

### FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

# Seqota Declaration

Innovation Phase Investment Plan 2017 – 2020

January 2018



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### **Foreword**

The Seqota Declaration is the Government of Ethiopia's commitment to end child undernutrition by 2030. It reaffirms the government's commitment to nutrition as a foundation for economic development with a focus on human capital development. This investment plan demonstrates the proactive step taken by the government to translate the 15-year Seqota Declaration roadmap into action involving the active participation and commitment of multiple stakeholders including the government, community, donors and implementing partners.

The Government of Ethiopia recognizes that investing in nutrition is critical for attaining its vision of becoming a lower middle-income country by 2025. The Cost of Hunger in Africa (COHA) study produced for Ethiopia indicates that factors associated with undernutrition lower Ethiopia's GDP by 16.5 percent with huge consequences on economic and inclusive growth. Investing in nutrition offers one of the highest returns in international development as each USD invested reaps 10 - 16 USD thus underscoring the contribution of Seqota Declaration to the achievement of the Second Growth and Transformation Plan (GTP II) overarching objective.

Although Ethiopia has recorded steady and impressive reduction in stunting over the past decade, levels remain high and stark geographical inequalities persist. The innovation phase of Seqota Declaration focuses on the Tekeze River Basin, an area characterized by high stunting levels ranging from 60 to 80 percent and food insecurity. This area is geographically challenging, and interventions have not registered the desired improvements in stunting rates due to a combination of inadequate investments and interventions. In this regard, additional resources are required from the government and her development partners if the rate of stunting reduction is to be accelerated in order to eliminate child undernutrition by 2030.

The Government of Ethiopia recognizes that child undernutrition cannot be successfully tackled without behaviour change at the individual and household level. Bringing about such profound changes in behaviour requires a shift in attitudes and cultural expectations which in turn requires campaigns to engage and mobilize local communities to take active roles in their own development, create ownership and achieve the desired sustainable changes for ending child undernutrition. This has informed the development of a public movement that will utilize food and nutrition champions, gatekeepers and key institutions to bring about the desired socio-cultural transformation.

The Government of Ethiopia is setting up a Food and Nutrition Council along with its Secretariat at federal level. This structure is expected to be replicated at regional, zonal, woreda and kebele levels in order to transform the current food and nutrition landscape of the country. The government is committed to the functionality of this new structure by engendering ownership by political leaders.

**Finally, it has to be recognized that the innovation phase is a learning phase.** Lessons and insights from this phase will allow the Government of Ethiopia to outline a sustainable model for addressing child undernutrition that can ultimately be replicated in other regions during the expansion and national scale-up phases. In this regard, all development partners are invited to support this effort.

### **Acknowledgment**

The development of Segota Declaration Investment Plan has been possible because of the active participation of federal sector ministries Segota Declaration focal persons and their supervisors, regional, zonal and woreda sector office heads and experts, development partners operating in the Seqota Declaration woredas and the Federal and Regional Program Delivery Units (PDUs). The leadership and guidance provided by Amhara and Tigray Regional Presidents in creating an enabling environment for undertaking the necessary consultations with all stakeholders has been instrumental in further refining the plan to ensure relevance to the local context.

The Government of Ethiopia recognizes the technical and financial contributions of development partners in support of Seqota Declaration. In this regard, the government would like to recognize and appreciate the technical and financial contribution received from Big Win Philanthropy since the announcement of the Segota Declaration which has led to the establishment of the federal and regional Program Delivery Units (PDUs) and hiring of technical partners including Synergos, Cultiv-Aid and Johns Hopkins University to provide start-up support for the innovation phase. The government also recognizes the contributions made by UNICEF Ethiopia towards the baseline household survey, learning tour to Israel and logistical support for convening multisectoral planning and review meetings; Nutrition International (NI) for supporting the program in terms of recruiting two technical advisors along with other additional human and financial resource commitments made; Save the Children International/Growth through Nutrition for funding part of the Segota Declaration evaluation design workshop and recruiting the Implementation Advisor deployed to the federal PDU.

This investment plan would not have been possible without the strong commitment and relentless efforts of seven implementing sectors and eleven development partners. The Government of Ethiopia recognizes this investment plan is a living document that will be updated in recognition of changing contextual factors. Hence, we call upon all stakeholders to join hands to make this plan a reality by supporting and contributing to government's effort to end child undernutrition in the country.

Finally, special thanks to the leadership and support provided by the Director of Maternal and Child Health (MCH) Directorate, Nutrition Case Team Coordinator and Senior Advisor to the Minster and Office of the First Lady who have all been steadfastly committed to the implementation of the Seqota Declaration roadmap. Their guidance and assistance was particularly instrumental in the establishment of Program Delivery Units at federal and regional levels and their unflinching support has contributed significantly to the progress made till date.

### **Executive Summary**

The Seqota Declaration is a high-level commitment unveiled by the Government of Ethiopia in July 2015 to end child undernutrition by 2030. Recognizing the role of nutrition in propelling sustainable development, Seqota Declaration builds on and supports the implementation of the National Nutrition Program (NNP II). Informed by a conceptual framework built around three pathways of change, the 15-year Seqota Declaration Roadmap focuses on delivering high-impact nutrition specific, nutrition smart and infrastructure interventions across multiple sectors namely health, agriculture and natural resources, livestock and fishery, water, irrigation and electricity, education, labour and social affairs, women and children affairs, as well as environment, forest and climate change.

The Seqota Declaration Roadmap will be executed in three phases over a 15-year period involving an *innovation phase* (2016 – 2020) which focuses on the implementation of priority intervention packages that will be monitored and evaluated to generate learnings and evidence for the *expansion phase* (2021 – 2025), which will reach more vulnerable woredas before a *national scale-up phase* (2026 – 2030) involving full-blown implementation of evidence-based multisectoral interventions. The innovation phase investment plan has ten strategic objectives and 50 strategic initiatives which will be implemented in 32 selected high stunting prevalence woredas in Amhara and Tigray National Regional States.

Through an extensive consultative process at federal, regional and woreda levels aimed at increasing understanding about the Seqota Declaration and facilitating local ownership, a comprehensive and integrated three-year costed innovation phase implementation plan has now been completed. Utilizing the PDUs as central facilitators and coordinators, the planning process was conducted in collaboration with multiple stakeholders. Apart from the seven sectors primarily responsible for implementation, development partners, community based organizations and implementing partners have prepared and submitted three-year costed plans for their respective sectors. Adopting a common planning framework enabled all stakeholders to harmonize their approaches for achieving the 2025 target. The federal and regional PDUs also used the common planning framework to develop the monitoring and evaluation system including the selection of key performance indicators for tracking the progress of each sector against its quarterly and annual targets.

The main components of the Innovation Phase include the establishment of PDUs, Community Labs, a robust nutrition data management system, Agriculture Innovation and Technology Centers (AITEC farms), and costed woreda-based comprehensive nutrition investment plans. In addition, the first 1000 days plus public movement and government leadership and coordination at all levels are key implementation approaches. The federal and two regional PDUs are responsible for providing technical leadership and performance management of the implementing sectors and development partners. The Food and Nutrition Councils at federal and regional levels will provide overall strategic guidance.

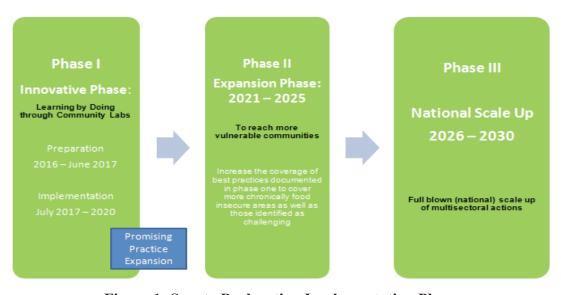
The total investment cost needed to implement the three-year Seqota Declaration investment plan is \$538,718,444. Out of this, 48.3% has been mobilized from the government and development partners leaving a funding gap of 51.5% of the total investment cost.

### **Background**

The Seqota Declaration is a high-level commitment unveiled by the Government of Ethiopia in July 2015 to end child undernutrition by 2030. Recognizing the role of nutrition in propelling sustainable development, Segota Declaration builds on and supports the implementation of the National Nutrition Program (NNP II). Informed by a conceptual framework built around three pathways of change, the 15-year Segota Declaration Roadmap focuses on delivering high-impact nutrition specific, nutrition smart and infrastructure interventions across multiple sectors namely health, agriculture and natural resources, livestock and fishery, water, irrigation and electricity, education, labour and social affairs, women and children affairs, as well as environment, forest and climate change.

The Segota Declaration Roadmap will be executed in three phases over a 15-year period involving an innovation phase (2016 – 2020) which focuses on the implementation of priority intervention packages that will be monitored and evaluated to generate learnings and evidence for the expansion phase (2021 – 2025), which will reach more vulnerable woredas before a national scale-up phase (2026 – 2030) involving full-blown implementation of evidence-based multisectoral interventions. The innovation phase investment plan has ten strategic objectives and 50 strategic initiatives which will be implemented in 32 selected high stunting prevalence woredas with 26 woredas located in Amhara National Regional State and 6 woredas in Tigray National Regional State.

The Innovation Phase of Sequta Declaration is divided into two stages comprising a preparatory period (2016 - 2017) and an implementation period (2017 - 2020) during which multi-sectoral nutrition specific, nutrition smart and infrastructure interventions will be implemented, rigorously monitored and evaluated. Lessons and insights from this phase will allow the Government of Ethiopia to outline a sustainable model for addressing child undernutrition that can ultimately be replicated in other regions during the expansion and national scale-up phases.



**Figure 1: Sequential Declaration Implementation Phases** 

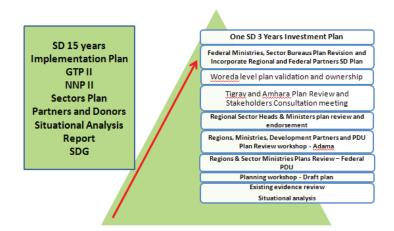
The Government of Ethiopia recognizes that investing in nutrition is critical for attaining its vision of becoming a lower middle-income country by 2025. The Cost of Hunger in Africa (COHA) study produced for Ethiopia indicates that factors associated with undernutrition lower Ethiopia's GDP by 16.5 percent with huge consequences on economic and inclusive growth. Investing in nutrition offers one of the highest returns in international development as each \$ invested reaps \$10 – \$16 thus underscoring the contribution of Seqota Declaration to the achievement of the Second Growth and Transformation Plan (GTP II) overarching objective.

The current level of investment in nutrition is inadequate for achieving significant reduction in stunting levels in Ethiopia. According to the Results for Development (2017) study, Ethiopia is currently investing \$33 per child to achieve an annual average stunting reduction rate of 1%. By inference, such levels of investment will not allow the government of Ethiopia to achieve the World Health Assembly target of 40% reduction in stunting as well as meeting the SDG 2 goal.

