output has decreased by about 50% since 2015. Reduced oil and gas production have caused national revenues to drop, leaving the national and local governments unable to pay for basic services such as education, health, water and sanitation. Hyperinflation has increased the cost of food and fuel by 150% and 200%, respectively; coupled with high unemployment rates, life is extremely difficult for most Yemenis. More than half of the population lives on less than US\$1.90 per day and 80% still require humanitarian assistance and protection.<sup>7</sup> Although the outdated NASS and NFSS pre-date the SDGs, they reflect similar goals in reducing poverty and hunger reduction. Strategies for doing so include: raising domestic food production; increasing rural incomes and employment; and ensuring sustainability of the environment and natural resources. Proposed solutions include: (i) sustainably increase productivity in crop and livestock production; (ii) more efficient use of water and land in both irrigated and rain fed crop production and in livestock; and (iii) strengthening community participation and being more inclusive of women.<sup>8</sup> Similarly, the *de facto* strategic plans in POA and YHRP are aligned with SDG aims to eliminate poverty (SDG1) and hunger (SDG2), along with achieving gender equality and empowering women and girls (SDG5), and ensuring responsible consumption and production (SDG12).

## **3) Description of the national strategy and investment plan to achieve food security objectives:**

As noted above, NASS and NAIP have expired. But while new plans are underway, the *de facto* plans in YHRP and POA have woven in strategies and objectives that are being implemented by a variety of stakeholders, including members of food security and agriculture and nutrition clusters tasked with addressing the 2019 prioritized interventions and financial targets. The specific objectives of the food security and agriculture cluster response under YHRP 2019 are:

- i. Increase access to food for highly vulnerable families across the country; and
- ii. Increase household incomes and rehabilitate food security assets in areas with high levels of food insecurity.

The nutrition cluster objectives are:

- i. Reduce the prevalence of and prevent acute malnutrition among children under age 5 and pregnant and lactating women (PLW), and other vulnerable population groups; and
- ii. Expand coverage of nutrition services and remove the barriers that prevent families from accessing them.

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<sup>5</sup> This project will contribute to the total budget of US\$2.52 billion.

<sup>6</sup> These two are specifically focused on working across the humanitarian and development nexus “to address the drivers of food insecurity, doing everything possible to expand nutrition services and remove the barriers that prevent families from using these, reversing exclusion and addressing gender-specific needs, and supporting the safe, dignified, and voluntary returns of displaced families.”

<sup>7</sup> UNDP Yemen, <http://www.ye.undp.org/content/yemen/en/home/sustainable-development-goals/goal-2-zero-hunger.html>

<sup>8</sup> NASS 2012-2016.

Between the two clusters of food security and agriculture and nutrition, a total of 20 million people or 66% of the entire population are targeted for assistance, with half of that figure in acute need. The two clusters have an estimated budget requirement of US\$2.52 billion -- half of the total HRP financial requirements for 2019; up to 100 implementing partners are expected to support and work in coordination with the GoY. Comprehensive activities include: the distribution of agriculture and fishery kits to severely food insecure rural households; employing adults on public works schemes (e.g., projects that rehabilitate public infrastructure and community assets in IPC 4 districts and in areas with populations in IPC 5); distributing drip irrigation kits and solar water pumps in IPC 3 districts; restocking of livestock (small ruminants); supporting rural food processing and facilitating micro-enterprises; and support to targeted households to help establish micro-businesses, especially for women. (*See more detail in Part 2.*)

**Table 1. YHRP 2019 Food security and agriculture cluster impact indicators**

CLUSTER IMPACT INDICATORS				
Food Security and Agriculture				
RESPONSE TYPE	INDICATORS	BASELINE	TARGET	REQUIREMENTS (\$)
First Line Response	Percentage of targeted households with Food Consumption Score (FCS) greater than 42	33%	50%	\$1.7 billion
Second Line Response	percentage decrease in the number of households selling assets to buy food	31%	16%	\$491.4 million
Nutrition				
RESPONSE TYPE	INDICATORS	BASELINE	TARGET	REQUIREMENTS (\$)
First Line Response	Percentage decrease in the number of districts with critical acute malnutrition	91 districts	45 district (50% decrease)	\$145.7 million
Second Line Response	Percentage increase in the number of children under-five receiving micronutrient powders	48.6%	60%	\$149.9 million
Full Cluster	Percentage increase in coverage rates for inpatient and outpatient treatments and targeted supplementary feeding programmes.	"90 % for SAM without complications; 30% SAM with complications; 38% for MAM "	"95% for SAM without complications; 60% for SAM with complications; 62% for MAM "	\$24.7 million

Source: YHRP 2019, UNOCHA

#### 4) Description of the monitorable framework and indicators reflected in the investment plan:

More than US\$353.7 million<sup>9</sup> in closely coordinated grants from the Central Emergency Response Fund (CERF) and the Yemen Humanitarian Fund (YHF) pooled funds have helped GoY address the worst of a humanitarian crisis (NAIP has expired but work to update a new investment plan is already underway via the GoY's Road Map). Apart from the impact indicators reflected in Table 1 above, the food security and agriculture cluster response plan in the YHRP 2019 has two sets of responses –the first and second line response– to the ongoing food and livelihood crisis. The first line response targets highly vulnerable families (US\$1.7 billion) and the second (US\$491.4 million) targets vulnerable families. Indicators used to track results reflect number of beneficiaries reached with distribution of food, cash, and vouchers, and measure their growing capacity for self-sufficiency to eat and re-engage in their livelihoods (e.g., number of beneficiaries reached with distribution of agricultural and fishery kits, drip irrigation and solar water pumps, restocking of small ruminants, and support to food processing and micro-enterprises).

<sup>9</sup> For the prior year as of February 2019.

## **5) Evidence of past performance of related sectoral programs:**

Ministry of Agriculture and Irrigation (MAI) and other ministries have overseen relevant projects by partners implementing the Rain-fed Agriculture and Livestock Project (RALP), Enhancing Rural Resilience in Yemen (ERRY), Smallholder Agricultural Production Restoration and Enhancement Project (SAPREP), and the Sana'a Basin Project (SBP). Under SBP, for example, the climate-smart agriculture concept was introduced, drought-tolerant, rain-fed crop varieties were likewise introduced to cope with water shortages and to reduce the farmers' dependence on groundwater, which led to reduction of 30% in groundwater extraction. The project managed to convince some qat farmers to switch to alternative cash crops because cultivation of qat has negatively impacted water resources; it consumes 20% of scarce water resources, a usage rate much higher than other cash crops.<sup>10</sup> Similarly, the Climate Smart Crop Production System (CSCPS) approach focused on a new cropping pattern instead of the existing water-depleting one. The project team worked constantly with farmers even before project start-up and as it winds down will continue extending advice. GAFSP-funded SAPREP (US\$36 million) being implemented by FAO is the main ongoing operation focusing on agriculture (see *more on results in Part 2*). FAO supported the Northern Highland Regional Research Station (NHRRS) to utilize its cadre and infrastructure to assist farmers in optimizing yields and income of every drop of water. The project tackled the issue of animal feed insufficiency through interventions in the crop/livestock production system as livestock production is mainly women-led activity that provides nutrition and cash reserve for the entire household. ERRY project carried out strategic activities to improve agricultural productivity, rural livelihoods and strengthening resilience and economic self-reliance. The key strategy employed by the project was to provide farmers in crop and livestock value chain with inputs and technical expertise on efficient practices in crops, vegetables, and livestock management.

## **6) Share of national strategy or investment plan being financed and the estimated financing gap:**

The protracted conflict in Yemen has drastically affected implementation of development projects, delaying or disrupting them altogether. But the window is reopening for such. Out of the US\$2.52 billion estimated for 2019, the Food Security and Agriculture (FSAC) and the Nutrition clusters under YHRP have so far received US\$459.7 million and US\$8.7 million, respectively; as of May 2019, a total of US\$468.4 million was obligated, but that is only 18.6% of funding needed. In 2018, the Yemen Humanitarian Fund (YHF) received a pooled fund total of US\$208.7 million<sup>11</sup> in contributions from donor countries, specifically: Germany-US\$43.8 million; United Kingdom-US\$39.2 million; Kingdom of Saudi Arabia-US\$25 million; United Arab Emirates-US\$25 million; Netherlands-US\$19 million; Sweden-US\$10.1 million; Denmark-US\$9.7 million; Ireland-US\$6.1 million; US-US\$5 million; Kuwait-US\$5 million; and others-US\$20.9 million. While the annual funding gap for the YHRP has shrunk (funding more than doubled compared to last year), a huge deficit could undermine the overall response, with immediate and longer-term impacts.

## **7) Summary of the strategy or investment plan implementation performance and achievements:**

To date, the Food Security and Agriculture Cluster of YHRP has reported the following achievements:

- Distributing food, cash, or vouchers to an average of 4.2 million severely food-insecure individuals per month in IPC phase four areas;
- Distributing food, cash, or vouchers to an average of 3.2 million severely food-insecure individuals per month in IPC phase three areas;

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<sup>10</sup> "The cultivation of the shrub qat (whose leaves have a mild narcotic effect) has compounded Yemen's water problems," the World Bank published in a 2014 study.

<sup>11</sup> This total amount represents less than 7% of the US\$3.1 billion required to deliver aid to more than 13 million targeted, of the 22.2 million people in need of humanitarian assistance. In 2018, the FSAC and nutrition cluster received the top two largest allocations totaling US\$80 million – US\$49 million and US\$31 million, respectively (38.33% of the total contributions).

- Distributing agricultural, livestock and fishery kits to 1.7 million severely food-insecure individuals in IPC phase four areas;
- Distributing agricultural, livestock and fishery kits to 400,000 severely food-insecure individuals in IPC phase three areas; and
- Providing longer term livelihood support to 160,000 individuals in IPC phase three areas.

Likewise, the nutrition cluster reported the following:

- Supporting SAM programs in 328 districts and MAM programs in 276 districts, including 83 TFCs, 3,605 Outpatient Therapeutic Programs (OTP) and 3,028 TSFPs (of which 2,806 provide OTPs and TSFPs in same sites), and 194 mobile teams;
- Screening and referring of 1,665,950 boys and 1,708,034 girls under five for treatment of acute malnutrition;
- Treating 345,463 severely acutely malnourished children under five with or without complications, 558,386 moderately acutely malnourished children under five, and 402,845 pregnant and lactating women (PLW) with acute malnutrition;
- Providing counseling and messaging on feeding practices to 1,778,853 pregnant women and caretakers of children under age two years;
- Providing 855,054 children under two with multiple micronutrient powders and 3,424,667 children with vitamin A; and
- Deworming 738,865 children and providing 1,191,017 pregnant women with iron-folic acid supplements.

As another indication of what the ongoing response and programs have achieved in averting a worst-case scenario in Yemen, development partners performed simulations using the IPC analysis (Dec. 2018) with humanitarian food assistance (HFA) as a variable. (Food assistance is currently reaching 30% of households in Yemen and is considered an important primary source of food.) Findings demonstrated that –absent HFA support– 151 districts out of 333 would likely be in a more severe phase; and the population in need of urgent action (IPC Phase 3 and above) could have reached 20 million (67% of total population), including 240,000 (1%) in catastrophe (IPC Phase 5), 9.6 million (32%) in emergency (IPC Phase 4) and 10 million (34%) in crisis (IPC Phase 3).<sup>12</sup>

## **1.2 Key elements of the policy environment**

### **1) Describe current policies enhancing or constraining the sector strategy and/or returns to the planned investments in the agriculture sector**

The GoY is very engaged in and supportive of the various joint food security and agriculture initiatives and supports coordination, particularly via the Ministries of Agriculture (MAI), Planning and International Cooperation (MoPIC), Fish Wealth (MFW), Finance (MoF), and other agencies and national institutions. Besides dealing with the aftermath of conflict, a number of issues related to budgets and public finance are threatening to undermine development efforts. Apart from the perennial lack of funding for agriculture development programs, the depletion of cash and foreign currency reserves in the Central Bank limits the country's ability to import food and goods needed for agriculture development (e.g., irrigation pumps, dairy farm implements). See also item number 2 on policies below.

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<sup>12</sup> FAO Yemen Emergency Livelihood Response Plan (2019).

## **2) Pending policies/legislations to enhance planned investment returns in the sector:**

The following policy measures are listed in the NASS Implementation Plan that if developed and implemented will enhance investment returns in the sector. Given the situation in the country, however, it is unlikely that these will be put in place in the short-term. They include:

- i. Creation of agency to promote and establish grades and standards for specialty crops for small farmers such as spices and other low-volume, high-value crops;
- ii. Creation of National Seed Certification Agency to register, inspect, approve, and release new varieties and certify seeds produced by the private sector and seeds multiplication (corporation);
- iii. Establishment of a National System for Quality Control of inputs and outputs of livestock production;
- iv. Establishment and maintenance of Climate Change Database;
- v. Legislation to protect and empower landless farmers to increase their productivity on leased land;
- vi. Review land registration procedures and laws to protect smallholder farmers' land tenure;
- vii. Establishment and funding of an institution to provide business development advise for farmers and investors in agriculture;
- viii. Strengthen the role of the Rural Women Development General Directorate (RWDGD) with MAI;
- ix. Review/Study legislation on land reform, land tenure, land rights, and the effects of land looting on women's access to land; advocate for gender inclusiveness,
- x. Review Cooperative Law (1970);
- xi. Enactment of pending quality control legislations;
- xii. Fishery services and utilities infrastructure, and;
- xiii. Fishery support services to value chains, marketing and exports.

### **1.3 Government commitment to agriculture and food and nutrition security**

#### **1) Secured public financial commitments to the agriculture sector and/or food security**

Currently, financial support to achieve Yemen agricultural sector and food security goals is provided mainly in pooled funds by international organizations and bilateral donors through the food security and agriculture livelihood projects. (GoY budget plans for the agriculture sector have yet to be fully funded amid competing priorities to save lives.) More than US\$353.7 million<sup>13</sup> in closely coordinated grants from the Central Emergency Response Fund (CERF) and the Yemen Humanitarian Fund (YHF) pooled funds have helped GoY address the worst of a humanitarian crisis. Bilateral programs include the World Bank's Emergency Crisis Response Project (US\$440 million), which provides wage employment, income support and emergency cash transfer in support of economic livelihood and food security. Despite initial substantial funding commitments from the international community, however, project implementation has grounded to a halt due to insecurity caused by the conflict, resulting in a very low level of fund disbursement.

#### **2) How poverty rates in across the country are factored into agricultural spending decisions:**

To date, the most substantial financial resources flowing into the country are via pooled funds under the Yemen Humanitarian Fund (YHF).<sup>14</sup> The overall allocations in the YHF prioritize governorates and districts that are classified under IPC 3 and above, especially in districts where there are populations under IPC 5 (catastrophe). As such, expenditures are also determined by the specific needs of the most vulnerable

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<sup>13</sup> For the prior year as of February 2019.

<sup>14</sup> The allocations are based on the YHRP, which is in turn informed by the IPC analysis covering 100% of the 333 districts in the country in 2018.

segments of the population, especially the children and pregnant and lactating women (PLW), while also trying to prevent the situation from getting worse in other areas that are vulnerable and under IPC 4 and 3. Some of the indicators being used by the assessment teams in determining the severity of need look at indicators related to shifting household coping strategies such as eating fewer meals, feeding children first, eating less preferred food items, selling of household and livelihood assets (e.g., last female draught animal), etc.

