AGRICULTURAL TRANSFORMATION AGENDA
PROGRESS REPORT
COVERING 2011-15 IN THE GTP I PERIOD
Innovations to help our country grow

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Ethiopia has had one of the fastest growing economies in the world over the past decade. While much of this growth has been driven by the expansion of the services-oriented sector, agriculture has also played a major role. Ethiopia has long recognized that the agriculture sector offers immense growth potential to serve as the backbone of the country’s economic transformation process. As early as 1993, the Government of Ethiopia set forth the Agricultural Development Led Industrialization (ADLI) strategy. This was happening when most developing countries were deprioritizing the spending on their agriculture sector. The purpose of ADLI was to bring about a structural transformation in the productivity of smallholder farmers, in order to catalyze a robust industrial sector by maximizing the country’s natural and human resources. However, Ethiopia’s agriculture sector has been dominated by subsistence-based farming that has faced deep-rooted structural challenges that do not lend themselves to short-term solutions.

Ethiopia has come a long way since the formulation of the ADLI more than 20 years ago. Over the last decade the agriculture sector has enjoyed an average growth rate of over 7% per year, which has contributed in no small way to the double-digit annual growth rate of the economy overall. Building on these and other gains, the Government of Ethiopia developed the first five-year Growth and Transformation Plan (GTP I) for the years 2010/11–2014/15. The GTP I provided clear objectives, outputs and targets to catalyze faster economic growth and achieve our vision for a transformed and prosperous Ethiopia, free of poverty and dependence on food aid.

In many ways, Ethiopia is now in a similar stage of development that a number of Asian countries faced when they began their rapid journeys to development in the middle of the 20th century. Countries such as Taiwan and Korea were able to leverage their agriculture sector to catalyze broad-based economic development by prioritizing interventions aimed at structural bottlenecks. Although the complexity of the current globalized food system and the unique challenges within Ethiopia’s agricultural system require a broader set of considerations, Ethiopia aims to take lessons from the Asian examples to identify and address systemic issues in its agriculture sector. Inherent in Ethiopia’s process of agricultural transformation is the transition of our smallholder farmers from subsistence-based farming towards market orientation and broader agricultural commercialization.

Ethiopia has taken great strides toward the goal of achieving food security and eliminating poverty in recent years. However, more work remains and needs to be done. Our aim in the coming decade is to ensure that our country is food secure, that we accelerate the progress to eradicating poverty, and that the transformation of the agriculture sector will support the overall transformation of our national economy. Similar to the experiences of many other countries before us, we believe that a key aspect of this journey will be to address systemic bottlenecks. We aim to use the Agricultural Transformation Agenda as the vehicle to address bottlenecks in our agriculture sector. This will allow the sector to contribute to our national goal of becoming a middle-income country by 2025.
A MESSAGE FROM THE MINISTER OF AGRICULTURE

Prior to the early 1990s, Ethiopia’s agriculture sector had remained largely unchanged for centuries. Despite significant progress over the past 25 years, the vast majority of agricultural production is still conducted by subsistence based smallholder farmers. The Government of Ethiopia (GoE) has long recognized that – as a still primarily agrarian economy – increasing the production and productivity of smallholder farmers can have a positive domino effect on employment, incomes and poverty reduction. The GoE has also recognized that the development of the agriculture sector is critical in order to realize growth in the industrial and manufacturing sectors as well. As a result, Ethiopia has consistently invested in developing its agriculture sector, dedicating at least 10% of government spending to agriculture since 2003. The country has begun reaping the benefits of such investments, with agricultural growth rates averaging above 7% per year over the past decade. However we also understand that such fast growth rates may become difficult to maintain or accelerate as the sector increases in size and complexity.

As such, the Government of Ethiopia has developed the Agricultural Transformation Agenda as a systematic, multi-stakeholder approach to identify and prioritize the main drivers of agricultural change in Ethiopia. By taking such an approach, Ethiopia hopes not only to maintain the growth rates seen in the agriculture sector over the past decade but to actually accelerate them to double digit levels in the coming decade. This approach involves prioritizing those activities that have the greatest potential to transform the agriculture sector, investing the necessary resources into these interventions, and engaging all key stakeholders to execute them effectively. Owned largely by the Ministry of Agriculture and the Regional Bureaus of Agriculture, the Transformation Agenda requires close alignment and commitment of all key stakeholders in order to produce successful results.

Structural transformation of this kind has already begun in Ethiopia. Overall production and yields of cereal crops, for example, have doubled in the last 10 years. The agro-processing industry is also expanding quickly, with examples such as chickpea processing, barley malting, and sesame hulling offering investment opportunities for the private sector and market sinks for smallholder farmers. Efforts are also underway to strengthen the research and extension systems in order to introduce new technologies and farming techniques to smallholders in a more accessible manner.

The ultimate goal is for Ethiopia to reach middle-income country status by 2025. Doing so requires developing clear and measurable growth targets, identifying critical challenges to growth, and enhancing the capacity of stakeholders to produce tangible results. Utilizing the objectives and targets of the GTP I as its foundation, the Transformation Agenda prioritizes the removal of bottlenecks that stand in the way of achieving these national goals while mobilizing the critical stakeholders to implement interventions most effectively.

The Ministry of Agriculture is optimistic that the deliverables in the Transformation Agenda, coordinated and supported by a dedicated body – the Agricultural Transformation Agency (ATA) – will substantially boost agricultural growth and catalyze the transformation of the sector. In this way, agriculture can serve as a major pillar for Ethiopia’s economic development in the years to come.

A MESSAGE FROM THE CEO OF THE ATA

Agriculture has played a considerable role in Ethiopia’s rapid economic growth over the last ten years. It is expected to play an even greater role in the coming years as Ethiopia consolidates its food security gains and expands its footprint in the global economy with value-added exports, many of which will be agriculture based. This requires a transformation of the sector from its traditional subsistence orientation to one that is market focused and more commercialized, albeit still based on smallholder farming.

Established in 2011, the ATA works with all key stakeholders in the agriculture sector to catalyze the transformation process by focusing on a targeted set of critical deliverables in a Transformation Agenda. The ATA’s inception phase has afforded many challenges, learnings and successes. The primary success during this inception phase has been in proving the model and institutionalizing the Transformation Agenda concept with all key stakeholders and within government structures.

During GTP I, the Transformation Agenda has included 84 deliverables that have been prioritized as critical to addressing the systemic bottlenecks in the agriculture sector. Overall, 53% of these deliverables were considered to be “On Track,” with 35% “Slightly Delayed” and 12% “Significantly Delayed.”

As detailed further in this Progress Report, considerable achievements have been realized in many of these deliverables. On a consolidated level, the 84 deliverables have contributed to the revision of three policies/proclamations and the development, release and implementation of 23 different sub-sector strategies. In addition, 70 new innovative approaches/concepts have been introduced, 23 of which have been scaled-up. In terms of reaching farmers, the national extension system has been leveraged to introduce technologies prioritized by the Transformation Agenda deliverables to over 4.4 million smallholder farmers who have applied these technologies on nearly 2.2 million hectares of land.

More specifically, a few key deliverables have begun to completely transform the nature of Ethiopia’s agriculture sector. These include: the introduction of the innovative “TIRR” package for planting tef, presently being implemented by nearly 2 million farmers and contributing to a 38% increase in national tef productivity over the past four years; and the EthioSIS soil mapping deliverable which has revolutionized fertilizer application by moving from a blanket application of DAP and urea to more targeted applications of blended fertilizers based on the particular soil nutrient needs of specific geographies.

The successes achieved by these and other deliverables in the Transformation Agenda are due to concerted and coordinated efforts by all key stakeholders in the sector, including public, private and civil society organizations. Our development partners have been essential to the process by providing critical thought partnership and financially supporting many deliverables. The role of Development Agents and regional, woreda and kebele level officials must also be highly appreciated.

Ultimately, however, the major effort of transforming Ethiopia’s agriculture sector has and will continue to rely on the ingenuity and hard work of our smallholder farmers. They are the backbone of the country’s agricultural system. The Transformation Agenda must serve and support these farmers to feed not only their families but also the rest of the country.
TRANSFORMING AGRICULTURE IN ETHIOPIA

The Vision for a Transformed Agriculture Sector in Ethiopia
Mechanisms for Agricultural Transformation
Defining the Agricultural Transformation Agenda
The ADAs Role Within the Transformation Agenda
The Vision for a Transformed Agriculture Sector in Ethiopia

The Importance of Agriculture in Ethiopia

Ethiopia is Africa’s second most populous nation with over 90 million inhabitants, over 80% of whom live in rural areas. Agriculture has been the dominant sector of the country’s economy, representing nearly 42% of GDP, 77% of employment, and 84% of exports. In addition, the majority of the agriculture sector consists of smallholder farmers who make their living from less than two hectares of land. Although the transformation towards a more manufacturing and industrially oriented economy is well underway, there is still more work to be done in order to better leverage agriculture’s contribution.

Given the key role that agriculture plays in Ethiopian livelihoods and the country’s economy, the Government of Ethiopia has long recognized the importance of agricultural transformation for poverty reduction, economic growth, and environmental stability. Since the launch of its Agriculture Development-Led Industrialization Strategy (ADLI) in 1993, Ethiopia has put agriculture at the heart of the development process and made it a fundamental component in its vision for overall national development.

This strong commitment has been translated into solid actions throughout the past 20 years, as seen in the country’s long and short term growth plans. Ethiopia’s five-year development plans – SDPRP (2000-2004), PASDEP (2005-2010), GTP I (2010-2015) and the current GTP II (2015-2020) – have all reflected the importance of the agriculture sector and its contribution to poverty alleviation and overall national economic and social development.

A Snapshot of Ethiopia’s Agriculture Sector

Ethiopia is endowed with abundant natural resources and some of the most diverse ecological zones in the world. Ethiopia’s ~74.3 million hectares of arable land are spread out over 18 major and 49 sub agro-ecological zones at altitudes ranging from 148 to 4,620 meters above sea level. This diversity, coupled with abundant natural resources, makes it suitable to grow over 100 types of crops. However, Ethiopia is not currently realizing its full agricultural potential, as the sector is dominated by subsistence oriented, low input/output output, rain-fed farming. Ethiopia’s agricultural produce is also limited in production diversity. In addition, over 90% of cultivated land has been dependent on rains, making the sector highly susceptible to climate change, including extreme events such as droughts. Despite significant gains in the past few years, issues beyond increases in improved input usage (i.e., soil health, agronomic practices, etc.) are constraining the ability of farmers to reach target yield levels. Furthermore, differentiated interventions are necessary for the poorest farmers living in marginalized areas and/ or on very small plots of land.

There is also significant room for gains in the value that Ethiopia can get from its agricultural produce. For example, processed products, which fetch more value than raw goods, comprised 61% of Ethiopia’s agricultural imports but only 14% of its agricultural exports in 2012. Hence, addressing these low-production and processing issues could assist Ethiopia in reaping more quantity and value from the same amount of effort and resources.

Despite almost doubling yields of major cereals in the past decade, cereal yields in Ethiopia still far lower in comparison with those of other fast developing countries.

The government’s views on agricultural transformation are strongly in line with those of prominent thought leaders, leading academicians, and international forums.

“ Agricultural transformation is the process of converting household-oriented, subsistence-type structures that is, decision-making units in rural households that are concerned with production primarily for home consumption and subsistence needs and that have relatively few and highly imperfect market connections to the urban economy and to world markets to commercial units that have highly efficient linkages to the urban and world economies.”

- Dr. C. Peter Timber, Professor, Harvard University, and Faculty Fellow at the Harvard Institute for International Development

GTP I has been complemented by the Ministry of Agriculture’s Policy and Investment Framework (PIF) – one of the current decade’s key development plans – which outlined a clear objective for agricultural transformation.

“ The objectives encompass: achieving a sustainable increase in agricultural productivity and production, accelerating agricultural commercialization and agro-industrial development, including value chains, reducing degradation and improving productivity of natural resources and achieving universal food security and protecting vulnerable households from natural disasters.”

- Agriculture Sector Policy and Investment Framework (PIF), 2010/11 - 2018/20


SOURCE: World Bank Data; FAO Data; ATA Analysis

Note: Major cereals covered include-wheat, rice, maize, barley oats, rye, millet, sorghum, buckwheat, and mixed grain

<table>
<thead>
<tr>
<th>Year</th>
<th>Yield of major cereals - Over time in Ethiopia</th>
<th>Yield of major cereals - Comparison with others</th>
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<tbody>
<tr>
<td>1990</td>
<td>1.16 Tons per hectare</td>
<td>4.83 Tons per hectare</td>
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<td>1995</td>
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<tr>
<td>2000</td>
<td>2.97 Tons per hectare</td>
<td>3.72 Tons per hectare</td>
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<td>2005</td>
<td>4.83 Tons per hectare</td>
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Tons per hectare

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<tr>
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<td>1.42</td>
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<td>Ghana</td>
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<td>2.22</td>
<td>2.97</td>
<td>4.83</td>
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<tr>
<td>Ethiopia</td>
<td>2.22</td>
<td>2.97</td>
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<tr>
<td>World Average</td>
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<td>2.97</td>
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<td>Brazil</td>
<td>4.83</td>
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<th>Year</th>
<th>GDP</th>
<th>Employment</th>
<th>Exports</th>
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<tbody>
<tr>
<td>2010</td>
<td>15%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>2014</td>
<td>43%</td>
<td>18%</td>
<td>84%</td>
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<tr>
<td>2018</td>
<td>42%</td>
<td>77%</td>
<td>84%</td>
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<table>
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<tr>
<th>Sector</th>
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<th>2013</th>
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<td>Agriculture</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>Services</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Industry</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Manufactured Goods</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Others</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Agriculture-Driven Socio-Economic Development

As detailed in all of Ethiopia’s major strategies and policies over the past 20 years, agriculture is expected to play a pivotal role in achieving middle income status by 2025.

A number of countries in Asia during the second half of the 20th century utilized a developmental state approach to address the market failures that exist in the early stages of agricultural transformation. Specifically, public sector-led interventions supported smallholder farmers (who accounted for a significant percentage of total agricultural production) to catalyze increases in agricultural production and productivity. These increases, coupled with increasing domestic and international demand, resulted in higher incomes for the largely rural agricultural population, thus enhancing demand for industrial goods and services. This demand, along with supportive government policies and incentives, catalyzed capital investment and growth of manufacturing and service industries. This in turn increased demand for value-added and processed agricultural outputs for use by industry and drove development of productivity-increasing and value-adding industrial products.

Agricultural and industrial growth were thus mutually reinforcing, with each sector supplying inputs and at the same time generating demand for value-added outputs from the other. This eventually drove commercialization, diversification and specialization across the economy.

While some parallels and critical lessons are available from the experience of these Asian countries, today’s more globalized food system creates additional challenges for smallholders in all developing countries, including Ethiopia. Nevertheless, Ethiopia aims to adapt key lessons from the Asian experience to transform its agriculture sector, creating market based linkages between agriculture and the country’s broader industrialization and socio-economic development strategy.

The Current Status of Ethiopia’s Agricultural Transformation

By nearly all measures, agricultural transformation in Ethiopia can be considered to be well underway. This has been characterized by major public sector investments in order to stimulate agricultural production and productivity increases, as well as to develop (and better manage) the country’s natural resource base and reduce the vulnerability of farming households.

Ethiopia is one of the few countries in Africa that has consistently surpassed the CAADP targets of 6% annual agricultural growth and 10% national public expenditure towards the agriculture sector. Over the past decade, Ethiopia committed an average of 14% of its national budget to agriculture. This investment has been used to lay strong foundations for the sector by building effective institutions and structures, strengthening policies and regulations, and expanding agricultural services to smallholders.

All of these investments have had a significant impact in accelerating progress towards enhanced food security – the starting point for overall agricultural transformation in Ethiopia – through production and productivity increases and targeted support to food insecure households.

However, more work still needs to be done. In the coming years, Ethiopia aims to solidify the progress made to date, by continuing to build on the considerable investments made over the past decade. In particular, a more concerted effort is being placed on supporting smallholder farmers moving from subsistence to commercial, market-focused farming. In this regard, interventions related to aggregation, processing and marketing are being prioritized. In addition, increased efforts are necessary to more systematically leverage and scale-up innovations that are developed by smallholder farmers themselves and expand the role of the private sector across the entire agricultural value chain.

Ethiopia’s Progress Since CAADP (2004–2014)

<table>
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<tr>
<th>Average Yield of Major Cereals</th>
<th>Cereal Production</th>
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<tr>
<td>In MT per hectare</td>
<td>In Million MT</td>
</tr>
<tr>
<td>1.16</td>
<td>2.26</td>
</tr>
<tr>
<td>95%</td>
<td>109%</td>
</tr>
</tbody>
</table>

PROGRESS REPORT

Components Critical to Agricultural Transformation

Many of Ethiopia’s national strategies and policies highlight three critical components that must be addressed in an integrated manner in order to achieve widespread agricultural transformation.

Sustainability and inclusiveness measures

Environmental sustainability across the agricultural value chain is crucial in the Ethiopian context. This includes both the introduction of safeguards to protect Ethiopia’s natural resource base, and the promotion of interventions that will enhance farmers’ resiliency to climate change. Insufficient focus in this area can easily jeopardize the country’s environment as well as its agricultural growth and transformation objectives.

Ethiopia’s agriculture sector is threatened by environmental degradation and by dependence on an increasingly erratic climate. For example, it is estimated that Ethiopia is losing 1.5 billion MT of soil, equivalent to 30,000 hectares of arable land, every year, due to soil erosion. Some estimate that the current trend of resource degradation might reduce Ethiopia’s GDP growth by 0.5%-2.5% each year. Hence, bolstering sustainability by safeguarding the environment as well as promoting climate change adaptation and mitigation is a critical part of agricultural transformation in Ethiopia.

Inclusion of marginalized populations – such as women, pastoralists and farmers in agriculturally marginal and lowland areas – is also required to realize the full potential of all Ethiopian farmers and to equitably distribute the benefits of transformation.

For instance, women play a crucial role in smallholder farming activities, yet there is a productivity gap of about 23% between male and female farmers. Additionally, women often have limited access to agricultural assets (including a significant gap in land ownership) and services, such as extension and credit.

A value chain approach requires a focus on the market orientation of smallholder farmers and a larger role for private business. Furthermore, proper regulation and oversight by government agencies will be important to provide real-time problem solving and ensure consistent application of all strategies and policies.

Mechanisms for Agricultural Transformation

An end-to-end value chain approach

An end-to-end value chain strategy, informed by market demand and requirements, is necessary to ensure that increases in production and productivity will lead to the increased income of smallholder farmers. This approach requires a focus on strategic commodities where smallholder farmers have a comparative advantage based on their agro-ecologies and natural resource endowments. A value chain approach can also systematically create forward linkages to the industrial sector so that agriculture can provide valuable raw materials that reduce imports and save valuable hard currency.

A value chain perspective ensures that adequate emphasis, attention and resources are being allotted to the areas of aggregation, storage, post-harvest management, value addition, and market access. Such attention can mitigate risks that may arise from a pure focus on production oriented interventions, such as a dramatic fall in prices due to large increases in production and productivity without viable market linkages.

Institutional and human capacity building

Building the capacity of key institutions and stakeholders at each level of the value chain is vital to successfully translate transformational objectives into detailed action plans and to realize their effective execution.

Within the public sector, enhanced capacity at key policy and research institutions is necessary to drive the design of transformational strategies, policies, regulations, and interventions. Likewise, stronger management, technical, and operational capacity at local public organizations and among agricultural extension agents is required to effectively implement interventions on-the-ground.

Building the capacity of the private sector is also critical to sustaining the transformation process, particularly as it relates to catalyzing a virtuous cycle for long-term financial viability. Enhanced capacity at private organizations – such as rural SMEs, cooperatives, agribusinesses, and value addition partners – will be crucial to the growth of industries that create the demand for agricultural raw materials produced by smallholder farmers.

Ultimately, however, it is the adoption of modern agricultural production approaches by smallholder farmers that will increase yields and outputs that will serve as the main catalyst of transformation. As such, smallholder farmer capacity building must be at the heart of the transformation process.
Defining the Agricultural Transformation Agenda

Over the past decade, Ethiopian agriculture has primarily focused on ensuring food security and increasing smallholders’ production and productivity. While this approach has brought about significant growth of the sector, structural transformation of agriculture, necessary to support Ethiopia’s industrial and economic ambitions, requires additional interventions. Transformation involves implementing multiple interventions simultaneously and coordinating a complex stakeholder landscape. At the same time, it requires the development of a culture that continuously pilots, tests, monitors, and adapts strategies and interventions for changing circumstances. Transformation also includes the challenging process of change management among some stakeholders that are comfortable with the status quo.

Ethiopia has modeled its agricultural transformation approach on the successful path taken by countries such as Taiwan, Korea and Malaysia. The two main features in those countries’ models were: 1) a clear set of prioritized interventions to address the critical bottlenecks in a particular part of the economy; and 2) a dedicated institution that supports senior policy makers and key institutions with strategic input on planning, coordinating, implementing, tracking, evaluating, and refining prioritized interventions to address identified bottlenecks.

In Ethiopia, this set of prioritized interventions is known as the Agricultural Transformation Agenda, a mechanism designed to provide a coordinated approach to remove the structural bottlenecks that constrain the achievement of specific agricultural targets. During GTP I, the Transformation Agenda was composed of 84 deliverables – activities with the highest potential to impact smallholder farmers in Ethiopia. These deliverables are owned and implemented by a variety of agricultural stakeholders involved in planning, execution, capacity building, and monitoring and evaluation.

While the Agricultural Transformation Agenda aims to solve many key systemic bottlenecks, it is not an attempt to remove all bottlenecks in Ethiopian agriculture, nor does it encompass all activities that must be carried out within each GTP period. Most importantly, the success of the Transformation Agenda hinges on the smooth collaboration of partners to effectively execute all prioritized activities. Governance and oversight of the Transformation Agenda is provided by the Agricultural Transformation Council, chaired by the Prime Minister and made up of the heads of key agriculture and related sector institutions. The Council sets the vision and strategic direction for deliverables, and oversees progress to ensure accountability against objectives. The Council also ensures efficient allocation of human and financial resources, and ensures effective stakeholder engagement in prioritized areas. Under the oversight of the Transformation Council, the ATA serves as the Secretariat. In this capacity, the ATA provides strategic assistance on deliverable planning, supports implementation, and tracks and reports on progress of deliverables to senior policy makers.

Much of the Transformation Agenda’s leadership comes from the Ministry of Agriculture and Regional Bureaus of Agriculture, who often take on the role of direct implementation or provide project management support to implementing partners. Other government institutions critical to the transformation process include the Ministry of Trade, Ministry of Industry, Ethiopian Institute of Agricultural Research, and the Federal Cooperative Agency, among others. These institutions – as well as their regional counterparts – own and implement deliverables related to their particular areas of responsibility, while ensuring that alignment and clear linkages are created with other ongoing initiatives.

Non-governmental and private sector actors also engage in interventions, either directly in implementation, or by providing feedback and expertise on deliverables where their organizations have relevant experience. Specifically, three key areas have been identified where all stakeholders must engage and closely collaborate to implement deliverables within the Transformation Agenda: Deliverable Planning, Implementation, and Performance Management.

The Transformation Agenda also takes into account the need to mainstream crosscutting issues into all deliverables. Some simulation models have indicated that by 2050 the effects of climate change will reduce average rice, wheat and maize yields by up to 20% in Sub-Saharan Africa. This means that farmers must adapt and build resilience to variable rainfall, changes in temperature, and increased incidence of diseases associated with climate change. The sector must also grow in an inclusive manner. Significant population groups often have challenges to participating in the growth process because of poverty, marginalization (e.g. pastoralists), or because social norms constrain them. Agricultural transformation cannot be achieved unless the same opportunities are provided to underserved, more vulnerable groups as well.

The inclusion of strong performance management as part of the Transformation Agenda also allows for progress in all areas to be trackable and measurable, while making sure that interventions do not have unintended negative consequences.
The ATA’s Role Within the Transformation Agenda

The ATA and the Transformation Agenda concept grew out of a two-year extensive diagnostic study of Ethiopia’s agriculture sector, led by the Ministry of Agriculture and facilitated by the Bill & Melinda Gates Foundation. The study examined how Ethiopia could replicate the agricultural transformation seen in many Asian countries during their first phase of development.

Furthermore, the number and diversity of Ethiopia’s regions and agricultural livelihood systems also creates major questions related to pure operational scope. The resources necessary to understand and effectively engage on systemic issues on such a broad range of issues can be daunting.