The GTP II subsection 6.2 states that the government of Ethiopia is determined to build a nutritionally secure country. Nutrition security is expected to be attained through coordinated multisectoral and multi-stakeholder efforts made in areas of food security, maternal and child care, access to health services, creation of an healthy environment, and addressing the root causes of undernutrition. That is why the government of Ethiopia is strongly committed to making investments to end stunting by focusing on pro-poor and service-focused spending in order to make significant gains in social indicators. Hence, this multi-sectoral investment plan provides a framework for the government and development partners to allocate resources to ensure nutrition security in the country where stunting is a marker and maker of development. In addition, this investment plan will also serve as an accountability and performance management tool to track the amount of resources directed towards ending stunting as well as the progress made by each of the implementing sectors and development partners towards achieving their respective targets.

### **The Planning Process**

The Segota Declaration Investment Plan adapted three core principles – known as the "Three Ones" – to ensure better coordination of the broad based multi-sectoral nutrition response. The "Three Ones" are: One Goal, One Plan that provides the basis for coordinating the work of all partners and One Monitoring and Evaluation System. The planning process for implementation of Segota Declaration commenced with situation analysis followed by woreda level planning in the respective regions incorporating the woreda-based investment plans of federal sector ministries and development partners. As shown in the diagram below, the initial plan has gone through a review process including consultations at regional level. Regional Presidents, woreda and zonal administrators, sector experts and development partners have all jointly reviewed and endorsed the innovation phase investment plans for both regions. The following diagram outlines the bottom-up planning process adopted for the development of the Segota Declaration Innovation Phase investment plan.



**Figure 2: Seqota Declaration Planning Process** 

There are six implementing sectors at federal level namely: Ministry of Health, Ministry of Agriculture and Livestock (formerly called Ministry of Agriculture and Natural Resource and Ministry of Livestock and Fishery), Ministry of Water, Irrigation and Electricity, Ministry of Labor and Social Affairs, Ministry of Education, and Ministry of Women and Children. Due to the fact that federal sector ministries have limited authority to implement and monitor interventions at woreda level, these sectors have prepared their three-year costed plan focusing mainly on capacity building. technical support for regions, supplies of materials, and the development of different guidelines, policies and manuals. At regional, zonal and woreda levels, their counterpart bureaus and offices have planned costed interventions and they will be directly responsible for implementation, monitoring and reporting. Three technical partners namely Synergos, John Hopkins University (JHU)/Ethiopian Public Health Institute (EPHI) and Cultiv-Aid will provide various technical services in support of implementation and their roles are further described in the following sections.

# 3

### **Geographic Location and Population**

The innovation phase will cover 32 food insecure, high stunting prevalence and water stressed woredas situated around the Tekeze River Basin comprising 6 in Tigray region and 26 in Amhara region.

In Tigray National Regional State, six woredas namely: Ofla, Saharti Samre, Tanqua Abergele, Kola Tembien, Tselemti and Naedar Adiet are included in the Seqota Declaration innovation phase. Majority of the population in these woredas are food insecure because of severe land degradation, deforestation, low soil fertility, and low agricultural productivity. The situation is further compounded by the challenging geographical nature of the Tekeze River Basin which has contributed to low social service coverage and high prevalence of diseases resulting in high prevalence of stunting. Although stunting prevalence has shown a declining trend in the region, levels remain unacceptably high in the selected innovation phase woredas. The six woredas in Tigray consist of a total population of 807,671 people residing in 192,303 households. The innovation phase of Seqota Declaration aims to directly reach a total of 27,461 pregnant and lactating women and 53,306 children under two years.

Amhara National Regional State (ANRS) has 26 woredas included in the Seqota Declaration innovation phase. As reported by EDHS 2016, the prevalence of stunting in the region decreased by 27 percent (from 63.3 percent to 46.3 percent) between 2000 and 2016. However, the prevalence of stunting in the Seqota Declaration woredas is even higher than the regional average as over 50% of children are stunted. The total estimated population living in the 26 Tekeze River Basin woredas is 3,202,486 with plans to directly reach 165,019 children under two years and 108,323 pregnant and lactating women (PLW) through various interventions. Of the total population, about 2,877,436 people (84.9 percent) were living in rural areas entirely dependent on rain-fed agriculture and animal husbandry with the remainder of 484,949 people (15.1 percent) being urban residents.

**Table 1: Profile of Segota Declaration Innovation Phase Woredas** 

Region	Number of woredas	Total population	Total number of households	Total number of children under two	Pregnant and Lactating Women (PLW)	Stunting prevalence*
Amhara	26	3,202,486	762,497	165,019	108,323	Over 50%
Tigray	6	807,671	192,303	53,306	27,461	Over 50%
Total	32	4,010,157	192,303	218,325	135,784	

<sup>\*</sup>SD woredas estimates based on district level surveys

<sup>\*\*</sup>Please refer to annex for the socio-economic and demographic data of Seqota Declaration Innovation Phase woredas

### 1. Vision, Mission and Goal

The vision, mission, goal and strategic initiatives of Seqota Declaration are:

**Vision:** We aspire to see Ethiopia's children free from undernutrition.

Mission: We will work to end stunting in Ethiopia for children under two years through effective coordination and collaboration of efforts across sectors, communities and our development partners, focusing on high impact nutrition specific and nutrition smart interventions and social behavioral change communication with special consideration for cross-cutting issues such as gender mainstreaming, environment and integrated community development approach.

Goal: To end stunting in children under two by 2030.

### Strategic objectives and Initiatives

With an ambitious goal of ending stunting in children under two by 2030, the Seqota Declaration innovative phase investment plan has 10 strategic objectives and 50 strategic initiatives to which all stakeholders (government sectors ministries, regional bureaus, development partners and technical partners) are contributing resources using the common planning framework. The following section provides a detailed description of each of the 10 strategic objectives and 50 strategic initiatives. The activities under each strategic initiative are described separately in annual plans.

### 5.1 Strategic Objectives

# 5.1.1 Improve the health and nutritional status of women, children under two and adolescent girls

#### Rationale:

There is a fixed and critical window of opportunity to address undernutrition. Undernutrition in the first 1,000 days – from the start of a woman's pregnancy until her child's second birthday – has a devastating and irreversible impact on the child's future potential as it affects physical stature, the ability to do physical work, and cognitive development. Consequently, this locks the child into poverty and entrenches inequalities.

This strategic objective will enable implementation of nutrition specific interventions at scale focused on the first 1,000 days of life as well as an emphasis on integrating these interventions into a range of nutrition smart health programs delivered at health facility and community levels.

The main strategic initiatives under this objective include:

- 1) Community Based Nutrition (CBN) program.
- 2) Complementary feeding program.
- 3) School health and nutrition services.
- 4) Nutrition Assessment and Counseling Service (NACS) at facility and community levels.
- 5) Early detection and management of acute malnutrition and common childhood illnesses.
- 6) Delivery of nutrition smart maternal, child and adolescent health interventions including family planning, immunization and management of childhood illnesses.
- 7) Multi-channel social and behavioral change communication (SBCC) campaign.

As part of the health sector response, nutrition smart interventions like water, sanitation and hygiene (WASH), environmental health, and health extension services will be also strengthened and integrated with the other nutrition specific interventions.

### 5.1.2 Ensure 100% access to adequate food all year round

### Rationale:

Despite significant gains recorded in the past decade, Ethiopia is yet to realize its full agriculture potential and remains highly vulnerable to food insecurity and malnutrition. Ethiopia's agricultural sector is characterized by subsistence oriented, low input/low output, rain-fed farming

which is highly susceptible to climate change, including extreme events such as droughts. Although Ethiopia is endowed with abundant natural resources and some of the most diverse ecological zones in the world, the production of diversified foods, fruits and vegetables and consumption of nutritious foods among the farming community is constrained by a combination of socio-cultural factors and lack of knowledge on safe food groups and dietary diversity, very limited access to farmland, inputs and relevant technologies including modern irrigation schemes, inadequate finance, and poor market linkages.

This strategic objective will be achieved by integrating climate- and nutrition-smart agriculture into existing agricultural programs and combined with awareness creation and behaviour change communication in order to improve the knowledge, attitudes and practices of smallholder farmers and their households to promote sustainable agriculture and achieve food security and improved nutrition.

The priority initiatives under this strategic objective focus on:

- 1) Production and consumption of fruits and vegetables.
- 2) Production and consumption of staple crops and pulses.
- 3) Production and consumption of milk (primarily goat) and dairy products.
- 4) Production and consumption of red meat and meat products.
- 5) Production and consumption of poultry and poultry products.
- 6) Production and consumption of fish and fish source foods.
- 7) Production and consumption of honey and honey products.
- 8) Improving animal feed provision and health services.

Modern technological and innovative solutions drawn from the experience of Israel will be tested to improve nutrient dense horticulture and the production of crops and pulses, poultry (egg) production, dairy, fish production and animal feed preparation. The details are indicated in the following sections.

### Transform smallholder productivity and income

### **Rationale:**

Investments in agriculture have demonstrable positive impact on poverty reduction, food insecurity and malnutrition especially as 75 percent of the world's poor are rural and work in agriculture. The Tekeze River Basin is characterized by water stress, environmental degradation and chronic vulnerability to food and nutrition insecurity. Hence, introduction of locally appropriate and scaleable agricultural innovation systems that can enable smallholder farmers overcome these challenges is critical for improving their crop and livestock productivity. These innovations are expected to bring new products, processes and forms of organization into social and economic use to achieve food and nutrition security, economic development and sustainable natural resource management.

In this regard, two 20-hectare Agricultural Innovation and Technology Centers (AITEC Centers) will be established - one in each region – to serve as integrated demonstration sites for innovations on short maturing and drought resistant crops, improved technologies for livestock production and productivity, farmer training, testing of water technologies and knowledge transfer centers. The AITEC centers will also serve as centralized training and education centers for farmers, agronomists, development agents, and agriculture students from near-by universities and technical colleges. To ensure integration and build the capacity of Agriculture Extensions workers that are stationed at the Farmers Training Centers (FTCs), these AITEC centers will be replicated into additional woredas through smaller 0.5 - 1.0 hectare satellite demonstration sites that will be established on FTCs so that more farmers can gain access to these services closer to their vicinity. The key lessons and experiences drawn from the two Israel tours will be used as start-up interventions for the AITEC centers. The identified key short, intermediate and long-term interventions are described in the following section.