### **3) Agriculture sector and food security public expenditures:**

Spending on food security and agriculture in Yemen is universally funded from public sources financed by foreign assistance. Currently, there are no significant government resources dedicated for this sector due to severe constraints, as explained in other sections of this proposal. Moreover, the severity of the humanitarian crisis in recent years has led to redirected resources from multiple sectors in development. The most significant source comes from pooled funds of US\$353.7 million, which have helped GoY address the worst of a humanitarian crisis. As peace is attained and GoY capacity is restored, planning and budgeting for this sector is expected to generate more government resources for agriculture and livelihoods.

## **1.4. Process by which the strategy and investment plan were and will be developed**

### **1) Process used to develop the agriculture and food security strategy and investment plan:**

The GoY is in the process of developing a new sector strategy and investment plan to replace NASS and NAIP, respectively. This two-year process is delineated in the Roadmap prepared with support of FAO and IFPRI (*see discussion of Roadmap under Section 1.1 of Part I*). The Roadmap lays out a detailed plan for consultation with different stakeholders, especially women and other marginalized groups, technical assistance, and input from various experts. GoY will finalize development of the new strategy at the early stages of the proposed project. In the interim, the POA and the YHRP outline interim priorities and relevant strategies for the sector year by year which are largely endorsed by the GoY.

## **1.5 Implementation arrangements and capacity to implement**

### **1) Institutional arrangements for implementation of the agriculture and food security investment plan:**

Originally, NASS implementation was coordinated at a central level with the Supreme Council for Food Security, and with the Food Security Technical Secretariat and Steering Committee within MoPIC. Adequate financing of key public services, especially to allow local level institutions to operate, was a priority under the NASS. Currently, coordination of the response plan concerning food security and agriculture is guided by the YHRP, under the supervision and with the support of MAI, MFW, Ministry of Health and other concerned agencies at the district level. In future, decentralized, local-level demand responsive programs will need to be tailored to the requirements and potential of each governorate and district, working with community-based organizations.

### **2) Human resources in place to implement the agriculture and food security investment plan:**

Below is a chart of regional research station and extension staff described in NAIP to show workforce for strategy implementation. A certain number will benefit from trainings and information under SAPReP+. Due to frequent turnover and staffing gaps, details on gender and qualifications are not currently available, but a mapping will take place upon an award.

### Research staff

Name of Regional Station	Research Staff	Assistant Researchers	Mandated Area
Al-Erra Regional station	20	15	Northern Highlands
Dhamar Regional station	35	20	Central Highlands
El-Kod Regional Station	55	35	Coastal area (south)
Seiun Regional Station	40	25	Easter Plateau
Mukalla Regional Station	10	7	Coastal area Hadramout
Tihama Regional Station	35	15	Coastal area Tihama
Livestock Research Center	15	7	National
Post Harvest Centre	10	8	National
Natural Resource Centre	12	19	National

### Extension staff

Agriculture Office	Type of extension staff		
	Extension SMS	Extension Agents	Extension supervisors
Dhamar Ag. Office	7	30	5
Abyan Ag. Office	10	40	4
Hadramout ag. Office	10	50	4
Shabwa Ag. Office	7	30	4
Lahej Ag. Office	7	35	4
Tihama Development Authority	15	40	8
Al-Mahweet Ag. Office	7	35	4
Hajja Ag. Office	8	20	7
Eayma	4	15	4

### 3) Roles of central and local governments, producer organizations and other private sector, civil society, and development actors in the agriculture and food security investment plan:

For the POA and YHRP, the implementation of the activities and access to YHF involves other UN agencies, local and international NGOs, and the national and local government staff. The UN agencies and international NGOs provide additional technical expertise to supplement the local NGOs and government staff who have better knowledge of the physical terrain and social cultural context in the country. Engaging them in planning and oversight of the sector programming is one essential means of sustaining and increasing the capacity of the national and local government agencies in the performance of their functions supporting the agriculture sector. Officials of MAI, MFW and other relevant agencies are part of the FSAC and nutrition cluster and are engaged in decision making concerning the development and implementation of the response plans. They likewise provide support to the teams delivering the humanitarian emergency assistance, especially at the district and community levels. There are only a few small-scale private and commercial suppliers and producers who offer access to improved seeds and dairy equipment to project beneficiaries, but we hope these will increase with improved security. The respective departments or directorates within MAI provide accreditation and authorization.

### 4) Performance of major agriculture and food security programs (last five years):

Most of the major food security and agriculture programs and projects over the last 5 years have been disrupted by the conflict. The table below lists some examples of projects that have either been discontinued or suspended because of the conflict. But there are notable exceptions, namely SAPREP (funded by GAFSP) that is coming to an end in August 2020. Overall, some 77,500 rural households (approximately 542,500 people) have benefited from the project support activities. The project already exceeded its targets in some areas and managed to expand some activities beyond their original coverage targets. About 54,000 crisis affected farmers (55 % higher than the target) have been provided with startup packages of seeds,

backyard poultry and small ruminants to resume crop and livestock production. And 10,400 farmers (100% of target) have adopted improved farming technologies. (*See more detail on achievements in Part 2, section 2.2 #6*). The EU funded EERRY project is also an excellent exception. The project supported 16,000 HHs with crop/livestock value chains improvement to increase food production (cereal grains, milk, meat), their income-generation and self-employment. EERRY's approach was to assist farmers with inputs in the crop/livestock value chains which was complemented with technical training on crop, vegetable and livestock management practices. From the 2,500 small-scale dairy producers benefited, 87% were women to improve milk productivity and milk quality hygiene resulting to increased milk price. More than 15,000 livestock producers, 50% women, had access to new feeding technologies (feed blocks and sugar molasses), which led to increase animal productivity through growth rate by 50% and milk production by up 30%. The project contributed to rural women's economic empowerment and income generation through providing 2,500 women with animal concentrate feeds, 3,500 women with feed blocks and 3,400 women with sugar molasses. More 19,000 smallholder farmers benefited from training sessions conducted in through Farmer Field Schools (FFS). Other programs include:

<b>Title</b>	<b>Cost Million US\$</b>	<b>Disbursed</b>	<b>Balance</b>	<b>Comments</b>
National Irrigation Program (WB)	23.3	16.7	6.6	Unfinished
Sad Hassan Dam (Abu Dhabi Development Fund)	102.4	3.0	99.9	Could not be completed
Rural Growth Project (IFAD) + GEF+ Islamic network	126.6	0	126.6	No disbursement
Hadrarmout Coastal areas Project (Arab Fund)	26.0	1.3	24.8	Suspended
Agricultural Development in Abyan (Islamic Bank)	128.96	0	128.96	Suspended Agriculture and Irrigation
Reconstruction and rebuilding of the Agriculture Sector	3,000			National program

## PART 2: SPECIFIC PROPOSAL FOR GAFSP FINANCING

### 2.1 Project objective(s), expected results, and target project participants

#### 1) Objectives of the project

##### a) Objectives of the project:

The **Goal** of **Strengthening Agriculture Productivity and Resilience Project Plus (SAPReP+)** is to *reduce poverty and food insecurity in the seven governorates that are most vulnerable to and worst hit by the on-going humanitarian crisis in Yemen*. This gender and marginalized group inclusive project will contribute to this goal through its **Overall Objective** of *sustainable improvements in livelihoods, nutrition, and resilience of rural households in target communities, achieved by increasing agriculture productivity, market access, incomes of smallholder farmers, and promoting better diet and nutrition practices*. Four components build the main pillars for the attainment of SAPReP+'s objective, namely: (I) small-scale farmers' access to water and land resources improved; (II) increased performance of nutrition sensitive crop, livestock, and fisheries target value chains; (III) increased household's adoption of appropriate diet and nutrition practices; and (IV) improved technical capacity of key national and sub-national agricultural institutions on policy development, extension, certification, and diagnostics and surveillance.

Yemen faces an unprecedented food crisis. According to the latest Integrated Phase Classification (IPC) assessment conducted in December 2018, 20.1 million Yemenis are currently food insecure, of which 9.6 million are severely food insecure, making this the largest food security emergency in the world. Urgent support for agriculture is important for mitigating food insecurity and for rebuilding livelihoods and wellbeing. Therefore, SAPReP+ will be mainly focused on development interventions, but simultaneously respond to critical emergency needs of rural population in the target areas affected by the crisis. Most importantly, the project as a successor to a successful program will build on and enhance a proven approach to sustainable improvements in productivity, market access, and income generation capacity for agriculture, livestock, and fishery smallholders, especially for women and youth.

The Government of Yemen (GoY) in collaboration with the World Bank as the Supervising Entity, FAO as the main Technical and Implementing Entity and IFPRI as a Specialized Partner, will build on the successes, lessons learned and operational capacity from the current GAFSP-funded Smallholder Agricultural Productivity Enhancement Program (SAPREP) to: (i) reach a significant number of new beneficiaries in new districts with a package of activities that has proven effective in helping households to resume their agricultural and livelihood activities; (ii) scale up support to improve agricultural production, commercialization, and nutrition; and (iii) upgrade the operations of the current beneficiaries with additional support to business development. Nothing is wasted –the successes and lessons learned of the predecessor project will inform this next iteration. However, in light of changing ground conditions and the learning attained in SAPREP, this new project (SAPReP+) infuses in its theory of change key elements. The **PLUS** in the name of the project relates to the focus of the project to: (a) more people and districts benefited while also continuing assistance to strengthen business capacity of existing participants; (b) more comprehensive and impactful activities with a greater emphasis on value chain activities; and (c) more focus on changing household dietary habits and nutrition. Inclusiveness of marginalized groups is the focus of SAPREP and will continue with more emphasis under SAPReP+.

##### b) Links with the overall sector strategy and investment plan:

SAPReP+ is aligned with the Plan of Action (POA) 2018-2020 and Yemen Humanitarian Response Plan (YHRP) that jointly identify food security as the main challenge requiring immediate action and highlight the critical role of agriculture in attaining improved food security and livelihoods. The proposed project will contribute to strengthening of local production and value chains, which is identified in the POA as priority areas for addressing recovery of the agriculture sector, as well as food security and nutrition.

Although the National Agriculture Sector Strategy 2012-2016 (NASS Update 2013) and the Agriculture Investment Program are now expired and most objectives were not achieved because of the eruption of the conflict, SAPReP+ builds on their original aims, such as Strategic Objective 1, which is “Increase production, food security and climate resilience by: raising productivity in both crop and livestock production; integrated management of land and water resources; and more efficient use of water in both rain-fed and irrigated agriculture” and Strategic Objective 2, which is “Fight rural poverty and malnutrition by: promoting employment intensive and commercial agriculture; and encouraging community participation, the role of women, and household dietary diversity.”

It links with the NASS Section 7 Women’s participation in agriculture, Section I. in the NASS Implementation Plan emphasizing the role and participation of rural women in food security and fighting poverty. SAPReP+ also responds to section 8, “Capacity development – public and private in the NASS, and section I in the Implementation Plan seeking to “Improve capacity of MAI to provide services and develop policies to increase production and productivity in the agriculture sector” and “improve advisory services to assist farmers in increasing productivity and profitability.” SAPReP+ links with the NFS, particularly in the implementation plan Section 2 enumerating planned projects for improving fisheries infrastructure and increasing support services to value chains, including domestic and export markets.

## **2) Expected results**

### **a) Project-level expected results:**

The proposed project is expected to have positive impacts on agricultural productivity, food security, rural incomes and resiliency of smallholders. In the targeted areas, the rates of food insecurity, in the absence of the intervention, are high. The project is expected to improve household food security by increasing food availability and affordability (through increased supply and household income). Household nutritional status and incomes would also be improved through the improved production and sale and small-scale income generating activities which would contribute to household expenditures on food dietary requirements. Better land and water management and infrastructure, improved agricultural services, and marketing and processing facilities are expected to improve the value of agriculture production and farm income sustainability.

SAPReP+ will emphasize inclusive, gender responsive, nutrition sensitive, and sustainable intervention approaches in achieving its overall objective. The project-level **results** will be delivered across *four components* described in section below (see also details in Logical Framework in the Appendix 1).

### **b) Project-level indicators used to measure these results – disaggregated by gender:**

Preliminary indicators for the proposed project have been identified and given in *Appendix 1*. The indicators will be further refined and completed through further consultations during the project preparation. The achievement of project outcomes will be measured primarily through the following key indicators:

- Percentage of households (HH) with improved Food Insecurity Experience Scale (FIES) – 50 percent
- Percentage of beneficiary households with improved Household Dietary Diversity Score (HDDS) – 60 percent
- Number of households (disaggregated by gender) directly benefitting from project investments – 80,000 households

The following output indicators have been identified for each component, in *Appendix 1* a number of indicators were also identified at the level of each sub-component:

#### Component 1: Small-scale farmers' access to water and land resources improved

- Number of new hectares irrigated as a consequence of rehabilitated or constructed water infrastructure
- Number of farmers with improved access to water infrastructure, irrigation networks and rehabilitated lands
- Percentage of women in community water management committees and in leadership roles

#### Component 2: Increased performance of nutrition sensitive crop, livestock, and fisheries target value chains

- Percentage of increase in crop yields among beneficiary, disaggregated by types of crops
- Percentage of increase in output of livestock products among beneficiaries
- Percentage of increase in total volume of sales, disaggregated by crop and livestock products

#### Component 3: Increased adoption of appropriate diet and nutrition practices in farming and rural household

- Percentage of beneficiary households adopting improved nutrition practices
- Percentage of beneficiary households with improved nutrition knowledge
- Increase number of women with dietary adequacy (MDD-W)

#### Component 4: Improved technical capacity of key national and sub-national agricultural institutions on policy development, extension, certification and diagnostic and surveillance.

- Number of laboratories rehabilitated and equipped
- Percentage of increase in the service delivery capacity of extension and laboratory facilities
- National Agriculture Sector Strategy reviewed and updated

### **3) Target project participants**

#### **a) Participant number (in numbers of persons participating or otherwise benefiting):**

Under this new project, we will expand outreach and accessibility to food security and agriculture and fishery services beyond the predecessor project. It is expected that about 80,000 households (approximately 560,000 people, assuming seven members per HH) will **directly** benefit from SAPReP+. In the new districts within the targeted governorates, vulnerable and most food-insecure rural households, along with people directly affected by the conflict, will be the main target groups for the project. Smallholder farmers and sharecroppers, households dependent largely on casual labour, women-headed households, and conflict affected households (including returnees, IDPs) are considered as priority target groups. The second target group will mainly comprise of beneficiaries from the predecessor project SAPREP who are engaged in crop farming, horticulture, livestock and dairy farming who have reached certain achievements yet need further assistance in scaling up their livelihood activities for better access to markets.

In addition, eligible livestock owners in the targeted governorates will directly benefit from the animal disease control program supported by the project and improved veterinary services. The project will also build the capacity and enhance supply chains of the private and commercial farming input providers and other input suppliers, which will be contracted under this project to supply seeds, fertilizer, tools and other production inputs. Finally, the project capacity building program will benefit service providers, including extension workers, local veterinary technicians, non-governmental organizations (NGOs) operating in the

agricultural sector, and staff of the Ministry of Agriculture and Irrigation (MAI) and Ministry of Fish Wealth (MFW).