2. Balancing a focus on capacity building with delivering results quickly

The ATA primarily works by supporting and strengthening existing institutions and structures to catalyze the transformation of Ethiopia's agriculture sector. While this remains the primary approach for engagement, it is not the only tool that the ATA must use to catalyze transformation. In some instances there is a need to become more actively engaged on a particular deliverable in order to generate momentum towards progress. Engaging the long-term owners of a deliverable using a “learning by doing” approach can sometimes be the most effective means of capacity building. The demonstration effect of getting some early wins on the board can also have its own catalytic effect.

Early wins are also important to engage the smallholder farmers of the country into the process. The Agricultural Transformation Agenda must quickly provide useful and effective technologies that can stimulate further innovations from the farmers themselves.

By consulting international case studies and leveraging best practices, the study proposed a prioritization process (such as the Transformation Agenda) to identify and resolve systemic bottlenecks in Ethiopia’s agriculture sector. It also identified the need to establish a dedicated organization (the ATA) to help catalyze and drive the process forward by supporting all key stakeholders in the sector.

During the past four years, the ATA has continued to refine and contextualize the Asian approach of developing and implementing a “Transformation Agenda” to the practical realities of Ethiopia’s current agricultural system. In addition, it has had to tackle two important balances related to scope:

1. Sub-sectoral and geographic focus

Transformation of an agriculture sector requires a holistic approach that addresses bottlenecks across the entire commodity value chain. Solving one problem without addressing bottlenecks in another can have disastrous consequences such as price collapses.

ATA’s Lifespan

The ATA is a time-bound organization that aims to fulfill its mandate within a 15-20 year lifespan. Within this time frame, the ATA is expected to sufficiently catalyze transformation, help build capacity in critical areas, and handover ownership of the activities that will bring about sustainable change to other partners. The Agency’s four-phase lifespan was formulated to contribute to the agricultural targets set forth in Ethiopia’s national strategic policies.

PHASE I: GTP I – INCEPTION

During the first phase of the ATAs engagement, the main objective has been to prove the model of the Transformation Agenda and to deliver some initial results in order to create the momentum for accelerated change. In this phase, the ATA is expected to contribute to agricultural targets in the GTP including: doubling production of staple crops from 2005 E.C. levels, and growth of value addition by 8%.10

PHASE II: GTP II – IMPACT

The second phase will focus on translating the learnings of the inception period into highly impactful interventions, implemented at scale, during GTP II. This phase will place significant focus on supporting the transition of Ethiopia’s agriculture sector from a production oriented approach to one that increasingly integrates market issues.

In addition, aggressive capacity building at the Ministry of Agriculture and other public sector partners will be prioritized. Phase II targets include increasing the production of key commodities with improved links to both domestic and international markets.

PHASE III: GTP III – IMPACT

Building on the successes and learnings from GTPs I & II, the GTP III Impact phase (2021-25) is expected to expand ATAs support across a wide range of production and market focused deliverables. The primary targets are expected to focus on: increasing the productivity and income of smallholder farmers, to help Ethiopia reach middle income status; and expanding exports of selected commodities to broader markets.

PHASE IV: TRANSITION

By the time the ATA reaches its Transition phase (2026-30), the agriculture sector is expected to be far along in the transformation process. The MoA is also envisioned to have assumed many of the functions currently undertaken by the ATA, with the Agency playing a backstopping role. The ATAs function will be downscaled to focus on sharing tools and approaches with other parts of the public sector. Broad targets during this final phase may include: reaching productivity levels of Asian and Latin American countries for key commodities; and the reduction of the population living in food poverty to 10% or below.

Analytics

Beyond its programmatic activities, the ATA brings to bear its capacity through a strategic advisory and consulting function. The Analytics team is modeled after top-tier, global strategy consulting firms with the aim of bringing the same level of speed, rigor and insight to effectively support senior level decision-making in the Ethiopian agricultural context.

Upwards of 25 projects have been successfully executed by the Analytics team over the last two years of GTP I across five thematic areas: strategy development and strategic planning; policy and regulatory analysis; institutional and industry structure and process enhancement; business model development; and design and incubation of catalytic programs and projects.

Guidance of the Transformation Council

The specific interventions necessary to catalyze agricultural transformation and the ATAs role in the process will inevitably vary in the different stages of development. The trade-offs that the organization must make to balance the various issues at play in each stage are ultimately directed by the Agricultural Transformation Council, chaired by the Prime Minister.

The ATA’s “Value Add”

The ATA was not created to replace existing agricultural actors and interventions, but rather to enhance the capacity of key stakeholders to achieve agricultural transformation. In particular, the Agency strives to:

1. Introduce new technologies and approaches that can address systemic bottlenecks and catalyze transformation of the sector

2. Play a catalytic role to support partners to effectively execute agreed upon solutions (many of which may not be new) in a coordinated manner

PHASE II:

PHASE III:

PHASE IV:
Overview of Agriculture Component of GTP I

Two of the Government of Ethiopia’s (GoE’s) main development goals are poverty reduction and eliminating the country’s dependence on food aid within a short time frame. With this in mind, the Ministry of Finance and Economic Development has coordinated the design and implementation of a number of related strategies over the last two decades. Between 2000/01 and 2004/05, the Sustainable Development and Poverty Reduction Program (SDPRP) was implemented, followed immediately by the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) for the years 2005/06 - 2009/10. Building on the experiences of these strategies, the first Growth and Transformation Plan (GTP) was formulated for the years 2010/11 to 2014/15, with a set of clear objectives and targets. As with the preceding national policies and strategies, the GTP recognizes agriculture as the heart of the Ethiopian economy and sets objectives that aim to boost agricultural production, strengthen agricultural research, and facilitate stronger market linkages. Fourteen agricultural growth and transformation objectives were developed in GTP I, along with their corresponding outputs and measurable targets. These comprised the GoE’s plans to develop the agriculture sector within the specific five-year period.

Agricultural Objectives in GTP I

1. Ensure food security and support the food industry through increasing crop production
2. Increase crop productivity by applying good agricultural practices
3. Increase crop production by increasing cultivable agricultural land
4. Improve agricultural production and productivity by improving extension service utilization and agricultural inputs
5. Strengthen agricultural marketing strategy & increase foreign market earnings
6. Improve livestock production & productivity
7. Enhance agricultural research
8. Encourage private sector investment in agriculture & increase agricultural product exports
9. Enhance plant health & quality control
10. Enhance livestock health & quality control
11. Strengthen natural resource conservation
12. Strengthen biodiversity conservation
13. Improve disaster mitigation & management
14. Decrease the population living below poverty line

Creation of the Agricultural Transformation Agenda in GTP I

When the ATA was established in 2011, GTP I was already one year into its implementation. While this created some challenges, GTP I also offered the opportunity to test the ATAs model of engagement with all key stakeholders and learn from the approach. The process of creating the Transformation Agenda has, in fact, been an evolutionary process over the past four years, continually tailoring and contextualizing the approach to best fit the Ethiopian context.

In the first two years of the ATAs existence (2011-13), the MoA and the ATA jointly identified and prioritized a number of interventions that could accelerate transformation of the agriculture sector and help reach the agricultural targets in GTP I. These deliverables were initially focused on the broad systems areas of the agriculture sector, such as seed systems, soil health, research and extension. However, it very quickly became clear that interventions in these areas would not bring rapid impact at the smallholder farmer level if a parallel engagement was not made in the specific commodity value chains that these system level interventions were aimed at addressing. In addition, key crosscutting issues, such as gender, climate and MLE, were added to ensure that unintended consequences from other deliverables were minimized. In total, fourteen distinct program areas emerged from the prioritization of broad engagement areas for the Transformation Agenda in GTP I.

A more challenging aspect of developing the Transformation Agenda, however, laid in identifying the specific deliverables and interventions that should be prioritized within each of these fourteen program areas. Systemic bottlenecks exist in a wide range of areas and it would be impossible to try and address all of these challenges simultaneously. As such, a target number of deliverables was identified for each broad vertical area. For the programs in the Systems vertical, which were the priority during GTP I, a target of 5-7 deliverables were identified in each program area. For programs in the Value Chains vertical, a smaller number of 3-4 deliverables were identified in each program area. Finally, in the Crosscutting Initiatives vertical, 2-3 deliverables were identified in each program.

The identification of a final set of transformational deliverables in each program area went through an iterative process whereby a larger number of deliverables were initially identified. Through deliberation, analysis and consultation with all stakeholders (all the way down to smallholder farmers in key geographies) a final list of 84 deliverables were ultimately identified for prioritization during GTP I.

Planning and execution of the Transformation Agenda in GTP I afforded many lessons, identifying the areas of greatest success as well as those in need of improvement. In terms of broad areas of operational success, the Transformation Agenda has aligned stakeholders around key strategic deliverables and strengthened a wide range of sector implementation structures. It also integrated a continuous learning process into the execution of deliverables, in part through the introduction of effective and regular reporting formats. Most importantly, a number of pilot initiatives have proven effective enough to scale-up across the country, delivering real results for smallholders.

There are also some key challenges and lessons from the implementation of the Transformation Agenda in GTP I that must be addressed in GTP II. This includes adjusting the scope and design of deliverables to better match the owners’ implementation capacity and demanding greater ownership and accountability from stakeholders. Appropriate resource allocation for some deliverables was also a challenge during GTP I and will be critical for effective implementation in GTP II. In order to better track the outcomes of deliverables, specific, evidence-based and capacity-sensitive targets and milestones are also necessary. Finally, well-designed capacity building programs must be integrated into deliverable implementation to ensure that all activities will be institutionalized and sustainable.
Alignment of the Agricultural Transformation Agenda with GTP I

From its inception, the Transformation Agenda was intended to support the fulfillment of agricultural goals already identified by the GoE. As a result, separate impact targets have not been defined for the Transformation Agenda. Rather, the Transformation Agenda over the past four years has been expected to support the achievement of the agriculture targets in the five-year GTP.

Furthermore, the 84 deliverables in the Transformation Agenda during GTP I do not aim to address all of the objectives in the GTP. They were designed to contribute to the achievement of specific GTP I objectives by unlocking specific bottlenecks. In particular, the deliverables in the Transformation Agenda have been expected to address the following agricultural objectives in the GTP I:

- Increase crop productivity by applying good agricultural practices
- Improve agricultural production and productivity by improving extension service utilization and agricultural inputs
- Strengthen the agricultural marketing strategy and increase foreign market earnings
- Enhance agricultural research
- Strengthen natural resource conservation

Transformation Agenda deliverables have been grouped into four program verticals: Value Chains, Systems, Crosscutting Initiatives and Special Projects.

Value Chain programs strengthen the entire product cycle of commodities with the highest potential to impact smallholder farmer production and well-being. Commodities prioritized within this vertical represent the vast majority of agricultural production in Ethiopia. Value Chain programs in the Transformation Agenda during GTP I include:

- Tef & Rice
- Wheat & Barley
- Maize & Sorghum
- Pulses & Oilseeds
- Livestock (initiated in last year of GTP I)

Systems are the key building blocks of agricultural value chains. Systems programs prioritized in the Transformation Agenda seek to address each part of the value chain in an interconnected manner. These include:

- Seed
- Soil Health & Fertility Management
- Cooperatives
- Input & Output Markets
- Research & Extension
- Household Irrigation
- Mechanization
- Rural Financial Services

Crosscutting Initiatives address key issues that intersect with and strengthen the interventions in all Value Chain and Systems program areas. They aim to ensure that interventions are socially, environmentally, and economically sustainable, and minimize unintended consequences. In particular, Crosscutting Initiatives focus on:

- Gender Mainstreaming
- Climate Change & Environmental Sustainability
- Monitoring, Learning & Evaluation

Finally, a narrow set of Special Projects that have the potential to contribute significantly to agricultural transformation, but which do not fit neatly into one of the other verticals, have been identified for focus during GTP I.

A mapping of each Transformation Agenda deliverable against GTP objectives is outlined below.

GTP Objective No. 4: Improve agricultural production and productivity by improving extension service utilization and agricultural inputs

<table>
<thead>
<tr>
<th>Deliverable # and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop &amp; release Seed Sector Strategy</td>
</tr>
<tr>
<td>2. Update seed sector proclamation</td>
</tr>
<tr>
<td>3. Strengthen Seed Regulatory system</td>
</tr>
<tr>
<td>4. Strengthen seed supply chain</td>
</tr>
<tr>
<td>5. Pilot &amp; expand new seed marketing system</td>
</tr>
<tr>
<td>6. Expand Community-Based Seed Production (CBSP)</td>
</tr>
<tr>
<td>7. Strengthen capacity of seed producers</td>
</tr>
<tr>
<td>8. Genetic restoration of key crop varieties</td>
</tr>
<tr>
<td>9. Develop &amp; release Soil Sector Strategy</td>
</tr>
<tr>
<td>10. Create updated soil fertility atlas</td>
</tr>
<tr>
<td>11. Establish fertilizer blending plants</td>
</tr>
<tr>
<td>12. Develop fertilizer recommendation scheme</td>
</tr>
<tr>
<td>13. Develop &amp; release Cooperative Sector Strategy</td>
</tr>
<tr>
<td>14. Strengthen cooperative audit structure</td>
</tr>
<tr>
<td>22. Transform Arada ATVET into coop CoE</td>
</tr>
<tr>
<td>23. Provide organizational capacity building to FCUs</td>
</tr>
<tr>
<td>28. Implement Rural Financial Services (RFS) Strategy</td>
</tr>
<tr>
<td>37. Develop &amp; release Extension Sector Strategy</td>
</tr>
<tr>
<td>38. Refine DA career path &amp; incentives</td>
</tr>
<tr>
<td>39. Develop PTC functionality criteria &amp; upgrades</td>
</tr>
<tr>
<td>41. Strengthen extension package delivery</td>
</tr>
<tr>
<td>61. Expand adoption of Quality Protein Maize</td>
</tr>
<tr>
<td>69. Pilot &amp; expand use of agro-mort info</td>
</tr>
<tr>
<td>81. Pilot &amp; scale-up Input Tracking System</td>
</tr>
</tbody>
</table>

GTP Objective No. 2: Increase crop productivity by applying good agricultural practices

<table>
<thead>
<tr>
<th>Deliverable # and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42. Develop &amp; release Household Irrigation Sector Strategy</td>
</tr>
<tr>
<td>43. Support Hill Value Chain in 21 ASP woredas</td>
</tr>
<tr>
<td>44. Develop &amp; enforce national irrigation pump standards</td>
</tr>
<tr>
<td>45. Conduct shallow groundwater mapping</td>
</tr>
<tr>
<td>46. Strengthen irrigation pump supply chain</td>
</tr>
<tr>
<td>47. Develop &amp; release Tef Value Chain Strategy</td>
</tr>
<tr>
<td>48. Develop &amp; release Rice Value Chain Strategy</td>
</tr>
<tr>
<td>49. Implement integrated tef interventions</td>
</tr>
<tr>
<td>50. Pilot &amp; scale-up tef productivity enhancing package (TIRP)</td>
</tr>
<tr>
<td>52. Develop &amp; release Wheat Value Chain Strategy</td>
</tr>
<tr>
<td>53. Develop &amp; release Barley Value Chain Strategy</td>
</tr>
<tr>
<td>54. Implement integrated wheat interventions</td>
</tr>
<tr>
<td>55. Improve malt barley production &amp; market linkages</td>
</tr>
<tr>
<td>56. Develop &amp; release Maize Value Chain Strategy</td>
</tr>
<tr>
<td>59. Develop &amp; release Sorghum Value Chain Strategy</td>
</tr>
<tr>
<td>60. Implement integrated maize interventions</td>
</tr>
<tr>
<td>62. Develop &amp; release Sesame Value Chain Strategy</td>
</tr>
<tr>
<td>63. Implement integrated cropping systems interventions</td>
</tr>
<tr>
<td>64. Develop strategy to integrate cholea/pulse crops</td>
</tr>
<tr>
<td>65. Implement integrated sesame interventions</td>
</tr>
<tr>
<td>70. Mainstream climate issues in all deliverables</td>
</tr>
<tr>
<td>71. Develop &amp; release Agricultural Mechanization Strategy</td>
</tr>
<tr>
<td>72. Strengthen links between technology suppliers &amp; operators</td>
</tr>
<tr>
<td>73. Facilitate promotion of pre- and post-harvest machinery</td>
</tr>
<tr>
<td>74. Facilitate technology transfer with other countries</td>
</tr>
<tr>
<td>75. Develop &amp; pilot tef row planter</td>
</tr>
</tbody>
</table>

GTP Objective No. 5: Strengthen the agricultural marketing strategy and increase foreign market earnings

| Del Sport commission-based output marketing systems |
| 24. Build storage capacity of FCUs for output marketing |
| 25. Set up agricultural market information system |
| 26. Develop cereal market incentivization mechanisms |
| 27. Strengthen warehouse receipt environment |
| 28. Strengthen extension package delivery |
| 55. Integrate partners to expand domestic wheat purchase |
| 83. Pilot Tef International Market Access initiative |

GTP Objective No. 7: Enhance agricultural research

| Del Sport commission-based output marketing systems |
| 30. Develop & release Research Sector Strategy |
| 31. Operationalize Ethiopian Agricultural Research Council |
| 32. Refine career path and compensation for researchers |
| 33. Establish Centers of Excellence for commodities research |
| 34. Develop national researcher training program |
| 35. Develop national capacity to use biotechnology tools |
| 36. Identify agricultural technologies & strengthen R&D |
| 40. Build ADPLAC capacity |
| 51. Enhance Agricultural Research Institutes’ breeding capacity |
The Agricultural Transformation Agenda and the Agricultural Growth Program (AGP)

Further to its work with specific Transformation Agenda deliverables, the ATAs support to the GTP I is also linked with the Agricultural Growth Program (AGP), a multi-donor funded program led by the Ministry of Agriculture. The AGP is anchored in the government’s focus on increasing sustainable agricultural growth by increasing agricultural productivity and market access for key crop and livestock products with increased participation of women and youth. The Transformation Agenda aims to leverage funding provided by the AGP and outcomes related to the AGP objectives in order to catalyze the process of agricultural transformation in woredas prioritized in the AGP program.

The ATAs strategic work under the scope of the AGP began with a focus on three areas but later grew to encompass additional Transformation Agenda deliverables.

1. The first area of initial collaboration with the AGP was in strengthening strategy and policy linkages, to ensure that the ATAs policy recommendations in areas of programmatic overlap (i.e. seeds, coops, soil fertility, etc.) were informed by input from AGP woredas. Furthermore, the ATA helped to ensure that policy recommendations that were approved by the government were implemented quickly in AGP woredas.

2. Secondly, the ATA coordinated and accelerated the scale-up and adoption of household irrigation programs (including manual and mechanized pump technologies) in AGP woredas. Household irrigation in these areas is undertaken based on comprehensive analysis of productivity and commercial potential, natural resource constraints, and other farm-level incentives.

3. Finally, the work of the ATA and AGP initially overlapped in the area of monitoring and evaluation. The ATA has been working to strengthen the M&E capacity of the MoA to effectively collect, analyze and develop policy recommendations by leveraging the outputs and learning from AGP woredas. Furthermore, the ATA supports the MoA in scaling-up successful interventions from AGP woredas to other parts of the country.

Successful collaboration between the ATA and AGP in these initial areas has led to expanded engagements, including three flagship projects within the Transformation Agenda – the Ethiopian Soil Information System (EthioSIS), establishment of fertilizer blending plants, and the cooperatives storage initiative. All three projects have introduced groundbreaking technologies and approaches that enhance the production and productivity of smallholder farmers and their ability to aggregate and link their outputs to markets.

Engagements with the AGP have also led to a close working relationship with various development partners providing support to the overall program. In particular, some important linkages have been created between Transformation Agenda deliverables and USAID’s Feed the Future program.

During GTP I, the primary area of engagement with Feed the Future has been with the Agricultural Growth Program–Agribusiness and Market Development (AGP-AMDe) program. This program aims to sustainably reduce poverty and hunger by improving the productivity and competitiveness of value chains that offer jobs and income opportunities for rural households. In addition, Feed the Future investments through a Fixed Amount Reimbursable Agreement (FARA) program have provided important contributions to deliverables in program areas such as Seeds, Cooperatives, Research, Input/Output Markets, Mechanization and Special Projects.

Finally, as livestock became an area of work in the Transformation Agenda during the final year of GTP I, areas of collaboration were identified with the Agricultural Growth Program–Livestock Market Development program. Expanded partnerships between the AGP Feed the Future and other relevant programs are expected to play a major role in the implementation of the Transformation Agenda during GTP II.
Achievements and Lessons Learned During GTP I Agricultural Transformation Agenda Implementation

Overall Performance of Deliverables

The performance of the 84 deliverables in the Transformation Agenda was regularly assessed throughout GTP I and reported to the Prime Minister and the Transformation Council based on a rigorous performance management framework. While the ultimate goal of the Agricultural Transformation Agenda is to deliver impact at the smallholder farmer level, each deliverable has been prioritized and designed to address a particular systemic bottleneck in the agriculture sector. As such, many deliverables are several steps removed from directly working with smallholder farmers and it becomes difficult to quantify the direct impact of each deliverable on a specific number of farmers. For example, deliverables such as updating the seed sector proclamation or improving the career path and incentive structure of agricultural researchers are expected to make major contributions to the performance of the agriculture sector as a whole and to ultimately benefit smallholder farmers. However, the immediate and direct contribution of these two deliverables, and many similar ones, on the production and productivity of a specific number of smallholder farmers is impossible to quantify.

Nevertheless, a concerted effort has been made to quantify and analyze the specific contributions that each deliverable has had on the agriculture sector during GTP I. As such, all 84 deliverables in the Transformation Agenda for GTP I have been measured based on the outputs generated across five broad thematic areas: Policies/Strategies/Regulations, Institutional Structures/Processes/Systems, Introduction of Innovative Ideas, Capacity Building, and Direct Engagement with Smallholders.

All deliverables have also reported outputs in each of the five thematic areas, tracking two major indicators for each thematic area. Results and data have been collected, verified and reported by deliverable owners and government bodies at local, regional and federal levels. Internal verification of the outputs in each thematic area has also been undertaken by the ATAs Performance Management Unit in most (but not all) cases.

Key outputs achieved by Transformation Agenda deliverables during GTP I include: the revision of three policies/proclamations; the development of 23 new strategies/guidelines/regulations, the introduction and scale-up of 23 innovative concepts, and the engagement of over 4.4 million farmers using new technologies introduced through the Transformation Agenda deliverables on over two million hectares of land. (Specific contributions by each deliverable and each program to these overall figures are provided in the Program Summary section of this report).

Although most deliverables have made contributions toward outputs in more than one thematic area, each deliverable has also been classified as having one primary thematic focus area. Common, measurable targets have been utilized to track and assess achievements in each thematic area, in order to determine the “On Track,” “Slightly Delayed,” and “Significantly Delayed” status. Relevant additional factors, such as the deliverable start date and complexity of the task, are also factored into these status ratings for certain deliverables.

The counterfactual of how the Transformation Agenda, and more specifically the ATA, have contributed to overall agricultural development during GTP I may be difficult to capture given that the objective of most Transformation Agenda deliverables is to improve the pace and quality of existing institutional arrangements.

In the following sections, the performance of Transformation Agenda deliverables is analyzed based on the five broad thematic areas that all deliverables fall into. In addition, the final part of this section provides the results of a survey undertaken with all deliverable owners and key partners working on the Transformation Agenda during GTP I. A more detailed program-by-program review of deliverables is provided in the next section of the Progress Report.

Achievements of Transformation Agenda Deliverables by Primary Thematic Area

<table>
<thead>
<tr>
<th>Primary Thematic Area</th>
<th>Output Indicators</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies/Strategies/Regulations</td>
<td>No. of policies/proclamations revised</td>
<td>3</td>
</tr>
<tr>
<td>No. of strategies/regulations/guidelines implemented</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Structures/Processes/Systems</td>
<td>No. of new institutional structures implemented</td>
<td>29</td>
</tr>
<tr>
<td>No. of new institutional process/system implemented</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td>Introduction of innovative ideas</td>
<td>No. of innovative concepts/approaches piloted</td>
<td>70</td>
</tr>
<tr>
<td>No. of innovative concepts/approaches scaled-up</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Capacity building</td>
<td>No. of stakeholders experts trained</td>
<td>67,671</td>
</tr>
<tr>
<td>No. of institutions strengthened/capacitated</td>
<td>2,148</td>
<td></td>
</tr>
<tr>
<td>Direct engagement with smallholders</td>
<td>No. of SHF trained or reached by new technologies</td>
<td>9,689,578</td>
</tr>
<tr>
<td>No. of SHF using newly introduced technologies</td>
<td>4,436,020</td>
<td></td>
</tr>
<tr>
<td>Ha. of land covered by newly introduced technologies</td>
<td>2,187,545</td>
<td></td>
</tr>
</tbody>
</table>
and Maize (D47 & D58), as well as other sub-sector strategies, such as Soil, Mechanization and Household Irrigation (D9, D71 & D42 respectively). Furthermore, of the 15 policy commitments made by the GoE as part of the G8 New Alliance cooperation framework (D82), five were fully implemented, while significant progress has been made in the remaining areas.