### Innovative approaches to be adopted from Knowledge and Technology Tour to Israel:

Following the approval granted by His Excellency Prime Minister Hailemariam Desalegn, a high-level delegation from Ethiopia participated in a 5-day study tour to Israel focused on four priority sectors -health, agriculture, livestock, and water resources - which are central to achieving accelerated stunting reduction. The Ethiopian delegation comprised the President of Amhara National Regional State, Deputy President of Tigray National Regional State, Minister of Health, Minister of Agriculture and Natural Resources, Minister of Livestock and Fisheries, Minister of Water, Irrigation and Electricity, Director of Tigray Development Association, Director of Relief Society of Tigray Director, Director of Organization for Rehabilitation of Development in Amhara, Senior Nutrition Advisor of Ministry of Health and Officer of H.E. First Lady and Senior Program Manager of the Seqota Declaration Program Delivery Unit – Federal level.

The tour delegates identified short, intermediate and long-term technology transfer, training, capacity building and partnership opportunities relevant to the Seqota Declaration. These will now be developed into innovative interventions to be implemented in the pilot woredas and monitored for impact. This investment plan outlines some of the priorities identified by the Ethiopian delegation for implementation by the various sector ministries and their regional equivalents.

1. Fruit production, increased productivity and market linkages

### **Rationale:**

Improvements in fruit production is critical for increasing access to and consumption of fruits as part of dietary diversity interventions for improving nutrition outcomes in communities around the Tekeze River Basin. The soil type and landscape for Israel's high achieving fruit production sector is similar to the land available in the Seqota woredas and provides an opportunity to transfer the knowledge and technology for replicating Israel's success by facilitating greater economic activities such as post-harvest sorting, processing, and marketing. Ultimately, this will increase the income of fruit tree growers and improve disposable income available to their households.

### **Intervention approach:**

Avocado is a highly nutritious fruit and can be processed into very nutritious complementary food for children to provide essential nutrients for healthy growth and development. The development of orchards for training and production purposes is critical for improving overall fruit production in Ethiopia along with the underlying investments in drip irrigation, protected agriculture and other supporting infrastructure. The adoption of water pricing systems and other cost recovery systems provide an opportunity to recoup the high investment costs for establishing the water system and structures necessary for transforming the Tekeze River Basin.

**Lesson Learned on fruit production, productivity and market linkages:** This learning was drawn from Ashdot Yaakov kibbutz in northern Isreal located to the south of the Sea of Galilee near the

Jordanian border and covering 420 hectares. The fruit production is conducted in similar landscape and soil type to Seqota woredas. The farms provide fruit varieties tested and recommended for farmers use. The production is conducted in net house and protected agriculture which has a well developed value chain development. The Kibbutx produce Avocado which is highly nutritious fruit. The use of drip irrigation, water pricing in relation to social equity which enabled to recover the high investment costs of water structures were the key lessons.

In collaboration with Israeli experts, the activities to improve production and productivity of avocado and other fruits that will be implemented during the innovation phase are:

- Design and implement training and demonstration sites in fruit tree production, fruit tree nursery sites and mother tree sites and research sites in fruit tree production that aims to evaluate different varieties in Amhara and Tigray region
- Professional development of Ethiopian farmers through short and medium term knowledge sharing and capacity building program
- Involvement of Ashdot Yaakov as a training site, 1-3 months
- Follow up training and support for establishing demonstration at Tanqua Abergele and Gondar University
- Growth protocols and written materials for avocado cultivation
- Establishment of packaging plant owned by farmers

In this regard, the Agriculture and Natural Resources sector is expected to improve access to agricultural inputs for fruit tree production, establish fruit tree board, establish cooperatives to support the marketing and/or processing of fruits, and develop export-oriented production that will include packaging houses.

### 2. Goat production

### **Rationale:**

Ethiopia practices a subsistence production system based on traditional management practices with a fragmented marketing system characterized by weak market linkages. Goat farming and its available approaches and technologies are applicable to the Segota region especially because of the predominance of Abergele goats and there are opportunities to improve production and productivity and increase its contribution to farmers' livelihoods. This will help transform smallholder productivity and income – an objective of Segota Declaration.

### **Intervention approach:**

**Lesson Learned on Goat production:** The lesson on goat production was taken from Alumot, a Kibbutz in Northern Israel located south-west of the Sea of Galilee. The kibbutz operates a goat farm for milk which contains 900 adult goats, 550 kids and 50 males for breeding. The goats are kept in pens and fed using Total Mixed Ration (TMR) practices which are prepared in a large feed center adjacent to the pens and delivered on a daily basis. Feeding is done based on several parameters including age, sex, physiological condition, milk quantity, etc. in order to deliver the appropriate ration for each stage of the goat's development. This innovative practice enables highquality production even in areas that do not have natural grazing lands.

The farm has mostly Alpine goats, bred to a minor degree with local Shami breed to provide resistance to diseases. This mixed variety provides high potential for milk production. The farm uses modern technologies to milk goats, collect, store milk and to monitor the goats daily. The average yield is 1,000 liters of milk per mature goat over a period of 300 days. All dairy data and veterinary events of the goats are compiled on the central database through an individual tracking device on the leg of each goat. The database enables the farm to conduct economic analysis and take informed decisions to ensure high yields and the farm's productive/economic efficiency.

Adoption of lessons and insights from the knowledge and technology transfer program between Israel and Ethiopia is expected to improve goat productivity by increasing local knowledge and capacity of farmers and professionals in Amhara and Tigray regions, and ensuring improved accessibility to necessary inputs e.g. feed, animal health services, equipments and technologies. Some of the priority interventions to be implemented during the innovation phase of Seqota Declaration include:

- Construct modern goat farms that include training and demonstration, research, milk and meat production, breed development etc,
- Develop modern goat raising technology and training centers
- Establish goat feed cooperatives to provide for penned goat systems
- Introduce data storage and electronic tracking of goats
- Introduce new goat breeds
- Establish market based government regulated mechanisms for production
- Encourage external investments into feed processing plans and encourage private enterprise development

The Livestock and Fisheries sector is expected to improve access to animal feed and support regulations that promote farmer productivity.

### 3. Aquaculture

#### **Rationale:**

Ethiopia is a land locked country depending only on inland water resources for the supply of fish as a source of low cost protein. It is estimated that there are more than 1300 subsistence fish farmers in Ethiopia with a pond size of about 100 - 300 m<sup>2</sup>. According to the Food and Agricultural Organization (FAO), annual production is approximately 25,000 tons. Improvement in fish production can create new jobs and support growth of the industry whilst promoting nutrition smart interventions.

### **Intervention approach:**

Lesson Learned on Aquaculture: Ma'agan Michael is world class fish breading center. The center uses high technologies to produce 2000 tons of edible fish annually. The farm uses mechanical feeding system using pumps. Harvesting is done either by emptying the ponds or using fish nets. There is a constant circulation of water in and out of ponds. The farm is operated by professionals (20% university graduates). There is a strong linkage of market inputs such as feed, constant control over the water quality and products are sorted out in size and type, and stored in cold chain at a temperature of 4°C. In Ethiopian context improvement in fish production can create new jobs and support the growth of the industry while promoting nutrition smart interventions.

In Seqota Declaration context, improvement in fish production can create new jobs and support the growth of the industry while promoting consumption of fish and other nutrition smart interventions. The key short-term/intermediate interventions that will be implemented during the innovation phase are:

- Feasibility study of Tekeze Dam and the surrounding bodies of water
- Strategic plan to address issues identified from the feasibility study

- Establish training programs in Israel for aquaculture professionals in Ethiopia
- Establish pilot-scale fish farms in selected SD woredas in Amhara and Tigray regions
- Implement social and behavior change campaigns to promote fish consumption

Medium- and long-term interventions that will occur beyond the innovation phase include:

- Develop modern aquaculture production technologies and training centers in Ethiopia
- Develop fish feed processing plants and establish fingerling sites in Ethiopia
- Construct fish farm research, fish processing and cold storage, waste treatment and ponds
- Establish market based government regulated mechanisms for fish production
- Establish research programs to develop the industry and the required capacity in processing, packaging and transportation.

### 4. Dairy Production

### **Rationale:**

A productive dairy sub-sector can be an important pathway for economic development and food and nutrition security in Ethiopia. Dairy offers a pathway out of poverty for a large number of households keeping livestock and it creates new jobs across the supply chain. At the same time, the dairy industry can provide much needed food products to meet the nutritional requirements of an expanding population.

### **Intervention approach:**

**Lesson Learned Dairy Production:** The Israel dairy industry is a stellar example of country's innovation agriculture. The nation's industry is small, but they are the world leaders in dairy production per cow. The success is as a result of strategic breeding and advanced technology carefully developed by dairy farmers. Maagam Michael dairy farm has 320 milking cows which give over 4 million liters of milk annually. The farm has a main shed for milking cows and calves. Pregnant and male cows are kept separately from the rest of the herd. The farm has milking parlor, storage of milk, silage bunkers and a waste treatment system. Management of Feed and water is decisive for high productivity. There is economic management of cows, control of breeds, quota control over milk production and dairy producer association.

### The key short-term/intermediate interventions that will be implemented during the innovation phase are:

- Conduct of a joint assessment of dairy farming around the Tekeze River Basin led by the Ministry of Livestock and Fisheries, REST, ORDA, Segota Declaration Program Delivery Units, CultivAid and technical staff from Ma'agan Michael Dairy Farm
- Development of an implementation plan for transforming the dairy sector in Segota Declaration woredas in Amhara and Tigray regions
- Development of a 3-month knowledge transfer and capacity building program at Ma'agan Michael Dairy Farm (Israel) for Ethiopian dairy professionals and farmers
- Conduct of training programs on dairy farming leveraging Kallamino AITEC farm
- Provision of on-going technical support and training to dairy farmers by graduates of the trainee program with supportive supervision from an Israeli expert
- Pilot testing of small-scale animal feed programs in Amhara and Tigray

- Improvement of artificial insemination programs and extension services in Amhara and Tigray
- Development of cheese and other dairy products to address issues of dairy products consumption during fasting

Medium- and long-term interventions that will occur beyond the innovation phase include:

- Introduction of data storage and electronic tracking of animals
- Establishment of feed cooperatives to provide for dairy farms
- Establishment of modern dairy production technology and training centers in Ethiopia
- Establishment of modern dairy farms in Ethiopia
- Establishment of market-based government regulated mechanisms for dairy farming

### 5. Community Drip Irrigation

### **Rationale:**

Agricultural production methods in Ethiopia are almost entirely rain-fed, subsistence-based and informed by traditional management practices. Whilst there are opportunities to improve production and productivity in the agriculture sector and increase its contribution to farmers' livelihoods, the marketing system is currently fragmented, and producers are poorly linked to the market. Modern agricultural technologies will enable the transformation of smallholder productivity and income, which is applicable to the Tekeze River Basin.