**b) Expected female share of direct project participants (%):**

The project will aim for 30% of the participants to be women. The share of women beneficiaries participating in training activities will be higher in the horticulture value chains and especially livestock activities, as animal husbandry in Yemen is usually under the responsibility of women. The project will specifically target more female beneficiaries in small-scale processing activities, milk collecting units, and as master trainers and agriculture technicians/extension workers, and participants of Farmer Field Schools, especially since women are a significant proportion of small holder farmers in Yemen. Moreover, as primary household and children caregivers, women will be targeted as direct beneficiaries related to improved nutrition and food utilization messaging and behavior change.

**c) Other disaggregation of direct project participants:**

Data will be disaggregated by gender, age group and geographic location to help further refine project interventions using an Adaptive Management (AM) approach, as well as ensuring the most vulnerable and disenfranchised groups will be reached. The AM approach ensures timely use of data for decision making and management adjustments to better refine and refocus project interventions in the most cost effective and pivot as needed interventions for more significant progress toward project performance targets. Further disaggregated data on project participants –for instance in terms of sub-sectors and geographical locations – will be jointly developed during the start-up phase in consultation with FAO and the World Bank.

## **2.2 Justification for the overall approach**

**1) Description of overall approach chosen, based on evidence of prior success or feasibility:**

The ongoing conflict has severely disrupted agricultural production and markets. Urgent support for agriculture is important for mitigating food insecurity and for rebuilding livelihoods. Experience from implementation of previous projects and programs are reflected in the proposed project, particularly in the emphasis on community-led and demand-driven approaches, and market-based value chain improvements.

The proposed project will use lessons learned from the ongoing predecessor SAPREP, which has been able to provide a response to emergency needs, combined with implementation of activities focusing on improving productivity, value-addition, and access to markets. But SAPReP+ will reach new people in new districts with comprehensive packages of interventions across food security, economic growth and nutrition. It will continue using a multifunctional and demand-driven approach to assisting farming households to re-engage in agricultural activities and continue addressing the emergency needs, while greatly focusing on sustainable and lasting changes in different aspects of agriculture system in the country. The new program overall approach includes the following features:

Geographic focus/Expanding coverage to underserved populations and locations: SAPReP+ will continue to work in the seven governorates targeted by the ongoing SAPREP (refer to **Appendix 3**). These governorates –namely Shabwa, Abyan, Lahj, Taiz, Al-Hodeidah, Hajjah and Saada– are among the most food insecure governorates in Yemen as identified by the 2018 Integrated Phase Classification (IPC) with 72% (or 8.62 million people) in a crisis (IPC3) or emergency (IPC4) food insecurity situation (refer to **Appendix 4**). All these governorates are in a serious or critical nutrition situation. They account for about 40% (11.88 million) of Yemen’s population and 43% of highly food insecure people of the country. They represent also the main agro-ecological systems in Yemen (highland and lowland) and have sufficient resources and opportunities for reviving and developing agricultural production with the high number of people engaged in agriculture.

SAPREP currently works in 21 out of 138 districts and will reach 90,000 households (approximately 630,000 persons) or 9% of total number in these seven governorates. In contrast, SAPReP+ will *expand assistance to new districts to reach new beneficiaries* who are facing livelihood constraints and food insecurity and in need of emergency assistance, as well as current participants of SAPREP who will need assistance in scaling up their livelihoods and marketing activities. Ultimately, SAPReP+ will reach 560,000 people, or 80,000 households directly. *Eligibility criteria:* New districts within the targeted governorates will be selected based on the food insecurity and malnutrition level, proportion of population engaged in agriculture (agriculture as a major source of livelihood), and presence of other relevant programs in agriculture and livelihood support/food security. Although the new project will continue to provide some value addition and marketing support to beneficiaries in districts currently assisted by SAPREP, the bulk of activities will focus on the *urgent food and livelihood needs of new districts* that are in great need of assistance but have not received it so far. This is aimed mainly at preventing further deterioration of food insecurity in the most vulnerable, affected districts at risk and ensuring that existing participants, particularly the women and other groups commonly overlooked, are able to expand their efforts to improve livelihood and food security and reduce their vulnerability to shocks.

Scaling-up value addition and commercialization for target value chains: The project aims to continue increasing productivity, value-added processing, and commercialization in the most viable agricultural value chains in the targeted districts. The project has an opportunity to consolidate the support to existing and new producers in the different value chains, especially those engaged in horticulture and livestock/dairy farming. Under this project, we will ensure increased production efficiency, volume and quality of products, as well as better understanding of markets and value chain improvements, as well as business and financial practices, and more engagement in agro-processing activities. About 63,900 farmers, including 30% women, will benefit from improved technology, improved access to agricultural inputs and services and improved irrigation. And 2,650 people will be trained on home based small-scale food processing technology. Consistent with the multi-functional and demand-driven approach to agricultural services provision, the Farmer Field School (FFS) members, extension workers, and Community Animal Health Workers (CAHW) will also be agents –105 will be trained and receive vet kits– for helping communities to engage more in these sets of activities, and in supporting engagements with and promoting participation of the private sector in the recovering and emerging markets. More than 4,200 households will benefit from livestock feeding packs.

The GoY and FAO have developed a key partnership with the International Food Policy Research Institute (IFPRI) to strengthen understanding of the different agriculture value chains in Yemen and implement a learning initiative that will ensure on-time, data-driven, evidence-based programming for the project and for other future interventions. For example, the prioritization of value chains for this proposal has been informed by an IFPRI study conducted specifically for this purpose. Results show that cattle/milk and poultry/eggs have the strongest positive impacts on economic growth and rural poverty reduction in this sector. Fishing and coffee are best for a combined positive impact on growth, employment and dietary diversity. Cereals, fruits/nuts and coffee value chains rank highest for reducing rural poverty and improving nutrition.<sup>15</sup>

Emphasis on women's participation and household nutrition: Experience in Yemen and substantial research conducted in other countries suggest that growth in agriculture productivity and household incomes do not automatically lead to better household dietary practices and nutrition, and do not necessarily result in more participation of and adequate response to the specific needs of women and children. Therefore, SAPReP+ will proactively ensure that all its activities are informed by a deep understanding of women's needs, their role and participation as primary household beneficiaries in agriculture, value chain, food security, and nutrition, and undertake activities that support women's empowerment, economic independence and improvement of rural household diet and nutrition practices. For instance, 1,600 households will receive

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<sup>15</sup> IFPRI (2019).

hens and eggs production kits both for improved nutrition for PLW and children as well as livelihoods opportunities. And 80% of beneficiary targets will gain improved knowledge about nutrition and the benefits of dietary diversity. SAPReP+ will refine strategies developed under SAPREP to ensure that women are able to benefit as intended from project interventions. For example, by training more women as extension workers and Master Trainers, local women will feel more comfortable and safeguarded (and so will their spouse) to attend group sessions. For mothers groups, appropriate dietary and nutrition enhancing activities that take into account religious and cultural preferences will be implemented alongside productivity and marketing activities.

A recent IFPRI evaluation<sup>16</sup> of an ongoing nutrition-sensitive cash transfer program in Yemen demonstrated that combining increased income with nutrition education and empowering activities for women does result in significant improvements in dietary diversity and child nutritional status.<sup>17</sup> Similarly, the evaluation of the Rainfed Agriculture and Livestock Program (RALP) showed that involving women in productive livestock activities significantly enhanced their role in household decision-making, fostered economic independence and increased household milk consumption.

Participatory approach: The proposed project will draw from the successful participatory and community based rural development programs in Yemen, including the Dhamar Participatory Rural Development Project (DPRDP), Al Dhala Community Resource Management Project (ADCRMP), and ongoing SAPREP and ECRP. Community sub-projects will be selected and implemented through a community-based and participatory approach via dialogues – facilitated by FAO staff and GoY counterparts– to ensure inclusiveness and transparency. Community representatives from diverse interest groups will be self-selected and involved in the full cycle of activities (e.g., prioritizing and selecting their investments, implementation, and monitoring physical and financial aspects). This will help the most vulnerable households reclaim their livelihoods and rebuild larger community resiliency to withstand shocks for long term sustainability and self-sufficiency. This participatory mode of engagement will also contribute to strengthening social relations and instilling healthy gender norms in communities, as seen in SAPREP.

Institutional capacity building, risk management, surveillance and diagnostics: The project will promote land and water management while further enhancing crop and livestock productivity through provision of production inputs, strengthening the value chains to enable market access and encouraging private sector participation in agriculture development. To ensure that the key ministries and relevant agencies of the GoY have the capacity to support the delivery of these results, the project will have a separate component on policy development – to review, update/draft and enact a sector strategy, and institutional strengthening -- and building the technical capacity of the MAI and MFW by including select representatives in trainings on risk management and national surveillance and diagnostic systems (See also Roadmap discussion).

## **2) Causal link between expected results and the combination of activities and components:**

More than 70% of Yemenis are suffering from food insecurity and poverty, most of them women, children, and farmers whose livelihoods have been devastated by war. The ongoing conflict led to an overall increase in already high rates of chronic poverty, which is now estimated at between 71-78%. An estimated 40% of households have lost their primary income source. Improving agriculture is critical to relieving food insecurity and easing poverty in the country, among a population that continues to face water scarcity, recurring shocks, and instability. Conceptually, it is assumed that IF poor and vulnerable farmer households

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<sup>16</sup> “Cash for Nutrition,” ECRP, WB (2019).

<sup>17</sup> Kurdi, S., Y. Ghorpade and H. Ibrahim. *The Cash for Nutrition Intervention in Yemen: Impact Evaluation Study*. MENA RP Working Paper 19. Washington, D.C.: International Food Policy Research Institute (IFPRI). <http://www.ifpri.org/publication/cash-nutrition-intervention-yemen-impact-evaluation-study>

in Yemen are trained in innovative climate change farming techniques, receive a package of farming inputs to re-establish small farms, and have greater access to markets along the value chain for certain products, THEN they will increase production that they can consume at home and sell surplus for increased income, better nutrition, and self-sustaining assets to mitigate against future shocks.

Land and water management activities will include construction, rehabilitation, and maintenance of water infrastructure for production (terraces, on-farm water harvesting and repair check dikes/gabions) and water infrastructure for households/community consumption (e.g., shallow wells and springs, rooftop water-harvesting, and excavation of ponds). Under this project, about 15,000 farmers will have improved access to water infrastructure, irrigation networks and rehabilitated lands. These activities are carried out through cash-for-work arrangements, which also provide income to farming households for their immediate needs and in coordination with the Water Users Associations (WUA), where appropriate. Moreover, women will become 30% of the water management committee membership and leadership roles.

SAPReP+ will distribute starter packages for crop and livestock farmers, supplementing extension workers' expertise with additional knowledge on climate-smart and improved farming techniques, better animal husbandry, hygienic dairy production. Training CAHWs and establishing FFS are additional activities. Moreover, SAPReP+ will help landless farmers gain access to formal ownership processes. Extension workers, CAHWs, and FFS will help to educate farmers on value chains, markets, business and financial management to increase sales and income. By end of project, on average 15% of beneficiary households will experience an increase in agricultural productivity. Extension workers, CAHWs, and FFS will be effective channels to educate farming households on balanced diet and proper nutrition, and on nutritional requirement and value of different food items, especially for pregnant and lactating mothers and the children. A total of 50 master trainers and 210 FFS facilitators will be trained, as 5,250 farmers/breeders will be trained and equipped for improved practices. And 3,730,000 (3.5 million small ruminants, 230,000 cattle) will be treated/vaccinated. SAPReP+ will also assess the needs for and undertake rehabilitation of fish landing sites, auction yards, and cold storage, to enhance productivity and facilitate market access for small fishers.

All these interventions and their results will be sustained and strengthened by reviewing, updating, and enacting a new sector strategy and by building the institutional capacity of the key government agencies such as MAI and MFW, in order for them to resume their normal functions, especially testing and certification, surveillance and diagnostics functions. By end of project, 80 MAI staff, 30% of which are women, will be trained in improved extension services for smallholder farmers.

### **3) Positioning of this project within the broader investment plan and links with other projects:**

The proposed project will complement (not duplicate) existing emergency operations under the predecessor SAPREP to expand the reach of services delivery to farming communities, while introducing market-based solutions along the most viable value chains that can facilitate the growth of an economically and environmentally sustainable agriculture and food sector in Yemen. More emphasis on inclusion of women and youth, and nutrition will be achieved under SAPReP+. The project activities on land and water management builds on projects such as the Decentralised Supply and Water Use Management in the Sana'a Basin to Sustain Water Resources and Rural Livelihoods or the Sana'a Basin Project (SBP) that delivers to the Government of Yemen's priority for Integrated Water Resources Management (IWRM) by introducing modern and climate-smart irrigation and cropping, as well as organizing WUA. SAPReP+ will also learn from the experience of the recently concluded EU-funded Enhanced Rural Resilience in Yemen (ERRY) project, which enhanced the capability of communities to cope with shocks, introduced improved seeds, supported dairy and livestock farmers and organized producers groups. SAPReP+ complements ELRP and similar projects assisting small fishers re-engage with their livelihoods.

**4) How the current policy environment helps/hinders project implementation and performance:**

The agriculture sector has been under severe distress due to the ongoing conflict and other factors such as climate change. Sector priorities have shifted to reflect changing conditions on the ground until the next formal strategy is developed (*see discussion of Roadmap under Section 1.1 of Part 1*). Thus, the POA and YHRP, developed with the support of the development partners with consensus of GoY, are the *de facto* policies guiding and supporting the implementation of agriculture projects in Yemen. Despite limited capacity to lead, coordinate, and oversee these projects, the GoY is very much engaged and supportive of the various initiatives and the coordinated efforts, particularly of the Ministries of Agriculture and Irrigation (MAI), Planning and International Cooperation (MoPIC), Fish Wealth (MFW), Finance (MoF), and other agencies and national institutions concerning food security. Despite the disruption in the implementation of strategies and plans developed prior to the conflict, these interim plans reflect indicate the government's integrated approach in addressing food security, agriculture, water, and climate change, and interrelated initiatives on public infrastructure, markets, finance, and trade policies.

**5) Specific considerations or measures put in place to ensure that the overall approach chosen is within the actual implementation capacity of the executing agency:**

The MAI is in a better and stronger position to implement this program jointly with its partners. MAI representatives and others will work closely with FAO and the World Bank to carry out this project and regain any shortfalls in capacity throughout. SAPReP+ will be implemented by FAO Representation in Yemen, which consists of a multi-disciplinary core team of about 12 international and 90 national staff in the main and four regional hubs with specialization in animal health, agronomy, water resource management, food security and information systems, livelihood, operations and finance. The FAO main office in Yemen will provide oversight and quality assurance to the Project Team, which will be in charge of the day-to-day management of the project. The National team will be supported with technical and operational assistance from FAO's Regional Office in Cairo and Headquarters.

**6) Evidence of past implementation performance and the impact from previous GAFSP projects:**

Yemen has benefited from a successful predecessor project funded by GAFSP, called SAPREP. It is progressing well and on track to achieve its development objectives and reach targets by August 2020. Overall, some 77,500 rural households (approximately 542,500 people, 86% of target number) have benefited from the project support activities. The project already exceeded its targets in some areas and managed to expand some activities beyond their original coverage targets. About 54,000 crisis affected farmers (55 % higher than the target) have been provided with startup packages of seeds, backyard poultry and small ruminants to resume crop and livestock production. And 10,400 farmers (100% of target) have adopted improved farming technologies.