Structures/Processes/Systems

Of the 17 deliverables identified as dealing primarily with strengthening institutional Structures/Processes/Systems, 53% (9 deliverables) are “On Track,” 35% (6 deliverables) are “Slightly Delayed,” and 12% (2 deliverables) are “Significantly Delayed.”

Performance by Primary Thematic Area

All deliverables in the Transformation Agenda can be grouped into one of five broad thematic areas. The largest number of GTP I deliverables (26) fall into the Policies/Strategies/Regulations area. Capacity Building and Direct Engagement with Smallholders have the fewest number at 11 deliverables each.

While a more detailed analysis of the results from each thematic area will follow in subsequent sections, some high level observations can also provide important insights. For example, although Direct Engagement with Smallholders has the fewest deliverables, it is the category that has shown the strongest performance with 82% of deliverables “On Track,” 18% “Slightly Delayed” and none that are “Significantly Delayed.”

The other thematic area with the fewest deliverables, Capacity Building, has also shown a higher than average number of “On Track” deliverables (64%) but is also the area with the largest percentage of deliverables that are “Significantly Delayed” (18%). The remaining three thematic areas show similar distributions of deliverable status with 42-53% “On Track,” 35-42% “Slightly Delayed,” and 11-16% “Significantly Delayed.”

The major output contribution from deliverables in this thematic area has resulted in the passage of two proclamations (Seed Sector and Biosafety - D2 & D35), and one major policy change (Career Path and Compensation for Researchers - D32). In addition, 23 strategies and regulations have been developed and released and are currently at different stages of implementation. This includes a number of value chain strategies for prioritized commodities in GTP I, such as Tef introduced through enhancement of the career path and compensation levels for experts in national and regional research institutions (D32).

The majority of the remaining new institutional processes were introduced through the Ethiopian Soil Information System (EthioSIS) project (D10), significantly improving the capacities of the National Soil Testing Center (NSTC) and its regional affiliates, strengthening the Federal and Regional Seed Regulatory system (D3), and the ICT-based Input Tracking System (D81).

Introduction of Innovative Ideas

Of the 19 deliverables in the Introduction of Innovative Ideas area, 47% (9 deliverables) are considered to be “On Track,” 42% (8 deliverables) are “Slightly Delayed,” and 11% (2 deliverables) are “Significantly Delayed.”

Specific achievements across all deliverables in this thematic area include implementation of 28 new institutional structures and 124 new institutional process and systems. One-third of the new institutional structures are a result of piloting commission-based output marketing by cooperative unions (D21). In addition, 80% of the new institutional processes were through piloting of 70 new and modern agricultural concepts and the scale-up of 23 of these ideas.
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Of the 11 deliverables within the Capacity Building (D28); and Direct Seed Marketing (D5).
Voucher System and financial literacy training (D65); the Rural Financial Services (RFS) Input Voucher System and financial literacy training (D28); integrated cropping system interventions for key crops (D41, D49, D54, D60, D61, D63 & D65); the Rural Financial Services (RFS) Input Voucher System (D28); integrated household irrigation equipment and commodity value chains in 21 AGP woredas (D43); and development of market oriented modalities for pre- and post-harvest machinery (D73). The key innovations that have been scaled-up include: the EthioSIS generated fertilizer recommendation scheme (D12), an agricultural hotline for farmers (D80), and ICT-based local institutional mapping (D79).

Capacity Building

Of the 11 deliverables within the Capacity Building thematic area, 64% (7 deliverables) are considered to be “On Track;” 18% (2 deliverables) are “Slightly Delayed;” and 18% (2 deliverables) are “Significantly Delayed.”

Key deliverables and innovations contributing to success in this thematic area include: development and enforcement of the seed regulatory system (D3); implementation of integrated household irrigation equipment and commodity value chains in 21 AGP woredas (D43); and development of market oriented modalities for pre- and post-harvest machinery (D73). The key innovations that have been scaled-up include: the EthioSIS generated fertilizer recommendation scheme (D12), an agricultural hotline for farmers (D80), and ICT-based local institutional mapping (D79).

Direct Engagement with Smallholders

The vast majority of deliverables in this thematic area, 82% (9 of 11 deliverables), are “On Track,” with only 18% (2 deliverables) considered to be “Slightly Delayed.”

Approximately 9.7 million smallholder farmers were trained on new or improved technologies through Transformation Agenda deliverables in GTP I. In addition, approximately 4.4 million farmers report taking up and using these technologies, covering just under 2.2 million hectares of cultivated land.

Deliverables accounting for a large share of these results include: the TIRRF productivity enhancement package (D80); the RFS Input Voucher System (D28); integrated interventions in wheat and maize value chains (D54 & D60); integrated cropping system interventions for cereals and pulses (D63); and an agricultural hotline for farmers (D80).

Through these deliverables, 2,148 institutions were engaged in capacity building efforts during GTP I, with 6,767 stakeholder experts trained. A significant percentage of these results came from deliverables focused on strengthening delivery of extension packages and other integrated interventions for key crops (D41, D49, D54, D60, D61, D63 & D65); the Rural Financial Services (RFS) Input Voucher System and financial literacy training (D28); and Direct Seed Marketing (D5).

Success Factors and Areas for Improvement

The ATA has surveyed deliverable owners and other stakeholders who have been engaged in implementing the Transformation Agenda to identify key factors that have contributed to the success of deliverables, as well as areas for improvement going forward. More than 50% of deliverable owners cite timely resource mobilization and allocation (56%), effective stakeholder coordination and engagement (56%), and clear objectives and alignment among key stakeholders (50%), as major contributors to the progress and success of deliverables. A strong guiding strategy (44%) and supportive policy environment and government support (44%) are also frequently cited as important factors for success. On the other hand, the most commonly cited areas requiring improvement are operational implementation capacity (69%), timely resource mobilization and allocation (56%), staff retention, commitment and dedication (50%), and effective reporting, performance management and M&E (44%).

As the only factor frequently cited both as a major contributor to deliverable success and an important area of improvement, timely resource mobilization and allocation is clearly essential for Transformation Agenda performance and should be a key area of focus across all deliverables going forward. In addition, staff retention and operational capacity issues, and ensuring early and ongoing alignment among stakeholders will also need to be prioritized during GTP II.

Overall, the survey results from stakeholders involved in the Transformation Agenda confirm some of the key challenges seen across Ethiopia’s entire agriculture sector. Namely, there are strong guiding strategies and policies as well as a deep engagement by policy makers and key partners. However, it is the lack of sufficient implementation capacity, a robust accountability mechanism and the timely allocation of resources that often hamper effective implementation of agreed upon interventions and solutions.

The development of the Transformation Agenda for GTP II has taken these lessons into consideration and some specific interventions have been included in the GTP II Transformation Agenda to address key issues related to alignment, accountability and implementation capacity constraints.

Contributing Factors of Success & Areas of Improvement

<table>
<thead>
<tr>
<th>Percentage of frequency of citation by deliverable owners</th>
<th>Success Factors</th>
<th>Areas of Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective stakeholder coordination and engagement</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Timely resource mobilization and allocation</td>
<td>56%</td>
<td></td>
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<tr>
<td>Clear objectives and alignment among key stakeholders</td>
<td>50%</td>
<td></td>
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<tr>
<td>Strong guiding strategy</td>
<td>44%</td>
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<tr>
<td>Supportive policy environment and government support</td>
<td>44%</td>
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<tr>
<td>Dedicated leadership and timely guidance</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Effective deliverable design and planning</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Strong technical advisory and support from partners</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Staff retention, commitment and dedication</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Evidence-based analysis to support key decisions</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Effective reporting, performance management and M&amp;E</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Sufficient operational/implementation capacity</td>
<td>6%</td>
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</tr>
</tbody>
</table>

Evidence-based analysis to support key decisions

Overall, 13% of deliverable owners cite evidence-based analysis to support key decisions as an important factor for success. As the only factor frequently cited both as a major contributor to deliverable success and an important area of improvement, this is a key area of focus across all deliverables going forward. In addition, staff retention and operational capacity issues, and ensuring early and ongoing alignment among stakeholders will also need to be prioritized during GTP II.
GTP I TRANSFORMATION AGENDA:
PROGRAM LEVEL PROGRESS REPORT

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Highlighted Deliverables

Since inception nearly four years ago, deliverables in the Agricultural Transformation Agenda have made considerable progress towards addressing the critical bottlenecks hindering agricultural growth and transformation. These deliverables can be categorized by program areas, focusing in different Systems, Value Chains and Crosscutting verticals areas.

This section details the work and progress of each of these program areas, beginning with a recap of several highlighted deliverables which have registered tremendous successes. Among these are the early accomplishments toward increasing tef yields through an innovative productivity enhancing package, and a state-of-the-art comprehensive soil mapping initiative. More recently, the ATA and partners have developed and launched an input sales voucher system as part of the overall strategy to strengthen Ethiopia’s rural financial sector. Just over one year ago, another initiative was piloted to help smallholder farmers access best practice agronomic information through an innovative, interactive agricultural hotline.

A variety of soil fertility issues have historically constrained the potential of Ethiopia’s smallholder farmers. The lack of up-to-date and comprehensive information on the country’s soil fertility conditions has created additional challenges. As a result, for nearly 40 years farmers have received a long-standing, blanket recommendation to use DAP and urea fertilizers in equal amounts, despite the great diversity of soil types, fertility status and agro-ecologies across Ethiopia.

In order to analyze the specific nutrient needs of soils in all locations, the Ethiopian Soil Information System (EthioSIS) project was launched in 2012. A first-of-its-kind national initiative in Africa, the effort uses remote sensing satellite technology and extensive soil sampling to provide high-resolution fertility soil mapping for each region. In addition, woreda level soil collection and mapping has led to a survey of 455 woredas (65% of the agricultural woredas in the country), including the whole of the Tigray, Amhara, SNNP and Harari Regions as well as the Dire Dawa Administration. Consequently, the soil fertility atlas and fertilizer recommendations have already been published for Tigray. Data collection has been completed and analysis is in progress for Amhara and SNNP, with soil fertility atlases expected to be published for both regions by the end of December 2015 and for all other regions in the country by June 2016.

Through this work, soils in many parts of Ethiopia have been found to be deficient in one or more essential nutrients, namely nitrogen, phosphorous, potassium, sulphur, boron, zinc, iron and copper. These findings have helped to revise fertilizer recommendations at the woreda and kebele levels, as well as to identify highly acidic soils that should be rehabilitated with the use of lime. Moreover, 40,000 fertilizer demonstrations carried out in partnership with the Regional Bureaus of Agriculture on farmers’ plots have helped persuade millions of farmers to adopt the recommended soil nutrient supplements, as well as more aligned agronomic practices.

Five fertilizer blending plants have also been established in the four regions with the largest agricultural production in order to help meet the demand for appropriate blended fertilizers. During 2015, all five plants (one each in Amhara, Tigray and SNNP, and two in Oromia) became operational, with a production capacity of 30,000 MT each. This is expected to increase in the near future to a combined capacity of ~250,000 MT. The initiative has also identified potential locations for additional fertilizer blending.
factories to be established through public-private partnerships, such as the soluble fertilizer blending plant under construction in Debre Birhan (Amhara), set to make its products available to end-users by April 2016.

In parallel with specific solutions on soil mapping, fertilizer recommendation and blending activities, EthioSIS has also addressed the need for extensive capacity building in these and related areas to ensure sustainability of these interventions. This has focused on human resources, laboratory facilities and IT infrastructure for the National Soil Testing Center (NSTC) and regional laboratories in Bahir Dar, Hawassa, Mekelle and Nekemte, as well as the agricultural research center in Jima. More specifically, efforts have included:

1. **Introducing new technologies and methodologies, such as:**
   - Geo-referenced field soil information collection mechanism
   - Scientifically and technically replicable soil sampling procedures and methodologies
   - Multi-nutrient soil chemical analysis methodology (Mehlich III)
   - IR spectroscopy and laser diffraction particle size distribution analysis techniques
   - Automated multi-nutrient analyzers such as Microwave plasma-Atomic Emission Spectrometer & IR spectrometers, and laser scattering particle size distribution analyzers

2. **Training relevant staff on:**
   - Laboratory management and good laboratory practices
   - Linux, VMware, meta data and soil database management
   - Geo-statistics and other prediction models, and spectral data analysis and interpretation
   - Training for fertilizer blending staff on technical operations
   - Fertilizer handling and storage

3. **Investments in logistics and IT:**
   - Ammonium Nitrate storage with a capacity of 20 terabytes to hold the EthioSIS master database and geo-statistical modeling data
   - One powerful satellite image processing server to enhance the processing capacity of the geo-statistical model
   - Arc GIS software for geo-statistical analysis and map making

EthioSIS is a milestone in Ethiopia’s history of soil fertility analysis and fertilizer recommendations. Due to its considerable achievements, efforts are underway to streamline the project within the agriculture sector, beginning with the federal level and expanding its findings to contribute to livestock development, identifying soils that need special care, conducting land use planning, and preparing a soil resource data sharing policy, among others. In addition, work is underway to revise the fertilizer policy, strategy and production and marketing proclamation. Discussions are also underway to establish a fertilizer industry agency to regulate the fertilizer supply chain and quality. Finally, EthioSIS has begun to serve as a model for many other African countries with which it has shared its experiences, leading to preparations by Nigeria, Ghana and Tanzania to undertake similar initiatives.
Tef: TIRR Package

Tef is an ancient grain, central to the Ethiopian diet and culture. Tef is also gluten free and high in iron and fiber, which in recent years has caused its demand to surge on the international market. However, until recently, tef was considered an “orphan” crop: one receiving no international attention regarding research on breeding, agronomic practices or other technologies applicable to smallholder farmers. As such, reliance solely on traditional cultivation methods has contributed to tef’s low productivity and quality. Furthermore, increases in the nominal price of tef have created hardships for many Ethiopian consumers, forcing them to transition their diets to other cereals.

Significant efforts have been made during the GTP I period to address tef related constraints across the value chain, but particularly in areas related to productivity. This work began with a diagnostic study conducted in 2011, followed by the development and release of a national tef value chain strategy working document with a clear vision for the entire value chain.

In parallel, an innovative productivity and agronomic practice enhancing concept known as TIRR (Tef, Improved seed, Reduced seed rate, Row planting) was introduced in 2011. Historically, tef has been broadcast planted at a seeding rate of 30-50 kg per hectare using traditional varieties. This high rate is not only expensive for Ethiopia’s smallholders, but also produces weak stems as a result of overcrowding and competition for nutrients, sunlight and water.

In contrast, the TIRR package recommends reducing the seeding rate by 90% to use only 3.5 kg of improved varieties of tef seed per hectare. It also advocates planting the seeds in rows with 20 cm spacing. The yield enhancing aspects of this package have been proven to be the reduced seed rate and improved varieties. Planting the seeds in rows has been recommended to enhance adoption of other important agronomic practices that lead to improved soil health and overall increases in income. Row planting of tef can more easily incorporate the intercropping of pulses, reduces the difficulty of manual weeding, and creates a more efficient mechanism for the application of yield enhancing organic and inorganic nutrients.

The TIRR package was initially piloted with just three farmers in 2011 and scaled-up gradually over the following years. A study conducted in 2012 measured the impact of the intervention, finding that farmers who employed the full package of recommendations achieved a 70% average grain yield increase compared to the national average. In 2013, the ATAs own assessment of the TIRR package, based on a sample of 1,320 households from 44 woredas and 132 kebeles in the four targeted regions, found that the package raised yields by 44% over the control group and 74% over the Central Statistical Agency’s (CSA) 2013 national average yield forecast.

Following these promising results, the package was further scaled-up by the agricultural extension system and incorporated into an integrated set of tef interventions. A significant number of federal, regional, zonal and woreda DAs were trained in the TIRR package. In 2014, 119 agricultural staff from across the country attended federal level trainings, which were then cascaded down to close to nearly 6 million tef growing farmers in the four targeted regions.

In 2014/15, the TIRR package is estimated to have reached 2.2 million farmers (33% of tef growers in Ethiopia), covering an area of 1.1 million hectares (36% of land cultivated with tef). Although an empirical study has not been undertaken, anecdotal evidence and a conservative extrapolation of the yield increases seen from surveyed farmers during the pilot of the TIRR package implies that the scale-up of the TIRR intervention has made contributions to the national increase in tef production and productivity of 38% and 21%, respectively, seen between 2010/11 and 2014/15.

In parallel with the rollout of the TIRR package, a tef/chickpea double cropping initiative has been supported by DAs, farmer trainings and radio campaigns. Two hundred Subject Matter Specialists within the extension system were trained on tef chickpea double cropping, while federal and regional level field days were conducted to verify and share best practices on the packages.

In addition to these production enhancing efforts, tef marketing activities have also been undertaken during the GTP I period to strengthen the downstream end of the value chain. In collaboration with the Food, Beverage and Pharmaceutical Industry Development Institute, the Oromia Cooperative Promotion Agency, the FCA, and Addis Ababa Cooperative Agency, a tef market facilitation training was provided to 71 key stakeholders. At the same time, an exemption to the prohibition of the exportation of tef flour was granted to a deliverable within the Transformation Agenda.

There are also other deliverables in the Transformation Agenda that introduce interventions in various parts of the tef value chain. These include: a mechanized tef row planter to ease the labor burden of planting the extremely small tef seed; introducing mechanical harvesters/threshers and other post-harvest interventions to reduce post-harvest losses; and improving market linkages to expand smallholder farmers’ access to both domestic and international markets.
Rural Financial Services: Input Voucher System

Access to the right inputs (such as fertilizer, improved seed and labor-saving tools) is essential for farmers to increase production and improve productivity in a sustainable manner. Unfortunately, limited availability and high costs often prevent farmers from effectively adopting and using the appropriate quantity of these inputs. While other factors certainly play a role, lack of credit access is often a major obstacle to the adoption of the appropriate package of improved technologies. To overcome this obstacle and encourage increased adoption of vital agricultural inputs (particularly fertilizer and improved seed), the MoA and ATA have developed an Input Voucher System (IVS) as part of an overall Rural Financial Services (RFS) strategy.

Distribution of inputs (mainly fertilizer and improved seeds) is primarily financed by the regional governments and distributed through multi-purpose cooperatives by cash or partial credit. Since cooperatives do not have the appropriate systems to handle the financial transactions – including the collection of input loans – the regional governments, who ultimately are financing the inputs, face various default issues. The accumulation of large amounts of uncollected loans from farmers also reduce the availability of future credit thus hampering full input utilization and creating a viscous negative cycle.

The IVS was designed to address these problems by focusing on financial institutions, mainly Microfinance Institutions (MFIs) and Rural Savings and Credit Cooperatives (RuSACCos), as the key new intermediaries for all financial transactions on input purchases. In this new model, the financial institution issues vouchers to smallholder farmers for cash or credit to be redeemed for fertilizer and improved seed at a primary cooperative store. By having the financial institutions act as a payment agent for cash sales and a formal lender for credit sales, the IVS minimizes the cash risk exposure for participating farmers, cooperatives and regional governments. The MFI also becomes responsible for collecting loan repayments from farmers, allowing for effective audit and control processes by all institutional participants, as well as supporting effective financial flows between and among all stakeholders. In order to minimize travel and transaction cost for farmers, these financial institutions also establish satellite branches closer to the primary cooperatives, yielding many additional benefits related to financial inclusion.

The IVS system was first piloted in the Amhara Region with the Amhara Credit and Saving Institution (ACSI) in 2014. During the pilot period, 243 million ETB ($12 million USD) worth of vouchers were issued to 168,000 participating farmers through 55 newly opened satellite ACSI branches in five woredas. Among the 168,000 smallholder farmers, 35,000 received credit worth over 52 million ETB, 100% of which was repaid in full before the loan maturity dates. Most importantly, smallholder farmers’ application of fertilizer in the woredas in Amhara where the IVS was piloted increased by 30%, as compared to an increase of 15% in woredas without the system.

In 2015, the IVS was scaled-up in Amhara to 73 woredas, and piloted in 6 woredas in SNNP and 3 woredas in Tigray, with plans to include Oromia in 2016. In the 2015 planting season (by July 2015), almost 1.76 million smallholder farmers utilized the system to purchase inputs worth 2.95 billion ETB ($141 million USD) in Amhara alone. Of this amount, almost 500 million ETB ($24 million USD) was on a credit basis to almost 400,000 smallholders. In addition, ACSI has been establishing 800 new satellite branches for this initiative who have already managed to mobilize more than 71 million ETB ($3.5 million USD) in savings from over 74,000 farmers.

In the Tigray pilot, RuSACCos were used to issue input vouchers on cash worth over 39 million ETB ($1.87 million USD) for almost 35,000 smallholder farmers by July 2015. In SNNP, Omo Microfinance was used to issue input vouchers worth over 115 million ETB ($5.92 million USD), reaching nearly 71,000 smallholders – almost 60,000 of whom also received credit worth over 52 million ETB ($2.49 million USD).

To facilitate implementation of the IVS, training on the overall system and on financial awareness was given to more than 4,200 experts in Amhara, 645 in Tigray, and 1,000 in SNNP. A financial awareness campaign was also delivered through radio programs in all four regions, leveraging Fana Broadcasting Corporation. Activities are also underway to automate the IVS, and to upgrade the system from a paper-based platform to one using an electronic “e-voucher”, in order to save costs and streamline the process. The e-voucher system has already been tested by recording over 200 transactions in parallel with the manual system, in advance of a larger pilot planned for the 2016 irrigation and belg seasons.

Since its inception, the input voucher system has vastly simplified the process of input purchases and improved access to credit. It has also helped to improve the savings culture of rural communities and is assisting smallholder farmers in planning their input purchases in advance of planting seasons. Furthermore, since the credit offered to farmers under the voucher system now provides farmers with more flexible terms to repay their loans, they have additional options in storing and selling grain when prices are attractive, rather than being forced to sell immediately after harvest when prices are at their lowest. Finally, the system has brought financial institutions further into rural areas, increasing the likelihood of farmers repaying their loans and expanding access to savings and other financial products while easing the burden on regional governments’ budgets.
ICT: 8028 Agricultural Hotline

Despite the volume of agriculture-related information and training available through Ethiopia’s vast public extension system, ensuring farmers receive up-to-date data and knowledge in a timely manner remains a great challenge. This is particularly the case for the remote rural smallholders who make up the majority of the sector. At times, new agriculture extension advice emerging from Ethiopia’s agricultural research centers can take multiple years to cascade down to reach all smallholder farmers around this vast country.

To address this challenge, an Interactive Voice Response (IVR) and Short Message Service (SMS) platform was developed to deliver information directly to farmers through mobile phones. In July 2014, the ATA, in collaboration with the MoA, EIAR and Ethio Telecom, launched ‘8028’, Ethiopia’s first agricultural hotline. The 8028 hotline seeks to support sustainable agriculture by empowering smallholders with access to agronomic best practices. The system’s main objective is to ensure that smallholders have real-time and immediate access to pertinent agronomic information, which will help them to make more informed decisions about their farming practices.

Smallholder farmers can now call into the 8028 automated hotline for free and receive information on a wide range of agricultural activities on all major cereal, pulses and high-value crops. Keypad menu options allow farmers and Development Agents to select their particular areas of interest and receive automated information whenever they call in.

At the same time, the hotline administrator can also “push” customized content. In cases of drought, pest and disease, for example, tailored information can be sent to callers based on crop, geography, or demographic data captured when farmers first register to use the system. Recognizing the diversity of Ethiopia’s smallholders, the IVR/SMS system functions in three local languages (Amharic, Oromiffa, and Tigrigna) and provides information about crops specific to soil type and altitude.

Twelve weeks after its July 2014 launch, the hotline had received nearly 1.5 million calls from 300,000 farmers in the Oromia, Amhara, Tigray and SNNP Regions. As the system was expanded to callers all over the country, more than 1.1 million registered callers had logged 7.3 million phone calls by July 31, 2015. Of the registered callers, 72% (823,114 callers) identified themselves as smallholder farmers.

Functionally, tailored information has initially been made available on the cultivation of Ethiopia’s dominant crops, including the major cereals (tef, wheat, barley and maize), pulses and oilseeds (sesame and chickpea), horticulture crops (tomato, green pepper, onion and cabbage) as well as coffee and cotton. Over 100,000 SMS messages have also been sent out informing smallholders on the use of improved seeds and farming techniques to increase their yields. An additional 400,000 SMS messages have been disseminated to farmers to alert them to the prevalence of wheat rust and maize necrosis disease, and to provide advice on how to protect their crops.