### **Intervention approach:**

**Lesson Learned on Community Drip Irrigation: Netafim is a \$1 billion corporation and the global leader in smart irrigation solutions.** Netafim delivers irrigation solutions to growers of all sizes, from smallholders to large-scale agricultural producers in over 110 countries. The company specializes in drip irrigation, sprinkler systems, fertigation, pumps, pipes, filters, valves and agricultural accessories. With 17 manufacturing plants, Netafim manufactures water-efficient irrigation products for 2 million customers in over 110 nations. Netafim delivers irrigation solutions to growers of all sizes - from smallholders to large-scale agricultural producers.

Ramthal Community Drip Irrigation Project (11,700 hectare) in India is a ground-breaking project that ensures equal distribution of water to all farmers regardless of proximity to the water source is an example of how Netafim is shaping the future by sustaining social rest, building the confidence of farmers and bringing prosperity to a drought ridden area. This is a model we aim to replicate in the areas surrounding the Tekeze River Basin.

### **Key priority interventions for the innovation phase** include:

- Conduct of an assessment visit by Netafim and a combined team of Ethiopian experts to selected Seqota Declaration woredas to understand the existing difficulties and propose possible solutions in terms of community irrigation programs
- Development of two pilot model community irrigation programs in Amhara and Tigray in conjunction with the AITEC sites. The farms would introduce modern technologies to grow different crops.

### 6. Egg and Poultry Production Farm

### **Rationale:**

There are over 59 million poultry in Ethiopia and poultry represents a significant part of the rural economy. Besides the provision of employment and easily disposable cash income for smallholder

farmers, particularly in the cropping off-season, rural poultry integrates very well into other farming activities as it requires relatively little labour and capital. Eggs are often referred to as "ATM of the poor", an indication of their role as a guick source of protein for the household. Therefore, improved production and market regulation can significantly impact the livelihoods of smallholder farmers.

### **Egg and Poultry Production Farm**

Lesson Learned: The poultry farm is owned by an Algeria descendent industrious old lady and contains 3,500 chicken for egg production. During good time the chickens give her 2,400 eggs per day. The poultry farm is equipped with modern technologies to enable efficient production and the chicken produce 300 eggs per day. The farm established market linkage through the government set quota system and partner companies provide them feed and training, buy the eggs and provides other support services required. The farmer get technical support from the extension services when every needed. Considering the SD woredas potential for egg and poultry production the following short and long term activities are identified from the learning tour.

### **Intervention approach:**

The innovation phase of Segota Declaration will replicate a model seen in Israel of a poultry farm. Considering the potential of the Segota Declaration woredas for egg and poultry production, the following short-term and intermediate interventions have been prioritized the following short term interventions:

- Conduct situational analysis of the poultry sector and all on-going interventions around the Tekeze River Basin in order to identify bottlenecks and determine appropriate interventions for scale up
- Develop and implement a strategic plan to address identified issues from the situational analysis, especially related to inputs e.g. feed production, veterinary services, etc.
- Develop training programs for Ethiopian poultry farmers in Israel
- Establish poultry trainings and demonstration sites as part of the AITEC center
- Organize and/or strengthen existing cooperatives of women and/or youth groups
- Conduct social and behavioral change campaigns focused on improving consumption of eggs

Proposed medium- and long-term interventions include:

- Establishment of market-based government regulated mechanisms for promoting production and strengthening market linkages
- Development of enterprises to produce eggs and day-old chicks
- Introduction of new breeds into Ethiopia
- Development of modern poultry production technology and training centers in Ethiopia.

### 5.1.4 Ensure zero post-harvest food loss

### **Intervention approach:**

The promotion of post-harvest technologies with an emphasis on reducing both quantitative (i.e. increasing food availability) and qualitative (i.e. loss in edibility, nutritional quality, caloric value, and consumer acceptability) losses in horticultural commodities between harvest and consumption is a priority approach for the innovation phase of Segota Declaration. Proper utilization and harvesting, post-harvest and value addition interventions focusing on postharvest handling, storage, processing and marketing of agricultural products are the key prioritized interventions for ensuring zero post-harvest food loss. Besides the provision of extension services on harvesting, threshing, processing and storage of agricultural and animal source food, key interventions that will be implemented to achieve this strategic objective will include awareness creation and training communities and service providers on post-harvest technologies, promoting preservation and cold chain facilities, developing quality assurance and food safety guidelines, establishing sheds for harvesting and packaging of perishable food items, and developing market strategy and linkages at household and community levels.

### **5.1.5** Enhance innovation around promotion of sustainable food systems (Climate-smart Agriculture)

#### **Rationale:**

In Ethiopia, vegetables are important for good nutrition, health, increased smallholder farmer productivity, and attraction of foreign direct investments. However, advancements of this sector is constrained by spatial and time gaps in seed supply systems. The high demand for horticultural products, availability of suitable agro-ecology, and increasing irrigation schemes development focusing on vegetable production have resulted in increased demand for quality seeds of improved varieties of various vegetable crops. In Ethiopia, there is a constant lack of access to high quality seeds and technological know-how which creates a bottleneck for higher yields. There is also insufficient testing of different crop varieties to determine the most suitable varieties and a need to strengthen linkages among supply chain actors. The restoration of natural habitats is an important factor in improving soil fertility, reducing pest infestation, and reintroducing local varieties. This approach supports smallholder farmers' productivity through improving the availability of climate and nutrition smart agricultural interventions at an affordable price and in usable conditions.

### **Intervention approach:**

The main focus areas of this strategic objective include:

- Providing extension services on improving soil productivity by making better use of green water (i.e. rainfall and soil moisture)
- Undertaking combined soil and water conservation activities (tree planting and management programs, agro-forestry activities and seed bank projects)
- Promoting alternative energy sources, introducing improved fertilizer usage, promoting fodder production, zero grazing and protection of pasture land.

### **Hazera Genetics**

**Lesson Learned:** Hazera is a global leader in the seed industry operating in 120 countries with 706 employees. Hazera brings expertise, commitment and technical support that combines decades of experience with state-of-the-art technology. Hazera breeds, develops, produces and markets varieties and seeds for a wide range of vegetable crops around the world. Hazera has been working with farmers to transfer knowledge, not just seeds. Near Dire Dawa in Ethiopia, the company has shown how improved seeds along with proper training can significantly improve farmer production. Hazera's annual sales has now reached €200 million.

Seque Declaration woredas have similar geographical terrain and rainfall characteristics to Israel. In this regard, partnership will be established with Hazera and Ethiopian Agriculture Research Institutes to identify climate resilient crops appropriate for Sequentation woredas.

### Proposed short-term/intermediate interventions include:

- Establishment of variety testing sites in specific agro-ecologies
- Establishment of training programs in Israel for agricultural professional development of suitably qualified Ethiopians
- Establishment of an Ethiopian entity of Hazera
- Establishment of training programs in crop production in Ethiopia
- Establishment of greenhouse nurseries and production of seedlings for Ethiopian farmers
- Establishment of market linkages to agricultural inputs and reduction of bureaucratic hurdles to accessing high quality seeds

### Proposed medium- and long-term interventions include:

- Establishment of a Hazera-owned and operated farm for seed production in the vicinity of the Tekeze River Basin
- Development of seed production industry in Ethiopia

### 5.1.6 Ensure universal access to water, sanitation and adoption of good hygiene practices

### **Rationale:**

50 percent of undernutrition is associated with infections caused by poor water, sanitation and hygiene (WASH). A quarter of all stunting is attributed to five or more episodes of diarrhea during the first two years of life and estimates suggest that poor sanitation is the second leading cause of stunting worldwide. Poor quality water supply increases the susceptibility to diarrhea and persistent diarrhea reinforces the vicious cycle that leads to stunting in children. Essential WASH actions, including hand washing with soap at critical times, treatment and safe storage of drinking water, and sanitary disposal of human faces, have been shown to effectively reduce the prevalence of diarrhea which is the major cause of child under nutrition

Furthermore, it is noted that a key cause of child undernutrition is a subclinical disorder of the small intestine known as tropical enteropathy or environmental enteropathy (EE). This condition is characterized by malabsorption and increased gut permeability, which allows microbes to pass across the intestinal wall into blood circulation and chronically trigger immune activation and which, in turn, suppresses growth. EE may be caused by ingesting large quantities of faecal contamination.

**Investment in sanitation makes economic sense.** Economic studies conducted in Africa have shown that impacts resulting from poor sanitation and hygiene cost the economies between 0.9 percent and 2.4 percent of annual GDP. In the calculation of these costs, the following factors were taken into account: adverse health effects, costs of treating these health problems, loss of productivity, time spent to access services and child mortality. In Ethiopia, where GDP per capita is US\$345, a strong argument exists for investing health budgets in water and sanitation. When, in addition to improving access to water supply, interventions are added to improve water quality by treating it at the point that it is used, the cost-effectiveness is even more favourable, approximating those of other preventive health interventions such as those commonly used against malaria and HIV/AIDS. Water and sanitation at schools can improve school enrolment, attendance and completion, and at the workplace can increase female participation in the workforce. Hence water and sanitation promote social equality and economic growth.

### **Intervention approach:**

The main initiatives under this strategic objective are:

Increasing coverage of safe and adequate water supply to households in the Seqota Declaration woredas

- Establishment of the Tekeze River Basin Authority
- Scaling up school WASH program in the Sequta Declaration woredas
- Promoting hygiene practices
- Increasing the number of open defecation free woredas (from ODF kebeles to ODF woredas) via construction and utilization of household and community latrines.

Inorder to achieve the above initiatives the Ministry of Water, Irrigation and Electricity and regional counterparts has planned various activities to implement the learning from Israel. The following section described key learning and proposed interventions.

# Providing Access to Water Supply for Human Consumption, Food Production and Livestock and Fishery

Lesson Learned from Israel National Water Company: Mekorot is Israel's national water company which has been established since 1937. It operates 3000 facilities and plants across the country. Mekorot supplies 80% of the drinking water in Israel and 70% of the total water supply. Today Mekorot is one of the most advanced waer companies in the world as a leader in the management of water resources, desalination, waste water treatment and reuse of effluents, rainfall enhancement, water quality, drinking water and engineering of water projects. During the visit it has been able to see Mekorot different water sources; surface water including runoff harvesting and ground water source, government regulations on the water supply system, integrated water supply system which crosses large areas, water pricing based on proper study and contextualization to local context, water harvesting, management and treatment practices. Farmers are supported by water association and supply of water from long distance to the head of farmers plot. Farmers receive access of private finance to farmer association, the combination of Agricultural, water and energy sectors that are used to supply water to the agricultural lands and value chain development - Farmers produce large amounts of fruits that are provided to distributers.