The project surveys reported high satisfaction of beneficiaries with the project support and quality of services received. Ninety-three percent (93%) of surveyed beneficiaries perceive SAPREP activities as being relevant to their most important needs. They report also about equal access to the services by all different groups in targeted communities and that SAPREP activities strengthened social relations in communities. Beneficiaries reported that inputs provided by the project helped beneficiaries to reinstate and improve their source of income. In particular, poultry distribution and livestock restocking activities resulted in 40% and 27% increase in incomes respectively. Beneficiaries of the seed distribution program reported 53% and 61% increase in income for forage and cereal seeds respectively. Nearly all (95%) of the seeds distributed were used as they were compatible with the local environment and did not require additional costs for growing. Areas planted with forage seeds increased by 23%.

Rehabilitation of community water infrastructure is already fully deployed in all the project zones. Some 13,400 households benefit from rehabilitation works, which resulted in securing water in the target communities. The ongoing and completed subprojects include improvement of irrigation of 2,800 ha,

including 640 ha protected by wadi works; rehabilitation of 109 shallow wells and springs, 31 ha of terraces and 1,200 water harvesting facilities. These activities will contribute to building up climate resilience of the terrace agriculture system and improve spate irrigation agriculture in the lowlands and integrate watershed management in local communities. The works are being implemented as labor-intensive subprojects, either through community contracting or cash-for-works mechanisms which have benefited some 4,200 households and generated 320,000 work days.

The project support activities on enhancing animal husbandry and nutrition include provision of equipment and improved forage seeds, and provision and training on nutritional supplements. Distribution of improved forage seeds has been completed reaching 4,000 beneficiaries, as planned. In sum, 100 fodder chopper machines to reduce waste of sorghum stover have been distributed to groups of livestock owners along with the training on livestock nutrition aspects. Animal nutrition will be further improved through provision of livestock feed blocks to about 10,000 farmers, and training and demonstration to farmers on their preparation and usage. The project will identify potential private suppliers in order to train them on the technique of feed blocks production and provide support to develop the production model.

With regards to the veterinary services, 84 Community Animal Health Workers (CAHW) have been trained and equipped by the project and already deliver basic veterinary services in remote communities with limited or no access to public veterinary services. Curriculum prepared by the project for CAHW training will be used widely in the country for training to enhance performance of the livestock sector. The ongoing vaccination and treatment campaign against major animal diseases covered some 1.6 million animals. Planned target include vaccination of about 4.9 million livestock (belonging to 250,000 households). The campaign is carried out by a national public entity (General Directorate of Animal Health and Veterinary Quarantine) and covers 111 districts and complementary to similar projects of other donors (ICRC and IMC). SAPREP established also cold chain facilities in 28 animal health offices at governorate and district levels to improve management of vaccines.

SAPREP supports activities aimed at improving the livelihood and nutrition, and increasing value added of selected agricultural products (honey, dairy and horticulture) by restoring access to agricultural inputs. For example, 700 honey producers received honey production inputs along with the training. And 5,200 dairy farmers have been provided with equipment and training on production, hygiene and processing standards, business and marketing topics. The horticulture value chain improvement activities will contribute to increase in productivity and sales of small horticulture farmers and expanding women-driven small-scale processing. The strategy includes establishing horticulture collecting centers for post-harvest handling activities, creation of seedling centers, provision of input/equipment set to 1,000 small scale producers and establishing processing groups engaging 100 women in home based agro-processing activities. This activity will be preceded by the development of a Farmer Field School (FFS), specifically targeting horticulture value chain.

## **2.3 Activities to be financed and their justification**

### **1) Description of components and activities chosen to be financed**

Under SAPReP+, much that has been learned from the predecessor project will be applied, yet further advancements responsive to the latest conditions on the ground are incorporated in the new design. The project will be implemented through four main components, as detailed below.

#### **Component 1: Small-scale farmers' access to water and land resources improved**

This component will support the rehabilitation of community infrastructure to ensure smallholder female and male farmers have access to land, water resources, and other livelihood assets and that they have equal opportunities to contribute to their management, participate in decisions on use allocations, and earn much needed income from their repair and maintenance through cash-for-work. Under this project, some 15,000

farmers will have improved access to water infrastructure, irrigation networks and rehabilitated lands. The activities will include the rehabilitation and maintenance of terraces, on-farm water harvesting facilities (underground cisterns and open wadi pits), check dikes and gabions/retaining walls in wadi beds, and small spate diversion canals, shallow wells and springs, irrigation canals and farm-level conveyance systems. Under this project about 2,000 ha of farmland will be in production due to rehabilitation and construction of irrigation networks.

*Component 2: Increased performance of nutritional sensitive crops and livestock target value chains*

This component will have two sets of activities. One package of interventions will support highly vulnerable smallholder farmers and fishers to re-engage in horticulture, crop and livestock farming, and in fishing. The activities will include the provision of inputs such as starter packages of crops or livestock, distribution of farm equipment such as fodder choppers and small dairy equipment, rehabilitation of fish landing sites, storage and handling facilities, as well as extension support, including support coursed through FFSs. Overall there will be a 15% increase in agricultural productivity among beneficiary households. The second package of interventions will support enterprising producers to scale up, consolidate production, and access markets for their products. While considering the difficult situations, the project will place emphasis on improving product quality and aggregation as well as the business capacity of small-scale farmers to engage in market-oriented production. Considering the needs in target districts FAO will implement a mix of activities focusing on beans and cereals, vegetables, dairy, and livestock value chains. The project partner IFPRI will apply its Agricultural Investment for Development Analyzer (AIDA) model for identifying the value chains that are appropriate for scaling up in Yemen in the context of the varying needs for nutrition, economic growth, employment generation, and other considerations.

*Component 3: Increased household's adoption of appropriate diet and nutrition practices*

The deliberate inclusion of activities that will promote improved nutrition and dietary practices through the services provided by FFS, CAHWs, and extension workers is a distinctive feature of this project. A significant number of women will be trained as extension workers, agriculture technicians, CAHWs, and recruited to be part of FFSs. They will also be mobilized as agents for promoting diversified appropriate diet and nutrition practices to farming and other rural households. Additionally, the project will use different communication channels to spread nutrition messages to trigger behavioral change in target population.

*Component 4: Improved technical capacity of key national and sub-national agricultural and fisheries institutions on extension and diagnostic and surveillance*

This component seeks the assistance of development partners in revitalizing and strengthening the capacity of the GoY, particularly the MAI and MFW to support agriculture development and food security in Yemen.

The specific priority areas are: The review of the NASS and its Implementation Plan to update the strategy (see Roadmap document and the discussion in Part 1) so it responds to the current requirements and challenges as well as the anticipated future development needs of the sector; The rehabilitation of and support to quality control and testing laboratories; Strengthening of agriculture extension and research capability of MAI and MFW; and strengthening national diagnostics and surveillance systems. This will greatly assist in the performance of the basic functions of the key agriculture and fisheries agencies to support development in their respective sectors. Component 4 will include assessment and improvement of existing national diagnostics and surveillance capacities for better and timely decision-making, risk management, and food security information management and dissemination. Among MAI and MFW staff participating in the project, 70% of trained staff are expected to exhibit increased technical capacity in surveillance and diagnostics.

**Description of key elements per component:**

**a) Evidence of past performance and impact of activities and models being proposed:**

The experience in different projects implemented in Yemen in the last few years<sup>18</sup> provides a good platform for an evidence-based design for this current proposal. The delivery modalities will be tailored to the situation on the ground with an eye to encourage the development of private input markets and facilitating the transition relief to reconstruction.

**Component 1: Small-scale farmers' access to water and land resources improved**

The community water infrastructure activities under SAPREP resulted in securing water for target communities, which is one of the most critical factors for food and livelihood security in Yemen. As in the case of ongoing SAPREP and ECRP, and previous WB/IFAD-funded projects (RALP and ERRY), these activities will be implemented as labor-intensive subprojects either through community contracting or cash for works (CfW) schemes. Based on results of RALP and to increase resilience to climate change terrace rehabilitation will be complemented by water harvesting tanks above the terrace and vegetative measures as part of watershed management to reduce runoff, soil erosion and allow complimentary irrigation. The Sana'a Basin Project supported climate-smart and modern irrigation systems that reduced water extraction.

**Component 2: Increased performance of nutrition sensitive crops and livestock target value chains.**

The project will scale up the activities imitated under SAPREP and other key projects and support the resumption of crop and livestock production through provision of seed starter and restocking packs. Consistent with SAPREP which helped 54,000 farmers re-engage in crop farming and livestock production, the main beneficiaries of this activity will be poor women and most affected farmers who lost or lack livelihood assets.

The Component 2 will scale up and build on experience of previous operations and support also activities aimed at protecting livestock assets through improving access to veterinary services and increasing productivity through better husbandry and feeding practices. The network of CAHW will be expanded to new communities with poor access to veterinary services. The 84 CAHWs trained and equipped under SAPREP (including 22 women) have treated some 25,000 animals –they play a vital role in providing primary animal healthcare services, which are a cornerstone for improving livestock productivity in Yemen. Training module and curriculum for training of CAHWS under SAPREP proved to be effective and will be used in the new project. Animal disease control program under SAPREP has reached 1.6 million heads of animals belonging to some 90,000 households. The program will continue in the new project to cover new districts. SAPReP+ will support also activities on enhancing animal husbandry and nutrition through provision of equipment and training on training on livestock nutrition aspects. Similar interventions under SAPREP and ERRY which provided fodder chopper machines to groups of livestock owners improved animal feeding. Under SAPREP, 100 groups comprising some 1,730 livestock owners have been formed and provided with fodder choppers which are available for use also to wider community beyond the groups. The new project will continue this activity.

Building on the predecessor projects, SAPReP+ would further promote commercialization of selected value chains based on value chain analysis conducted by IFPRI. Further analysis will be carried out during

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<sup>18</sup> Rainfed Agriculture and Livestock Project (RALP) supported by IFAD and the World Bank (WB), the Agro-biodiversity and Climate Adaptation Project (ACAP) supported by the WB, the Groundwater and Soil Conservation Project (GSCP), IFAD funded Dhamar Participatory Rural Development Project (DPRDP), and the Al Dhala Community Resources Management Project (ADCRMP), all addressing food and livelihood security issues in Yemen.

the project preparation process. The approaches of SAPREP and ERRY will be used where appropriate. SAPREP value chain activities intend to increase productivity and value added of honey, dairy and horticulture products. In total, some 5,900 dairy and honey producers have already received production inputs. Further 1,800 dairy and horticulture farmers will be reached. Many dairy beneficiaries already report better market access because of improved packaging and hygiene standards. Full impact of these interventions (such as increased milk yield, quality of honey, etc.) are yet to come as inputs have been distributed relatively recently.

ERRY supported 16,000 HHs in the crop/livestock value chains to increase food production, capacity to generate incomes and self-employment. The project benefited more than 2,500 small-scale dairy producers (87% women) to improve milk productivity, quality and ultimately increase milk price. More than 15,000 livestock producers, half of them are women, had access to new feeding technologies (feed blocks and sugar molasses), which led to increase animal productivity through growth rate by 50% and milk production by up 30%. The project provided 90 fodder choppers to 90 Village Agricultural Producers Group to improve utilization of sorghum stovers for animal feeding. The project contributed to rural women's economic empowerment and income generation through providing 2,500 women with animal concentrate feeds, 3,500 women with feed blocks and 3,400 women with sugar molasses

The project will establish Farmer Filed Schools (FFS) in new target areas based on the model currently being used in SAPREP. FFS will be instrumental for implementing a capacity building program under SAPReP+ to supplement the support input and infrastructure rehabilitation support provided by the project. The ELRP has also started with the rehabilitation of five fish testing laboratories, which will be expanded in SAPReP+ to assist small fishers who continue to face multiple challenges in regaining their access to both domestic and export markets.

#### *Component 3: Increased household's adoption of appropriate diet and nutrition practices*

This strategy will receive increased emphasis for this project, following up from the successful implementation of similar and/or related activities in SAPREP, particularly in promoting greater participation of women in agricultural services provision and in responding to specific needs of women and other vulnerable and excluded groups, leading to greater recognition of and support to their contributions to agriculture development, food security, and improved nutrition in the communities. A study on the impact of ECRP Cash for Nutrition intervention reported positive impacts on child nutrition, including increased knowledge on the importance of nutrition among children and encouraged increased spending on high nutrition value food items and dietary diversity.

#### *Component 4: Improved technical capacity of key national and sub-national agricultural and fisheries institutions on extension and diagnostic and surveillance*

Strengthening the national diagnostics and surveillance is identified as a gap in the current projects assisting in the institutional capacity development of GoY in agriculture and fisheries, which succeeds in strengthening early warning systems in the country through projects such as the Enhancement of Food Security and Resilient Livelihoods Programme (EFRLP). FAO through the EFRLP program supported both CAMA, as the lead agency in the country for the metrological data/information and MAI by LOAs in order to support coordination mechanism with the other stakeholders in particular after they already managed to sign MOU among key stakeholders. The support also facilitated the meteorological data collection, management, analysis and dissemination to the decision makers as part of the overall picture of the EWS in the country. The development of the NASS with support from UNDP, FAO, WFP, and other development partners was robust and participatory, resulting to a strategy responsive to the needs of the sector, technically well-informed, realistic in its ambitions, and integrated to a wider food security strategy. This experience will help deliver a new and better review process that will be supported through this component of SAPReP+.

#### **b) Links with the investment plan, and the scope of the GAFSP Framework Document:**

The components, activities, and targeted results of SAPReP+ either directly support or complement the projects of the NASS Plan (Update 2013) Investment that remain relevant to the current situation in Yemen, the POA 2018-2020, and the YHRP. They are also aligned with the scope and components described in the GAFSP Framework document. They align with YHRP's broad strategic objective of helping millions of destitute Yemenis overcome hunger by scaling up agriculture and fishing support with a strategic focus on working across the humanitarian and development nexus to address the drivers of food insecurity, doing everything to expand nutrition services and remove the barriers that prevent families from accessing these, concentrating services and support in the districts facing the most difficult, complex problems, reversing exclusion and addressing gender specific needs, and scaling up operations across the country.

**Component 1:** Community and on-farm land and water management delivers on the NASS 2013 SO 1 Increase production, food security and climate resilience, specifically SSO 1.3 improve productivity and sustainability of agricultural water management within an integrated watershed management approach, and SSO 1.5 enhance productivity and sustainability of land resources within an integrated watershed management approach. The FSAC planned investments on distributing conditional, and season-specific cash or vouchers, and employing adults on public works schemes including projects that rehabilitate public infrastructure and community assets in IPC phase three districts, distributing drip irrigation kits and solar water pumps in IPC phase three districts are especially relevant. It is also linked with the Scope of GAFSP Framework Component 1 raising agricultural productivity, specifically, 1.3 water management.

**Component 2:** FAO will lead efforts on improving agriculture productivity, value chains, and household diet and nutrition practices delivers on NASS 2013 SO 1, specifically SSO 1.1 increase production and incomes sustainably from rain-fed systems, grains and fodder, SSO1.2 increase production and incomes sustainably from livestock, SSO 1.4 provide efficient, demand-driven extension, research and input supply, and SO 2 fight rural poverty and malnutrition, specifically SSO 2.1 increase production and incomes from high value crops, especially horticulture, and reduce qat cultivation, SSO 2.2 increase value added through processing and marketing development, and SSO 2.3 Enhance food security and nutrition through greater women's participation. This SAPReP+ component also links with the FSAC response plan for restocking small ruminants (and distributing beekeeping kits) in IPC phase three districts, supporting rural food processing and facilitating micro-enterprises in IPC phase three districts, and providing support to targeted households in IPC phase three districts to help establish micro businesses. This component aligns with Chapter 3 section 1.3.2 Program 2 on improving fisheries infrastructure, 1.3.7 Program 7 on strengthening fish supply and value chains, and 1.3.8 Program 8 on Improved livelihoods and enhanced structures and facilities for community development of the National Fisheries Strategy 2012-2025. This component links with the Scope of GAFSP Framework Component 1 raising agricultural productivity, and 2 linking farmers to markets, specifically, 2.1 reduce transfer and transactions costs, 2.2 other value addition, and 2.3 supporting mobilization of rural finance.