As part of ongoing enhancements, the IVR/SMS system has been generating a number of reports, analyses, and dashboards enabling system administrators to maximize the operation and impact of the system based on information collected from registered callers. Additional content is being developed during 2015 for the next phase of the project.

In addition, partnerships are being established with other government and donor funded initiatives to leverage the 8028 system to disseminate information relative to these other engagements. An interactive helpdesk that will enable smallholders to submit specific questions to agronomic experts, and a grassroots M&E tool that will facilitate data collection at the most granular levels, will also be included as additional features.
Performance Review by Program and Deliverable

In the following pages, a detailed review of the 84 deliverables in the Agricultural Transformation Agenda during GTP I is provided within the context of the 16 program areas in which they reside.

Each program section includes a discussion of the rationale for and objectives of prioritized deliverables within the program area. It also provides an analysis of the performance of the deliverables in the program area, a discussion of the key areas of success and areas of improvement identified by involved stakeholders, and a listing of specific achievements by each deliverable in the Transformation Agenda. It is important to note that status designations refer to the progress on deliverables prioritized by the program for the Transformation Agenda, not on all interventions underway in the program area across the sector.

Program areas covered in the GTP I Transformation Agenda

<table>
<thead>
<tr>
<th>Vertical</th>
<th>Systems</th>
<th>Value Chains</th>
<th>Crosscutting Initiatives</th>
<th>Special Projects</th>
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<tbody>
<tr>
<td>Programs</td>
<td>Seed</td>
<td>Tef &amp; Rice</td>
<td>Gender</td>
<td>Special Projects</td>
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<td></td>
<td>Soil</td>
<td>Wheat &amp; Barley</td>
<td>Climate &amp; Environmental Sustainability</td>
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<td></td>
<td>Cooperatives</td>
<td>Maize &amp; Sorghum</td>
<td>Sustainability</td>
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<td>Input/Output Markets</td>
<td>Pulses &amp; Oliseeds</td>
<td>Monitoring, Learning &amp; Evaluation</td>
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<td></td>
<td>Household Irrigation</td>
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Furthermore, while the program areas identified and prioritized in the Systems vertical over the past four years are relatively comprehensive in covering all the building blocks of key crop value chains, the commodities identified in the Value Chains vertical are only a subset of the most important ones produced by smallholder farmers in Ethiopia. In particular, important commodities such as coffee and those in the livestock area have not been addressed by the Transformation Agenda during GTP I. This was a very deliberate omission decided at the Transformation Council level for the inception phase of establishing the Transformation Agenda concept.

Given the newness of the ATA as an organization and the Transformation Agenda concept as an approach, it was agreed that a focus on the most important cereals should be the primary emphasis during GTP I. This was seen as an important concession in order to allow ATA and its partners to prove the model of the Transformation Agenda before tackling more complex value chains such as coffee and livestock.

By the final year of GTP I (2007 E.C - 2014/15), sufficient progress had been made by the ATA and the Transformation Agenda to initiate a Livestock Program. In addition, the Agricultural Commercialization Cluster Initiative was launched to include commodities such as coffee, honey, dairy and horticulture. As highlighted in the Look Forward section of this Report, a wider spread of commodities and systemic program areas are expected to be addressed by the ATA and the Transformation Agenda during GTP II.

Why is transformation needed in this program area?

Seed is one of the most basic and important inputs in agricultural development. The pace of progress in crop production will, therefore, largely depend upon the pace with which good quality seeds and planting materials are multiplied and accessed by farmers. The variety development and maintenance of foundation seeds, multiplication of improved or certified seeds, and an efficient distribution network are all important elements of a healthy and well-functioning seed sector.

The Ethiopian seed sector is characterized by dominance of the public sector in production and supply, inaccurate demand estimation mechanisms, and limited capability of the private sector. The current average national seed supply of improved varieties for most food crops covers less than 10% of the total agricultural land area. In contrast, countries like Kenya, Turkey and South Africa have much more robust seed systems while countries like Bangladesh and India have mature seed systems. Domestic seed sales in Ethiopia in 2012 were only 0.2 quintals per capita.\(^1\) In contrast, Tanzania (0.3), Bangladesh (0.8), Kenya (1.4), India (1.6), South Africa (9.0) and Turkey (8.9) all had considerably higher seed per capita sales leading to higher levels of overall improved seed usage and thus higher productivity.\(^1\)

Coupled with other agricultural inputs, the use of improved seed has an immense potential to drive major increases in production and productivity. Such gains, along with increased smallholder commercialization and the use of market-demanded varieties, is critical for agricultural transformation. Many developing countries, especially those in Asia, were able to transform their agriculture sectors and ensure food security for billions through the adoption of high-yielding varieties of seed, in addition to other modern inputs.

Objectives of the GTP I Transformation Agenda Deliverables

Over the past five years, a number of diagnostics have been undertaken on the Ethiopian seed sector to identify systemic bottlenecks constraining development of this sub-sector. A few of the common themes that emerged from these diagnostics have defined the specific objectives of the Seed Program throughout GTP I. These include: 1) an updated policy framework and coordinated strategy to provide a clear roadmap for the sector; 2) strengthened regulatory capacity to provide clear and consistent oversight of sector development; 3) enhanced local public and private sector capacity to multiply improved varieties of seed, from foundation seed to certified seed; 4) strengthening of contractual enforcement mechanisms in all parts of the seed production supply chain, from early generation seed to certified seed; and 5) testing and expanding new marketing approaches of reaching farmers with certified seed in a timely manner.

Overall Performance Summary

The Seed Program is broad-ranging, including eight deliverables in four different primary thematic focus areas. As of July 31, 2015, the program was “On Track” overall, with 75% of deliverables “On Track” and the remaining ones split evenly between “Slightly” and “Significantly Delayed” status.

All four primary thematic areas addressed by the program have “On Track” deliverables, while delays relate to deliverables in the Policies/Strategies/Regulations and Capacity Building thematic areas.

Seed Program deliverables have contributed significantly to the overall achievements of the Transformation Agenda during GTP I, in particular through the release and implementation of four new policies, strategies and regulations, the piloting of 11 new innovative concepts or approaches (including the scale-up of 4 of these), and through the capacity-building of 628 institutions.
**Key Success Areas**

Of the eight deliverables in the Seed Program area, six of them have been classified as being “On Track.”

**Deliverable 2: (Seed Proclamation), a revised national Seed Proclamation that was developed with the participation of all relevant stakeholders through a consultative process was passed as Proclamation number 782/2013 by Parliament in January 2013. Since then, significant progress has been made to put in place the associated regulations and guidelines, including the revision of Plant Breeders Right (PBR) law number 481/2006, among others. The PBR and other regulations are in the final stages of ratification by the Council of Ministers. A directive for a quality declared seed (QDS) certification system has also been endorsed by the MoA, and QDS standards for 35 crops have been ratified by the National Council.**

**Deliverable 3: (Regulatory Structures), major achievements included reforms undertaken in the four targeted regions (Amhara, Oromia, SNNP and Tigray) and by the MoA. The Amhara and SNNP Regions have upgraded their regulatory institutions to authority levels, with the mandate to control the quality of major agricultural inputs. The MoA also upgraded the regulatory system to a Directorate level with a main focus on variety release and protection on and seed quality control. The Oromia Region has separated the agricultural input marketing from the regulatory function, while Tigray upgraded the export led service to a Case Team level. The MoA also took key measures to enhance the capacity of their regulatory units with major investments in logistics, equipment, lab rooms and manpower.**

**Deliverable 5: (Direct Seed Marketing), focuses on an alternative seed marketing and distribution mechanism, where seed producers (both public and private) are located to directly market their seed through multiple channels across selected woredas, similar to agro-dealer programs in other countries. The Direct Seed Marketing (DSM) project was piloted in 2011 in two woredas with the marketing of hybrid maize. The number of pilot woredas has increased to over 80 in 2015 and expanded to include more crops and diverse seed outlets, including private seed agents. Over the course of the pilot years, DSM proved to deliver quality seed in a timely manner with role clarity and accountability, while reducing carryover seed to less than 5% in nearly all outlets (compared to a historical average of nearly 20% in other traditional seed distribution centers).**

**Deliverable 6: Community Based Seed Production (CBSP) refers to farmer groups specialized in seed production and marketing to address local demands of niche geographies. Although this deliverable was only initiated two years ago, early generation seed has been secured for 60% of targeted CBSPs. Training on the basics of seed production and marketing has also been provided to over 5,688 seed producing model farmers and 298 government officials. In addition, 337 CBSP leaders have been trained on cooperatives governance and seed business management. Procurement of tractors, seed clearing and packaging machines and other seed production equipment is also well underway.**

More broadly, the survey of deliverable owners and partners working in the Seed Program has identified effective planning as well as execution management as being important contributors to success during GTP I. In addition, effective stakeholder coordination and engagement across public, private and non-governmental bodies were also seen as important drivers of success.

**Areas with Challenges**

Of the eight deliverables in the Seed Program area, one of them (12.5%) has been classified as being “Slightly Delayed” and one (12.5%) as “Significantly Delayed.”

Although **Deliverable 1 (Seed Sector Strategy)** is “Slightly Delayed,” significant progress has been made in developing a national Seed Strategy, including discussions with all key actors on three separate components (formal, informal and informal sector). A validation workshop has also been undertaken with all key stakeholders. However, the delay in the progress has been caused due to challenges in the endorsement and release of the final document in order to begin comprehensive implementation of the strategy.

**Deliverable 7 (Strengthen Capacity of Public and Private Sector Seed Producers)** has been classified as “Significantly Delayed” due to challenges in the development of an agreed and structured approach to implement interventions to build the capacity of public and private producers. While various investments continue to be made in order to build the capacity of various seed producers, greater impact could be achieved from these interventions with greater alignment and coordination with other interventions.

More broadly, feedback from all Seed Program deliverable owners identified dedicated focus from senior leadership in providing timely guidance and ineffective monitoring and follow-up of activities as the two broad issues that require attention for implementation of Transformation Agenda deliverables in this program area during GTP II.
the rate of soil loss due to water erosion is among the highest globally, averaging 30 to 42 t/ha per year. In addition, Ethiopia has the highest level of salt affected soils in Africa, while the occurrence of highly weathered acid soils is two to three times higher than that of other East African countries.

However, these issues can be reversed by increasing the adoption of appropriate soil management techniques and soil amendments by smallholder farmers. In addition to the efforts that are focused on restoring degraded landscapes and soil fertility through enhanced agronomic practices, improving the adoption of appropriate fertilizer use and other soil fertility augmenting technologies, such as conservation agriculture, are fundamental to improving the soil health of Ethiopia’s agricultural lands.

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Why is transformation needed in this program area?

Healthy and fertile soil is critically important to increase crop production and productivity for the realization of agricultural transformation. In many parts of Ethiopia, land degradation in the form of soil erosion, nutrient depletion, soil compaction, and increased salinization and acidity pose a serious threat to sustainable intensification and diversification of agricultural production systems. Many countries that have successfully transformed their agriculture sector have done so by focusing on the adoption of improved soil management techniques and other soil fertility enhancing technologies, with significant gains.

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Other Success Areas

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Objectives of the GTP I Transformation Agenda Deliverables

The major objectives of the Soil Health & Fertility Program are: the generation of nationwide information on soil content and nutrient-customized fertilizer applications and addressing structural issues for disseminating new technologies; facilitation of the appropriate enablers for soil health, including knowledge and finance; and developing and scaling-up improved soil health and fertility management techniques.

Overall Performance Summary

The Soil Program has seen very good overall performance during GTP I, with 75% of deliverables considered “On Track” and only 12.5% “Slightly Delayed” and 12.5% “Significantly Delayed.”

From a thematic perspective, deliverables in the Soil Program are primarily focused on the Strategy/Policies/Regulations and Introduction of Innovative Ideas areas. Both delayed deliverables relate to development and approval of regulations and guidelines.

Deliverables in this program have contributed significantly to Transformation Agenda achievements across all thematic areas. Key achievements include: implementation of a national soil health strategy; introduction of 8 new institutional structures, processes and systems; piloting and scale-up of 8 innovative concepts; capacity building of 1,663 stakeholder experts and institutions; and over 575,000 smallholder farmers using new technologies on over 280,000 hectares of land.

Key Success Areas

Three quarters (75%) of the soil deliverables are on track. Of these, major areas of success have been in Deliverables 9, 10, 11, 12 and 13.

Deliverable 9: National Soil Sector Strategy

Deliverable 9 has been prepared by all relevant stakeholders through a widely consultative process, including a national validation workshop. The Strategy was then endorsed by senior policy makers and released for implementation. Since then, two new directorates have been established to institutionalize a soil information system and soil fertility advisory services within the Ministry of Agriculture.

Deliverable 10: the Ethiopian Soil Information System (EthioSIS) has registered unprecedented success in introducing new and complex technologies that support the development of a national soil fertility atlas. Since its inception, this deliverable has produced and released a soil fertility atlas for the Tigray Region. Soil collection has also been completed for all of Amhara and SNNPR, with analysis on track to release the soil atlas for these two regions by the end of 2016. Finally, the soil collection and analysis of the Oromia Region and all other agricultural areas of the country is well underway, with relevant soil atlases expected to be released by the middle of 2016.

Over the past three years, Deliverable 11: Fertilizer Blending has led to the construction of Ethiopia’s first five fertilizer blending plants. These five plants have initiated the production and formulation of fertilizer to address site-specific soil nutrient deficiencies and meet crop nutrient requirements. Robust capacity building of the local managers of these blending facilities is also underway to ensure that the farmer cooperatives who own these facilities are able to operate them in a financially sustainable manner.

Deliverables #12 and 13 are associated with the development of a fertilizer recommendation scheme and three integrated soil fertility management package approaches, namely micro-dosing, nutrient gradient plot, and nutrient omission trial techniques. The national research system has validated blended fertilizers and fine-tuned the formulations through field experimentation, and established nutrient gradient and nutrient omission trial plots. The critical levels of phosphorous (P) and potassium (K), beyond which the application of P and K fertilizers have no economic benefit, are being determined. A new fertilizer policy has also been drafted and is under consideration by senior policy makers. The new policy encourages fertilizer use efficacy, profitability, and access to balanced fertilizers. In addition, micro-dosing of lime has been piloted with the potential to increase nutrient recovery, necessary for high crop yields in acid soils.

More broadly, feedback from stakeholders in this program area highlight that the successes achieved have been the result of certain specific factors. These include: the commitment of all partners and stakeholders in developing a strong guiding strategy, clear objectives and alignment among key stakeholders, and effective deliverable design and planning through stakeholder coordination. In addition, timely resource mobilization and allocation by partner organizations as well as a supportive policy environment were highlighted as other key supporting features.
**Areas with Challenges**

Of the eight deliverables in the Soil Program area, one of them (12.5%) has been classified as being "Slightly Delayed" and one (12.5%) as "Significantly Delayed."

In Deliverable 16 (Conservation Agriculture-CA), technology packages have been reviewed and documented but the following activities that can lead to scale-up of technologies has lagged slightly behind schedule. Although Conservation Agriculture is increasingly being tested by smallholder farmers and extension workers, many misconceptions continue to be widely held. Stakeholders have different technical understandings of Conservation Agriculture and consequently they promote diverse and sometimes contradictory extension messages. As a result, this deliverable was delayed until a unified Extension Guide on Conservation Agriculture for specific agro-ecological zones has been put in place by the Ministry of Agriculture.

**Deliverable status and key achievements in primary thematic areas**

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<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
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</thead>
<tbody>
<tr>
<td>Strategies/ Policies/ Regulations</td>
<td>D9: Develop and release National Soil Sector Strategy</td>
<td>Completed Results: 1 strategy implemented</td>
<td>National Soil Sector Strategy developed, released and under implementation</td>
</tr>
<tr>
<td></td>
<td>D14: Develop a roadmap and business model for the promotion of lime for acidic soils</td>
<td>Progress to Date: Major bottlenecks across agricultural lime production and distribution value chain assessed and business models developed; farmer awareness study underway; innovative lime technology demonstration being piloted</td>
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<td></td>
<td>D15: Develop and implement vertisol management technology packages</td>
<td>Progress to Date: Major bottlenecks in vertisol technology generation and dissemination assessed; technology package promotion strategies developed</td>
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<tr>
<td></td>
<td>D16: Develop tailored Conservation Agriculture technology package for different soils and cropping systems</td>
<td>Progress to Date: Conservation Agriculture technologies inventoried and R&amp;D gaps identified</td>
<td></td>
</tr>
<tr>
<td>Introduction of Innovative Ideas</td>
<td>D10: Initiate and scale up a soil information system (EthioSIS) and world level soil atlas project</td>
<td>Completed Results: 1 innovative concept/approach piloted and scaled-up</td>
<td>Soil fertility mapping underway nationally</td>
</tr>
<tr>
<td></td>
<td>D11: Establish fertilizer blending plants</td>
<td>Completed Results: 1 innovative concept/approach piloted and scaled-up</td>
<td>Blended fertilizer production underway in four regions</td>
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<tr>
<td></td>
<td>D12: Develop fertilizer recommendation scheme based on new EthioSIS data and promote uptake of blended fertilizers</td>
<td>Completed Results: 2 innovative concepts/approaches piloted and scaled-up</td>
<td>Nutrient omission trial techniques piloted and scaled; Nutrient gradient plots piloted and scaled</td>
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<td></td>
<td>D13: Develop and scale-up use of ISFM packages</td>
<td>Completed Results: 1 innovative concept/approach piloted and scaled-up</td>
<td>Precision agricultural practices like micro-dosing and lime piloted and scaled-up</td>
</tr>
</tbody>
</table>

**Areas with Challenges**

In Deliverable 14 (Promotion of Lime for Acidic Soils), although some successes have been achieved in the promotion of lime to ameliorate soil acidity, the deliverable has been "Significantly Delayed." Progress has been made in identifying key bottlenecks in the production, distribution and use of lime. Different lime production business models have also been explored and a lime production profitability analysis has been conducted. However, significant questions remain about the depth of lime use awareness and the need for increased demonstrations in order to facilitate the business opportunities that would enable large-scale lime operations.

More broadly, challenges identified by deliverable owners and other stakeholders in the Soil Program area include: ineffective timing and amount of resource allocation, particularly at the initial phase of deliverable rollouts; and late planning with the deliverable owner, particularly with the research body which often caused misalignment among stakeholders.

**Cooperatives**

**Why is transformation needed in this program area?**

A strengthened cooperative sector can play an instrumental role in agricultural transformation through effective input delivery to smallholder farmers. At the same time, coops can create an organized outlet for surplus agricultural produce by acting as an agent of aggregation, market orientation and commercialization.

Many countries with vibrant agriculture sectors clearly illustrate the role that farmer organizations and cooperatives can play to support farmers in earning a greater share of their final produce through collective marketing and economies of scale. In countries such as the Republic of Korea, The Netherlands, India and Thailand, value addition and marketing of a significant percentage of smallholder farmer production has been done through cooperatives. In countries that have undergone rapid agricultural transformation, the total output marketing share of cooperatives was relatively high in their takeoff phase to accelerate development.

**Objectives of the GTP I Transformation Agenda Deliverables**

The major objectives of the Cooperatives Program area during GTP I included: creating an enhanced policy framework and coordinated strategy; developing a systematic approach to building the human and physical capacity of the cooperatives; effectively linking cooperatives to end markets; and developing a robust system to ensure accountability and transparency of the cooperatives themselves. Undertaking interventions in these areas is expected to help cooperatives realize the enormous role they can play in transforming the agriculture sector in Ethiopia.

**Overall Performance Summary**

Of the eight deliverables in the Cooperatives Program area, four (60%) are considered to be "On Track," with the remaining four (50%) "Slightly Delayed."

- **On Track:** 50%
- **Slightly Delayed:** 50%
- **Significantly Delayed:** 0%

Thematically, the deliverables in this program involve Strategies and Policies (2 deliverables), Institutional Structures and Processes (2 deliverables), Piloting of Innovative Ideas (1 deliverable), and a heavy focus on Capacity Building (3 deliverables).

Deliverable status by thematic areas is mixed with no major trend seen. From an output perspective, the Cooperatives Program’s major contribution to Transformation Agenda achievements has been implementing 16 new institutional structures and training almost 2,900 experts.
PROGRESS REPORT

Key Success Areas

Of the eight deliverables in the Cooperatives area, four of them (50%) are deemed to be “On Track.”

Deliverable 17 (Develop and Release Cooperative Sector Strategy) resulted in the development and release of a comprehensive Cooperative Sector Strategy in June 2012. The Strategy has since been popularized at both the federal and regional levels and many aspects are currently under implementation.

Deliverable 19 (Coop Certification System) has resulted in the establishment of a cooperative certification system that is integrated into the national system at both the federal and regional levels since 2013. The cooperative certification criteria have been developed and training has been given to all experts who work on certification at the FCA and in the four main regions. Regions have also started assessing cooperatives based on the established certification criteria. As of July 2015, 37 cooperative unions (17 in Oromia and 20 in Tigray) and 1,049 primary cooperatives (965 in Oromia and 89 in Tigray) had undergone certification and are currently under implementation.

Deliverable 20 (Cooperative Audit Structure), the design of a new structure to increase the volume and quality of cooperative auditing, has been implemented. The new auditing structures have been developed and all cooperatives are currently using a single auditing structure. The new cooperative auditors and woreda accountants in the four main regions have been trained on the new auditing structure and have been using it to conduct audits effectively.

Deliverable 24 (Cooperative Storage), the major activity of this deliverable, includes the implementation of a new storage system. This deliverable has only been launched in the 4th quarter of 2014, and as of July 2015, more than 10% of the cooperatives in the four targeted regions have benefited from this new storage system. The new storage system has improved the performance of the cooperatives and has also contributed to the development of a new cooperative certification system.

Areas with Challenges

In the four deliverables (50%) in the Cooperatives area, four of them (50%) are deemed to be “Slightly Delayed,” a variety of challenges have been seen in each.

In Deliverable 18 (Update Cooperative Sector Proclamation), a wide ranging set of consultations have been undertaken to develop an updated cooperative proclamation. However, the end result of this deliverable is still pending, after which the proclamation must also be passed by the national Parliament. Furthermore, the development of related regulations and directives have also been delayed until the proclamation has been passed.

In Deliverable 21 (Commission-based Output Marketing), a mechanism to implement a commission based output marketing system has been piloted in 10 cooperative unions and a framework to institutionalize the approach has been developed. This deliverable has been categorized as “Slightly Delayed” due to regulatory challenges. However, the policy decision that would enable the introduction of this new institutional process is still pending.

In Deliverable 22 (Transform Ardaita ATVET into Center of Cooperative Excellence), it is considered to be “Slightly Delayed” due to regulatory challenges. In this regard, the operational processes to develop Ardaita into a Cooperative Center of Excellence have largely been developed. However, the policy decision that would enable Ardaita to legally transition from an ATVET into a Cooperative Center of Excellence is still pending.

Deliverable 23 (Develop a mechanism to systematically provide capacity building support to primary cooperatives and unions) is considered to be “Slightly Delayed” due to regulatory challenges. In this regard, the operational processes to develop Ardaita into a Cooperative Center of Excellence have largely been developed. However, the policy decision that would enable Ardaita to legally transition from an ATVET into a Cooperative Center of Excellence is still pending.

More broadly, deliverable owners and key stakeholders in the Cooperatives Program area have identified the process of clear objective setting for defining the transformation Agenda deliverables and the early alignment achieved among key stakeholders to be major contributors to success. Effective deliverable design and detailed planning of activities has also been a key factor in achieving milestones. In addition, the role of partners in resource mobilization and allocation, supporting evidence-based analysis to facilitate key decisions, and supportive policy environment and government support were identified as critical drivers of success during the GTP I period.

In the four deliverables (50%) in the Cooperatives area, four of them (50%) are deemed to be “On Track.”