Considering the learning from Israel the following activities will be conducted in the Water, Irrigation and Electricity Sector:

- Conduct water resource mapping in Tekeze river
- On-site technical assessment visit to selected sites in order to study the current challenges and select sites for possible piloting of technologies
- Develop a proposal for implementation of selected technologies
- Establishment of training program with the water associations for developing professionals in selected technologies
- Establishment of water associations
- Implementation of pilot program and establishment of training centers in Ethiopia.

Lesson Learned on NUFiltration - Water Treatment Technology: NUFiltration is a young, innovative and dynamic global company operating in the field of water treatment. The technology is based on the world granted patent which provides for the reuse of sterilized dialyzers (ultrafiltration filters at 3.3nm). it uses used dialyzers from dialysis centers, sterilizes these used elements according to strict standards. NUFFilters are able to purify water from organic, matters, microbiological contaminants (bacteria, viruses etc) with no chemicals – at the highest standards and at an extremely competitive price. The proposed solutions are scaleable, with optional products that can provide clean water to small off-grid villages (300 -500), off-grid centers (2000 people) and also to bigger communities with larger industrial plants. During the visit there is introduction and implementation of NUF water purification technology (Or other) to provide clean water for rural communities around the Tekeze River Basin.

### **Proposed short-term/intermediate interventions include:**

- Pilot-testing of NUFiltration technology in selected Segota Declaration woredas in Amhara and Tigray regions
- Development of a training program for water technicians in Ethiopia
- Introduction of technologies for water monitoring and quality testing in Ethiopia

### Proposed medium- and long-term interventions include:

- Scaling-up of NUFiltration technology to other communities throughout the Segota Declaration woredas and beyond
- Implementation of water technicians training programs in Sequal Declaration woredas

NUF offers several possible solutions that can be implemented at different sites in the Sequta woredas.

- 1) NUF 500: Portable Water Purifier: NUF-500 is a manual unit which manufactures up to 8 liters/minute of safe drinking water with no electricity and no chemicals. The system can provide water to a few hundreds of people. Unit cost: \$1,000.
- 2) Solar Unit: The solar unit produces up to 1.5m3/hour out of power produced by three solar panels. The unit is composed of a special electrical pump (fed by the solar panels), a NUF purification system and operates during day-time hours while the capacity depends on the amount of sun exposure. Unit cost: \$7,000
- 3) Electrical Systems: Electrical systems are available in three designs:
- 1 m<sup>3</sup>/hour: The design is based on the NUF-500 unit plus additional components. Unit cost: \$3,000 (ex-works)
  - More NUF membranes to allow for a capacity of 1 m3/hour (instead of 500 litres/
  - An electric pump to boost the raw water to the system
  - Automatic backwash mode
- 5 m3/hour: A complete NUF system with automatic backwash to treat and purify surface water at a capacity of 5 m3/hour Unit cost: \$12,000 (ex-works)
- 10 m3/hour: A complete NUF system with automatic backwash to treat and purify surface water at a capacity of 10 m3/hour. Unit cost: \$23,000 (ex-works)

NUFiltration will design, produce, ship and install the systems in Ethiopia. In addition, NUF will provide a full training on site as well as remote services. Cultiv-Aid will provide on-going technical and logistical support for this intervention. In addition, Cultiv-Aid will develop a training program for water technicians to ensure capacity for piloting and scaling up.

### 5.1.7 Improve health and nutritional status of school children

### **Rationale:**

School health and nutrition programmes contribute to the quality of education by addressing fundamental health and nutrition needs that keep children out of school and reduce their ability to learn effectively while in school. School-age children in Ethiopia are affected by a wide range of health- and nutrition-related problems that constrain their ability to thrive and benefit from education. Investing in the early years of life is one of the smartest investments Ethiopia can make to break the cycle of poverty, address inequality, and boost productivity later in life of its children which is critical for economic competitiveness.

### **Intervention approach:**

A comprehensive school health and nutrition programme meets a greater proportion of health, nutrition and psychosocial needs of school-age children as schools provide an organized structure that is conducive for the promotion and provision of health and nutrition services as well as a key avenue for disease prevention and control such as through deworming campaigns and other immunization services. In order to realize a healthy and hygienic school environment, the promotion of safe and adequate water supply, proper sanitation and hygiene promotion are priority interventions to reduce acute watery diarrhea, intestinal worms, trachoma, and to increase levels of self-esteem from a clean toilet/latrine. In addition, teachers, students and parents associations, school clubs and linkage with the health and agriculture sector will be strengthened to promote school health and nutrition services and use children as change agents in the community.

School feeding programs contribute to alleviating short-term hunger but also help children concentrate better on their studies. Moreover, it enables them to gain increased cognition and better educational outcomes through addressing micronutrient deficiencies such as vitamin A, iodine, and iron. Hence, school feeding programs is promoted with the intention of providing balanced meals for children in schools especially for those coming from poor and food insecure households. School demonstration gardens will serve as resources for school feeding programs in addition to serving as a learning platform for students.

In order to improve the health and nutrition status of school children, the main interventions are:

- Scaling up home grown school feeding programs
- Expanding school health and nutrition programs
- Scaling up school WASH activities emphasizing on strengthening linkages with health, agricultural, water and social protection programs.

# 5.1.8 Improve nutrition status of pregnant and lactating women and children through nutrition sensitive Productive Safety Net Program (PSNP) 4 interventions

### **Intervention approach:**

Productive Safety Net Program 4 (PSNP 4) aims to enhance nutrition outcomes and offer a 'temporary transition to direct support' (cash or food) for pregnant and lactating women (PLW), starting from the time of registration of pregnancy up to the time when the newborn child reaches 12 months of age. PSNP4 will also promote other links to social activities and services like day-care and health and

hygiene in general and is putting emphasis on actions to support empowerment of women in general. The ultimate outcome of this strategic objective is to improve the resilience of families to economic shocks through the expansion of the Productive Safety Net Program whilst improving the nutrition status of children as well as pregnant and lactating women.

In order to achieve this strategic objective, the following interventions will be implemented:

- Scaling up PSNP4 in the woredas around the Tekeze River Basin
- Promoting implementation of gender-sensitive social safety net programs
- Promoting provision of credits, grants, microfinance services and other income generating initiatives to support increased access to nutritious foods among vulnerable groups
- Increasing access to basic nutrition services for all vulnerable groups
- Scaling up Tigray's Social Cash Transfer Program

### 5.1.9 Improve gender equity, women empowerment and child protection

### **Rationale:**

Gender equality and empowerment of women are essential components of human development, influence nutrition across the entire lifecycle, and are critical to achieve nutrition objectives. Gender and nutrition are inseparable components of the vicious cycle of poverty as gender inequality can be a cause as well as an effect of hunger and under nutrition. Along with unequal, gender-based resource distribution at the household level, a number of harmful traditional practices, such as food taboos for women and girls (especially pregnant and lactating women), early marriage, and violence against women, have contributed to the poor nutritional status of the majority of infants, young children and women in Ethiopia. Evidence has shown that when women are empowered, educated, and can earn and control income, maternal and infant mortality declines, child health improves, nutritional status and development of the household improves, agricultural productivity rises, population growth slows, economies expand, and cycles of poverty are broken. Consequently, applying a gender lens on all nutrition programmes is crucial for successful interventions.

### **Intervention approach:**

Ethiopia is registering remarkable achievements especially with respect to gender equity in access to primary school education and in the number of government positions held by women, including seats in Parliament. Highly educated mothers possess the skills to secure better job opportunities and increased income and will therefore be in a better position to feed, care for and educate their children. In order to promote the empowerment of women, nutrition interventions implemented across sectors should be gender sensitive.

As part of efforts to end child undernutrition, the Government of Ethiopia has put in place several efforts that directly contribute to nutrient intake and health such as improving the decision-making capacity of women in households, access to education, and economic resources, to name a few. The Ministry of Women and Children Affairs (MWCA) has been mandated to ensure and strengthen gender-sensitive nutrition interventions across sectors.

Hence, in collaboration with MWCA and their regional, zonal, woreda and kebele level counterparts, this strategic objective will be achieved by focusing on increasing economic and social empowerment of women, increasing community awareness and participation on gender equity and child protection and through promoting of child protection initiatives.

### 5.1.10 Improve multisectoral coordination and capacity

### **Rationale:**

Nutrition has a multidimensional and multisectoral nature in terms of both effect and outcomes.

Achieving nutrition's full impact on health and development outcomes requires a multisectoral approach. Nutrition specific interventions are key to accelerating progress. Nonetheless, it is also critical that all relevant sectors - like agriculture, water, education, women, children, and social welfare – work jointly in order to tackle undernutrition. A truly multisectoral approach will achieve optimal nutrition outcomes through greater coverage and better targeting, whilst also helping other programmes achieve more powerful results and demonstrate their own potential for impact.

Thus, in order to accelerate the implementation of Seqota Declaration, strong governance and program implementation arrangements, along with innovative coordination mechanisms that will create a sense of ownership and the enabling environment among the implementing sectors are critical tasks that needs to be performed.

In fulfillment of their mandate as a multisectoral coordinating body, the Seqota Declaration Program Delivery Units will focus on:

- Strengthening the functionality of the federal, regional and woreda level coordinating structures that will provide political leadership, technical coordination, harmonization of interventions among implementing sectors and partners, influence sectors to integrate nutrition into their workplan, foster stakeholders engagement and resource mobilization, implement a robust M&E system, and strengthen the PDUs' capacity to perform effectively.
- In this regard, the establishment of the federal and regional Food and Nutrition Council and Governing Body will be of paramount importance for the success of this effort. These structures cascade down to zonal, woreda and kebele levels.



#### 6.1 **Innovations**

The innovative approaches that will be tried and tested during the innovation phase are:

### **Program Delivery Unit (PDU)**

In order to address the challenge of limited horizontal ministerial-level and intersectoral coordination mechanisms at federal and regional levels in Ethiopia, a two-tiered government delivery unit has been established. The primary role of the PDUs is performance management and facilitating coordination among the implementing sectors. The PDUs are staffed with a multi-sectoral team comprising Senior Program Manager, Agriculture Manager, WASH Manager, Program Analyst and Communications Advisor. In addition, Amhara and Tigray PDUs have assigned Senior Presidential Advisors to facilitate effective engagement between the PDUs and the Regional Presidents.

### **Establishment of Community Labs**

A community lab approach is a multi-sectoral platform that involves all woreda-level stakeholders working collaboratively to find innovative solutions to complex and multi-dimensional problems such as stunting and testing prototype innovations at pilot scale before scaling up successful innovations. Based on the community labs evidence review and implementation manual is developed by Synergos. The manual will serve as a step-by-step guide to establish community labs in Seqota Declaration woredas during the innovation phase.