**Component 3:** Under this component FAO will step-up mobilization of extension workers, agriculture technicians, FFS, and CAHWs in promoting improved, diversified diet and nutrition practices in agricultural and other rural households. This will contribute to the 7-point national food security strategy action plan, specifically in the high-level campaign on diversified diet and nutrition and women empowerment, and to the target of reducing child malnutrition by 1% every year. Under the nutrition cluster of YHRP, the response plan includes providing counseling on feeding practices to PLW and caretakers. Under the GAFSP Framework Component 3 on Reducing Risk and Vulnerability, this project links to 3.3 improving nutrition of vulnerable groups.

**Component 4:** FAO under this component responds to the relevant sections in the NASS for Capacity Building. This is also within the scope of GAFSP Framework as Component 5 technical assistance, institution-building, and capacity development, as well as or specifically, component 3.1 managing price and weather risk, and 5.3 knowledge development and dissemination. This project is proposing to help increase MAI's and MFW's capacity for performing their basic regulatory function and for providing an

enabling policy environment for the sector, as well as capacity for surveillance and diagnostics as part of risk reduction efforts and improvement of capacity for promoting agricultural development.

**c) Links with other projects and government programs and activities:**

SAPReP+ activities such as land and water management, improvement in productivity and value chains of crops and livestock, supporting the role of women in agriculture, improvement in the diet and nutrition at the households, and building institutional capacity of GoY to support agriculture development to scale up and replicate the activities of the current GAFSP-supported project and extend the assistance to new districts and reach populations still facing high levels of food insecurity. It will expand assistance to smallholder producers seeking to have increased access to markets, while making use of the opportunity to help step-up efforts to provide counseling to the farmers and rural households on improved diet and nutrition practices included in the nutrition cluster response plans in YHRP 2019. SAPReP+ links up with the SBP activities on promoting sustainable crop production and more efficient irrigation to reduce groundwater extraction and promote overall efficiency in water use. It also builds on and expands the activities of ERRY on improving livelihood assets of smallholder farmers and in developing agriculture value chains. SAPReP+ is also informed by the successes of the WB-supported ECRP with its activities in rehabilitation of community water infrastructure, and in supporting small and micro-enterprises. It will complement the Cash for Nutrition component of ECRP by promoting diversified household diet and improved nutrition practices. SAPReP+ will be guided by the POA on crop, fishery, and livestock production, value addition and income generation, capacity building on surveillance and control of plant and animal pests and diseases, land and water resources rehabilitation and management, livestock feeding systems, post-harvest management and value chain development.

**d) Approach to gender equality and women's empowerment:**

Women and caregivers for young children such as adolescent girls are at the forefront of sourcing and preparing household meals and dictating dietary and health behaviors. Thus, SAPReP+ will integrate women empowerment and gender equality targets across all project components, ensuring that gender aspects and women's empowerment are reflected in the activities and expected results, including among others, increased women's access to agriculture and nutrition training, technology, farm equipment and inputs, participation in management and decision-making and support to women's leadership. Improvement in household food security and nutritional status is impossible without women's empowerment and this will be the focus of activities in promoting better diet and nutrition practices especially for children and PLW.

Moreover, the proposed project will use gender-disaggregated indicators to ensure inclusiveness. The project recognizes both the contribution of women in agriculture development across all sub-sectors but particularly in horticulture and livestock farming, and the need for strengthening their roles in ensuring food security and nutrition. SAPReP+ will use gender gap analysis to ensure that project activities, as well as the work value chains and the private sector are informed regarding inequalities and exclusion issues that need to be addressed. The learning component will include elements designed to illuminate underlying gender dimensions affecting intervention impacts as guided by use of the IFPRI developed Women's Empowerment in Agriculture Index.

**e) Approach to environmental sustainability:**

Overall, the project is not expected to have negative environmental implications. The Environmental Management Plan will be prepared to identify the activities with potential negative environmental impact and corresponding mitigation measures. The project emphasizes the need for sound land/soil and water management and the introduction of climate-smart and improved agriculture systems, inputs and techniques such as intercropping, diversification of crops, conservation, proper use of agriculture inputs, and more efficient use of resources especially of water, etc.

**f) Approach to risk and resilience in a fragile context:**

In the context of ongoing conflict in Yemen, SAPReP+'s approach is to preserve and improve institutional capacity, improve service delivery resilience, and support conflict-affected poor and vulnerable Yemenis. As part of institution building, the project aims to strengthen capacity of GoY and other participants in risk analysis, mitigation, and overall management and support to agriculture in the context of political instability, insecurity, and increasing scarcity of resources. While this set of interventions is viewed as a contribution to the stability of government institutions, it is expected to also help build GoY's capacity to be agile and responsive to emerging and urgent needs as they arise, and to be able to operate given limited resources in a fragile environment.

Since the agricultural sector has shown to be one of the most resilient sectors in the Yemeni economy,<sup>19</sup> rural communities and households welcome improved resilience to shocks. Through further growth of the knowledge of smallholders, strengthening collective action, bargaining power and participation in decision-making of farmers (specially women), and promoting gender equality and empowerment, the project will further cultivate the sense of community responsibility, social cohesion and an environment of trust. This will also improve farmers' awareness of risks, knowledge of mitigation and adaptation measures, and ability to cope with shocks. The proposed interventions, in this sense, are also designed to build community and livelihood resilience in the face of conflict, climate change, scarcity of resources and economic shocks, and the overall instability and absence of most institutions, hence the equal emphasis on risk management and coping strategies, the role of disenfranchised women and youth, and the importance of securing livelihoods and nutrition at the household level.

#### **g) Rationale for public financing and description of the program**

The severity of the crisis has limited/undermined the capacity of farmers, livestock producers and fishers to invest in even small productive inputs and assets. The project will allocate resources to provide key support for smallholders to invest in assets and help improve their capacity to commercialize their products and enter new markets. SAPReP+ will focus on information, inputs and training that will increase their capacity in the long term and for them to expand and sustain their operations through investment in more livelihood opportunities. Whenever possible and appropriate the project will highlight the contributions of partners as their share in the costs of assets provided through SAPReP+ to increase beneficiary ownership of the project and of these assets received.

Examples of these contributions are the sharing of local knowledge, minimal contribution of labor where it is appropriate (e.g., while being trained to use local inputs or materials for making improved livestock feeds, improved seeds production, etc.), the use of community land or private farms for seed production and nurseries, and other similar internalized cost contributions. Otherwise, SAPReP+ will largely engage in provision inputs, equipment, knowledge and information, technical support through extension, and veterinary services through the CAHWs and FFS, that are otherwise inaccessible to the targeted partners and beneficiaries for this project. Other assets to be provided through SAPReP+ include laboratory equipment and increased knowledge in testing, surveillance, and quality control for governorate and district level agriculture and fisheries technicians, and for access by CAHWs and FFS participants.

#### **h) Value chain projects: provide market diagnostics and anticipated returns:**

IFPRI has developed a model for helping prioritize scaling-up initiatives in value chains in Yemen and the top 5 products, assuming equal bias for poverty, employment, nutrition, and growth, are fruits/nuts, poultry/eggs, coffee, cattle/milk, and fishing, some of which will be supported through this component. IFPRI as a key partner in SAPReP+ will conduct further value chain analyses to assess sensitivities of certain products to project objectives such as those related to water/natural resources management,

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<sup>19</sup> Joint IFPRI-World Bank-CSO Yemen study 2019. "Economy-wide impact of conflict and alternative recovery scenarios". Forthcoming IFPRI MENA Policy Note.

environment, gender equality, etc., and for identifying products to determine which segments of their value chains would be most profitable for farmers to be engaged in, or where there are strong opportunities for rural livelihoods.<sup>20</sup> For every value chain that will be strengthened through this project, they will be selected on the basis of a value chain study conducted by FAO in partnership with IFPRI.

**i) Public and private roles, and how the partnership is intended to be structured:**

There will be limited, small-scale public-private partnership modalities that will be employed for selected activities in SAPReP+. For instance, the improved seeds to be distributed to smallholder farmers will be developed with and purchased from private seed producers (operating on a small commercial scale) and commissioned and certified by the General Seed Multiplication Corporation (GSMC). Also, government agriculture and livestock technicians may provide services to small commercial dairy farmers either on a cost-share basis or subsidized by the proposed project. The training of CAHWs will be provided under the auspices of the General Directorate for Animal Health and Veterinary Quarantine (GDAHVQ). The CAHWs will be trained and licensed to charge modest fees for their services in line with the demand-driven and multifunctional approach to service provision. As farmer income increases, they will pay the fees.

**2) Rationale for public financing of components and activities chosen to be financed:**

Due to the crisis and the levels of vulnerability, small-scale farmers in the project area have lost their assets and have very limited capacity to invest in recovering these and even the simple inputs needed for resuming agricultural activities. The current political and security environment is not as attractive yet for business and private investments, thus the need for public investment to jump-start growth in the agriculture sector. Through the subsidized provision of inputs and assets, the project essentially shares the costs and associated risks with farmers, cooperatives, producers groups, and local entrepreneurs and hopefully leverage even though limited investment capacity of these stakeholders, but public investment is necessary and crucial at this point.

**For each component and activity, answer the following:**

**a) Does the private sector currently fund similar activities in the country?**

Because of the ongoing civil conflict, private sector investment in agriculture remains very limited, although there are some farmers' organizations and some better off farmers who have the capacity to make investment that may benefit the small-scale farmers. However, this requires supplementation with public funds to make investment less risky and more successful, including expanding access to water resources, training for adoption of technologies and business practices, infrastructure for economies of scale and more access to markets, and capacity building for greatly affected agricultural institutions. SAPREP has been successful in using public funds to implement these types of activities, which have made a big difference in the livelihoods of small-scale farmers. As mentioned in previous sections, private seed growers/suppliers, dairy farmers, and small producers and entrepreneur groups such as the women and youth entrepreneurs engaged in value-added production and food processing, the farmers taking part in agriculture product collection and aggregating systems will also receive support from SAPReP+, even as they make small investments of their own via village savings and loans schemes. With support from the project and with increased revenues, they will have an opportunity to reinvest and grow their businesses. As more stability is achieved in coming years economically, socially and politically, we anticipate further investments from other public and private sector contributors to the agriculture and food security sector that will benefit.

**b) If the answer to the above ("a") is yes, describe the nature of the private sector entities:**

The private sector stakeholders that have been supported through SAPREP are mostly small-scale enterprises, producer groups, and individual business people involved in seed supplies, horticulture value-

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<sup>20</sup> IFPRI *Prioritizing Value Chains in Yemen*. (June 2019).

added processing, dairy production, and agricultural services provision. This is likely going to continue as the scale of support, and hopefully, investments continue to grow as a result of the assistance provided through SAPReP+ and increasing stability economically, socially and politically. As political and security instability are resolved, international and regional investors are likely to return to this sector. Regardless, under this project GoY will collaborate with FAO and others to exploit any opportunities for investment.

**c) Tangible efforts to date to attract private investment to finance similar activities:**

As described in Part 1 (Section 1.2) of this proposal, there are prior policies and plans of action under NASS and NAIP that will be infused as relevant into new strategy documents such as those underway for the GoY Road Map. Among them are measures intended to encourage private sector development and investment in agriculture, including investments in similar activities under the proposed project. Given the situation in the country, many of these actions are still pending yet the groundwork has been laid and implementation and roll out can be expedited as conditions allow.

**d) What kind of private investments the country is attempting to attract:**

Given limitations under the current country context of Yemen, SAPReP+ will encourage narrow levels of small-scale private investments, mostly from the farmers themselves, local entrepreneurs, agriculture producers groups, cooperatives, and even agriculture services providers by subsidizing costs or helping minimize or absorb the risks, as a result of the improvements in productivity in the subsectors supported, and with the increased capability of the government to regulate and support private businesses. Overall, the GoY is hoping to attract investment from the local private entrepreneurs, along with the other investments for the post-conflict revitalization of the agriculture sector.

**e) What is needed to contribute to increasing private investments to finance similar activities in the country and whether this project will help to put this in place:**

Efforts within SAPReP+ will continue to encourage private sector investment in agriculture in seed production and supply, whereby local entrepreneurs are trained to produce and/or supply certified (good quality) seeds for the project. Most of the components and activities proposed for this project will contribute to building a social and economic environment conducive to the revival of the important role of the private sector in agriculture. The activities proposed under strengthening the value chains for selected products are specifically aimed at encouraging small private sector players to start investing in these value chains, such as in dairy products, seeds production and supply, food processing, and agriculture product collection and distribution. Results from the value chain analyses and market studies to be conducted through this project will help determine what other value chains or segments within will provide the most viable strategic entry points for private sector investments.

## **2.4 Implementation arrangements**

**1) Institutional arrangements and inter-ministerial coordination (if any):**

Given the multi-disciplinary nature of the project and the need for coordination with different Ministries and institutions, the project will establish an embedded Project Coordination Unit (PCU), which will have MAI as the chair and the membership of representatives from the Ministry of Planning and International Cooperation (MoPIC), Ministry of Fish Wealth (MFW), Ministry of Water and Environment (MWE), Ministry of Finance (MOF) and FAO as the Technical Assistance and day-to-day implementation Entity. Capacity building of members of this unit will be paired by tapping their expertise to enhance success of the project. The PCU will be critical to secure two main initiatives of the project, namely: (i) facilitating dialogue, coordination and collaboration between the ministries and agencies on project related matters, and (ii) providing oversight on project implementation to ensure the achievement of impact and alignment with GoY investment and food security priorities. The functions of the PCU will be complementary to the

role of the Project Management Unit (PMU), which will be the management body of the project led by FAO to guide and supervise the day-to-day activities. The two units will work hand in hand.

Under SAPREP, a number of local NGOs, private sector operators and Government institutions were contracted by FAO as the local implementing partners (IP) based on the assessment of their technical and logistical capacities to implement the respective activities, capacity building efforts, and past experience in implementing related projects in the target districts. This successful arrangement is proposed to continue under the next iteration of SAPREP+; FAO will work with local IPs for the implementation of various activities. FAO will carefully assess key institutions within the Ministries to become IPs, as well as local entities in civil society and the business community. Activities aimed at enhancing animal husbandry and veterinary services will be implemented with support of the General Directorate of Animal Health and Veterinary Quarantine (GDAHVQ), Veterinary and Agriculture Vocational Institute, and Yemen Veterinary Association. The fishery support activities will be implemented in collaboration with the Ministry of Fish Wealth and Fisheries Cooperative Union. Partnerships with local institutions and stakeholders will be particularly critical to strengthen and empower national capacities for rapid response at the post conflict phase, and to prepare them to better serve their clients in the process of reconstruction and revitalization of the agriculture sector in Yemen.