Program Level Progress Report

Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>D17: Develop and release National Cooperative Sector Strategy</td>
<td>Completed Results: 1 strategy implemented</td>
<td>• National Agricultural Cooperative Sector Development Strategy developed, released and under implementation</td>
<td></td>
</tr>
<tr>
<td>D18: Update cooperative sector proclamation</td>
<td>Progress to Date: Draft proclamation submitted to Council of Ministers and House of People’s Representatives for approval</td>
<td></td>
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<tr>
<td>D19: Set up cooperative certification system and start certifying cooperatives in federal and four regional cooperative agencies</td>
<td>Completed Results: 1 new institutional structure implemented</td>
<td>• Cooperative Certification Directorate established at FCA</td>
<td></td>
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<tr>
<td>D20: Transform Ardaita ATVET into Center of Cooperative Excellence</td>
<td>New institutional process implemented</td>
<td>• Cooperative certification being implemented by all regions</td>
<td></td>
</tr>
<tr>
<td>D21: Pilot commission-based output marketing system and develop framework to institutionalize the approach across the sector</td>
<td>Progress to Date: Operational structures for Ardaita to operate as a Cooperative Center of Excellence developed</td>
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<tr>
<td>D22: Transform Ardaita ATVET into Center of Cooperative Excellence</td>
<td>Completed Results: 1 innovative concept and approach piloted</td>
<td>• Commission based output marketing pilot</td>
<td></td>
</tr>
<tr>
<td>D23: Develop a mechanism to systematically provide capacity building support to primary cooperatives and unions</td>
<td>Completed Results: 2,047 stakeholder experts trained</td>
<td>• Cooperative auditors and woreda accountants trained on auditing and accounting</td>
<td></td>
</tr>
<tr>
<td>D24: Launch pilot to strengthen storage capacity of primary coops and unions in strategic geographies</td>
<td>5 institutions strengthened</td>
<td>• Auditing structures developed at FCA and 4 RCPAs</td>
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<td></td>
<td>Progress to Date: Pilot program to provide comprehensive capacity building to 34 coop unions and 170 primary coops launched</td>
<td>Baseline assessment of capacity building undertaken in cluster woredas during GTP I underwary</td>
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<tr>
<td></td>
<td>44 institutions strengthened</td>
<td>Construction of 44 warehouses for 40 primary coops and 4 unions commenced</td>
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</table>
Input & Output Markets

Why is transformation needed in this program area?

The transformation of subsistence agricultural production into a commercially oriented system requires efficient and timely delivery of quality inputs to farmers at competitive prices. It also requires transparent output markets that provide signals to the farmers, allowing them to make informed decisions on what to produce and when to sell their outputs.

Currently, the Ethiopian agricultural markets are characterized by extended marketing chains between producers and consumers, with each actor adding costs (though some add only limited value to the initial products produced by farmers). These elongated marketing chains often result in lower farm gate prices achieved by smallholders and increased retail prices to consumers. In some commodities, such as specific fruits and vegetables, the oligopolistic nature of the market structure involves few intermediary buyers who collude to control a significant portion of the supply chain, thus reaping the largest portion of the benefit.

Objectives of the GTP I Transformation Agenda Deliverables

The main objectives of the Input & Output Markets Program during GTP I were to create greater transparency and improve specific aspects of input and output marketing for the benefit of smallholders and consumers. More specifically, the program aimed to: develop a transparent market information system for price discovery; reduce market transaction costs by facilitating structured trading through the institutionalization of commodity grading and standardization; promote contractual farming arrangements between organized smallholders, agro-processors, and large institutional buyers; create an enabling environment for enforcement of contracts; and improve access to financial services by smallholder farmers.

Overall Performance Summary

Of the five deliverables in this program area, 60% are considered “Significantly Delayed,” 20% “Slightly Delayed,” and the remaining deliverable is “On Track.”

Key Success Areas

Of the five deliverables in the I/O Markets Program area, only one (20%) is deemed to be “On Track.”

Deliverable 28 (Develop and Implement Key Components of a Rural Financial Services (RFS) Strategy) aims to address the critical shortfall in financial services to Ethiopia’s rural sector, exhibited by poor access to financial institutions and insufficient liquidity to meet the credit demand of smallholder farmers. Significant progress has been made under this deliverable. A Rural Financial Services Strategy has been developed and submitted to the Financial Inclusion Council for endorsement.

Meanwhile, a number of the components of the strategy are in the process of implementation. A major component of the strategy is the Input Voucher System (IVS) which aims to streamline an inefficient input marketing system by shifting the credit and cash handling from multi-purpose cooperatives to qualified financial institutions (MFIs and RUSACCOS) through voucher-based transactions. The system was piloted in the Oromia and Amhara Regions in 2013 and 2014 and is currently being scaled-up in Amhara, with pilots underway in Tigray and SNNP in 2015.

Encouraging results have been seen in this deliverable, including: 1) the money from credit/cash fertilizer sales is being collected and flows through the system more efficiently; 2) farmers who want to buy inputs on credit and who are credit worthy are able to get sufficient credit to buy the whole package of recommended technologies; 3) loans, especially in Amhara, disbursed through ACSI have been collected fully with zero default; 4) cops receive commissions for the marketing of the inputs on time; and 5) financial institutions (MFIs and RUSACCOS) are increasing their membership and mobilizing a substantial amount of savings from the rural areas.

For instance, in the Amhara Region during 2007 E.C (2013/14), the Amhara Credit and Savings Institute (ACIS) opened more than 50 new satellite offices in five pilot woredas to implement the voucher system. This resulted in more than 34,000 farmers opening new savings accounts and depositing nearly 72 million ETB in new savings in the satellite branches.

The voucher system was scaled-up to 73 woredas in Amhara during 2008 E.C (2014/15) with ACIS opening more than 800 new satellite branches and employing more than 4,000 new staff members. By July 2015, more than 1.76 million farmers in Amhara alone had used the IVS to purchase 2.96 billion ETB worth of inputs. In the piloted regions of Oromia, SNNP and Tigray, 179 million ETB worth of fertilizer has been distributed to approximately 84,000 farmers using this new system.
Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
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</thead>
<tbody>
<tr>
<td>Strategies/Regulations</td>
<td>D27:</td>
<td>Progress to Date:</td>
<td>• Initial stakeholder alignment underway</td>
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<td>Strengthen</td>
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<td>for a warehouse</td>
<td>receipt system</td>
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<td>Structural Processes/Systems</td>
<td>D29:</td>
<td>Progress to Date:</td>
<td>• Contract farming plots underway in Tigray and SNPPR to inform systematic</td>
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<td></td>
<td>Develop a</td>
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<td>approach</td>
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<td>approach to</td>
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<td>link smallholder</td>
<td>farmers to institutional</td>
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<td>farmers</td>
<td>buyers through a contract</td>
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<td>through a</td>
<td>farming platform</td>
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<tr>
<td>Introduction of Innovative</td>
<td>D25:</td>
<td>Progress to Date:</td>
<td>• Initial stakeholder alignment underway</td>
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<tr>
<td>Ideas</td>
<td>Set up</td>
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<td>agricultural</td>
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<td></td>
<td>crops</td>
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<td>D26:</td>
<td>Progress to Date:</td>
<td>• Initial analysis completed for wheat farmers</td>
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<td></td>
<td>Develop and</td>
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<td>test market</td>
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<td>incentivization</td>
<td>mechanisms to catalyze</td>
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<td>to catalyze</td>
<td>production of strategic</td>
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<td>production</td>
<td>crops by smallholder</td>
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<td>crops</td>
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<td></td>
<td>D28:</td>
<td>Completed Results:</td>
<td>2 innovative concepts piloted</td>
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<td>Financial Services (RFS)</td>
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<td>Strategy - Input Voucher</td>
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<td>Services (RFS)</td>
<td>System piloted</td>
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<td>Strategy</td>
<td>E-voucher system piloted</td>
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<td>- Input Voucher</td>
<td>system piloted</td>
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<td>System</td>
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<td>scaled-up</td>
<td>concept scaled-up to</td>
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<td></td>
<td></td>
<td>73 woredas in Amhara Region</td>
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</tbody>
</table>

Areas with Challenges

Of the five deliverables in this program area, one (20%) is considered to be “Slightly Delayed” and three (60%) are “Significantly Delayed.”

Deliverable 29 (Contract Farming Platform) has made some progress but is considered to be “Slightly Delayed” due to challenges in institutionalizing and scaling-up learnings. This deliverable has successfully facilitated contractual agreements for the supply of tef between a cooperative union and a private sector agro-processing company that exports Injera.

Contract farming facilitation units, guidelines and standard contracts have also been developed in Tigray and SNPPR, through a widely consultative process. This has resulted in the initiation of contracts between smallholder farmers, unions and agro-processors for the delivery of 208,000 quintals of wheat in Tigray along with an ongoing process to facilitate the signing of contracts in SNPPR. Furthermore, robust contractual arrangements have been developed between smallholder farmers (through cooperatives) and major breweries, such as Heineken and Diageo, for the supply of malt barley.

All three of the deliverables that are considered to be “Significantly Delayed” – Deliverable 25 (Market Information System), Deliverable 26 (Market Incentives to Catalyze Production of Strategic Crops) and Deliverable 27 (Warehouse Receipt System) – have all faced similar challenges. Since these deliverables are not exclusively in the domain of the Ministry of Agriculture, they require significant consultation and collaboration with other sectors and partners, such as the Ministry of Trade. Unfortunately, these consultations were not undertaken in a way that yielded the necessary alignment to make significant progress in these deliverables. The learnings from these deliverables and the approach taken provide critical lessons on how to better implement deliverables that require wider consultation beyond the partners in the agriculture sector.

Research

Why is transformation needed in this program area?

Agricultural research is vital to achieving sustainable increases in production and productivity by generating and promoting appropriate technologies. Improved, demand-driven agricultural technologies that address existing challenges in productivity, food security and climate change can only be developed through a well-established and functional agricultural research system.

Research innovations also lead to improved value addition and commercialization of agricultural products, enhancing development of a competitive and responsive agriculture sector that is less vulnerable to market and climate changes. Apart from technology generation for increased productivity, research remains fundamental to the Transformation Agenda by empowering farmers to focus on technologies that improve quality and value addition and providing information for policy makers to ensure informed decisions and priority setting. Hence, the research system in a developing agriculture sector needs to play a major role in achieving sustainable food and income security, natural resource management, and overall agricultural transformation.

Objecatives of the GTP I Transformation Agenda Deliverables

During GTP I, seven key interventions for research were identified and prioritized for implementation, in order to address the above mentioned and other challenges. These included designing policy recommendations and creating strong institutional setups for effective governance and coordination in order to establish a modern national agricultural research system. Also addressed were improvements of human, financial and physical capacity of the research system, to provide functional laboratories and additional training of researchers. Creating an enabling environment for the utilization of modern biotechnology tools and retention of highly motivated researchers were also key objectives.

Overall Performance Summary

Of the seven deliverables in the Research Program area, three (43%) are “On Track,” while two (29%) are considered “Slightly Delayed” and another two (29%) “Significantly Delayed.”

From a thematic perspective, the deliverables that are “On Track” and “Slightly Delayed” fall into the Policies/Regulations and Structures/Processes/Systems areas. The two “Significantly Delayed” deliverables fall into the Structures/Processes/Systems and Capacity Building areas.

The major contribution of these deliverables to the overall Transformation Agenda achievements fall into two main areas: approval of two major new national policies or regulations (biosafety and researcher’s incentive structure) and 108 new institutional processes implemented (career path at research institutions and universities).
Key Success Areas

Out of the seven deliverables in the Research Program, three (42%) have been classified as being “On Track.”

In Deliverable 31 (Ethiopian Agricultural Research Council), a major success was achieved with the formation of the National Agricultural Research Council in July 2013. The Council oversees, among other things, national agricultural research coordination and governance, federal resource allocation and priority setting. The Secretariat of the Council, housed by the Ethiopian Institute of Agricultural Research (EIAR), has developed a long-term roadmap, approved by the Council, and is currently developing the Council’s proclamation and setting national research priorities.

In Deliverable 32 (Researcher Career Path and Incentive Structure), a new career path and incentive structure intended to improve retention of research staff was developed in a participatory approach with all key stakeholders. The proposal, including refinements of the career path, salary increases, and new incentives, has been approved by the government and implemented in 8 research institutes, 69 research centers, and 31 universities.

In Deliverable 35 (Biosafety and Capacity in Biotechnology), the passage of the amended Biosafety Proclamation, dubbed “Biosafety (Amendments) Proclamation No. 896/2015,” was published on August 14, 2015, signifying a momentous achievement for the research system. The amended proclamation will create an enabling environment for biotechnology research and development which will contribute to increasing agricultural production and productivity as well as regional and international collaborations. In parallel, researchers and technicians have been trained in various biotechnology areas, i.e., double haploid production, biosafety, etc.

Areas with Challenges

Of the seven deliverables in the Research Program, two (29%) are classified as “Slightly Delayed” and two (29%) as “Significantly Delayed.”

In Deliverable 30 (Release of Research Strategy), a slight delay was caused by the delayed feedback on the draft strategy from partners at all levels. However, some interventions in the draft strategy, including designing and operationalizing the Ethiopian Agricultural Research Council (EARC), improving researcher career paths and incentives, and amending the biotechnology proclamation have been fully implemented and are exhibiting good progress.

In Deliverables 33 & 34 (Centers of Excellence and National Researcher Training Program), significant delays occurred due to privatization by the deliverable owner (EARC), as the long-term roadmap must first be developed and approved to guide implementation. The roadmap is now in place, but no decision has been reached on when to implement these two deliverables.

The primary aim of Deliverables 36 (Technology Shopping) is to create a systematic way to identify and adapt technologies from other countries to Ethiopia. A draft framework protocol has been developed but further refinement and alignment on coordination and accountability mechanisms is necessary.

Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D30: Develop and release a National Research Sector Strategy</td>
<td>Progress to Date:</td>
<td>National Research Strategy validated by all key stakeholders and awaiting approval and release</td>
</tr>
<tr>
<td></td>
<td>D36: Identify agricultural technologies that can transform smallholder farming and strengthen the capacity of the R&amp;D system to sustainably outsource them</td>
<td>Progress to Date:</td>
<td>Proposed protocol agreed with key stakeholders</td>
</tr>
<tr>
<td></td>
<td>D35: Update biosafety proclamation and develop national capacity to use biotechnology tools</td>
<td>Completed Results:</td>
<td>1 proclamation revised&lt;br&gt;· Biosafety proclamation revised, passed and published</td>
</tr>
<tr>
<td></td>
<td>D31: Design &amp; operationalize the Ethiopian Agricultural Research Council (EARC)</td>
<td>Completed Results:</td>
<td>Ethiopian Agricultural Research Council (EARC) and Secretariat established</td>
</tr>
<tr>
<td></td>
<td>D32: Refine and implement an administrative and compensation structure for researchers</td>
<td>Completed Results:</td>
<td>108 institutional structures revised&lt;br&gt;· 8 research institutes, 69 research centers and 31 universities adopted changes to researchers’ compensation structure</td>
</tr>
<tr>
<td></td>
<td>D33: Establish “Centers of Excellence” for nationally important commodities</td>
<td>Progress to Date:</td>
<td>Deliverable will be restarted after approval of broader research sector strategy and development of EARC roadmap</td>
</tr>
<tr>
<td></td>
<td>D34: Develop a standard national training program and curriculum, by level and category, for researchers</td>
<td>Progress to Date:</td>
<td>Deliverable will be restarted after approval of broader research sector strategy and development of EARC roadmap</td>
</tr>
</tbody>
</table>

Why is transformation needed in this program area?

A strong extension system is an indispensable tool for disseminating technologies and knowledge for increasing agricultural production and productivity, boosting food security, alleviating poverty, and strengthening agricultural commercialization, in order to help realize Ethiopia’s Agriculture Development-Led Industrialization strategy.

Many yield and quality improving technologies that can increase production of market-demanded commodities have been developed, but they cannot reach smallholders without a well-functioning system to disseminate relevant information. Effective provision of market-focused extension services, together with technologies that are climate smart and respond to the needs of women, ensures that the transformation of subsistence farming to a commercial production system occurs in a sustainable manner.

Objectives of the GTP I Transformation Agenda Deliverables

Ethiopia has the densest extension agent-to-farmer public sector extension system ratios (1:48) in the world. However, the efficiency of the system remains low when compared to China and India, for example, which have extension agent-to-farmer ratios of 1:625 and 1:5,000, respectively.14 Moreover, it is estimated that only about 30% of FTCs in the country are fully functional.13 Various diagnostic reports indicate that poor FTC performance has been caused by inadequate capacity and organizational structure, and limited operational funding. Reports also indicate that the extension system does not adequately address the needs of women farmers who contribute 40-60% of agricultural labor, thus reducing overall efficiency of the sector.

The Transformation Agenda deliverables in the Extension area have sought to bring greater efficiency to the extension system by: 1) developing a strategy to provide clear direction and align interventions; 2) strengthening DA career path and incentive structures to reduce attrition; 3) developing functionality-based FTC classification criteria and upgrading FTCs to higher functionality levels; and 4) strengthening the Agriculture Development Partners Linkage Advisory Council to improve alignment between research and extension.

Objectives:

• Improve efficiency of the extension system
• Strengthen the capacity of the extension system to reach smallholders without a well-functioning system to disseminate relevant information
• Develop national capacity to use biotechnology tools
• Improve alignment between research and extension

Overall Performance Summary

Of the five deliverables in the Extension Program, three (60%) are considered to be “On Track,” while one deliverable (20%) is “Slightly Delayed” and one (20%) “Significantly Delayed.”

Ethiopia has established nearly 12,500 Farmer Training Centers (FTCs) with the eventual goal of establishing one FTC per kebele, each staffed with at least three DAs. Also established were Agricultural Technical and Vocational Education and Training (ATVET) institutions. In addition, various farmer groups have been developed to promote peer-to-peer learning.

In order to continue strengthening the national extension system, more efforts are necessary to expand the sources and channels of information to smallholder farmers, increase the differentiation of information disseminated by agro-ecology and market opportunity, and strengthen the accountability of the overall system to the smallholders it serves. Most importantly, the extension system must recognize and leverage the deep reservoir of knowledge and innovation that exists within smallholders themselves.

The deliverables that are delayed have occurred in the first two thematic areas, while the major contribution to the overall Transformation Agenda achievements are primarily related to Capacity Building, with 14,755 stakeholder experts (who cascade information to the country’s 40,000+ Development Agents) trained.
### Key Success Areas

Of the five deliverables in the Extension Program, three (60%) have been classified as being "On Track," with good successes registered in all three deliverables.

**Deliverable 38 (DA Career Path and Incentive Structure)** aims to retain motivated DAs in the extension system to improve service delivery and adoption of new technologies. Toward this end, attractive DA career path and incentive structures were developed in a participatory approach by experts from the MoA, RBoAs, ATA, and other stakeholders in 2005 EC (2010). The incentive structure was approved by the MoA and is currently being implemented by the Amhara, Oromia, SNNP and Tigray Regions, with variations among each.

Although this was appreciated by the DAs, there is still a need to keep the differences in incentives between regions small, in order to make the extension system equally strong in all areas. Currently, the proposed DA career path is under review by the MoA and, if implemented, it is expected to motivate DAs to work harder and stay longer in their positions, with positive contributions to enhancing the planned market-oriented extension system.

**Deliverable 39 (FTC Functionality Level),** considerable achievements were recorded in developing FTC functionality criteria which were approved nationally and are now being implemented by the regions, however the actual number of capacitated FTCs is far below planned. Based on the functionality criteria, FTCs were grouped as pre-basic, basic, intermediate and advanced, with each category clearly defined.

The functionality criteria will be instrumental in evaluating FTC capacity building activities by the government and development partners alike, and in avoiding claims that FTCs have been strengthened without tangible improvements. Using these criteria, the Agricultural Growth Program (AGP) has agreed to upgrade all the pre-basic FTCs in the newly added woredas to basic level in GTP II. Also, AGP II is expected to perform subsequent upgrading of more FTCs to higher functionality levels during GTP II.

**Deliverable 41 (Strengthening Extension Packages)** has been engaged in working with the MoA and the RBoAs to improve the quality and targeted nature of extension materials for different agro-ecologies and commodities across the country. Major achievements in this area included the strengthening of crop production packages for key commodities (i.e., tef, maize, wheat, barley, sorghum, legumes and some oilseed crops) and the provision of training for federal and regional extension staff on the implementation of these crop packages (held annually since 2011 in all regions).

### Areas with Challenges

Of the five Extension Program deliverables, one (20%) has been classified as being "Slightly Delayed" and one (20%) as "Significantly Delayed."

**Deliverable 40 (Strengthening ADPLAC)**, a significant delay was experienced, primarily due to competing demands for the time of key stakeholders. There is clear evidence that in areas where the Agriculture Development Partners Linkage Advisory Council (ADPLAC) was active, it made significant contributions to increasing agricultural production and productivity by making pertinent recommendations at its meetings and consistent follow up on implementation. However, this potential has not been realized in most parts of the country because the ADPLAC in those areas did not meet regularly as planned to review and make recommendations, and because sufficient efforts were not made to ensure implementation of the recommendations made.

### Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies/ Policies/ Regulations</td>
<td>D37: Develop and release a National Extension Sector Strategy</td>
<td>Progress to Date: National Extension Strategy validated by stakeholders and awaiting approval and release; aspects of draft strategy already being implemented</td>
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<td></td>
<td>D38: Refine and implement a national DA career path and national DA incentive structure</td>
<td>Completed Results: 1 institutional structure approved</td>
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<td></td>
<td>D39: Develop nationally approved FTC functionality criteria and support upgrade of pre-basic and basic FTCs</td>
<td>Progress to Date: Classification of FTCs based on functionality levels completed in all four regions</td>
<td></td>
</tr>
<tr>
<td>Structures/ Processes/ Systems</td>
<td>D40: Strengthen ADPLAC by revising guidelines, developing strategy, priorities and identifying capacity building needs</td>
<td>Progress to Date: Initial analysis of systemic bottlenecks and potential solutions undertaken</td>
<td></td>
</tr>
<tr>
<td>Capacity Building</td>
<td>D41: Strengthen delivery of extension packages for key crops through improved alignment of MoA and RBoAs</td>
<td>Completed Results: 14,368 stakeholder experts trained</td>
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<td></td>
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<td>Agronomy training-of-trainers held at regional level</td>
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<td>4 institutions strengthened</td>
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<td></td>
<td>Capacity to deliver extension packages of Tigray, Oromia, Amhara and SNNP RBoAs strengthened</td>
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## Household Irrigation

**Why is transformation needed in this program area?**

Household irrigation (HHI) has tremendous potential to transform smallholder agriculture by stabilizing production, reducing climatic risk on agricultural production, and enabling smallholder farmers to produce multiple times in one year through efficient water utilization. HHI also increases the adoption of other agricultural inputs by reducing the risk associated with moisture scarcity on crop production.

Moreover, compared with larger irrigation schemes, household level irrigation solutions make it possible for farmers to access water resources and water lifting technologies at a reasonable cost, thus encouraging more individual entrepreneurial spirit.

## Objectives of the GTP I Transformation Agenda Deliverables

Over the past five years, a number of diagnostics have been undertaken on the Household Irrigation sub-sector to identify the systemic bottlenecks that are constraining its development.

The specific objectives of the HHI Program during GTP I and generated from these findings include: 1) a coordinated HHI strategy to provide clear direction for the sector; 2) national pump standards that improve the quality and consistency of irrigation equipment available to smallholder farmers; 3) an effective and efficient pump supply chain that can provide irrigation equipment at a competitive price; 4) an effective mechanism to map the country’s groundwater resources in a manner that allows farmers to make informed decisions; and 5) an integrated set of HHI value chain interventions that link input supply, technology access and adoption, production, post-harvest activities, and market linkages.

## Overall Performance Summary

Of the five deliverables in the HHI Program area, three of them (60%) have been classified as “On Track,” with the remaining two deliverables (40%) "Slightly Delayed."

### Key Success Areas

Of the five deliverables in the HHI Program area, three of them (60%) have been classified as “On Track.”

In Deliverable 42 (Household Irrigation Strategy), a comprehensive HHI Sector Strategy has been developed, validated by all key stakeholders, and released by the MoA in 2013. The Strategy identified 17 systemic bottlenecks, of which 29 interventions have been prioritized, with implementation activities initiated in most areas already.

In Deliverable 43 (Integrated Household Irrigation Value Chain), an integrated set of prioritized interventions have been implemented in 21 AEP woredas, with robust participation and ownership of the MoA, regional, zonal and woreda stakeholders. The program put in place full value chain interventions ranging from input distribution, extension advice, production support, aggregation through coops, and market linkages. New innovations such as a mobile phone based extension information system, a localized cropping calendar, and training of engine maintenance providers and manual pump manufacturers were also introduced.

Deliverable 44 (National Irrigation Pump Standards) established a vibrant working structure between regulatory, trade, and enforcement authorities to develop and enforce national pump standards. Seventy-five standards were established, of which 13 were endorsed by the National Standard Council as mandatory standards. The MoA and the Ethiopian Conformity Assessment Enterprises have also established a partnership to enforce the standards through pump testing facilities around the country.

Deliverable owners and stakeholders in the HHI area identified several key issues as contributors to successful implementation of Transformation Agenda deliverables. These include: effective alignment across key stakeholders; clear objectives and targets of deliverables; timely and adequate resource availability; effective deliverable management and implementation support; and supportive policy environment and government support.

## Areas with Challenges

Of the five deliverables in the HHI Program area, two of them (40%) are considered to be “Slightly Delayed.”