### 6.1.3 A robust nutrition data management system

In an era of increasingly tight fiscal space and budgets, public sector policymakers need more objective and impartial means of reviewing publicly funded programs to determine if the greatest value is being provided effectively and efficiently. In this regard, the federal level Segota Declaration PDU will utilize the Unified Nutrition Information System for Ethiopia (UNISE) based on the work that has been initiated by Federal Ministry of Health and UNICEF. The Ethiopian Public Health Institute (EPHI) in collaboration with Johns Hopkins University (JHU) will serve as lead technical partners in the establishment of data management systems for performance management and impact assessment. The performance management tools and UNISE will inform the scorecards that will be used to assess the performance of each implementing sector.

### 6.1.4 Agricultural Innovation and Technology Transfer Center (AITEC Center)

Government owned 20-hectare demonstration farms called Agricultural Innovation and Technology Transfer Centers (AITEC centers) will be established in Tanqua Abergele and West Belesa woredas in collaboration with the regional agriculture bureaus, Gonder and Mekele University and research institutes. AITEC is based on the model developed by Cultiv-Aid which is currently being piloted in Kallamino, Tigray. The AITEC centers will serve as a centralized training and education centers for farmers, agronomists, development agents and agricultural students from universities and technical colleges. They will also serve as a central mechanism for implementation of additional agriculture and nutrition interventions under the authority of the Ministry of Agriculture and Natural Resources and its various agencies. Each AITEC center will support the establishment of 3-5 smaller satellite AITEC sites on Farmer Training Centers (FTCs) which will strengthen the FTCs to serve as training sites for local small holder farmers.

AITEC sites will implement integrated interventions and solutions linked to improved agricultural production, economic empowerment, conservation of soil and water resources, adaptive management of natural resources at farm levels, post-harvest processing and improved nutrition and education. The AITEC centers promote modern irrigation methods like drip irrigation, high yield and better nutrition crop varieties and diversification, on-site experiments on the use of old and new fertilizers, new growth protocols to increase vegetable yield, links to market access and school feeding programs for locally produced foods, training and information centers, testing of new methods for postharvest processing, addressing issues of animal feed, production and quality, nutrition education and demonstration, ensuring and monitoring safe use of pesticides and other chemicals, construction of demonstration fish ponds and promoting production, consumption and preservation of fish, fruit tree planting and cultivation, alternative energy technologies, improved productivity of local breed animals, establishment of Abergele goat ranches and promotion of modern honey production and market linkage.

### 6.1.5 Costed woreda based comprehensive nutrition investment plan (One Plan)

In the past, the Government of Ethiopia and its partners have been implementing various nutrition interventions. However, these plans were neither coordinated nor geared towards one goal. Seqota Declaration has enabled the government and its partners to develop woreda-based comprehensive costed nutrition investment plans – the first ever effort of its kind in Ethiopia. The innovation phase will utilize innovative approaches that will later be expanded into other woredas and regions if found effective and successful.

### 6.1.6 Capacity Building and Knowledge Transfer

In addition to the capacity building activities that will be implemented in agriculture, livestock and fisheries, and water sector, additional capacity building activities will be undertaken in partnership with research institutes, Hebrew University of Jerusalem, MASHAV – Israel's Agency for International Development Cooperation and other Israeli organizations. Some of the capacity building and knowledge transfer activities identified from the Israel tour are summarized as follows.

### Southern Negev, MOPDAROM Agricultural Research Center

**Stage 1:** Establishment of modernized agricultural training centers at universities linked to the Seqota Declaration. These centers will introduce modern agricultural practices such as drip irrigation, sprinkler systems, greenhouse nursery production, greenhouse crop production, reservoirs and enable ongoing training. Through university programs, research activities will be promoted at these sites in order to facilitate proper data collection on modern agricultural practices and establish a written and online library of knowledge (in collaboration with Hebrew University of Jerusalem)

**Stage 2:** Development of training programs and professional development courses through the training centers. The centers will become focal places for building the knowledge infrastructure of Ethiopia. These sites will conduct open days, tours of the available technology, develop written and published materials and provide consultation and guidance to FTCs and farmers.

### The Faculty of Agriculture, Food and Environment, Hebrew University

Proposed short-term/intermediate interventions include:

- Increasing the number of Ethiopian students studying in Israel
- Identifying specific research priorities and sources of funding
- Developing a strong network of Ethiopian alumni who have studied in Israel
- Conducting a study tour of Israeli researchers to the Tekeze River Basin
- Deploying Hebrew University researchers to conduct training courses

Proposed medium- and long-term interventions include:

- Establishment of an Endowment Fund that can provide continuous towards research and development activities with emphasis on capacity building of researchers and enabling access to equipments. This would enable undertaking of collaborative research initiatives between Hebrew University of Jerusalem and Ethiopian Universities in support of Seqota Declaration.
- Establishment of a scholarship program for agricultural students to conduct their Masters' program at the Hebrew University of Jerusalem
- Establishment of short term training programs at the Faculty of Agriculture for Ethiopian researchers.

### **MASHAV**

Proposed interventions include:

- Encourage MASHAV to be committed to supporting Segota Declaration
- Ensure training courses in Israel attract participants from the Segota Declaration woredas
- Encourage MASHAV to fund technologies that will be demonstrated in Segota Declaration woredas e.g. NUFiltration, Netafim, etc.

#### 6.2 Government leadership and coordination at all levels

In order to provide leadership and coordination, the Government of Ethiopia has established Program Delivery Units at federal and regional levels. At federal level, under the leadership of H.E. Deputy Prime Minister, the federal PDU is responsible for developing the Segota Declaration Investment Plan and providing updates on achievements, challenges and additional investment opportunities. The federal PDU is also responsible for coordinating and managing performances of federal sector ministries, international and national development partners and regional PDUs. At regional level, under the leadership of H.E. Regional Presidents, the regional PDUs are responsible for developing the Segota Declaration Investment Plan whilst coordinating and managing the performances of the regional sector bureaus, implementing partners and Seqota Declaration woredas. At woreda level, the Woreda Administrators are the primary owners of the woreda-level investment plan with the regional PDUs, bureaus and partners providing technical support. Coordination platforms will be established at all levels to enable the PDUs to review progress.

#### 6.3 First 1,000 Days Plus Public Movement

A key part of the Segota Declaration is the development across multiple sectors of a national public movement for better child nutrition

The ambition is to create a movement across society. The aim is to mobilize influential organizations and individuals to build a powerful momentum across society that generates action on child undernutrition. This involves key ministries such as those for health, agriculture, livestock, water, education and women, as well as sectors outside government such as religions and the private sector. The idea was proposed in 2016 by the then Minister for Health, H.E. Kesetebirhan Admasu, and backed by the Deputy Prime Minister, H.E. Demeke Mekonnen.

The name is also a key message. The movement takes its name from the internationally-recognized phrase for the issue of child under-nutrition, "1000 Days Plus". This refers to the key window in a child's life from conception to the age of two. Children who are undernourished during the 1000 days plus become "stunted", suffering permanent deficits in health, strength and cognitive ability. The full name of the movement is First 1000 Days Plus.

The core aim is behaviour change. The most important actions that the public movement aims to drive are those which promote changes in behaviour at the household level. Changes in behaviour are an important way to improve nutrition during the 1,000-day window, such as through breastfeeding practice, which "complementary" foods are given to children under two, and whether patterns of production and consumption enable pregnant and lactating women to have a diverse diet. Good hygiene practices are needed to avoid the intestinal infections that limit nutritional absorption. Changes in harmful traditional practices are also important, such as changing the practice of applying religious fasting rules to pregnant and lactating women and young children even though this is not required by the Ethiopian Orthodox Church, and changing the practice of men being given priority at mealtimes.

Face-to-face contact is crucial. The movement will reach millions of people at household level by utilizing existing channels to engage them. The most important channels are those involving face-to-face contact with families - via front line workers such as health extension workers, agricultural workers, teachers, community volunteers in the Women's Development Army and local priests and imams.

Key activities to build the movement include:

- Engaging with gate keepers to mainstream behaviour change: working with political leaders, officials and managers to increase the extent to which behaviour change activities are mainstreamed into their own core workplans, for example in federal ministries and regional bureaus. Such plans need targets and resource allocation to make them impactful and sustainable.
- Securing champions: mobilizing influential individuals to put their backing behind the movement. This includes political, traditional, religious and cultural leaders at national and regional levels.
- Catalyzing communications: generating communications activity by a wide range of organizations that use routes such as such as radio, text messages, festivals and events.

Six priority behaviour changes. The many sectors involved in the Seqota Declaration Program have agreed to prioritize six key behaviour changes. These will be measured in the program's evaluation surveys and following the initial baseline survey, targets will be set for each priority. The priorities are:

- 1) Breastfeeding. For mothers to exclusively breastfeed their babies during the first six months following birth.
- 2) Complementary feeding. For children between the ages of six months and two years to receive an adequate "complementary" diet.
- 3) Diverse diet. For pregnant women and lactating women to receive a sufficiently diverse diet.
- 4) Fasting. The SD implementing woredas in the two region are Coptic Orthodox Dominant Christians. In this regard trained priests will provide congregational as well as one to one nutrition education for pregnant and lactating mothers in accordance with the sermon guide of

- the Ethiopian Orthodox Church in the practice of applying religious fasting rules to pregnant and lactating women and young children.
- 5) Gender roles. For a change to the traditional practice of men eating their fill before other members of the household eat what is left.
- 6) Handwashing. For household members to have good handwashing behaviour.

In addition to the above priorities, the program will measure levels of awareness at household level, of the concept of stunting and of the "1000 days" message.

Region-specific areas of focus. The two regions involved in the first three years of the Seqota Declaration program, Amhara and Tigray, each have additional areas of focus to help deliver on the above six priorities. For example, Tigray has an emphasis on the production and consumption of food at the household level, and Amhara has an emphasis on breaking dependency culture, the education of girls and women's empowerment.

### **Coordination and Governance**

### 7.1 Coordination

One of the unique approaches of Seqota Declaration is the establishment of Program Delivery Units (PDUs) both at federal and at Amhara and Tigray regional states for the effective delivery of the program and performance management. The Federal PDU, currently based at FMOH, is responsible for facilitating and coordinating Seqota Declaration activities with the two regional PDUs and bringing various stakeholders onboard. The federal PDU is also responsible for mobilizing resources for successful implementation of the implementation plan. The regional PDUs are supported by Seqota Declaration Presidential Advisors who utilize their influence to create ownership by the sector bureaus for the implementation of priority sector-led and partners' interventions. The federal PDU comprises of six staff members whilst each regional PDU comprise sof six members of staff. The structure and head count is subject to change as the need for additional human resource arises.