The FAO Representation in Yemen will implement the proposed project in close coordination with MAI. The ongoing conflict is having a significant impact on the capacity of the MAI and MFW, and poses great challenges for territorial coordination. Therefore, it is proposed to continue with the alternative arrangements where FAO will be an implementing agency responsible for day-to-day management of the project, working closely with the MAI, MFW and other key governmental bodies, as in the case of the ongoing SAPREP funded by GAFSP. As conditions on the ground become more stable, and capacity building efforts by FAO and others toward government counterparts come to fruition, responsibility for this project oversight and ensuring progress in reaching targets will increasingly be handed over to the GoY, in consultation with the World Bank and other key stakeholders.

FAO offers existing infrastructure and offices that will allow for rapid start-up. At the regional level, implementation will be supported by the FAO regional hubs in Aden, Al-Hodeidah, and Saada. The hub in Aden will coordinate activities in Shabwa, Abyan, Lahj and partially in Taiz. The hub in Al-Hodeidah will provide support for activities in Al-Hodeidah and Hajjah. The regional hub in Ibb will support implementation in part of Taiz not covered by Aden office. Saada hub will be in charge of project activities in Saada governorate. These hub offices include staff dedicated for implementation of the ongoing SAPREP; they are readily activated for the follow-on SAPREP+. And these national staff have benefitted from capacity building under the predecessor project that will be tapped for the new project.

## **2) Role of non-government stakeholders:<sup>21</sup>**

Local implementing partners representing private sector, civil society and other non-government stakeholders will play a critical role in implementing project activities on the ground, identification of the project beneficiaries, coordinating with local stakeholders at district and community levels as well as carrying out assigned activities in accordance with the project implementation manual. As with SAPREP, the proposed SAPREP+ will continue promoting the predominant role and active participation of district officials, communities and beneficiaries in the development and implementation of demand-driven sub-projects under the project. Investment and sub-projects under components such as water and land management sub-projects and the establishment of infrastructure for farmers' cooperatives and other organizations will be determined in participatory consultations with the select community representatives based on priority needs identified during periodic needs assessments. Sub-projects will provide grants in open competition and be implemented with the direct involvement of communities and civil society groups,

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<sup>21</sup> See Annex 2 of the GAFSP Country Guidelines for a list of verifiable criteria about these roles that will be included in the assessment of implementation by the Technical Advisory Committee.

including community-based organizations, local NGOs, user groups, and village councils. Experience under previous agricultural projects in Yemen demonstrates that participatory approaches involving communities is the most effective way to ensure sustainability and improvements in production and food security.

### 3) Describe how the project plans to strengthen the capacity of implementing parties:

Partnership with local institutions and stakeholders under the proposed project will be particularly critical to preserve and continue to improve their technical and implementation capacities during the ongoing conflict in Yemen. This partnership will be important not only for implementation of the proposed project but also for strengthening the national institutions for rapid response at the post conflict phase, and for preparing them to better serve their clients in the process of reconstruction and revitalization of the agriculture sector in Yemen. Frequent situational assessments will dictate terms and options for pivoting to optimum service delivery providers among public or private sectors.

## 2.5 Amount of financing requested and time frame for implementation

### 1) Financing requested from GAFSP

#### a) Requested grant amount for the project:

The total estimated cost of the project is **US\$ 29.95 million** to cover a period of implantation of **four years**. This amount was estimated based on the activities, number of beneficiaries expected to be reached, and the average unit prices identified during the proposal development in the first half of 2019. The full total amount **US\$ 29.95 million** is requested to be covered by the GAFSP. Attending a request from the GoY FAO has also made provisions to allocate during implementation up to US\$ 350,000 dollars to be used for the development of the new NASS and NAIP. Given the very critical situation in Yemen and the importance of implementing this full project, the minimum necessary amount is **US\$25 million**. The GoY is not requesting a project preparation grant as resources allocated by FAO and the World Bank are sufficient to meet these needs. GoY feels strongly that the comprehensive package of interventions is critical to success among target communities and households. However, should there be a need for a reduction in project budget this would be possible by reducing: the number of districts where the project will be implemented, with priorities based on IPC; and/or the number of people and households benefited in agriculture, livestock, and fisheries. Reduction in the total number of target project participants based on IPC and a final decision on the geographical location of project activities will ensure resources are most effectively and efficiently utilized.

### 2) Project financing table

Item	Cost (US\$ million)	Share (%)
<b><i>Project implementation</i></b>		
GAFSP	29.95	100
Government	0.00	0
Local project participants	0.00	0
<b>Project Implementation Total</b>	<b>29.95</b>	<b>100</b>
<b><i>Project preparation</i></b>		
GAFSP	n/a	
Government	n/a	
[Other co-financier], specify	n/a	
<b>Project Preparation Total</b>	<b>n/a</b>	<b>100%</b>

### 3) Project cost table (four-year implementation period)

Item	GAfsp ('000 US\$)	Local project participants ('000 US\$)	TOTAL ('000 US\$)
<b>Component 1. Small-scale farmers' access to water and land resources improved</b>	<b>10,010</b>	<b>-</b>	<b>10,010</b>
Sub-component 1.1. Terraces and on-farm water harvesting facilities rehabilitated	2,530	-	2,530
Sub-component 1.2. Water infrastructure and irrigation networks rehabilitated and constructed	7,480	-	7,480
<b>Component 2. Increased performance of nutrition sensitive crops, livestock and fisheries target value chains</b>	<b>11,233</b>	<b>-</b>	<b>11,233</b>
Sub-component 2.1. Increased productivity of small-scale crop and livestock producers	8,603	-	8,603
Sub-component 2.2. Expanded small-scale farmers' commercialization of crop and livestock products	2,630	-	2,630
<b>Component 3. Increased household's adoption of appropriate diet and nutrition practices</b>	<b>1,361</b>	<b>-</b>	<b>1,361</b>
Sub-component 3.1. Households adopted healthy feeding practices	705	-	705
Sub-component 3.2. Increased household engagement in home based food production and processing of diverse nutritious foods	656	-	656
<b>Component 4. Improved technical capacity of key national and sub-national agricultural and fisheries institutions on</b>	<b>2,586</b>	<b>-</b>	<b>2,586</b>
Sub-component 4.1. Capacity of key GoY institutions and facilities serving smallholders improved	1,504	-	1,504
Sub-component 4.2. National early warning, surveillance, and diagnostic systems strengthened	1,082	-	1,082
<b>Project management and monitoring, evaluation, accountability and learning</b>	<b>4,758</b>	<b>-</b>	<b>4,758</b>
Project management			
Monitoring, evaluation, accountability and learning (MEAL)			
<b>TOTAL</b>		<b>-</b>	

Note: contingencies and project support costs are factored in the total cost of the components

#### a) Explanation of indicative unit costs for each major investment:

Costs of activities such as rehabilitation and maintenance of land and water infrastructures incorporate the costs of technical inputs, cash payments for work by project participants/community contracts, and other costs allocated for each component. While a more detailed costing will be provided in the project planning stage, based on the experience of SAPREP, indicative figures are provided in the table below. SAPReP+ will have a variety of investments but the numbers below are just indicative figures for some items.

Investment	/Unit	Unit Cost (USD)
Rehabilitation/construction of water infrastructure, irrigation networks and rehabilitated lands	Hectare	\$4,125
Restocking activities (animals + feed)	Household	\$739
Seed distribution (cereal + vegetable + legumes)	Household	\$62
Poultry kit	Household	\$285
Fodder choppers	Chopper	\$4,000
Animal feeding packs (250kg wheat bran + 10 feed blocks)	Packs	\$135

#### 4) Other donor funded agriculture and food security projects

There is a variety of donor supported projects being implemented in Yemen in the last few years. The table below shows some of the main programs and projects.

Name of project	Implementing partner (IP)	Project cost (US\$)	Latest implementation status (date), per IP
FSAC and Nutrition Cluster Response Plan	Various, led by FAO, WFP, oversight by HC, OCHA	US\$2.52 billion (18% funded thru YHF)  US\$1.65 million (USA)	Satisfactory (June 2019)
Reconstruction and Rebuilding of the Agriculture Sector		US\$3 billion National Program	New
Emergency Crisis Response Project (World Bank)	UNDP, UNICEF	US\$640 million (including cash transfer component)	Highly satisfactory, June 2019
SAPREP (GAFSP, World Bank)	FAO	US\$36 million	Satisfactory, Aug 2019
EFSRLP	FAO	US\$12.70 million (EU)	Satisfactory
Strengthening the role of Women in peace building through natural resources management	FAO, IOM	US\$1 million (Peace Building Fund)	
Livelihood assistance to conflict affected population in Taiz and Al-Hudaydah Governorates through integrated Food Security and Nutrition Sensitive Support	FAO	US\$1.96 million (King Salman Center)	
Agricultural livelihoods support to severely food insecure households in Yemen	FAO	US\$8 million (Japan)	
Enhance HH and community resilience through ProAct in Yemen	FAO	US\$6,038,647	
Water for food security	FAO	US\$5 million (Kuwait)	
Strengthening Food Security Information and Early Warning System	FAO	US\$6,757,860 (EU)	
Reduced infestation and spread of FAW by strengthening FAW monitoring and Integrated management capacities at all levels	FAO	US\$500,000 (FAO)	
Strengthening improved seeds production capabilities	FAO	US\$350,000 (FAO)	
Water for Peace in Yemen: Strengthening the role of women in water conflict resolution and climate change mitigation	FAO	US\$1 million (PBF)	
Emergency agriculture-based livelihoods support to reduce acute food insecurity and malnutrition of the most vulnerable households in Yemen	FAO	US\$892,857 (Japan)	
The Supporting Resilient Livelihoods and Food Security in Yemen Joint Program (ERRY II)	FAO	US\$8,827,998	

## **5) Preferred Supervising Entity:**

The Government of Yemen (GoY) has selected the World Bank as the Supervising Entity for this project and FAO as the main Technical Assistance Organization to assist designing the project document and leading the implementation of SAPReP+.

**The World Bank as Supervising Entity:** The World Bank has been selected as the preferred supervising entity in view of the long and fruitful development partnership with the Government of Yemen. The Bank has been involved since 1973 in agriculture, water resources and environmental sectors, and has been at the forefront of poverty analysis, and supports related activities in rural development (rural water, irrigation improvement, rural roads, community infrastructure, health and nutrition, and education). The Bank's current engagement in Yemen provides critical support to Yemeni families and communities across the country. It helps the people cope with the impact of the crisis through income support, large-scale cash assistance, health and nutrition interventions, cholera response, urban services delivery, and restoration of agriculture production. The World Bank has reviewed this proposal and on this basis has issued a letter of readiness to act as supervising entity.

**FAO as the Technical Assistance Organization for Implementation:** Following the work done in the preparation of this submission, FAO will play a key role in the preparation of the project document and implementation of SAPReP+. FAO has substantial experience from the implementation of the ongoing SAPREP funded through GAFSP and many other related projects. FAO has cultivated along the years a very good relationship with relevant GoY institutions and other stakeholders, and has established institutional and implementation mechanisms for the delivery of the project activities in Yemen and has extensive track record of emergency livelihood support, livestock, value chains, and food security and nutrition activities that are key intervention areas of SAPReP+.

## **2.6 Post project sustainability and exit strategies**

### **1) How assets and services will be maintained after the life of the project:**

The project will handover, as appropriate, assets to farmers' organizations, marketing groups, water users associations, and others; we will build their capacity to manage and maintain them during project trainings (e.g., use of farming equipment and tools, seed storage, etc.). Community water committees, local leaders and government counterparts will take on responsibility for maintenance and repairs for water infrastructure, sustainable fees for such and will receive training to do so during the life of the project. Trained vets will take on care for livestock in their communities. Community health workers and mothers groups will continue to promote messaging and best practices for nutritional, diverse family diets.

### **2) For institutions and management structures (capacities needed to continue providing support and coordination and assurances or strategies to ensure these will be in place:**

Strengthening of MAI and MFW extension services capacity, testing laboratories, early warning systems, surveillance and diagnostics are part of the Institutional Capacity Building component, or Output 4 of the proposed project. In building these capacities, government representatives such as MAI will take over training of trainers for extension workers, rollout new updated policies for the sector, and prioritize planning and budgeting for the sector with public and private funds for sustainability.

### **3) Social access and inclusion -- Describe arrangements that will be put in place to ensure that social and gender equity gains on the project will persist:**

Women's participation and capacity building are among the main features of the components and activities of the project. Community and interest group participatory dialogues will promote healthy gender norms and benefits of gender equity for the whole family, and whole communities. By empowering women with increased knowledge and understanding of sustainable agricultural systems, value chains, and management

and leadership skills, and promoting their economic independence as entrepreneurs, health gender norms are likely to continue. Further gender and social analysis using appropriate diagnostic tools to determine root causes of exclusion and disempowerment will be conducted so that nuanced and locally relevant messaging has greater impact. Further policy reforms, advocacy, capacity building, and adoption of best practices may also be warranted, as applicable. Demand-driven approaches in most of the interventions will also ensure strong sense of ownership among female participants (as beneficiaries or staff/extension workers) and serve as motivation for them to seek ways to sustain their efforts, including income and profit generation from their agricultural activities.

## **2.7 Risk and risk management**

### **1) Describe the process used for the risk analysis, including who participated and their roles:**

The project will be implemented in the difficult context of the ongoing conflict in Yemen. Therefore, the operational risk remains high. We conducted a risk assessment using successful strategies and tools for recurring risk analysis of conditions on the ground that were tested and refined under the predecessor SAPREP. We conducted a desk review of SAPREP project reports to identify patterns of any systemic issues that could increase risk to the project, personnel or beneficiaries. Next, we reviewed the latest security and political risk reviews conducted by others in recent months. Finally, we engaged field staff on SAPREP and other counterparts on the ground to do site observations and interviews with key informants to better understand the latest conditions that could affect the success of this project.

Upon award, when selecting eligible target areas, this precursor risk analysis will be updated with an initial risk assessment (multi-dimensional) to inform decision making to maximize the probability of success. The project will be implemented in areas which are accessible and where the project recovery and development interventions can be implemented. The approach is to keep the project design flexible allowing for adjustments as needed. This may include changes in the project targeted districts if original districts become inaccessible and adjustments to the implementation schedule due to access and security constraints and other reasons. As indicated above, participation of local communities in the identification and selection of subprojects and investments would ensure inclusiveness and transparency. Third party monitoring mechanism would also be used to monitor the status of implementation on the ground and reflect the beneficiaries' perceptions regarding the project interventions. The table below describes the mitigation measures.