In Deliverable 46 (Irrigation Supply Chain), some progress has been made with two regions signing agreements with Metal and Engineering Corporation (METEC) to streamline the supply chain, including aftersales services and installation of a pump reuse system. However, challenges have occurred in strengthening the private sector supply chain channel.

More broadly, deliverable owners identified some common challenges affecting the timely completion of deliverables in this program area. These include: lack of resources for scaling-up successful interventions; and misalignment among federal and regional stakeholders.

### Thematic Areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies/ Policies/ Regulations</td>
<td>D42: Develop and release National Household Irrigation Sector Strategy</td>
<td>Completed Results: 1 strategy implemented</td>
<td>- National HHI Sector Strategy developed, released, and under implementation</td>
</tr>
<tr>
<td>Introduction of Innovative Ideas</td>
<td>D43: Test the implementation of an end to end household irrigation value chain in 21 AEP woredas</td>
<td>Completed Results: 2 innovative concepts and approaches piloted</td>
<td>- WATEX shallow groundwater technology piloted - GENIS (Groundwater Exploration and Navigation System) piloted</td>
</tr>
<tr>
<td>Direct Engagement with SHFs</td>
<td>D45: Scan, test and scale-up shallow groundwater mapping technology</td>
<td>Completed Results: 160,732 SHFs trained and using new technologies</td>
<td>- Training provided on high-value crops (HVCs) assessment tool use, and new cropping calendar to SHFs - SHFs in 21 woredas and more than 210 kebeles engaged in high-value crop production with market linkages</td>
</tr>
<tr>
<td>Capacity Building</td>
<td>D46: Strengthen irrigation pump supply chain and procurement system</td>
<td>Completed Results: 8 institutions strengthened</td>
<td>- MoA, regional irrigation development offices, and METEC trained on pump supply chain management</td>
</tr>
</tbody>
</table>

## Deliverable status and key achievements in primary thematic areas

In Ethiopia, HHI has the estimated potential to bring 5 million people out of poverty by increasing food security and household income, adding 30,000 new jobs, and generating up to $640 million USD in annual value-add.18

In India, over 60% of irrigated area today is served by (mostly household-level) groundwater schemes. 76% of farmers use their own household irrigation system or purchase irrigation services from household irrigation system owners. Contribution of household/groundwater-irrigated agriculture in India is estimated to reach nearly 10% of total area under irrigation, which equals a value add of $120-140 billion USD.17

The program put in place full value chain interventions ranging from input distribution, extension advice, production support, aggregation through coops, and market linkages. New innovations such as a mobile phone based extension information system, a localized cropping calendar, and training of engine maintenance providers and manual pump manufacturers were also introduced.
Why is transformation needed in this program area?

The use of agricultural mechanization technology, like other inputs, can play an important role in increasing production and productivity as well as reducing post-harvest losses. Agricultural mechanization solves the problems of insufficient labor and animal labor at critical points in the production cycle of some commodities. It can also significantly reduce post-harvest loss and increase the availability of more food without increasing production, which is critical for agricultural transformation.

Moreover, mechanization is an indispensable pillar for making farming operations efficient and productive, while also contributing to the efficiency and productivity of all the other inputs used in crop production, such as seeds, fertilizer, water, labor, and time.

Many emerging countries, especially in Sub-Saharan Africa and Asia, use more than 1 kw mechanical power index per hectare in the agriculture sector. However, mechanical farm power index uses of Ethiopia still remain at less than 0.1 kw/ha. Moreover, the number of tractors per 100 sq-kms in Ethiopia is currently 2.24, which is much lower than neighboring countries, such as Sudan and Kenya, where 26.6 and 26.28 tractors are deployed per 100 sq-kms, respectively.

Labor shortages exist in some functions of the production cycle, which could benefit from mechanization, with limited negative impacts. Furthermore, major benefits from mechanization can be seen further upstream in the supply chain, on issues related to post-harvest losses, that could significantly increase overall output from production. Nevertheless, it is critical to ensure that any potential negative consequences from the introduction of mechanization, particularly as it relates to labor, are clearly understood before the introduction of new technologies.

Objectives of the GTP I Transformation Agenda Deliverables

At the beginning of the GTP I period, agricultural mechanization was an area that lacked adequate attention, with no institutional set-up for guiding and regulating the sub-sector. Similarly, there was no strategy that served as a blueprint in guiding and supporting the development of the area.

Therefore, developing the Agricultural Mechanization Strategy was one of the key areas of focus during GTP I. In addition, creating financially viable linkages between technology suppliers and users, identifying impactful agricultural mechanization technologies, and promoting and testing them across different locations and commodities using different business models, were areas of the program’s deeper focus. Finally, engaging international organizations for the design and development of key mechanical technologies that could benefit Ethiopia’s smallholder farmers, such as tef row planters, was also given priority attention during this period.

Overall Performance Summary

Of the five deliverables in the Mechanization Program area, three (60%) are considered to be “On Track,” with the remaining two (40%) “Slightly Delayed.”

Key Success Areas

Of the five deliverables in the Mechanization Program, three of them (60%) are classified as “On Track.”

Deliverables 71 (Developing National Agricultural Mechanization Strategy) has resulted in the development and release of a National Agricultural Mechanization Strategy through a widely consultative effort that included all key stakeholders. A strategy implementation roadmap has also been drafted and will be socialized and implemented during the initial year of the GTP II.

In Deliverable 72 (Linkages Between Manufacturers, Suppliers and Smallholder Farmers), key achievements include regional technology demand assessments in all target regions and multiple private sector-led demonstrations. Linkages were also created between technology suppliers (importers, manufacturers and service providers) and users, at different points for different value chain operations. Most importantly, more than 2,000 agricultural areas with challenges

Of the five deliverables in the Mechanization Program area, two of them (40%) are classified as being “Slightly Delayed.”

Although Deliverable 74 (International Partnerships on Mechanization) is “Slightly Delayed,” some good progress has been made in establishing a partnership with the Chinese Academies for Agriculture Mechanization. Partnership guidelines and a project document have also been developed for a tractor mounted tef planter technology. However, the endorsement of the project document and challenges importing the machines from China led to delays in operationalizing the partnership. Partnerships with organizations in Germany, Brazil and Korea, among others, are also under development.

Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies/Strategies/Regulations</td>
<td>D71: Develop and release National Agricultural Mechanization Strategy</td>
<td></td>
<td>Completed Results: 1 strategy released  • National Agricultural Mechanization Strategy developed, released and under implementation</td>
</tr>
<tr>
<td>Structures/ Processes/Systems</td>
<td>D72: Strengthen linkages between technology suppliers and operators serving smallholder farmers</td>
<td></td>
<td>Progress to Date:  • Regional technology demand assessment completed; private sector led demonstrations held; manufacture and user capacity building conducted to strengthen linkages between suppliers and users</td>
</tr>
<tr>
<td>Introduction of Innovative Ideas</td>
<td>D73: Develop and test market-oriented modalities for pre- and post-harvest machinery</td>
<td></td>
<td>Completed Results: 4 innovative concepts/approaches piloted  • Four different business models for providing smallholder farmers with access to mechanized technologies piloted</td>
</tr>
<tr>
<td></td>
<td>D74: Establish national level partnership with other countries to facilitate technology transfer activities</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>D75: Engage international design firm to develop, test and pilot innovative row planter for tef value chain</td>
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</tbody>
</table>

In Conclusion

Deliverable 73 (Market Modalities for Pre- and Post-harvest Technologies), high impact technologies, such as hand-held harvesters and small-scale threshers, have been assessed from both the local and international market. Four different deployment business models were piloted for small-scale farm machinery, with a project to refine and scale-up the most successful business models currently under development.

More broadly, deliverable owners and stakeholders in the Mechanization area have identified key factors that contributed to progress of the Transformation Agenda deliverables. These include: effective stakeholder coordination and engagement; a supportive policy environment; and government support.

Good progress has also been seen in Deliverable 75 (Human-drawn Tef Row Planter). However, this deliverable is classified as “Slightly Delayed” due to challenges in scaling up the deliverable outputs. On the progress side, IEOG.org, an international design firm, has been contracted to develop a state-of-the-art tef row planter. Prototypes of the planter have received significant testing and refinement. Final feedback is being collected from stakeholders during 2015, with mass-scale manufacturing planned for the 2016 planting season.

More broadly, areas requiring greater attention, identified by deliverable owners and stakeholders include: ineffective deliverable design and planning, mostly at initial stages of implementation; and lack of timely resource mobilization and allocation.
**Value Chains**

**Tef & Rice**

**Why is transformation needed in this program area?**

Tef is a hugely important crop to Ethiopia, both in terms of production and consumption, accounting for approximately 12.7% of all calories consumed. Furthermore, approximately 6.6 million households grow tef and it is the dominant cereal crop in many high-potential agricultural woredas. In 2013/14, tef accounted for 22% of tef & rice production and it is the dominant cereal crop in many high-potential agricultural woredas. In 2013/14, tef accounted for 22% of all of the area cultivated by smallholders in the Meher season (covering about 3 million hectares), making it the most widely planted crop in the country. However, tef has historically been neglected from a research and extension perspective compared to other staple grain crops, with yields remaining relatively low at 1.58 tons/ hectare. This is compounded by estimated pre and post-harvest losses of up to 30%.

Production costs for tef also tend to be high, due to the labor intensity of land preparation, planting, weeding, harvesting, and threshing. Systemic challenges in the areas of tef research, input production and distribution, agronomy, mechanization, marketing, and value addition have also been very prevalent. Thematic challenges in the areas of tef research, input production and distribution, agronomy, mechanization, marketing, and value addition have also been very prevalent. Thematic challenges in the areas of tef research, input production and distribution, agronomy, mechanization, marketing, and value addition have also been very prevalent.

**Objectives of the GTP I Transformation Agenda Deliverables**

During the GTP I period, the Tef Value Chain Program focused on research and development, increasing productivity and production by leveraging the public extension system, and facilitating market access for both domestic and international markets. An overall national Tef Value Chain Strategy was also seen as a vital output in order to align stakeholders around common objectives and leverage opportunities available at each step along the value chain.

**Overall Performance Summary**

Of the five deliverables in this program area, four (80%) are considered to be “On Track” – the highest of any program area – while the remaining one deliverable (20%) is “Significantly Delayed.”

**Key Success Areas**

Four of the five deliverables in this program area (80%) have been classified as being “On Track.”

**Deliverable 47** (Tef Value Chain Strategy) has piloted, demonstrated and scaled up the widely popular TIRR package across the country. Assessments of this technology package in 2006 E.C. (2013/14) showed that the TIRR package increases tef yield by 72% compared to national averages and by 44% compared to its control group broadcasting with a higher seed rate. In 2007 E.C. (2014/15), nearly 6 million smallholder farmers were trained on the technology package with nearly 1.6 million documented to be using the technology.

**Deliverable 51** (Tef Breeding Capacity) has been implemented in collaboration with research institutions and universities across four regions. To this end, a total of 13 MSc students working on tef productivity technologies were supported, and their findings have been presented to, and validated by, partners. In addition, the ATA and EIAR have forged a partnership to develop lodging tolerant/resistant, semi-dwarf, erect and high yielding varieties of tef suitable to different agro-ecologies as well as varieties tolerant to major abiotic stresses.

**Areas with Challenges**

Of the five deliverables in this program area, one (20%) is considered to be “Significantly Delayed.”

Work on Deliverable 48 (Rice Value Chain Strategy) was significantly delayed due to the magnitude of other value chain strategies under simultaneous development. Since rice is not a priority strategic crop, compared to tef, wheat, maize and others, the development of the Rice Value Chain Strategy document was delayed.

**Deliverable status and key achievements in primary thematic areas**

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>D47: Develop and release National Tef Value Chain Strategy</td>
<td>Completed Results: 1 strategy implemented</td>
<td>• National Tef Value Chain Strategy developed, released and under implementation</td>
<td></td>
</tr>
<tr>
<td>D48: Develop and release Rice Value Chain Strategy</td>
<td>Progress to Date:</td>
<td>• Deliverable was deprioritized due to competing priorities; will be restarted in GTP II period</td>
<td></td>
</tr>
<tr>
<td>D49: Initial implementation of integrated set of tef interventions in key geographies</td>
<td>Completed Results: 600,000 SHFs trained in new technologies</td>
<td>• Tef productivity enhancing interventions with low planting, improved seed and reduced seed rate rolled out across the country</td>
<td></td>
</tr>
<tr>
<td>D50: Test and scale-up tef productivity enhancing package (TIRR)</td>
<td>Completed Results: 5,900,000 SHFs trained in new technologies</td>
<td>• 13 tef research studies by MSc students supported</td>
<td></td>
</tr>
<tr>
<td>D51: Enhance Agricultural Research Institutes’ breeding capacity to address key issues for tef productivity and other enhancing technologies</td>
<td>Completed Results: 608,900 SHFs using new technologies</td>
<td>• 5,900,000 SHFs trained in new technologies</td>
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<td></td>
<td>Completed Results: 368,700 ha of land covered by new technologies</td>
<td>• 368,700 ha of land covered by new technologies</td>
<td></td>
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<td></td>
<td>Completed Results: 600,000 SHFs trained in new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
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<tr>
<td></td>
<td>Completed Results: 1,593,349 SHFs using new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Completed Results: 732,573 ha of land covered by new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Completed Results: 368,700 ha of land covered by new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
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<tr>
<td></td>
<td>Completed Results: 600,000 SHFs trained in new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
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</tr>
<tr>
<td></td>
<td>Completed Results: 368,700 ha of land covered by new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
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<tr>
<td></td>
<td>Completed Results: 600,000 SHFs trained in new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Completed Results: 368,700 ha of land covered by new technologies</td>
<td>• Integrated package introduced in 58 target woredas addressing smallholder climate-smart productivity and improved market linkages</td>
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</tbody>
</table>
**Wheat and Barley**

Why is transformation needed in this program area?

Wheat is a strategic crop for Ethiopia. In 2007 E.C. (2014/15), approximately 4.6 million smallholder farmers produced 4.2 million MT of wheat on 1.7 million hectares. Despite a remarkable 67% growth in wheat production in less than a decade, the total volume still does not satisfy the ever-growing domestic demand, with imports necessary to fill deficits. On average, Ethiopia has imported about 1.6 million MT of wheat annually since 2010/11 (~600,000 MT of which is commercial), making it the 5th largest wheat importer in Africa, next to Egypt, Nigeria, Morocco and Tunisia, and 2nd in Sub-Saharan Africa.

The productivity of wheat also remains low at 2.45 t/ha, which is 28%, 25% and 17% lower than that of the world, Asian and African averages, respectively. Given its huge potential to increase wheat production and productivity of wheat, Ethiopia aims to transform its wheat sector in order to become self-sufficient.

**Objectives of the GTP I Transformation Agenda Deliverables**

Over the GTP I period, key systemic bottlenecks that constrain the wheat and barley sub-sectors have been identified through a detailed strategy development process for both commodities. The bottlenecks identified highlight three broad objectives: 1) increasing production and productivity of wheat and barley through an integrated set of interventions, including improved inputs use and best agronomic practices; 2) improving market access to smallholder farmers through the engagement of market actors; and 3) putting in place the appropriate structures and market based incentives to achieve national self-sufficiency in wheat and malt barley, in order to end imports.

**Overall Performance Summary**

Of the six deliverables in the Wheat & Barley Value Chain Program, four (67%) are “On Track” while the remaining two (33%) are “Slightly Delayed.”

Deliverables in this program are concentrated in two thematic areas – Policies/Strategies/Regulations and Direct Engagement with SHFs. Through its various deliverables, the Wheat & Barley Program contributed a notable share of Transformation Agenda achievements in two key areas: piloting 7 innovative concepts (and scaling-up 2); and reaching more than 700,000 smallholders using the technologies introduced by these deliverables on nearly 500,000 hectares.

**Key Success Areas**

Four of the six deliverables (67%) in the Wheat & Barley Program have been classified as “On Track.”

In Deliverable 52 (Wheat Value Chain Strategy), a national strategy was developed through extensive consultation with stakeholders and has been submitted to the MoA for release. The Strategy provides a useful guide to understanding the dynamics of the Ethiopian wheat value chain and for planning and coordinating interventions. Although not formally released yet, the Strategy serves as a working document with many interventions underway.

Deliverable 54 (Integrated Wheat Interventions) launched an integrated set of production, aggregation and marketing interventions in 64 high producing wheat woredas. Practical skills trainings were delivered to thousands of regional, zonal, and woreda level experts which were then cascaded down to DAs and farmers. Row planting of wheat and the use of blended fertilizers have shown considerable increase over the past three years.

Transforming the barley sector is therefore imperative for Ethiopia to meet its own domestic demand and also become a regional exporter of malt barley, nearly all of which is currently produced by smallholders.

**Areas with Challenges**

Two of the six deliverables (33%) in this program area are considered “Slightly Delayed.”

Although Deliverable 53 (Barley Value Chain Strategy) is slightly delayed, an advanced draft document was prepared with extensive stakeholder engagement. The draft is currently under consideration by the MoA and is expected to be launched along with the finalization of GTP II.

**Deliverable status and key achievements in primary thematic areas**

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies/ Strategies/ Regulations</td>
<td>D52: Develop and release National Wheat Value Chain Strategy</td>
<td>Progress to Date:</td>
<td>• National Wheat Value Chain Strategy developed and validated by all key stakeholders; awaiting release</td>
</tr>
<tr>
<td></td>
<td>D53: Develop and release Barley Value Chain Strategy</td>
<td>Progress to Date:</td>
<td>• Draft Barley Strategy developed and under review by stakeholders</td>
</tr>
<tr>
<td></td>
<td>D54: Initiate implementation of integrated set of wheat interventions in key geographies</td>
<td>Completed Results:</td>
<td>• National Wheat Value Chain Strategy developed and validated by all key stakeholders; awaiting release</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Draft Barley Strategy developed and under review by stakeholders</td>
</tr>
<tr>
<td>Direct Engagement with SHFs</td>
<td>D55: Integration of partners to expand domestic sourcing of durum and bread wheat</td>
<td>Completed Results:</td>
<td>• Engagement with smallholder farmers and 56 cooperatives through market day promotions</td>
</tr>
<tr>
<td></td>
<td>D56: Design and implement comprehensive longer term rust management system in wheat target woredas</td>
<td></td>
<td>• Early warning and management system design developed and under review by stakeholders</td>
</tr>
<tr>
<td></td>
<td>D57: Improve domestic malt barley production and integration of partners to expand domestic sourcing of malt barley</td>
<td>Completed Results:</td>
<td>• Farmers reached and trained on agronomy practices, pre-financing, input provision and quality standards</td>
</tr>
</tbody>
</table>

In Deliverable 55 (Expand Domestic Sourcing of Durum & Bread Wheat), effective integration of public and private institutions involved in wheat marketing has been achieved through multi-stakeholder platforms, which led to domestic aggregation of more than 75,000 MT of wheat by EGTE in the 2014/15 season (a seven-fold increase compared to the previous year).

In Deliverable 57 (Expand Domestic Sourcing of Malt Barley), effective linkages between farmers, malters and breweries through strong multi-stakeholder platforms, brought significant improvement in malt barley production and supply. In particular, Diageo and Heineken have engaged more than 9,600 farmers through cooperatives and private institutions involved in wheat marketing has been achieved through multi-stakeholder platforms, which led to domestic aggregation of more than 75,000 MT of wheat by EGTE in the 2014/15 season (a seven-fold increase compared to the previous year).

In Deliverable 56 (Rust Management System), a draft early warning and disease management system has been developed through extensive stakeholder engagement, including the MoA, EIAR and CIMMYT. However, the strategy has yet to be launched and implemented at scale.
Maize & Sorghum

Why is transformation needed in this program area?

Maize is a leading cereal in Ethiopia, in terms of production and productivity, with 72 million tons produced in 2014 by approximately 9 million smallholder farmers across 2.1 million hectares of land. Maize accounts for 20.6% of per capita calorie intake nationally. Ethiopia also produces non-genetically modified (GMO) white maize, which is the preferred type of maize in regional markets. Therefore, maize is one of the country’s more significant crops in terms of production, consumption and marketing. Despite sizeable gains in maize production during 2002-2014 (up by 159%, with an annual growth rate of +13%) the average productivity of maize remains at 3.4 t/ha, compared with world average of 5.3 t/ha. However, estimates indicate that the current maize yield could be doubled if farmers adopt higher quality inputs and proven agronomic best practices already being followed in some parts of the country. At present, only 276% of maize farmers representing 40% of the area planted with maize make use of improved varieties of seed, and only 29% of farmers use inorganic fertilizers.

Similarly, sorghum is also a staple crop for millions of subsistence farmers in Ethiopia. Only 5 million smallholders produce sorghum with an estimated production of 4.3 million MT on 1.8 million ha in 2014. Because of its inherent nature to withstand drought and high temperature, sorghum is a potential crop for combating climate change and variability. Although sorghum productivity and yields remain high at 2.28 t/ha as compared to world and East African averages (1.45 t/ha and 1.35 t/ha, respectively) there is still more work to do along the value chain. Sorghum is also a potential crop to cultivate on marginalized land due to climate change, high temperature and moisture scarcity. As such, it merits focused attention to transform the broader agriculture sector.

Objectives of the GTP I Transformation Agenda Deliverables

Over the past five years, a number of diagnostics have been undertaken to identify systemic bottlenecks along both the maize and sorghum value chains. Some of the issues identified by these diagnostics have defined the specific objectives of this program area during GTP I. These include: 1) increase production and productivity through an integrated set of interventions, including increased access to improved seeds, good agronomy practices, and post-harvest handling; 2) creating market access for smallholder farmers through strong integration with institutional buyers and service providers; and 3) promotion of new technologies already being followed in some parts of the country and use of improved technologies.

Overall Performance Summary

Half the Maize & Sorghum Program’s deliverables are “On Track” while the other half are “Slightly Delayed.”

Key Success Areas

Of the four deliverables in the Maize & Sorghum Program area, two of them (50%) are classified as being “On Track.”

In Deliverable 58 (Maize Sector Strategy), a comprehensive national strategy for the maize sector was developed through extensive consultation with stakeholders and released by the Ministry of Agriculture to serve as a working document. The Strategy has provided a useful guide to understanding the underlying forces of the Ethiopian maize value chain and aided in the planning and implementation of possible interventions.

Areas with Challenges

Two of the four deliverables in this program area are considered to be “Slightly Delayed.”

Although Deliverable 59 (Sorghum Value Chain Strategy) has been classified as “Slightly Delayed,” a comprehensive National Sorghum Strategy has been developed through a consultative process and strong engagement of all key stakeholders, including the MoA, EAR, and their regional counterparts. However, the strategy has yet to be launched and implemented at scale.

Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies/Strategies/Regulations</td>
<td>D58: Update and launch National Maize Value Chain Strategy</td>
<td>Completed Results:</td>
<td>• National Maize Value Chain Strategy developed, released and under implementation</td>
</tr>
<tr>
<td></td>
<td>D59: Develop and release Maize Sector Strategy</td>
<td>Progress to Date:</td>
<td>• Maize Sector Strategy drafted and under final review by stakeholders</td>
</tr>
<tr>
<td>Direct Engagement with SHFs</td>
<td>D60: Initiate implementation of integrated set of maize interventions in key geographies</td>
<td>Completed Results:</td>
<td>• 1,018,640 SHFs trained and using new technologies</td>
</tr>
<tr>
<td></td>
<td>D61: Implement integrated research and development interventions to expand access to Quality Protein Maize (QPM) technologies</td>
<td>506,320 ha of land covered by new technologies</td>
<td>• 566 SHFs trained and using new technologies</td>
</tr>
</tbody>
</table>

Completed Results:

56 ha of land covered by new technologies
• Demonstrations provided to smallholder farmers on the use and benefits of QPM.
**Value Chains**

### Pulses & Oilseeds

**Why is transformation needed in this program area?**

Pulses and oilseeds can play a critical role towards the goal of sustainable agricultural transformation. They are sources of cheap protein, edible oil, animal feed, and income for millions of the rural population in Ethiopia. In addition to those economic benefits, pulses have positive agronomic benefits when rotated or intercropped with cereals. They can enhance soil fertility by fixing atmospheric nitrogen and thereby enable farmers to reduce chemical fertilizer costs.

Pulses and oilseeds are also strategically important to Ethiopia, as they are the second and third largest agricultural export commodity, after coffee. The export value of pulses grew at 29% per year from 2011–2013, reaching $245 million USD. Of all pulses, common beans, faba beans and chickpeas are the top exports, reaching over 800,000 farmers and covering nearly 350,000 hectares. A Cropping System Manual has also been developed with the participation of key stakeholders. This has been a main factor in expanding knowledge of cropping system approaches from DAs down to smallholder farmers.

**Areas with Challenges**

Of the four deliverables in the Pulses & Oilseeds Program area, two of them (50%) have been classified as being “On Track.”