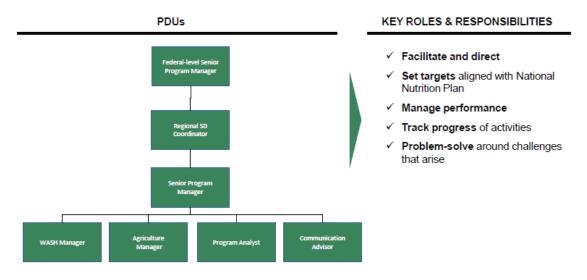


Figure 3: Key Role and Responsibilities of the PDUs

Since PDU structures do not exist at zonal, woreda and kebele levels, the respective administrative bodies will be responsible to provide leadership for SD implementation and performance management using the score cards.

### 7.2 Governance

The Food and Nutrition Council, led by the Deputy Prime Minister, will be the governing body responsible for food and nutrition policy implementation and providing leadership and guidance for Seqota Declaration. The Council will establish the Food and Nutrition governing body where the PDU will be stationed. At regional level, the current Seqota Declaration Steering Committee will be replaced by Regional Food and Nutrition Councils to provide leadership and coordination for implementation of food and nutrition policy at regional level as well as all the Seqota Declaration

activities. At regional level, the Councils will be led by the Regional Presidents. In Amhara and Tigray regional states, the regional PDUs will play a leading role in the establishment of the regional Councils and the governing bodies where they will be stationed. The regional Councils, assisted by regional governing body, will be responsible for establishing similar structures at zonal, woreda and kebele levels. These structures will be responsible for the implementation of food and nutrition policy for which Seqota Declaration will be the main agenda.



### **Monitoring and Evaluation**

### 8.1 Performance Management

One of the key roles of the PDUs is performance management. Annual key performance management indicators will be set for the respective sectors and development partners. This tool will serve as a dashboard to assess progress of sectors and partners' plan at federal and regional levels. PDUs will be responsible for tracking the performance management indicators and following-up with respective sectors and development partners to identify bottlenecks for areas that are not progressing well or draw lessons where there is high performance. Currently, the federal PDU is finalizing preparations to use a web-based performance management tool, called Unified Nutrition Information System for Ethiopia (UNISE). Access will be given for all the partners to upload their targets as well as their results. Moreover, based on the sectors and partners' performance, the web-based platform will reveal the overall Seqota Declaration performance and score cards at woreda, zonal, regional and federal levels with possible disaggregation by sector or strategic initiatives.

### **8.2** Performance Review

**Monthly Performance Review:** At kebele and woreda level, monthly performance review meetings will be conducted under the leadership of the woreda and kebele administrators respectively. They will be responsible for convening the performance reviews and sharing the performance reports with zonal and regional government structures.

**Quarterly Performance Review:** The federal PDU will conduct quarterly review meetings with the implementing sectors and development partners at federal level. Regional PDUs will do the same at regional level. In addition, federal and regional PDUs will conduct joint quarterly review meetings and will share the outcomes with the respective political leaders who are championing efforts around the Seqota Declaration.

**Biannual and Annual Performance Review:** Biannual and annual review meetings will be held at regional level under the leadership of the Regional Presidents. After completing the regional review meetings, joint bi-annual and annual review meetings will be held in collaboration with the federal PDU. These meetings will be chaired by the Deputy Prime Minister. The annual targets and performances of the respective sectors will be assessed based on the annual performance targets. The following table presents the Amhara and Tigray regions key performance indicators and targets for the innovation phase.

Table 4: Key Performance Indicators 2017 2020

	2017 - 2020 Target					
Keg Performance Indicators	Reporting Frequency	Amhara	Tigray	Total		
Health						
Number of children participating in GMP	Monthly	525,726	159,918	685,644		
Number pregnant women receiving IFA	Monthly			424,692		
supplements for at least 90 days		342,309	82,383			
Number of children age 6 to 59 months received VAS	Monthly	1,328,700	313,779	1,642,479		
Number of pregnant women participanted in ANC4	Monthly	339,261	82,383	421,644		
Number of health facilities that have access to safe and adequate water supply	Quarterly	-	72	72		
Agriculture and Livestock						
Number of households with backyard gardening with vegetables and fruits	Quarterly	67,512	15,433	82,945		
Number of HH partcipated in Bio-fortified crop Production	Biannual	39,537	4,002	43,539		
Number of HH partcipated in nutrition dense pulses Production	Biannual	69,699	20,012	89,711		
Number of households used improved post-harvest technology (Hermatic Bag)	Biannual	44,595	24,014	68,609		
Hectares of land Irrigated	Biannual	124,158	8,005	132,163		
Number of households with milking shoats	Quarterly	39,345	8,005	47,350		
Number of HH with poultry	Quarterly	49,992	16,009	66,001		
VASH	•					
Number of Hoouseholds that have access to safe and adequate water supply.	quarterly	926,649	13,000	939,649		
Number of Hoouseholds tha have access to improved toilets #latrines	quarterly	129,375		129,375		
EDUCATION						
Number of schools with home grown School Feeding Program	quarterly	2,058		2,058		
Number of schools with safe and adequate water supply	Quarterly	1,236	298	1,534		
Number of schools with health and nutrition clubs	Quarterly	4,758	387	5,145		
Labour and Social Affairs						
Number of PLW who participated in Nutrition BCC programs	Quarterly	100,852	18,223	119,075		
Number of pregnant and lactating women considered for soft conditional support	Quarterly	68,169	19,101	87,270		

#### 8.3 **Baseline and Evaluation**

Baseline, process evaluation and final evaluation will be conducted with technical leadership provided by Ethiopian Public Health Institute (EPHI) and John Hopkins University (JHU). EPHI/JHU will be responsible for the development of study proposal and tools, ethical approval, recruitment and training of data collectors, data collection, analysis and report writing. The federal PDU will provide leadership and guidance for the entire process, provide technical inputs into the study proposal, tools and reports, as well as for mobilizing resources. The regional PDUs will facilitate the recruitment of data collectors based on set criteria, logistics arrangement like hiring of vehicles as needed, as well as overseeing the day-to-day study implementation. Unlike the key performance management indicators which measure progress, baseline and endline evaluation findings will enable PDUs to measure the outcome and impact achieved by the program. A process evaluation will also be conducted to draw lessons and assess the contributions of Segota Declaration innovations.

### **Innovation Phase Investment Cost**

The table below shows the proportion of budget contribution across different stakeholders. Based on the prior commitment of the Government of Ethiopia to cover fifty percent of the program budget, it is expected that the government will now allocate additional resources to address the funding gap. Moreover, additional resource mobilization strategies will now be required to fill the funding gap.

**Table 5: Segota Declaration Innovation Phase Investment Cost** 

	Table 5: Sec	qota Declarat	tion Innovation	n Phase Inv	estment Cost						
	Total SD	Innovation Phas	se Investment Bud	lget (2010 -201	12 E.C)						
	2010										
	Government	Donor through	Immplementing	Commuinty							
Level	allocation	government	Partners	contribution	Funding gap	Total					
Federal Ministries	1,381,844	10,858,789	12,148,927	89,537	2,641,409	27,120,506					
Amhara Region	12,795,078	15,490,233	975,065	8,616,021	54,793,804	92,670,201					
Tigray Region	5,032,612	6,705,217	17267676.37	9,490,934	25,159,674	63,656,112					
Total	19,209,534	33,054,239	30,391,668	18,196,491	82,594,887	183,446,819					
Contribution (%)	10	18	17	10	45						
			2011								
	Government	Donor through	Immplementing	Commuinty							
Level	allocation	government	Partners	contribution	gap	Total					
Federal Ministries	1,785,243	14,145,095	9723822	76,237	3,240,210	28,970,607					
Amhara Region	275,887	9,858,575		10,835,098	80,368,238	101,337,798					
Tigray Region	7,548,917	10,057,824	13340332	14,236,400	37,739,512	82,922,985					
Total	9,610,047	34,061,494	23,064,154	25,147,736	121,347,960 213,231,391						
Contribution (%)	5	16	11	12	57						
		D	2012								
	Government	Donor through	Immplementing	Community		7					
Level	allocation	government	Partners	contribution	funding gap	Total					
Federal Ministries	1,674,291	14,338,563	8644658	100,959	3,415,825	28,174,297					
Amhara Region	283,850	6,579,796	1001000	11,780,453	58,687,288	77,331,387					
Tigray Region	2,516,306	3,352,608	13340332	4,745,467	12,579,837	36,534,550					
Total	4,474,447	24,270,967	21,984,990	16,626,879	74,682,951	142,040,234					
Contribution (%)	3	17	15	12	53						
			0040 0040								
	C	D	2010 - 2012	C							
Laurel	Government	Donor through	Immplementing	Community	E J:	T-1-1					
Level	allocation	government	Partners	contribution	Funding gap	Total					
Federal Ministries	4,841,378	39,342,447	30,517,407	266,732	9,297,445	84,265,410					
Amhara Region	13,354,815	31,928,604	975,065	31,231,573	193,849,330	271,339,387					
Tigray Region	15,097,834	20,115,649	43,948,340	28,472,801	75,479,023	183,113,648					
Total	33,294,027	91,386,700	75,440,812 14.0%	59,971,106	278,625,799	538,718,444					
Contribution (%)	6.2%	17.0%	14.0%	11.1%	51.7%						

**Table 5: Federal Sector Ministries SD Investment Budget** 

Federal Sector Ministries SD 2010-2012 E.C Investment Budget										
implementers	2010	2011	2012	Total						
мон	717,054	3,340,170	3,389,612	7,446,836.0						
MOAL	1,015,726	2,568,911	3,008,290	6,592,927.3						
MOVIE	1,711,879	2,033,525	2,221,172	5,966,576.3						
MOLSA	10,074,034	10,074,497	10,074,774	30,223,304.5						
MOE	36,071	26,795	26,795	89,661.0						
MOVC	131,238	150,972	131,358	413,568.1						
FPDU	801,704	578,333	477,593	1,857,629.6						
Immplementing Partners	12,148,927	9,723,822	8,644,658	30,517,407.0						
Total	26,636,632	28,497,025	27,974,252	83,107,909.9						

	Federal Sector Mininistries 2010 - 2012 E.C Investment by Contribution											
implementers	Contributed by Govt	Donors	Implementing partners	Contributed by community	GAP	Total						
мон	61,936	5,679,221	-	-	1,705,679	7,446,836						
MOAL	1,269,629	3,036,289	-	266,732	2,020,277	6,592,927						
MOVIE	2,704,263	-	-	-	3,262,314	5,966,576						
MOLSA	130,370	30,092,938		-	-	30,223,308						
MOE	40,032	49,629		-	-	89,661						
MOVC	164,815				248,753	413,568						
FPDU	4,074	484,370			1,369,259	1,857,704						
Immplementing Partners			30,517,407.0		-	30,517,407						
Total	4,375,118	39,342,447	30,517,407	266,732	8,606,283	83,107,987.6						
contribution(2)	5	47	37	0	10	100						