### **2) Major risks and mitigation measures to the achievement of the specific objectives and activities**

<b>Objectives/Results</b>	<b>Risks</b>	<b>Mitigation measures</b>	<b>Is the mitigation measure in project budget (Yes/No)?</b>
<b>Overall objective:</b> Improved livelihoods, nutrition, and resilience of target rural populations through sustainable improvements in agriculture productivity, market access, and incomes of smallholders	Dependence on external inputs and support, dissipation of impact	Sustainability measures in place	Y
		Institutional capacity development built-in	Y
		Build sense of project ownership among participants	Y
	Political instability and high-risk environment	Flexible project design; adjustments to work plans and target areas as required	Y
	Further escalation of conflict	AAP Plans, support from AAP focal point;	N

		Adjustments to implementation schedule	
<b>Component 1.</b> Small-scale farmers' access to water and land resources improved	Security risk	Frequent risk assessments that monitor potential for insecurity, natural disaster	Y
	Risk that farmers will not put training into practice	Eligibility criteria identifies highly motivated beneficiaries	Y
<b>Component 2.</b> Increased performance of nutrition sensitive crops, livestock and fisheries target value chains	Prolonged droughts or unexpected flooding	Climate-smart planning	Y
	Breakout of pests and plant/animal diseases	Water storage and flood control infrastructure	Y
	Instability of sources of (imported) inputs	Preparedness and response plans	N
	Instability of markets and the economy	Strengthen local supply chains/production (e.g., seeds, ingredients)	Y
	Instability of financial systems	Value chain analysis and market studies for demand-driven decision making	Y
	Limited uptake of PS	Incremental steps in commercialization	Y
	Issues around rule of law	Sharing of risks with farmers and private sector players (i.e., investments)	Y
<b>Component 3.</b> Increased household's adoption of appropriate diet and nutrition practices	Health issues – disease outbreaks, food safety	IEC and awareness raising	Y
		Coordination with health workers and appropriate clusters	Y
<b>Component 4.</b> Improved technical capacity of key national and sub-national agricultural and fisheries institutions on extension and diagnostic and surveillance	Tenuous political arrangements	Participatory/inclusive approaches	Y
	Lack of coordination/cooperation among ministries and government agencies	Continuously build relations and trust with government	Y
	Lack of human resources	Investment in FFS and capacity development at all levels among different stakeholders	Y

## 2.8 Consultation with local stakeholders and development partners

### 1) Describe the process and extent of consultation with stakeholders:

Development of the project proposal was done through intensive a consultation process led by the MAI and MoPIC in collaboration with FAO. Different methods of quantitative and qualitative data collection were used to inform the process, including desk research, interviews with key informants, site observations by staff in the field, focus groups with potential beneficiary groups, and extensive dialogue with stakeholders at different levels. Initial coordination and planning/meetings were held between top officials and experts from MAI, MoPIC in Cairo to make kick-off the process. FAO was delegated to assist in the preparation of the GAFSP proposal. Further discussions took place with the World Bank as the selected supervising

entity. A GoY taskforce was established to carry out the design and writing of the GAFSP project proposal, after which a series of consultations with various stakeholders across the following categories (*see list in Appendix 2*): key officials (Ministers, Vice Ministers, and Deputy Ministers) from MoPIC, MAI, MWE, MFW; agriculture extension agents and representatives of rural women departments; researchers; veterinarians and animal husbandry specialists; crop production and seed specialists; crop protection specialists; representatives of cooperatives union and farmer associations; and fisheries specialists. MoPIC facilitated discussions on updating GoY's relevant and interrelated strategies on the following: Food Security, Agriculture Sector, Water Sector, and Investment Plan (represented by reconstruction and economic recovery plan). During proposal development, FAO also consulted key informants such as farmers, farmer groups' members, local NGOs and different private sector actors to collect their invaluable perspectives and feedback, which have notably enriched the proposal.

## **2) Describe how traditionally marginalized groups were involved in consultations:**

As part of ongoing implementation of different projects, the project teams and public sector counterparts have gained deeper understanding of the needs of local government officials, private sector business people, farmer groups, including marginalized groups such as women, youth, landless farmers and farm workers, the elderly and infirm, and other excluded groups. These insights have been invaluable in designing an inclusive and effective response to sustainably address agriculture issues in those districts. Interviews and focus groups held by female staff with and youth groups disaggregated by gender helped participants feel at ease to discuss challenges and potential solutions to be addressed under this new project. *The major findings from the risk analyses are described in the table below, including the recommended measures and corresponding budgets for related mitigation and risk management activities such as the required ESMPs for every project.* Feedback from beneficiaries among these target groups who have been participating under the predecessor project SAPREP were reviewed and results achieved among these groups were analyzed for ways to make improvements.

## **3) Describe ways in which the consultation added value or enhanced the project design:**

The joint consultation process during preparation of this proposal has reflected ownership and buy-in among government counterparts at different levels and across various ministries, especially MAI, and successful working relationships with FAO staff. The design process reiterated the continued relevance of NASS and its specific objectives, and delivery mechanisms. Moreover, government experts who helped brainstorm and refine strategies for this project (*see table in Appendix 2*) provided their deep, contextualized and nuanced knowledge and understanding of the challenges they face and appropriate, feasible solutions for them and smallholder farming communities. This invaluable and unprecedented degree of consultation and coordination served to validate the overall project approach and design, and generated thoughtful solutions on how to ensure inclusive approaches and encourage participation of women, youth and other marginalized and excluded groups.

## **2.9 Detailed plan for preparation (in the event of a successful proposal)**

### **1) Full-time national government team members expected to be the key liaison person with the Supervising Entities to lead the preparation of the project document**

The GoY has formed a multidisciplinary team of Government personnel to play a leading role in the development of the project document, as noted in the table below.

<b>Name</b>	<b>Current Title</b>	<b>Role</b>
Ali Gunid	Deputy Minister of MAI – Planning and Information Sector	Lead Government Preparation Team (MAI)
Ahmed Naser AlZamky	Deputy Minister of MAI - Irrigation Sector	Component Lead and Technical Expertise
Abdulmalek Naji	Deputy Minister of MAI - Plant Production	Component Lead and Technical Expertise
Ahmed Abdulmalik	Head of Cooperative Coordination Unit – Agric. Coop Union	Technical Expertise
Omar AbdelAziz	Deputy Minister of MoPIC - International Cooperation Sector	Lead Government Preparation Team
Mansoor Zaid	Assistant Deputy Minister of MoPIC - International Cooperation Sector	Technical Expertise (Planning)
Ahmed Aljawi	Director General of the Directorate of Regional and International Organizations - MoPIC	Assistant Lead Government Preparation Team and Technical Expertise (Planning)
Nadia Hamid Sultan	Director General of Rural Women Development department- MAI	Gender Technical Expertise
Zuhair Hamed	Director General of Non-governmental Organizations - MoPIC	Technical Expertise (Civil Societies)
Khaled M. Saeed	Director General of Agriculture and Fisheries - MoPIC	Technical Expertise and Component Lead
Wadah Ahmed	Directorate of the United Nations Organizations	Technical Expertise (UN)
Adel Aghawri	Advisor to the MFW	Fisheries Technical Expertise

### **2) Expected project preparation time:**

The project preparation and start-up timeframe, including all clearances, is 6 months. Because GAFSP project is already under implementation in Yemen, an important amount of the data and knowledge needed for this preparation phase is already available. Moreover, the teams of staff and technical experts are already in place and can be activated on SAPReP+ rapidly. Functioning relationships with key institutions, stakeholders and local authorities have been established which will be an asset for a quick start.

### 3) Sources and amounts of funding for project preparation:

To assist the GoY, the World Bank as a Supervising Entity and FAO as Technical Assistance Entity have already made provisions of resources for project proposal preparation, as noted in the table below.

Source name	Purpose	Secured?	Amount (secured or requested)	Other remarks
World Bank/FAO	Proposal preparation workshops (2)	Yes	\$50,000	
World Bank/FAO	Rapid study on water infrastructure (Governorate level)	Yes	\$15,000	
World Bank/FAO	Value chain assessments	Yes	\$25,000	
SAPREP project	Development of project implementation plans and operation manuals	Yes	-	Staff costs only
SAPREP	Development of monitoring and evaluation systems	Yes	-	Staff costs only
SAPREP	Environmental Safeguards Analysis (ESA)	Yes	\$20,000	

## PART 3: SUPPORTING DOCUMENTATION AND APPENDICES

### Appendix 1. SAPReP+ Logical Framework at proposal stage

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
<b>Goal:</b> Sustainably reduce poverty and food insecurity in the seven most crisis-affected and vulnerable Governorates in Yemen					
<b>Overall project objective:</b> Improved livelihoods, nutrition, and resilience of target rural populations through sustainable improvements in agriculture productivity, market access, and incomes of smallholders	- Percentage of households (HH) with improved Food Insecurity Experience Scale (FIES)	TBD by baseline survey	- 50%	Household baseline and endline surveys	
	- Percentage of beneficiary households with improved Household Dietary Diversity Score (HDDS)	TBD by baseline survey	- 60%	Household baseline and endline surveys	
	- Number of households (disaggregated by gender) directly benefitting from project investments	0	- 80,000 (30% of households with female as direct project beneficiaries)	Project progress and monitoring reports, distribution lists, participants lists, technical reports	
<b>Component 1.</b> Small-scale farmers' access to water and land resources improved	- Number of hectares irrigated as a consequence of rehabilitated or constructed water infrastructure	0	- 2,207 ha of land benefited/irrigated	Project progress and technical reports	- Increased and sustained political commitment to improve food security by the government, local authorities, donors and international development agencies in Yemen; - Government authorities are
	- Number of farmers with improved access to water infrastructure, irrigation networks and rehabilitated lands	0	- 14,816 farmers	Project progress and technical reports	
	- Percentage of women in community water management committees and in leadership roles	TBD by baseline survey	- 30% of membership	Project progress and technical reports	
<b>Sub-component 1.1.</b> Terraces and on-farm water harvesting facilities rehabilitated	- Total number of hectares under production due to rehabilitation of terraces sand water harvesting facilities	0	- 230 ha	Project progress, monitoring and technical reports	

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
- Rehabilitation of existing terraces in the uplands	- Total area of terraces rehabilitated in the uplands	0	- 216 ha (6,468 farmers)	Project progress and technical reports	stable, line Ministries functioning with technical staff and committed to fulfilling their mandate; - Security does not deteriorate to levels that would prevent field-level operations (including monitoring)
- Rehabilitation and maintenance of on-farm water harvesting facilities (underground cisterns and open wadi pits)	- Total capacity of the on-farm water harvesting facilities constructed/rehabilitated	0	- 103,600 m <sup>3</sup> (8,348 farmers)	Project progress and technical reports	
<b>Sub-component 1.2.</b> Water infrastructure and irrigation networks rehabilitated and constructed	- Total number of hectares under production due to rehabilitation and construction of irrigation networks	0	- 1,977 ha	Project progress, monitoring and technical reports	
- Rehabilitation and maintenance of check dikes and gabions/retaining walls in wadi beds, and small spate diversion canals	- Area of check dikes and gabions/retaining walls in wadi beds, and small spate diversion canals constructed/rehabilitated	0	- 435 ha (8,348 farmers)	Project progress and technical reports	
- Rehabilitation of shallow wells and springs	- Number of shallow and springs rehabilitated	0	- 134	Project progress and technical reports	
	- Number of farmers benefitted by the works	0	- 4,174 farmers	Project progress and technical reports	
- Rehabilitation and maintenance of irrigation canals and farm level conveyance systems	- Total length of irrigation canals and farm level conveyance systems built/rehabilitated	0	- 171 km	Project progress and technical reports	
	- Number of farmers benefitting from canals built/rehabilitated, disaggregated by gender		- 6,957 farmers		

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
<b>Component 2.</b> Increased performance of nutrition sensitive crops, livestock and fisheries target value chains	- Percentage of increase in crop yields among beneficiary, disaggregated by types of crops	TBD by baseline survey	- Average 15% of increase in agricultural productivity among beneficiary households	Household baseline and endline surveys	<ul style="list-style-type: none"> <li>- Increased and sustained political commitment to improve food security by the government, local authorities, donors and international development agencies in Yemen;</li> <li>- Government authorities are stable, line ministries functioning with technical staff and committed to fulfilling their mandate;</li> <li>- Security does not deteriorate to levels that would prevent field-level operations (including monitoring)</li> </ul>
	- Percentage of increase in output of livestock products among beneficiaries	TBD by baseline survey	- Average 15% of increase in output of livestock products of target breeders	Household baseline and endline surveys	
	- Percentage of increase in total volume of sales, disaggregated by crop and livestock products	0	- TBD	Household baseline and endline surveys	
<b>Sub-component 2.1.</b> Increased productivity of small-scale crop and livestock producers	- Number of farmers (disaggregated by gender) benefiting from improved technology, improved access to agricultural inputs and services and improved irrigation	0	- 63,900 farmers, including 30% female	Project progress, monitoring and technical reports	
- Train breeders on sustainable animal production practices (feeding and fattening practices)	- Number of breeders trained, disaggregated by gender	0	- 700 breeders, including 30% female	Training participants lists	
- Provide vulnerable livestock producers and breeder groups with livestock inputs (choppers, animal feed, and restocking package)	- Number of breeders benefiting from chopper	0	- 700 households	project progress and monitoring reports	
	- Number of households that received animal feeding packs (250 kg wheat + 10 feed blocks per participant)	0	- 4,200 households	Monitoring reports, distribution lists	
	- Number of vulnerable HHs receiving restocking packs (animals + feed)	0	- 1,050 vulnerable HHs received restocking pack consists of	Monitoring reports, distribution lists	

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
- Expand the network of CAHWs and strengthen their technical skills	- Number of CAHWs trained and provided with vet kits, disaggregated by gender	0	- 105 CAHWs	Training participants list	
- Implement an animal disease control program (treatment when needed and prophylaxis)	- Number of animals vaccinated/treated	0	- 3,730,000 (3.5 mln small ruminants, 230,000 cattle)	project progress and technical reports	
	- Number of farmers supported with treatment and prophylaxis campaigns	0	- 186,000	Project progress and technical reports	
- Promote the adoption of climate smart agricultural practices through FFS	- Number of FFS master trainers trained	0	- 50 master trainers	Training participants lists	
	- Number of FFS facilitators trained	0	- 210 FFS facilitators, including 30% female	Training participants lists	
	- Number of crop and livestock farmers trained in FFSs	0	- 5,250 farmers/breeders	Training participants lists	
- Develop local capacity to multiply seeds (seed producer farmers groups) at community level	- Number of farmers trained on seed multiplication and provided with seeds	0	- 1,550 farmers	Training participants lists	
	- Number of hectares used for seed multiplication	0	- 2,325 hectares	Project progress, monitoring and technical reports, distribution lists	
- Provision of seed starter packs for most crisis affected farmers (cereals, legumes and vegetables)	- Number of farmers benefiting from seeds packages	0	- 53,600 farmers	Beneficiary/ distribution lists	
	- Number of hectares planted with the seeds produced at local level	0	- 49,600 ha planted	Project progress, monitoring and technical reports	
<b>Sub-component 2.2.</b> Expanded small-scale farmers'	- Number of farmers (disaggregated by gender) benefiting from improved market access, improved market	0	- 1,575 farmers (30% percent of the farmers trained in FFS), including 30% female	Project progress, monitoring and technical reports	

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
commercialization of crop and livestock products	information and investments to increase value addition				
- Train farmers on post-harvest improved practices and commercialization	- Number of farmers trained on post-harvest improved practices and commercialization, disaggregated by gender	0	- 5,000 farmers/breeders	Training participants lists; Monitoring reports;	
- Assist the establishment farmers-driven crop/vegetable collecting and post-harvest centers	- Number of farmers-driven crop/vegetable collecting and post-harvest centers	0	- 7 centers	Project progress and technical reports	
- Promote women driven small-scale processing activities (equipment + training)	- Number of women trained and equipped on small-scale processing activities;	0	- 2,100 women trained and equipped	Training participants lists, monitoring reports	
- Assist the establishment of milk collecting and processing units (equipment + training)	- Number of milk collecting and processing units established	0	- 84 units	Project progress and technical reports	
	- Number of breeders benefiting from dairy units	0	- 4,200 breeders, including 50% female	Project progress, monitoring and technical reports	
<b>Component 3.</b> Increased household's adoption of appropriate diet and nutrition practices	- Percentage of beneficiary households adopting improved nutrition practices	TBD by baseline survey	- 60% of beneficiary HHs	Household baseline and endline surveys	- Increased and sustained political commitment to improve food security by the government, local authorities, donors and
	- Increase number of women with dietary adequacy (MDD-W)	TBD by baseline survey	- TBD	Household baseline and endline surveys	
<b>Sub-component 3.1.</b> Households adopted healthy feeding practices	- Percentage of beneficiary households with improved nutrition knowledge and attitudes (KAP)	0;	- 60% of beneficiary HHs	Pre- and post-training KAP surveys	