In Deliverable 63 (Integrated Cropping System), although availability of improved pulse seed and the year’s erratic rainfall pattern have been a challenge, different kinds of cropping system interventions have been implemented in 124 woredas of 4 regions, reaching over 800,000 farmers and covering nearly 350,000 hectares. A Cropping System Manual has also been developed with the participation of key stakeholders. This has been a main factor in expanding knowledge of cropping system approaches from DAs down to smallholder farmers.

In Deliverable 65 (Integrated Sesame Interventions), pre- and post-harvest technology and marketing trainings were given to farmers and staff of various stakeholders. This has enabled over 4,400 farmers to implement the full sesame technology package on 22,000 hectares of land in Amhara and Tigray. The implementation of the full package has been challenged by the difficulty to row-plant the seed manually and lack of improved seed suitable for some sesame growing areas.

### Objectives of the GTP I Transformation Agenda Deliverables

During the GTP I period, various diagnostics were undertaken to identify systemic interventions across the pulses and oilseeds value chains which could significantly contribute to their development. A few of the common themes that emerged from these diagnostics have defined the specific objectives of the Pulses & Oilseeds Program area. These are: 1) strengthening the integration of pulses with cereals to ensure sustainable increase in productivity of both crops while also enhancing soil health; 2) implementation of an integrated set of sesame interventions to increase productivity and quality; and 3) creating market access for smallholder farmers through strong integration of all value chain actors, including exporters and service providers.

**Overall Performance Summary**

The performance status of deliverables in the Pulses & Oilseeds Program area are evenly divided between “On Track” and “Slightly Delayed.”

**Key Success Areas**

Of the four deliverables in the Pulses & Oilseeds Program area, two of them (50%) have been classified as being “On Track.”

Although Deliverable 62 (Sesame Value Chain Strategy) and Deliverable 64 (Cropping System and Pulses Sub-sector Strategy) have been classified as “Slightly Delayed,” significant progress has been made in developing a national strategy and conducting a validation workshop with all key stakeholders in both areas. However, these strategies are yet to be launched and implemented. It is expected that this process will be undertaken during the first year of the GTP II period.

### Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies/Strategies/Regulations</td>
<td>D62: Develop and release Sesame Value Chain Strategy</td>
<td>Completed Results:</td>
<td>• Sesame Value Chain Strategy developed and validated by all key stakeholders; awaiting approval and release</td>
</tr>
<tr>
<td></td>
<td>D64: Develop and release Cropping System and Pulses Sub-sector Strategy</td>
<td></td>
<td>• National Cropping System and Pulses Strategies developed and consultations undertaken with all key stakeholders; awaiting validation, approval and release</td>
</tr>
<tr>
<td>Direct Engagement with SHFs</td>
<td>D63: Implement an integrated set of cropping system interventions with maize/ wheat/teff smallholder farmers, focusing on chickpea and other pulses</td>
<td>Progress to Date:</td>
<td>• Sesame post-harvest management and marketing trainings given to experts and farmers in Amhara and Tigray</td>
</tr>
<tr>
<td></td>
<td>D65: Initiate implementation of integrated set of sesame interventions in key geographies</td>
<td>Completed Results:</td>
<td>842,439 SHFs trained on new technologies 340,888 ha of land covered by new technologies • Interventions addressing intercropping, double cropping and crop rotation undertaken in four major woredas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Completed Results:</td>
<td>200,000 SHFs trained on new technologies 4,444 SHFs using newly introduced technologies 22,420 ha of land covered by new technologies • Sesame post-harvest management and marketing trainings given to experts and farmers in Amhara and Tigray</td>
</tr>
</tbody>
</table>
Women play a significant role in the Ethiopian agricultural economy, which is predominantly smallholder driven. The nature of smallholder farming is such that production is organized around households rather than as enterprises and thus draws on labor primarily from household members. As such, women’s roles are critical. However, women face challenges that hinder their effectiveness in the production process as well as within the household. This is evidenced in more challenging access to productive resources, such as land and inputs (i.e., fertilizer, seed and credit). They also have limited membership in farmer organizations, often have insufficient engagement with agricultural advisory services, have limited knowledge of improved technologies, and limited decision-making ability within the household. These gender inequalities hinder the ability of farming households to fully leverage women’s roles, holding back smallholder agricultural production. All of this means that female farmers are less able to benefit from the agricultural growth process. Therefore, agricultural transformation that is broad based and inclusive must mean that female farmers are less able to benefit from back smallholder agricultural production. All of this compounding by low levels of awareness on how to address gender issues, the focus during GTP I has been on supporting capacity building to mainstream gender across the agriculture sector.

The Gender Program includes support to mainstreaming gender equality within the Agricultural Transformation Agenda and three specific deliverables. The focus of the work has been on the identification of the root causes of ineffective mainstreaming of gender in agricultural programs and policies, addressing identified issues, and supporting the design of sub-sectoral strategies (e.g., Extension Strategy) and sector plans (A-GTP II) so that they integrate gender equality considerations.

Out of the three deliverables in the Gender Program, one (33%) is classified as “Significantly Delayed,” one (33%) is classified as “On Track,” with two (67%) “Slightly Delayed.”

Areas with Challenges

Deliverable 67 (Gender Institutional Capacity Building), related to enhancing institutional capacity of the MoA and the RBoAs to mainstream gender equality, has seen mixed progress. Some key achievements made on this deliverable include:

• Assessment of gender mainstreaming capacity gaps in the sector, with key findings addressed through: (a) various sensitization events targeted at the leadership and technical levels; and (b) capacity building activities.
• Completion of key studies to build knowledge base on gender in agriculture.

Nevertheless, there has been slow uptake of follow-up activities, particularly at the federal MoA level and in some regions.

Deliverable 68 (Womens Economic Leadership [WEL] Project) involves a pilot project with four women’s cooperatives, where support was provided to empower women to engage in post-harvest economic activities, including linking them with private businesses and a local NGO for marketing and services. Though significant positive social results were achieved and the targeted women’s groups have been successfully organized into cooperatives, the expected economic gains were not realized through the plot.

More broadly, it should be noted that addressing gender issues requires major changes in mindset and practice. Areas for further attention include:

• Expanding assessments and studies on gender to cover wider issues
• Collection and interpretation of relevant gender sensitive data
• Stakeholder alignment for lesson sharing and scale-up
• Comprehensive capacity building plans along with dedicated resources

Deliverable status and key achievements in primary thematic areas

**Thematic Area**

<table>
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<tr>
<th>Deliverable</th>
<th>Status</th>
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</table>
| D6A: Mainstream gender priorities into key agricultural policies and frameworks | Completed Results: • Stakeholders aligned on gender issues within selected sub-sector strategies and in the agriculture component of GTP II
| D6B: Enhance the institutional capacity of MoA and RBoAs to improve implementation of gender mainstreaming approaches in priority intervention areas | Progress to Date: • 218 stakeholder experts trained
| D6C: Design and pilot a project to strengthen women’s economic empowerment in cooperative structure | Completed Results: • 1 innovative concept piloted

**Policies/Strategies/Regulations**

**Direct Engagement with SHFs**
Ethiopian agriculture is heavily dependent on natural resources, particularly land and rainfall. As a result, efforts to increase production and productivity can be undermined by long-term losses in soil fertility, climate variability and related biotic stresses. Unsustainable and extractive agricultural practices are key factors that have negatively influenced Ethiopian agriculture over the last 3 decades. In addition, global climate change, with erratic rainfall, increasing temperatures, and extreme events (particularly droughts) has created added challenges. Sustainably increasing agricultural production and productivity – which underlies the agriculture transformation effort – over the long term, requires development and adoption of Climate Smart Agricultural (CSA) practices that enhance the natural resource base, promote adaptation to a changing climate, and ensure climate change mitigation.

**Objectives of the GTP I Transformation Agenda Deliverables**

Overall, the Climate & Environment Program aims to support the mainstreaming of Ethiopia’s Climate Resilient Green Economy (CRGE) strategy by greening the Transformation Agenda. In particular, during GTP I, the C&E Program sought to promote enhanced use of climate information to support climate responsive advisory services and related agronomic decision-making by smallholder farmers.

**Overall Performance Summary**

Both of the deliverables in this program area (100%) can be considered “Slightly Delayed.”

**Deliverable 6: Agro-met Project** has proactively supported capacity building of the extension and meteorological systems to introduce the use of climate information in advisory services to farmers. This was initially done by promoting the use of rain gauges at FTCs and among model farmers, then expanding towards investments in automatic weather stations and capacity building for the generation and interpretation of downscaled weather information across a more holistic set of variables (rainfall, temperature, wind movements, etc.). However, the project is still in a pilot stage. Moving forward, in addition to scaling-up, a climate information communication and feedback system will also be developed.

**In Deliverable 70: Mainstreaming Climate Smart Agriculture**, the C&E Program has been successful in mainstreaming issues of climate-smart agriculture into the Transformation Agenda around four outcome areas:

- **Promotion of CSA production technologies and practices through key agricultural systems, such as extension, research, seeds, fertilization, and mechanization**
- **Promotion of technologies/practices relating to efficient use of natural resources and water resources development**
- **Increased input, finance and output markets linked to the adoption of CSA technologies and/or practices in production and marketing**
- **Increased capacity for CSA mainstreaming within the ATA and its partners**

However, many of the deliverable initiatives remain somewhat ad hoc. In particular, there is limited progress in terms of promoting the adoption of agricultural practices that protect and conserve the natural resource base (i.e., moving away from current extractive practices that prevail in Ethiopia’s smallholder agriculture) including conservation agriculture. While conservation agriculture has been successfully piloted in selected geographies, there has not been any success in scaling-up an integrated set of practices, primarily because the case for doing so has not been fully established.

**Key Success Areas**

The primary success realized in the C&E Program is the mainstreaming of CSA practices into the agriculture component of the second Growth and Transformation Plan (A-GTP II) and the Transformation Agenda for GTP II.

The following are some of the various initiatives in the Transformation Agenda that have contributed towards CSA in GTP I:

- **Capacity of the extension system to move from blanket recommendations towards more optimal soil fertilization considerations (thereby contributing to reducing GHG emissions)**
- **Enhanced soil mapping under the EthioSiS project and demonstration of the application of blended fertilizers**
- **Intercropping and rotation of cereals with pulses for improved soil health promoted through the development of a strategy and support to integrated interventions within key cropping systems**
- **Household irrigation (and therefore reduced reliance on rainfall) promoted by addressing key systemic bottlenecks along irrigation value chains**
- **Business models for availing mechanized technologies to smallholder farmers developed within wheat/maize/teff/sesame farming systems, with a particular focus on harvesting and threshing; this is expected to reduce post-harvest losses (a key aspect of more sustainable agricultural production) due to poor handling**

**Areas with Challenges**

As the C&E initiatives remain somewhat ad hoc, a more holistic approach to promoting Climate Smart Agriculture is needed. Issues that require further consideration include: 1) establishing a case for conservation agriculture and identifying key entry points for scaling-up related activities; 2) incentivizing farmers to adopt agricultural practices that protect the natural resource base and to invest in natural resource development; 3) identifying climate smart initiatives downstream of agricultural value chains and in financial systems; and 4) managing livestock within Ethiopia’s farming systems in a more sustainable manner that also reduces GHG emissions from livestock. These areas will be a major focus of the GTP II period, building on current diagnostic work.

**Deliverable status and key achievements in primary thematic areas**

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of Innovative Ideas</td>
<td>D68: Enhance and expand the use of agro-meteorology information for improving smallholder farmer productivity</td>
<td>Completed Results: 3 Innovative concepts and approaches piloted</td>
<td>• Promotion of plastic rain gauges, introduction of worsened level downscaled climate information, and initiation of stakeholder joint agro-meteorological forum</td>
</tr>
<tr>
<td></td>
<td>D70: Design and begin implementation of an approach to mainstream climate issues in all deliverables</td>
<td>Progress to Date:</td>
<td>• Concept note on advocating, documenting and demonstrating climate smart agriculture best practices under review by stakeholders</td>
</tr>
</tbody>
</table>
Monitoring, Learning & Evaluation

Why is transformation needed in this program area?

Defining objectives for Ethiopia’s agricultural development and transformation, measuring progress, assessing sectoral developments, and learning from achievements is critical to achieve the goal of transforming the Ethiopian agriculture sector, as it allows for informed decision-making and mid-course adjustments based on evidence. It also helps to promote efficiency of resource utilization by monitoring spending vis-à-vis results achieved.

A robust, useful, results-based Monitoring and Evaluation (M&E) system, effective modalities for learning and reflection across multiple stakeholders, and a strong planning framework are indispensable tools for this. The agriculture sector is complex; its development therefore needs systematic follow up, both in terms of monitoring day-to-day progress and evaluating results, to ensure that the transformation process is on track and that related government support is optimal. Planning, Monitoring & Evaluation (PME) is a powerful public management tool that helps ensure that initiatives within the sector are well conceived and that intended results are achieved. However, PME systems as they relate to the agriculture sector in Ethiopia exhibit significant weaknesses, including:

- Weak and uncoordinated institutional framework
- Absence of effective modalities to harmonize/align PME efforts across multiple stakeholders within a decentralized system
- Ad hoc measures of sector performance that do not address the needs of decision makers at different levels of government
- Inadequate and fragmented Management Information System (MIS) and knowledge generation management

Objectives of the GTP I Transformation Agenda Deliverables

The MLE Program’s main objective during the GTP I period was to undertake in-depth diagnostics to identify underlying causes of a weak PME system within the sector as well as to understand existing processes upon which to promote a stronger system. In doing so, it sought to establish a program of action for moving sectoral PME systems towards: a) planning based on strong evidence; b) systematic monitoring of developments in the sector (rather than meeting ad hoc reporting requirements as they arise); and c) measuring achievement of intended results articulated in sectoral strategies (rather than outputs of individual programs). The MLE Program sought to highlight key systemic bottlenecks to establishing strong institutional arrangements and systems for sector-wide PME, to reach consensus on priority actions, and to create related capabilities.

Overall Performance Summary

MLE deliverables during GTP I focused on enhancing sector-wide strategies and program monitoring and evaluation capacity. This included two deliverables: 1) strengthening MoA/RBoA-PPDs to enhance PM&E systems and functions, and 2) development of a coherent agriculture component of the second generation Growth and Transformation Plan (A-GTP II), one of which is “On Track” while the other is “Slightly Delayed.”

Key Success Areas

Deliverable 76 (Strengthening MoA/RBoA-PPD Capacity to Enhance PME Systems and Functions) is “Slightly Delayed.” Activities have been initiated based on a comprehensive roadmap, endorsed at the highest level. However, implementation of the roadmap is at its very early stages. In particular, there is significant work remaining in terms of developing a robust results-based M&E system and supporting an automated Management Information System.

Deliverable 77 (Develop 2nd Generation GTP-ATP Sector Strategy) is “On Track.” Support provided to the review of the A-GTP I and design of A-GTP II constitutes the major contribution of the MLE Program to the Transformation Agenda and provides the basis on which a strong M&E system can be developed. Overall, strong coordination and stakeholder alignment has been created across levels of government and among multiple institutions engaged in agriculture.

Other areas of progress in the MLE Program include:

- Completion of assessment of the agriculture sector’s PME systems
- Review of A-GTP I performance and development of a robust A-GTP II strategy, building on lessons from A-GTP I

Areas with Challenges

Though there have been major upgrades in the sector’s PME process, particularly in terms of the development of the A-GTP II which serves as the basis for the M&E system, M&E processes are not yet well established at the highest level. However, implementation of the roadmap is at its very early stages. In particular, there is significant work remaining in terms of developing a robust results-based M&E system and supporting an automated Management Information System.

Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structures/ Processes/ Systems</td>
<td>D76: Strengthen MoA/RBoA-PPD to enhance existing PME systems and functions</td>
<td>Completed Results: 1 strategy released</td>
<td>Progress to Date: MoA Planning and Programming Directorate (MoA-PPD)/ roadmap to strengthen agriculture sector PME system approved by policy makers and implementation started</td>
</tr>
<tr>
<td>Policies/ Strategic/ Regulations</td>
<td>D77: Develop 2nd Generation GTP-ATP sector strategy</td>
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- Establishment of regional-federal consultative platforms for experience sharing and jointly addressing issues related to planning and M&E resulting in effective coordination and engagement of stakeholders
- Completion of roadmap to enhance sector-wide PME, including the identification of seven key areas of intervention:
  1. Revisit MoA-PPD/RBoAs-PPPs’ mandate and organizational structure within MoA for greater emphasis on M&E and policy analysis functions
  2. Build related capacity, driving better execution: establishing the building blocks for a sector-wide PME
  3. Establish effective processes for aligning multiple plans
  4. Establish harmonized, results-based M&E systems
  5. Establish functional MIS
  6. Improve sector-wide portfolio management
  7. Enhance sectoral knowledge management
The Special Projects Program area provides a platform to address unique issues and pilot innovations that do not easily fit into other program areas within the Transformation Agenda, but which do have the potential to catalyze the transformation of the agriculture sector by addressing a key structural or systemic issue.

These projects tend to be new to the Ethiopian context but leverage international best practices (in their design) and existing systems and infrastructure (in their execution). These initiatives are based on proven concepts and results that have accelerated transformation of the agriculture sector in other economies, but contextualized to the Ethiopian environment.

**Objectives of the GTP I Transformation Agenda Deliverables**

Special Projects deliverables work across many value chains and systems areas, aiming to provide solutions for wide ranging systemic and operational bottleneck.

The major objectives include: development and scaling-up of ICT tools to expand access to up-to-date agronomic best practices and other related information.

These deliverables cut across the entire value chain, focusing on specific commodities, geographies and markets.

For example, the Agricultural Commercialization Clusters (ACC) initiative, which integrates several interventions in its approach, including innovative ICT tools, has the potential to contribute ~$1B to $1.5B in revenue gains annually, mainly through import substitution, increased exports, and the creation of 1.5-2 million new jobs.61

**Why is transformation needed in this program area?**

The deliverables in the Special Projects area primarily aim to accelerate the market-orientation of smallholder farmers and existing government interventions, and to leverage information communication technology (ICT) tools to improve the decision making abilities of smallholder farmers and decision makers. These deliverables have a primary thematic area of either Policies/Strategies/Regulations or Introduction of Innovative Ideas, with the “On Track” deliverables in the second area and “Delayed” deliverables in both.

As a whole, these deliverables form a significant share of Transformation Agenda achievements across three main results indicators: 1) implementation of 5 new institutional structures; 2) piloting of 6 innovative concepts (with scale-up of 4); and 3) just under 650,000 smallholder farmers reached with new technologies and almost 6,000 stakeholder experts trained.

**Areas with Challenges**

One deliverable (14%) under the Special Projects area has been classified as being “Significantly Delayed,” and four deliverables (57%) as “Slightly Delayed.”

**Key Success Areas**

Two deliverables under the Special Projects area have been classified as being “On Track.”

**In Deliverable 80 (ICT-based Information Dissemination System),** the ATA and the MoA have developed an innovative way to distribute information to smallholder farmers and rural communities – an Interactive Voice Response/Short Message Service (IVR/SMS) system. The IVR/SMS system allows users to call into a hotline and access a wide range of agronomic best practices and other related information.

Over the past year, through a comprehensive promotion and awareness campaign, more than 1.1 million callers have registered for the service, with 72% identifying themselves as a smallholder. These registered users have called in 7.3 million times over the past year. The system has also broadcasted over 400,000 IVR and 100,000 SMS messages explaining how to identify and protect against specific diseases.

**In Deliverable 84 (Agricultural Commercialization Clusters (ACCs)),** a major project has been launched in order to integrate all Transformation Agenda deliverables in key commodities/geographies. The identification of cluster woredas and design of the initiative follows extensive consultations at both federal and regional levels (including the MoA, Regional Presidents and Cabinets, RBoAs, NGOs, major private sector actors, and other federal and regional actors) to ensure full alignment and define the concept of agricultural commercialization. Based on rigorous, pre-set criteria, priority commodities were agreed upon in 31 clusters in the four regions of Amhara, Oromia, SNNP and Tigray. An additional 16 clusters were further prioritized and specific interventions identified for initial rollout during 2015.

**Overall Performance Summary**

The Special Projects area includes seven diverse deliverables, four of which are related to ICT solutions. Two of the deliverables in this program area (29%) are “On Track,” while four (57%) are considered “Slightly Delayed,” and one (14%) is “Significantly Delayed.”
were identified and proposed to a Private Sector Development Task Force. While the Task Force has endorsed the broad policy areas as well as the essence and direction of the policy recommendations, further revisions were requested and are currently underway.

Deliverable 83 (Tef International Market Access (TIMA)) has also been classified as “Slightly Delayed.” However, substantial progress has been made since the project was initiated in September 2014. In particular, the design of a tef export model has been approved by senior policy makers and launched with farmers, covering nearly 6,000 ha of land. Challenges, however, have come in two particular areas: 1) the effect of the El Nino weather patterns in Ethiopia caused difficulties for a number of the farmers in the pilot project, which may affect the total amount of land and production covered in the initial year; and 2) buyers of tef flour (which is the target output for export) have been slower to materialize than expected, as most international buyers are interested in buying raw tef that can be processed elsewhere.

### Regional Highlights

The ATA and the Agricultural Transformation Agenda aim to support all of the regions across Ethiopia. However, since the ATA was a completely new organization during GTP I and the concept of an Agricultural Transformation Agenda had still not been tested in the country, a sequenced approach to engaging the regions has been necessary.

As such, during GTP I, the ATA began its engagement at the regional level with only a few regions. Identification of the regions for initial engagement was based on several factors. First was a prioritization of the regions in which the multi-donor supported Agricultural Growth Program (AGP) was active. It was seen that the many complementary investments underway in the AGP would allow the ATA to quickly test out the concept of the Transformation Agenda for replication in other regions. Furthermore, regions were prioritized based on their contribution to national production in the prioritized commodities in the Transformation Agenda during GTP I.

Based on these two main criteria, the four regions that were selected for initial focus in the Agricultural Transformation Agenda, and for the ATAs’ support, were: Amhara, Oromia, SNNP and Tigray. The following pages provide a brief overview of the key deliverables making significant progress in each of these four regions.

With the expansion of the AGP into emerging regions beyond Amhara, Oromia, SNNP and Tigray, as well as the inclusion of commodities such as livestock and horticulture in the Transformation Agenda during GTP II, it is expected that the ATA and the Agricultural Transformation Agenda’s work during the coming years will expand beyond the initial four regions engaged during GTP I. It will however be important to ensure that this expansion is undertaken in a deliberate and structured manner, with full commitment to the new regions engaged, and based on sufficient capacity to undertake such new work.

### Deliverable status and key achievements in primary thematic areas

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Deliverable</th>
<th>Status</th>
<th>Key Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulations</td>
<td>D79: Complete an institutional survey and deploy ICTs in all Cluster woreda agriculture offices in order to collect real-time information including gender-disaggregated data</td>
<td>Progress to Date: ICT in Agriculture Strategy outline developed</td>
<td>Completed Results: 5 Regulations/guidelines completed</td>
</tr>
<tr>
<td></td>
<td>D80: Develop, test and scale-up an ICT-based information dissemination system</td>
<td>Completed Results: 2 innovative concepts piloted and scaled-up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D81: Develop, test and scale-up an Input Tracking System to monitor the input distribution supply chain from imports and local production to smallholder farmers</td>
<td>Completed Results: 1 innovative concept piloted and scaled-up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D82: Revision, modification, and implementation of G8 New Alliance Cooperation Framework</td>
<td>Completed Results: 1 innovative concept piloted and scaled-up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D83: Design and launch Tef International Market Access (TIMA) project to tap into growing international gluten free market</td>
<td>Progress to Date: 1 innovative concept piloted</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D84: Design and launch Agricultural Commercialization Clusters (ACCs) project to integrate all Transformation Agenda deliverables in key commodities/geographies</td>
<td>Completed Results: 1 innovative concept piloted</td>
<td></td>
</tr>
<tr>
<td>Strategies/ Policies/ Regulations</td>
<td>D78: Develop a national strategy on ICT in agriculture</td>
<td>Progress to Date: ICT in Agriculture Strategy outline developed</td>
<td>Completed Results: 1 innovative concept piloted and scaled-up</td>
</tr>
<tr>
<td>Introduction of Innovative Ideas</td>
<td>D85: Develop and launch Tef International Market Access (TIMA)</td>
<td>Progress to Date: ICT in Agriculture Strategy outline developed</td>
<td>Completed Results: 1 innovative concept piloted and scaled-up</td>
</tr>
</tbody>
</table>

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As one of the four primary regions targeted by the Transformation Agenda during GTP I, Amhara boasts some impressive results achieved from the implementation of deliverables in a variety of program areas. For illustrative purposes, achievements in three particular deliverables (Extension Capacity Building, Rural Financial Services and Direct Seed Marking) are highlighted below. In addition, some details are provided on the Amhara Region’s progress in identifying and initiating work within the Agricultural Commercialization Clusters Initiative.