**Table 6: Amhara Region SD Investment Budget** 

Amhara Region SD 2010-2012 Investment Budget (USD)										
Sector	2010	2011	2012	Total						
Health	8,607,929	7,524,989	11,413,730	27,546,648						
Agriculture and Livestock	33,070,280	45,587,211	17,626,696	96,284,187						
Water irrigation and electricity	22,600,833	19,756,370	19,204,074	61,561,278						
EDUcation	25,887,278	26,803,265	27,373,344	80,063,887						
Social and Labor Affair	246,956	378,392	433,783	1,059,130						
PDU	1,281,860	1,287,571	1,279,760	3,849,191						
Implementing Partners	975,065	-	-	975,065						
Total	92,670,201	101,337,798	77,331,387	271,339,387						

Amhara Region SD Investriment Cost By Contribution										
Sectors	Allocated by govt	donors	imp partners	Community contribution	GAP	Total				
Health	735809	2672990	0	18477598	5660252	27,546,648				
Agriculture and Livestock	5596019	20615713	0	10888889	59183567	96,284,187				
Water irrigation and electricity	3307432	6827150	0	0	51426696	61,561,278				
labour and social affairs	0	573682	0	1865086	77625119	80,063,887				
Education	160000	679130	0	0	220000	1,059,130				
PDU	0	36296	0	0	3812895	3,849,191				
Implementing Partners	0	0	975065	0	0	975,065				
Total	9799259	31404961	975065	31231573	197928529	271339387				
Contribution by (%)	3.6	11.6	0.4	11.5	71.2	100.0				

**Table 7: Tigray Region SD Investment Budget** 

Tigray Region Year Based Investment Cost (USD)

Sector	year 1	year 2	year 3	Total
Health	2,277,195	3,415,793	1,138,598	6,831,586
Agr & livestocks	18,469,958	27,704,937	9,234,979	55,409,874
Water,irrigation and Electricity	17,489,760	26,234,640	8,744,880	52,469,280
EDUcation	3,154,402	4,731,603	1,577,201	9,463,207
Social and Labor Affair	2,388,887	3,583,331	1,194,444	7,166,662
PDU	2,608,233	3,912,350	1,304,116	7,824,699
Implementing partners	17,267,676	13,340,332	13,340,332	43,948,340
Total	63,656,113	82,922,986	36,534,549	183,113,648

Tigray Region Investment Cost By Contribution

implementers Budget contribution (USD)									
	Buuge	er continuation (	0301		Total				
Govt	Donors	imp partners	Community	GAP					
1,324,780	1,216,641		410,299	3,879,867	6,831,586				
2,512,171	7,784,236		23,124,942	21,988,524	55,409,873				
7,870,392	-		2,623,464	41,975,424	52,469,280				
143,545	6,495,116		99,280	428,721	7,166,662				
266,503	2,684,215		511,111	6,001,378	9,463,207				
2,919,111	1,935,442		1,703,704	1,266,442	7,824,699				
-	-	43,948,340	-	-	43,948,340				
15,036,501	20,115,649	43,948,340	28,472,801	75,540,356	183,113,648				
8	11	24	16	41	100				
	1,324,780 2,512,171 7,870,392 143,545 266,503 2,919,111	Govt Donors  1,324,780 1,216,641  2,512,171 7,784,236  7,870,392 -  143,545 6,495,116  266,503 2,684,215  2,919,111 1,935,442  -  15,036,501 20,115,649	Govt         Donors         imp partners           1,324,780         1,216,641           2,512,171         7,784,236           7,870,392         -           143,545         6,495,116           266,503         2,684,215           2,919,111         1,935,442           -         43,948,340           15,036,501         20,115,649         43,948,340	1,324,780     1,216,641     410,299       2,512,171     7,784,236     23,124,942       7,870,392     -     2,623,464       143,545     6,495,116     99,280       266,503     2,684,215     511,111       2,919,111     1,935,442     1,703,704       -     -     43,948,340     -       15,036,501     20,115,649     43,948,340     28,472,801	Govt         Donors         imp partners         Community         GAP           1,324,780         1,216,641         410,299         3,879,867           2,512,171         7,784,236         23,124,942         21,988,524           7,870,392         -         2,623,464         41,975,424           143,545         6,495,116         99,280         428,721           266,503         2,684,215         511,111         6,001,378           2,919,111         1,935,442         1,703,704         1,266,442           -         -         43,948,340         -         -           15,036,501         20,115,649         43,948,340         28,472,801         75,540,356				

**Table 8: Development Partners SD Investment Budget** 

	Immplementing Partners SD 2010 -2012 Investment Budget												
	Federal					Ar	nhara		Tigray				
Partners	2010	2011	2012	Total	2010	2011	2012	Total	2010	2011	2012	Total	Grand Total
UNICEF	80,000			80,000	349,518			349,518	42,474			42,474	471,992
MI	267,580	141,450	67,200	476,230				-				-	476,230
GTN				-	625,547			625,547	145,326			145,326	770,872
CARE		7,891	2,704	10,595				-				-	10,595
concern ₩₩	748,468	571,181	57,201	1,376,850				-				-	1,376,850
world vision	6,397,817	5,323,608	5,270,753	16,992,178				-	255,327			255,327	17,247,505
FH	3,126,049	2,688,871	2,400,018	8,214,938				-				-	8,214,938
AAH	1,529,013	990,821	846,782	3,366,616				-				-	3,366,616
SNV				-				-	1,708,535			1,708,535	1,708,535
save the children				-				-	1,775,683			1,775,683	1,775,683
REST				-				-	13,340,332	13,340,332	13,340,332	40,020,996	40,020,996
Total	12,148,927	9,723,822	8,644,658	30,517,407	975,065	-	-	975,065	17,267,676	13,340,332	13,340,332	43,948,340	75,440,812

### **Annexes**

**Annex 1: Program Delivery Unit Contacts** 

S/N	Name	Role	e-mail	Telephone			
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Table1: Social services and economic data for Seqota Declaration woredas in Tigray Region (by sector)

#### Health:

- Regional stunting rate in children under five 39%
- Skill birth attendance rate <65%
- Five of the pilot Woredas except Naeder Adet are hot spot priority one
- Low coverage of basic nutrition and health services
  - Skilled Birth Attendant 65%
  - Family planning coverage 68%
  - Iodized salt 15%
  - VA coverage is < 63%
- Poor hygiene and sanitation
- High prevalence of trachoma and STH/SCH
- High burden of childhood illness (e.g. diarrhea, pneumonia & malaria

#### Education:

- Separate latrine 29.6%, \*
- Water supply 23%,
- Poor linkage b/n health extension workers and school (ODF) \*
- \* No home-grown school feeding in all primary schools,
- Only 95 schools with water (383 primary + 26 high school)
- 124 schools without latrine (32%) and 172 schools with common latrine (45%)

#### Labor and social affairs:

All are PSNP4 woredas

Implementation of Social protection policy is not yet started on the ground.

### Water, irrigation and electricity

- Safe water access coverage 58%,
- \* Irrigation potential 53919 Hectares (33%)
- \* Unutilized dams (Tselemti) – 400 hectares
- Low capacity of underground water and low surface water harvesting technologies

### Agriculture and livestock:

- Agro-ecology is semi-arid with average rainfall 350 1230 mm
- Weak coordination to establish an authorized and well-managed program around the Tekeze River Basin
- Infertile soil and recurrent droughts & weak utilization of soil-based fertilizers
- Low coverage of treated SWC and biological waste only (32%) hectares
- Low coverage of homestead gardening (4%)
- Poultry 8.7%, fattening 4.6%, improved milking 2%
- Low agricultural production and irrigated land 20.2%.
- Only 5% (132) FTCs are advanced
- Shortage of improved seed and animal breeds, and burden of hazards like pests and disease

Table 2: Social services and economic data for Seqota Declaration woredas in Amhara Region (by sector)

#### Health:

No. of HPs: 603

No HCs: 561

➤ TFP coverage: 93%

➤ Health service coverage: 83%

➤ Vaccination coverage: 29 - 41%

DDF Kebeles: 206,341 HHs (60%)

Vitamin A supplementation: 83%

> Deworming coverage: 84%

➤ GMP coverage: 59%.

#### **Education:**

- > Primary schools with no latrines: 81.8%
- ➤ Primary schools with no access to adequate and safe water: 83.3%

#### **Labor and Social Affairs:**

- ✓ The woredas are highly venerable area towards food insecurity and those are covered by PNSP.
- ✓ Direct support beneficiaries, 98,497
- ✓ Temporary direct support beneficiaries: 504,279
- ✓ Total beneficiary addressed in a year 602,776.

### **Agriculture:**

- Kebeles with community vegetable seed and fruit seedling multiplication centre...2.8%
- FTC with a community vegetable seed and fruit seedling demonstration site: 6.5%
- HHs with backyard gardening: 2%
- HHs with irrigation beneficiaries: 45%.
- Woredas with nutrition focal person: 52%
- Woredas with nutrition teams: 10.4%
- FTC involved in nutrition sensitive interventions; 36%
- No of FTCs: 500
- Percentage of post-harvest loss: 23.3%
- Household heads with poultry: 60%
- Egg productivity per hen is 122.4 per year
- Milk productivity per cow: 1.4 litters,
- Smallholder HHs with improved breeds cattle, (2.6%)
- Household with improved poultry 72164 (10 %),
- Households with improved sheep 5851(0.8%)
- Households with improved goats 1808 (0.25%)
- Potential rivers for fish production: 27
- Total fish production 1094.9 tones.
- Households with traditional and transitional beehives 30546 (4%) and 15466 (2%)respectively
- Total honey production reached 2707.3 tones
- Area covered with improved forage and fodder production: 22,773 ha.

### Water, Irrigation and Electricity

- HH heads who are irrigation beneficiaries (45%)
- kebeles declared ODF (less than 1%)
- Population who have access to latrine: 42.7%
- Pit latrines, handwashing facilities: 66.3%
- HCs' with access to latrine: (92.56%)
- HCs' with access to water: (29%)
- HPs' access to latrine: (58.3%)
- Hand washing at critical time: 77%
- Secondary schools have access to safe & adequate water: 57.6%
- Elementary schools have access to safe & adequate water: 18.1%
- NGOs' involved in irrigation program: (5)
- # water source schemes: 5506, Functionality (84.6%)