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
- Promote HH adoption of nutrition practices to diversify household diets (awareness raising + training)	- Number of awareness raising campaigns conducted and people covered	0	- 9 awareness campaigns	Project progress and technical reports, audio and visual materials	international development agencies in Yemen;  - Government authorities are stable, line ministries functioning with technical staff and committed to fulfilling their mandate; - Security does not deteriorate to levels that would prevent field-level operations (including monitoring)
	- Number of people trained on nutrition practices, disaggregated by gender	0	- 5,250 people, including 50% female	Training participants lists	
- Integrate nutrition into the pre-service and in-service of agricultural extensionists for promotion of dietary diversity	- Number of agriculture extension staff trained on food and dietary diversification, disaggregated by gender	0	- 120 extension staff, including 30% female	Training participants lists	
	- Number of extension training curricula with nutrition and gender messages integrated	0	- TBD		
<b>Sub-component 3.2.</b> Increased household engagement in home based food production and processing of diverse and nutritious foods	- Percentage of target households with increased access to home produced or processed nutritious foods	TBD by baseline survey	- 60%	Household baseline and endline surveys	
- Promote adoption of home based small-scale food processing technologies for year round availability of diverse and nutritious foods	- Number of people trained on home based small-scale food processing technology, disaggregated by gender;	0	- 2,650 households	Training participants lists	
- Promote poultry as a nutrition sensitive income generation activities for women	- Number of beneficiaries receiving hens and eggs production kits	0	- 1,600 households	Monitoring reports, distribution lists	

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
<b>Component 4.</b> Improved technical capacity of key national and sub-national agricultural and fisheries institutions on extension and diagnostic and surveillance	- Number of laboratories rehabilitated and equipped	0	- 6 laboratories (3 quality and 3 research laboratories)	Project progress and technical reports	<ul style="list-style-type: none"> <li>- Increased and sustained political commitment to improve food security by the government, local authorities, donors and international development agencies in Yemen;</li> <li>- Government authorities are stable, line ministries functioning with technical staff and committed to fulfilling their mandate;</li> <li>- Security does not deteriorate to levels that would prevent field-level operations (including monitoring)</li> </ul>
	- Percentage of increase in the service delivery capacity of extension and laboratory facilities	0	- 30%	Project progress and technical reports (capacity assessment report, endline assessment)	
	- National Agriculture Sector Strategy reviewed and updated	1	- 1 NASS document		
<b>Sub-component 4.1.</b> Capacity of key GoY institutions and facilities serving smallholders improved	- Percentage of trained staff with increased technical capacity in extension, disaggregated by gender	0	- 70% of trained staff	Monitoring reports, pre- and post-KAP evaluation	
- Strengthen MAI's Extension Services capacity for better support to smallholders	- Number of MAI staff trained, disaggregated by gender	0	- 80 staff, including 30% female	Training participants lists	
- Rehabilitate and equip fisheries facilities (auction yards, landing sites and quality control laboratories)	- Number of fisheries facilities rehabilitated, equipped and functional	0	- 13 facilities (6 laboratories + 7 AY and LS facilities)	Project progress and technical reports, monitoring reports;	
- Assess GoY Ministries capacity to deliver testing and certification services for fishery products	- Number of assessments conducted	0	- 2 assessments (for both North and South)	Capacity assessment reports;	
- Strengthen GoY capacity to test and	- Number of MAI and MFW staff trained on testing and certification of	0	- 200 public staff trained on testing and	Training reports, participants lists	

Goal, Components (Outcomes) and Sub-components (Outputs)	Objectively Verifiable Indicators	Baseline	Target	Sources and means of verification	Assumptions
certify fishery products (training)	fishery products, disaggregated by gender		certification of fishery products, including 30% female		
<b>Sub-component 4.2.</b> National surveillance, and diagnostic systems strengthened	- Percentage of trained staff with increased technical capacity in surveillance and diagnostics, disaggregated by gender	0	- 70% of trained staff	Monitoring reports, pre- and post-KAP evaluation	
- Conduct capacity assessment on surveillance and diagnostics related to plant and animal pests and diseases	- Number of capacity needs assessment conducted	0	- 4 assessments (plant and animal diseases for both North and South)	Assessment reports	
- Strengthen surveillance and diagnostic capacities for plant and animal pests and diseases	- Number of key staff trained on surveillance and diagnostics (early warning), disaggregated by gender	0	- 128 key staff, including 30% female	Project progress and monitoring reports, training reports, participants lists	
	- Number of institutions equipped to strengthen surveillance and diagnostic capacities	0	- 18 institutions ((7 sub-national and 2 national) x 2 for plant and animal diseases)	Project progress and technical reports, monitoring reports	

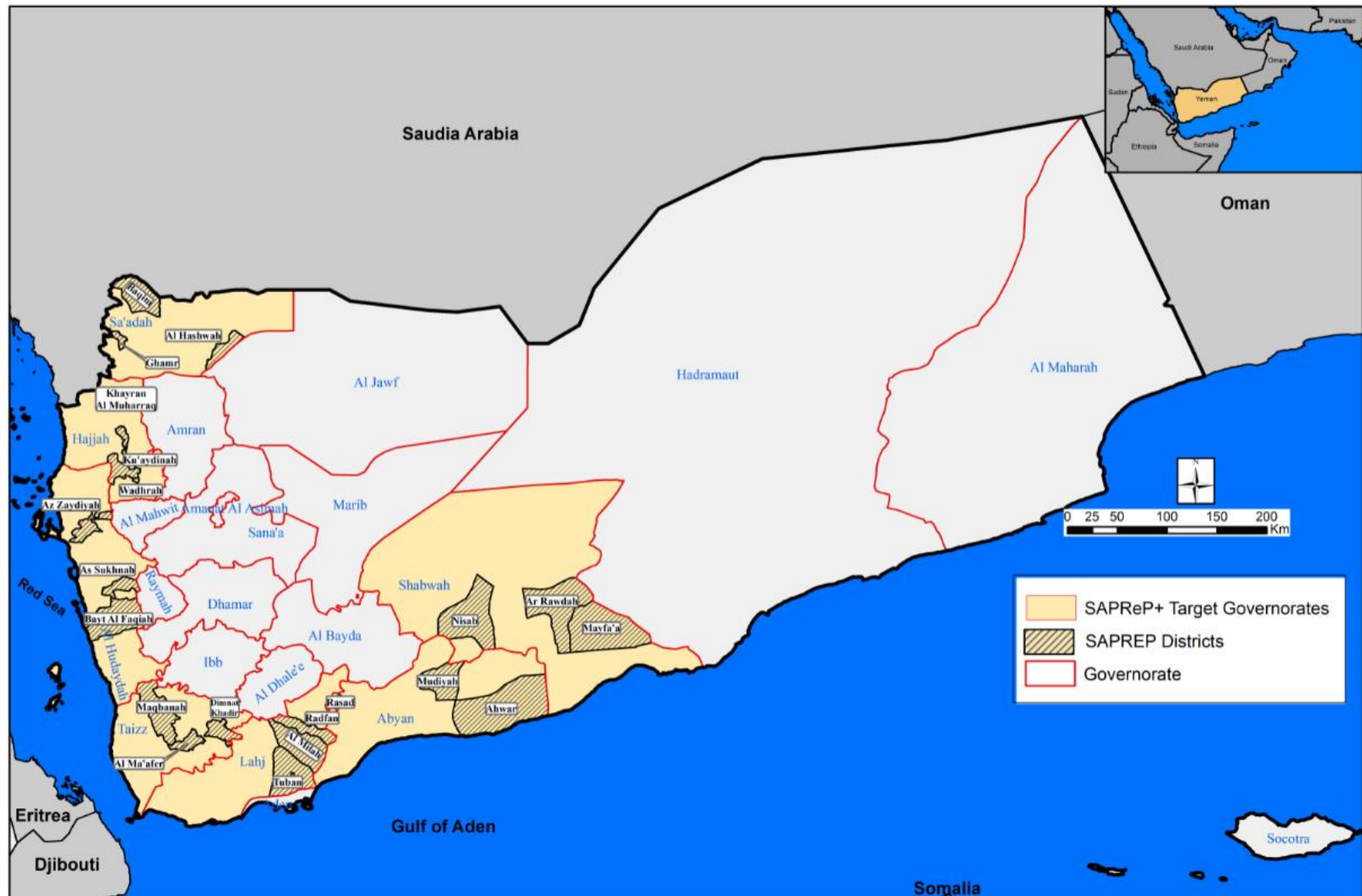
## Appendix 2. Full list of stakeholders engaged in consultation process during proposal preparation

Name	Title
<b>Ministry of Agriculture and Irrigation (MAI)</b>	
Abdulmalik Qassim Al-Thawr	H.E. Minister of Agriculture and Irrigation
Ali Gunaïd Abdullah	Deputy Minister
Majid Hashim Al-Mutawkil	Deputy Minister
Izzadeen Al-Gunaïd	Deputy Minister Irrigation sector
Ahmed Mohamed Nasser	Deputy Minister Irrigation Sector
Ali Abdulkareem AL-Fadhil	Deputy Minister Agricultural Production Development
Abdulmalik Najji Obaid	Deputy Minister Plant Production Sector
Dhaifallah Shamalan	Deputy Minister Agriculture Services
Ahmed Saeed Abdah Al-Wahish	Coordinator of Food Security Programme
Wasil Ali Al-Dhabiani	Consultant of the Minister
Wadei Abdul Habib	Advisor - Seed Production
Ayman Ismail Al-Houthi	Consultant
Hilal Ahmed Al-Maghrabi	Minister Secretary
Abdulraqueeb Mahdi Hadi	Ministry Secretariat
Mukhtar Abod Hamam	Director General of Agriculture Extension Department
Khalid Ali Saeed	Director General of Agriculture Information
Ahmed Awadh Obaid	Director General of General Seed Multiplication Corporation
Shukri Fadhil Saleh Khamis	Director General of Irrigation Facilities
Omar Saeed Mohamed	Director General of Livestock Development Department
Mohamed Moogam	Director General of Planning and Monitoring
Abdul AElah Ahmed AbdulQawi	Director General of Planning Department
ABdulHafiz Garahash	Director General of Plant Production
Rushdi Mahmod Shaboti	Director General of Plant Production Department
Ahmed Yahia Saber	Director General of Programmes
Abdah Hamid Ali Al- Sorori	Director General of Relations
Fadhil Mothana Razih	Director General of Relations
Nadia Hamid Sultan	Director General of Rural Women Development department
Kamal Ali Hassan Shamsan	Director General of the Deputy office
Salim Nasser	General Director
Yahia Mohamed AL-Makhadhi	General Director
Ali Saif Al-Shaiabani	General Director Plant Protection Department
Abdulrahman Al-Khatib	General Director of General Directorate of Animal Health and Veterinary Quarantine
Farooq Taleb Ali	General Director of Forestry and Desertification
Mutaher Zaid	MAI Coordinator at National Authority for Management and Coordination of Humanitarian Affairs
Taha Ali Gunaïd	Support Staff
<b>Ministry of Planning and International Cooperation (MoPIC)</b>	
Nizar BaSuhaib	H.E. Vice Minister Ministry of Planning and International Cooperation
Omar ABdulaziz Abdulghani	Deputy Minister International Cooperation
Hassan Ali Jaadal	Deputy office Director
Nizar Ahmed AL-Ahdal	Director General of Energy and Industry
Zohair Hamid Jaafar	Director General of NGOs at the Ministry of Planning & International Cooperation
Salah Ahmed Saif Ahmed	Director General of the Directorate of UN Organizations
Arwaa Haidarah Hassan	Director of the Fisheries Directorate
Hussein Ahmed Mohamed Al-Taib	Director of the Monitoring Directorate

Sawsan Saeed Mohamed Ahmed	Food Security Information System
Khidhar Ali Ithroosh	Food Security Technical Secretariat Head - Aden
Abdulwahid Mukred	Food Security Technical Secretariat Head - Sanaa
Khalid Mohamed Saeed	General Director
Nazih Qais AbdulKhalig	General Director
Obaid Khalid Ahmed Awn	General Director
Mohamed Al-Kibsi	General Director - Agriculture and Fisheries
Wafaa Nasser Salim	Head of Food Security Technical Secretariat Office
Ali Salim Askar	Head of Water and Sanitation
Mansour Zaid Haidrah	Assistant Deputy
Ahmed Saeed Abdulwaahid	Coordinator
Robaa Abdullah Abdorabah	Minister Office Assistant
<b>Ministry of Fish Wealth</b>	
Anwar Saleh AS Sadi	Chairman of the Technical Committee and Consultant
Adel Ibrahim Al-Ghawri	Consultant
Mohamed Awadh Ghalan	Deputy Minister
Ahmed Yahia Al-Babli	Deputy Minister Projects Programming Sector
Bashir Mohamed Al-Khiwani	Deputy Minister Traditional Fishing Sector
Rihab Rafiq Mohamed Ahmed	Director General of Information Center
Maryam Mohamed Ahmed Tahir	Director General of Planning
Mohamed Abass Husein Al- Fageeh	General Director
Abdulahman Ahmed As Saidi	General Director of International Cooperation
<b>Agricultural Cooperative Union</b>	
Mohamed Mothana Mohamed	Chief of the Agricultural Cooperative Union
AbdulAziz Saleh Al-Ashwal	Head of Agricultural Affairs Department
Ahmed Abdulmalik	Head of Cooperative Coordination Unit
Mohamed Abdullah	Programmes
<b>Engineers Association &amp; Potato Seed Company</b>	
Obad Mohamed Al-Ansi	Director General of Potato Seed Company
<b>Food and Agriculture Organization of the United Nations</b>	
Hussein Gadain	FAO Representative in Yemen
Mohamed Sallam	Assistant FAO Representative (Programme)
Hanan Saif Al-Sabai	Programme Unit
<b>Kodan Research Center</b>	
Dr. Mohamed Salem Al- Khashia'a	Senior research Specialist
<b>National Water Resources Authority</b>	
Khalid Mohssen BelEidi	Head of National Water Resources Authority
Abdulaziz Mahiub Mohamed	Deputy of National Water Resources Authority
<b>Research Authority - Post Harvest Technology</b>	
Abdullah Omar BaKhiwar	Director General of Food and Post-Harvest Research Center
<b>Tihama Development Authority</b>	
Mohamed Daws Hassan Zabidi	Agricultural Resources Specialist

Note: a variety of other individuals (farmers, women, farmers organization leaders, experts, private sector actors, etc.) not detailed here were also consulted in topics related to this proposal. This consultations took place in the course of SAPREP activities and also the interaction of proposal team members with these individuals.

### Appendix 3. Global Agriculture and Food Security Program (GAfSP) in Yemen



#### Appendix 4. Acute food security situation in 29 Districts of Yemen (July – September 2019)