Deliverable #31: Extension Capacity Building

Ethiopia’s agricultural extension system is the critical link between research and farmers for effective dissemination and adoption of improved technologies. Without an effective extension system, yield- and quality-improving technologies cannot reach the farmers they intend to help. As such, the extension system must be innovative, market-oriented, agro-ecologically adaptive and sustainable to meet the needs of smallholder farmers.

Toward this end, one particular deliverable in the Transformation Agenda (D41) has prioritized strengthening the extension packages of key crops, particularly within the ACC woredas. Through consultations with the MoA, the RBoA, ACC leadership and pertinent staff, agronomic training content and effective communication methods for production technologies on priority commodities have been identified. Furthermore, the physical and financial plans for large scale demonstrations for these crops were developed in 2015.

In Amhara, 195 zonal and woreda experts, 460 DAs, and 982 farmers drawn from seven zones, seven clusters, 54 woredas and 162 FTCs have received training on sesame, malt barley, rice, maize, wheat and teff production. In addition, 1,144 demonstration stations and field days at the kebele, woreda, and zonal levels were organized for farmers, as well as workshops for scientists and radio broadcasts on pertinent topics.

Deliverable #32: Rural Financial Services

For farmers in Amhara, access to financing for agricultural inputs is an important determinant of whether or not they adopt and continue to use productivity enhancing inputs. Despite improvements in the rural financial sector in recent years, critical weaknesses remain, such as limited access to input credit, insufficient incentive to save in formal institutions and unavailability of risk mitigation mechanisms like insurance at scale.

The Rural Financial Services (RFS) strategy, developed along with stakeholders in 2012, encompassed several recommendations for addressing these challenges. One such recommendation, an Input Voucher System (IVS), has made remarkable progress in the Amhara Region.

The new system was designed to improve access to input credit, increase efficiency, and reduce the fiscal burden of wholesale input loan guarantee on regional governments. This is to be achieved by shifting the lending emphasis away from cooperatives and unions, toward microfinance institutions (MFIs) and other qualified financial institutions. In partnership with the Amhara Credit and Saving Institution (ACSI), the system was piloted in five woredas in Amhara in 2014. Subsequently, this initiative has been scaled-up to 73 woredas in 2015, servicing almost 1.4 million smallholder farmers to buy 1.53 million quintals of input worth 2.1 billion ETB. The system has also hugely improved the repayment rate of input loans; all of the $2 million ETB in input loans distributed to farmers in 2014 were fully repaid the following year.

To support the system’s implementation, 4,636 experts were trained on the IVS and financial literacy in Amhara. Three thousand new staff have also been trained for deployment in 800 new ACSI satellite offices scheduled to be opened as the project is scaled-up further.

Deliverable #35: Direct Seed Marketing

Providing farmers with increased access to improved, high-quality seed is an important step toward raising individual yields, and thereby overall national production. Throughout Ethiopia, seed allocation and distribution are handled primarily by the MoA and RBoAs, while retail seed distribution is typically a time-consuming and resource-intensive approach exclusively done through primary cooperatives and unions. Consequently, farmers have no other complementary options to access quality seeds at a competitive price.

In order to complement the existing system, the MoA, ATA and RBoAs developed an innovative market-based seed distribution system, Direct Seed Marketing (DSM), in 2011. The initiative aims to reduce the number of steps in the seed supply chain, while increasing producer and channel competition. Through DSM, public and private seed producers are allowed to market their seed directly through multiple channels (cooperative agents, private agents, or their own stores) in a competitive manner, with strong public sector oversight.

In 2014, over 60,000 quintals of hybrid maize seed were supplied and marketed through DSM in Oromia, SNNP and Amhara. The Amhara Region reported particularly strong results, with carryover seeds dropping to below 5% in DSM woredas, from levels of up to 30% in the traditional system. The study also indicates that farmers in DSM woredas received seed 2-3 weeks ahead of planting time compared with those in non-DSM woredas, which often reported late seed delivery.

Deliverable #34: Agricultural Commercialization Clusters

The Agricultural Commercialization Clusters (ACCs) concept uses a market-driven and geographically-based approach to accelerate the transition of smallholder farmers from subsistence to commercial orientation. In Amhara, nine geographic clusters were identified for prioritization for inclusion in the ACC initiative. These nine clusters prioritize eight commodities (sesame, barley, goats, sorghum, teff, wheat, maize and horticulture crops) but also include an additional 15 commodities as secondary targets.

During the first year of implementation (2007/08 E.C./2015), Amhara has prioritized seven clusters for piloting and learning, out of which maximum focus is being given to two clusters (sesame and maize) for market linkages and agro-processing. In the coming months and years, greater focus will be placed on strengthening market linkages and enhancing agro-processing in order to create a pull for smallholder farmers to adopt technologies that can stimulate productivity and production increases.
A number of Transformation Agenda deliverables have shown strong results in the Oromia Region, including the capacitation of Farmers' Cooperative Unions (FCUs) to build storage facilities, the Direct Seed Marketing (DSM) modality, and the extensive demonstrations of extension packages to improve production and productivity of prioritized crops. Beyond these interventions, the three deliverables (Fertilizer Blending, TIRR package and HHI Value Chain) and the ACC initiative, detailed below, have made particular progress toward transforming agriculture in the Oromia Region.

**Oromia Region**

**Deliverable #11: Fertilizer Blending**

Low productivity in Ethiopia’s agriculture sector is caused in part by a range of factors related to soil fertility. While a number of interventions have been carried out in the past to reverse the impacts of such constraints, acquiring updated and accurate soil-related information remained a challenge for some time. Recently however, experts from Oromia have been working with the MoA and ATA to undertake a regional and national soil fertility mapping project to collect the most accurate and latest soil information, with the ultimate goal of building a comprehensive soil database.

The findings of this initiative have challenged the long-standing blanket recommendation to use DAP and urea in equal amounts across all of Ethiopia’s soils. In fact, the fertility status of these soils has now been shown to vary hugely across different agro-ecologies, necessitating the use of tailored rather than uniform fertilizers. To increase farmers’ uptake of this vital input, the capacity of local sources is being enhanced through the construction of domestic fertilizer blending plants.

Two of the five blending plants that have been established at FCUs in Ethiopia have been in Oromia: Becho Wolisso and Gibe Dedessa. Once the two Oromia plants are running at full capacity, they are expected to produce a combined total of 100,000 MT of fertilizer. The fertilizer blending initiative is being implemented through a cost sharing system, whereby the FCUs finance the slabs for the plants’ foundations, and the machinery, equipment and facility set-up is funded by the ATA and AGP.

**Deliverable #50: TIRR Package**

One of the earliest successes registered by the Transformation Agenda was achieved through the TIRR productivity enhancing package for tef, developed by the ATA, MoA and BIAR, in collaboration with experts from Oromia. An acronym for Tef, Improved seed, Reduced rate, Row planting, the TIRR package has revolutionized how tef is cultivated in Ethiopia. Traditionally, tef is planted through broadcasting (or scattering) but this has been found to cause certain problems. At a rate of 30-50 kg of seed per hectare, broadcasting is very expensive. Instead, tef can be planted with a reduced seed rate of 3-6 kg/ha and planted in rows for maximum productivity. Row planting helps reduce plant density and eases weeding, spraying and fertilizer application, making for fewer but stronger plants, producing more stems and grain. It can also help prevent plants from falling over, a common problem with tef. Another huge advantage for farmers is the reduced cost of seed due to the smaller volume required.

Since the launch of the initiative in 2011, 5.9 million farmers have been trained on the TIRR package nationally and 1.6 million are currently implementing the package on 732,000 hectares. In Oromia alone, 2.4 million farmers have been trained, with 748,000 of them implementing the package over 185,000 hectares.

**Deliverable #43: Household Irrigation Value Chain**

In Oromia, this effort is led by the Oromia Irrigation Development Authority, through which 935 woreda experts were trained on an assessment tool for high-value crops, using localized cropping calendars, irrigation water management, and irrigation agronomy. This training was then cascaded to 27,489 farmers. To support farmers using household irrigation for high-value crops, training was also provided to nine Farmer Training Centers in Oromia.

Additional support was provided through the 8028 agricultural hotline with 295,484 total calls received from 74,469 Oromia callers on irrigation-related topics, as of July 2015. In addition, 35 experts from Oromia were trained in GENs (Groundwater Navigation System). A groundwater atlas is also being prepared for 24 woredas in the region. Additionally, 14 private manual pump manufacturers were trained in Oromia, with 1,170 manual pumps manufactured in the region to date.

At present, 32,037 hectares of land are cultivated under household irrigation in nine pilot woredas in Oromia. Farmers have also been linked with reliable seed producers and other input suppliers (such as ETFRUIT) for access to a total of 461 quintals of vegetable seeds. Sixty crops were also linked with different buyers (ETFRUIT, consumer associations, traders and institutional buyers), an arrangement through which pilot woredas from Oromia sourced 12,867 MT of vegetables for various buyers in 2015.

**Deliverable #84: Agricultural Commercialization Clusters**

In Oromia, eight geographic clusters were identified for prioritization and inclusion in the ACC initiative. These clusters prioritize eight commodities (maize, coffee, tef, malt barley, wheat, dairy, livestock and horticulture crops) but also include an additional 10 commodities as secondary targets.

In 2015, Oromia has prioritized five clusters for piloting and learning, out of which maximum focus is being given to two clusters (wheat and malt barley) for market linkages and agro-processing.
Several Transformation Agenda deliverables have achieved considerable success in the SNNP Region, including the cooperative storage building project and the massive awareness creation campaign conducted through the Interactive Voice Response/Short Message Service (IVR/SMS). In addition to these interventions, three deliverables (Community Based Seed Production, Tef/Chickpea double cropping and Seed Regulatory Authority) have registered particularly strong results in the region. These three deliverables and the work that the SNNP Region has been doing in the Agricultural Commercialization Cluster (ACC) Initiative are discussed in greater depth below.

Deliverable #6: Community Based Seed Production

Although the sophistication of Ethiopia’s farmers has improved over the years, a majority (85%) of their agricultural land continues to be covered by informal seed. Seed is primarily produced and distributed by public sector producers with increasing efforts to include a private sector component.

Increased contributions are also being made by community-based seed producers (CBSPs) to the national seed supply. CBSPs have the capacity to reduce the supply chain in seed production and more effectively engage model farmers in the production and distribution of seeds that are demanded in their particular agro-ecologies. However, the scale and diversity of CBSPs’ operations have been constrained in the past by limited physical and financial resources, as well as knowledge and skills in seed business management.

One of the most successful CBSPs in Ethiopia is based in SNNP Edget Cooperative Union currently produces 25% of the wheat seed, 5% of the tef seed, and 3% of the haricot bean seed used by farmers in the region. Edget has been able to achieve this remarkable figure by focusing its efforts on enhancing internal quality control, physical capacity, leadership and governance. To further strengthen the capacity of this union, three seed storage facilities have been constructed, one tractor has been provided, and 1,200 union members have been trained on seed production and seed business management.

Based on the experience and learnings from Edget, significant investments are being made in CBSPs in SNNP as well as in other regions.

Deliverable #63: Integration of Pulses in Cereal-based Cropping Systems

Following cereals, pulses are the second most important crop type in Ethiopia, both in terms of land use and production. As an important source of protein and a staple food, pulses also play a considerable role in Ethiopian household nutrition. In addition, pulses offer enormous agronomic benefits when intercropped with cereals. They can increase soil fertility, reduce disease, insect and weed pressure in cereals, leading to higher yields and reduced fertilizer costs.

With this in mind, a series of cropping system interventions have been introduced, integrating pulses with each of the major cereals. The overall intervention targets close to 800,000 farmers nationally, out of which 284,912 are in the SNNP Region, farming an area of 117,360 hectares. The interventions require 382,300 quintals of pulses seed, most of which will be farmers’ seed. Implementation of the interventions in SNNP is being supported by 32 leadership staff from zonal and woreda Bureaus of Agriculture in 26 woredas who were given ToT trainings on cropping systems.

Deliverable #3: Seed Regulatory Authority

Following the endorsement of an amended Seed Proclamation in 2013, steps have been taken to reform regional seed regulators, mobilize regional resources for seed regulatory institutions and build the technical capacity of seed laboratory staff.

Quality seed standards were revised with the Ethiopian Standards Authority, 27 of which were endorsed and distributed to users. A National Platform for Seed Quality Control has been created, facilitating information exchange, sharing of best quality control practices, and helping stakeholders to design mechanisms to control cross-border illegal seed trade. Work is also underway to incorporate seed health in the regional certification system.

SNNP was one of the pioneering regions in reforming its seed regulatory system to the authority level. It immediately assigned a Director for the seed regulatory authority, implemented a revised salary scale for staff at the seed lab level, and assigned an office for the upcoming activities it would undertake.

The region mobilized resources and established an additional seed laboratory in Bonga and expanded the facilities at the Welkite lab. Three new vehicles (one per seed lab) were purchased for the region’s seed institutions, with two allocated specifically to the regulatory authority. The political commitment and support provided by regional authorities to the development of robust seed regulatory institutions in SNNP is expected to significantly improve the quality and quantity of improved seed that will be available to farmers in the region in the years to come.

Deliverable #84: Agricultural Commercialization Clusters

In SNNP eight geographic clusters were identified for prioritization for inclusion in the ACC initiative. These clusters prioritize six commodities (sesame, wheat, haricot bean, coffee, banana and cattle) but also include an additional 15 commodities as secondary targets.

During 2015, SNNP has focused on two clusters (wheat and haricot beans) to initiate the ACC work. The region has made significant strides in implementing the ACC initiative by focusing on issues related to production and productivity, market linkages, aggregation and agro-processing. In the coming months and years, greater focus will be placed on strategic opportunities related to key crops, such as coffee, tea, horticulture, and other high-value commodities.
Transformation Agenda deliverables have been on a successful trajectory in several ways in the Tigray Region, including enhancing the capacity of Community Based Seed Producers (CBSPs) and the introduction of the Input Voucher System (IVS) through RuSACCOS. Even greater gains have been achieved through the initiatives undertaken to produce a regional soil fertility atlas, launch a contract farming platform, and institute integrated sesame interventions. Progress on these three projects as well as Tigray’s work on the Agricultural Commercialization Cluster Initiative are detailed below.

**Tigray Region**

**Deliverable #10: EthioSIS Soil Fertility Mapping and Atlas**

The Ethiopian Soil Information System (EthioSIS) initiative currently underway is working to provide extension workers and farmers with detailed, localized soil fertility information to better inform soil nutrient recommendations and usage. To this end, all of Ethiopia’s soils are being analyzed using remote sensing and satellite technology, and a map of each region is being developed showing the fertility status of soils at the woreda level.

A soil fertility atlas for the Tigray Region, encompassing all of the region’s 36 rural woredas, has been completed and handed over to the Regional Bureau of Agriculture. Seventeen soil fertility parameters were analyzed and seven nutrients were found to be deficient in the region. These include total nitrogen, available phosphorus, exchangeable potassium, available sulfur, and extractable iron, zinc, and boron. As a result, 11 fertilizers or fertilizer blends have been recommended for the region.

Considerable capacity building has also been undertaken to ensure that regional stakeholders will carry out the soil fertility analysis work effectively in the future. A soil drying shade was constructed and accessories (mortars, grinders, etc.) were provided for the Tigray soil laboratory. A spectra analysis machine (MIR) and motor deionizer were also procured for the facility when the new soil analysis methodology was introduced.

To encourage uptake of the recommended fertilizers in the region, the fertilizer blending initiative has established a fertilizer blending plant near the city of Mekele with a capacity of 50,000 MT per year.

**Deliverable #29: Contract Farming Platform**

Efficiently connecting smallholder farmers to markets is a crucial step toward transforming subsistence farming to commercial agriculture. Links to commercial buyers are particularly important, as those buyers provide reliable markets and often offer higher prices than local and regional brokers.

Contract farming has the potential to improve smallholder farmers’ livelihoods and increase agricultural sector growth by making this link between buyers and sellers. To formulate an institutional solution, a new, comprehensive contract platform has been launched that facilitates linkages between farmers and buyers by providing accurate market information and profiles, facilitating negotiations and contract signings, and enforcing the contracts through a multilayered accountability system.

Considerable work has already been done in terms of contractual farming agreements between wheat producers and flour factories in the Tigray Region. In 2015, 288,000 quintals of wheat have been contracted between six Farmers’ Cooperative Unions (FCUs) and three major flour factories. Going forward, similar agreements will be facilitated for other major crops.

**Deliverable #65: Integrated Sesame Interventions**

Oilseeds marketed internationally make up about 16% of Ethiopian exports in value. Oilseeds also have the potential to become important raw materials for domestic agro-industries, with more structured value chains and investment in processing into edible oil and seed cakes. Though they have not benefited as much from modern agricultural techniques as cereals have, their potential to impact smallholder farmers and the economy of the Tigray Region and Ethiopia as a whole remains vast.

In particular, production of sesame has huge potential for growth. As such, a set of integrated sesame interventions have been developed for implementation in 24 woredas nationally, six of which are in Tigray.

Trainings in Tigray on the post-harvest handling and marketing of sesame were attended by RIBOA, RBOT and RCPA representatives from two zones (West and North West Tigray) and six woredas, as well as representatives of TAMPA, TMF and two cooperative unions (Dansha and Setit Hum). These experts in turn cascaded their training down to DAs who have thus assisted smallholder farmers in reducing post-harvest loss and ensuring the marketing of high quality sesame produce.

In addition, significant work has been done to build the capacity of coop unions and other actors closely linked with farmers to export directly to international buyers. With this in mind, an export market consultant was hired to provide market information on a daily basis to sesame cooperatives in Tigray. Potential buyers of the crop were identified and linkages facilitated with sesame producing unions. Finally, a working group of sesame stakeholders is being held on a monthly basis to identify marketing challenges faced by sesame unions and put forth recommendations to overcome their difficulties.

**Deliverable #84: Agricultural Commercialization Clusters**

In Tigray, four geographic clusters were identified for prioritization in inclusion in the ACC initiative. These clusters prioritize four commodities (wheat, teff, sesame and horticulture crops) but also include an additional 11 commodities as secondary targets.

Tigray has focused on two clusters (wheat and sesame) to initiate the work. The region has made significant strides in implementing the ACC initiative by focusing on issues related to production and productivity, market linkages, aggregation and agro-processing. In the coming months and years, greater focus will be placed on targeting strategic opportunities for commodities such as sesame, honey, horticulture, and many others.

[Diagram of Agricultural Commercialization Clusters]

**Prioritized Commodities by ACC Cluster:**
- **Primary Commodity:** Sesame
- **Secondary Commodities:** Sorghum, Barley, Wheat, Honey, Dairy, Tea, Oilseeds, Horticulture
GTP II TRANSFORMATION AGENDA: A LOOK FORWARD

Overview of Agriculture Component in GTP II
Agricultural Transformation Agenda: Areas of Focus in GTP II
Overview of Agriculture Component in GTP II

GTP I focused on accelerating growth in production of traditional crops. It has done so by promoting the adoption of improved technologies by smallholder farmers, and by increasing investment in rural infrastructure, particularly for irrigation and improved watershed management. It also emphasized the need to ensure food security across all sections of Ethiopian society.

During GTP II, while accelerated growth in agricultural productivity continues to be an important area of focus, a gradual shift in emphasis towards high-value crops and livestock production is envisaged. This is to be complemented by the establishment of a market system that benefits farmers and non-farm rural actors. Similarly, natural resources development continues to be an important area of emphasis.

GTP II also goes beyond this to promote more sustainable farming practices and enhanced conservation of indigenous biodiversity resources as well as livelihood development from natural resources (forestry, rehabilitated lands, water resources, etc.). A third area of emphasis is food security, which continues to be a challenge. Finally, specific focus is placed on building institutional capacity for implementing and monitoring agricultural development. An underlying principle of the GTP II for agricultural development is that environmental sustainability must be maintained, climate change adaptation and mitigation should be promoted, and growth should be broad based and inclusive, with a particular focus on engaging women, youth and poor households.

GTP II has been developed around the following five high-level objectives for the agriculture sector:
1. accelerated growth in agricultural production with a gradual shift towards high-value commodities;
2. sustainable, broad-based, and inclusive agricultural development;
3. elimination of national food gap; 
4. establishment of a market system that benefits farmers and non-farm actors; and 
5. improved implementation capacity (human and institutional resources).

These high-level objectives are to be achieved through four strategic objectives within the agriculture sector and complementary objectives in the trade and industry, finance, infrastructure, roads, water and energy sectors.

1. Increased and market oriented crop production and improved productivity focusing on strategic crops: To promote increased crop production, adoption of improved crop technologies and practices by smallholder farmers will be promoted. Additionally, increased investment in medium and large scale commercial farming with enhanced linkages to smallholders through out-grower schemes and contract farming arrangements is envisaged. With a view of producing for the market, the GTP II also plans for enhanced services for testing and certification regarding chemical use and resulting residues, enhanced cooperative capacity and efficiency, and reduced pre- and post-harvest losses.

2. Increased livestock production and productivity: Promoting the adoption of improved livestock husbandry practices/technologies, feed production technologies, and a stronger livestock health system are central elements of the GTP II approach to increased livestock production and productivity. As in the case of initiatives focused on increased crop production, private sector investment in commercial livestock enterprises is envisaged, as is the strengthening of systems to allow certification for and to ensure compliance of Ethiopian livestock products to international standards. Finally, GTP II has specifically planned for measures to reduce GHG emissions from the sub-sector.

3. Reduced degradation and improved productivity of natural resources: Watershed development, irrigation development, forestry development (including agro-forestry) and biodiversity conservation are the main elements of the GTP II interventions working towards this strategic objective.

4. Enhanced food security at national and household level: Initiatives that contribute to enhanced food security are a continuation from GTP I. They comprise strengthening disaster prevention and response ability, as well as ensuring adequate and timely transfers and promoting resilience among chronically food insecure households. The GTP II also seeks to address issues of nutrition in a more systematic way. In addition to chronically food insecure households, the GTP II identifies pastoralists and agro-pastoralists as requiring specific support.

Strategic Objectives of the Agriculture Sector in GTP II

1. Increased and market oriented crop production and improved productivity focusing on strategic crops
2. Increased livestock production and productivity
3. Reduced degradation and improved productivity of natural resources
4. Enhanced food security at national and household level
**Agricultural Transformation Agenda: Areas of Focus in GTP II**

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**Other Issues Necessary for Agricultural Transformation**

1. Markets and Agri-business
2. Enhanced implementation capacity

Starting with a ministerial level working group assigned by the Prime Minister to develop the high level vision for Agriculture and Rural Transformation in GTP II, the ATA and MoA worked with federal and regional stakeholders to identify the broad pillars for agricultural transformation in the next five years.

The starting point for the pillars of the Agricultural Transformation Agenda in GTP II are the four strategic objectives for the agriculture sector highlighted in the GTP II: 1) increased and market oriented crop production and productivity; 2) increased livestock production and productivity; 3) reduced degradation and improved productivity of natural resources; and 4) enhanced food security. These are all directly included as pillars in the Agricultural Transformation Agenda.

In addition, two additional pillars have been included based on the learning during the implementation of the Transformation Agenda in GTP I and detailed feedback from stakeholders in the sector. One additional pillar deals with “Markets and Agri-business.” Since the transformation of the agriculture sector must be holistic and incorporate both the pull and push side of the commodity value chain, this pillar is critical for market-based sustainability. Addressing bottlenecks to improve production and productivity without ensuring the availability of markets can have negative consequences on smallholder farmers.

Another pillar included in the Transformation Agenda during GTP II relates to “Enhancing Implementation Capacity.” One of the key binding constraints in Ethiopia’s agriculture sector is the lack of capacity in key areas of the system. The ATA has attempted to address some of these issues directly during GTP I, but the scope of the challenge is well beyond the capacity of one organization. As such, a more systematic approach for building institutional and human capacity of key agricultural systems is envisioned in the Transformation Agenda during GTP II.

For each of these pillars, a widely consultative process has been undertaken to identify the specific program areas in which systemic bottlenecks must be addressed. These efforts ensure: strong alignment on objectives, targets, activities and milestones of prioritized programs and deliverables; clear ownership and accountability among stakeholders; and appropriate consideration and mainstreaming of crosscutting issues, particularly related to gender equality, environment and climate change adaptation.

**Agricultural Commercialization Clusters**

Another innovation that has been introduced into the Transformation Agenda during GTP II is the concept of Agricultural Commercialization Clusters (ACCs). In the past, Ethiopia has launched geographically based initiatives that aimed to integrate and link interventions within the agriculture sector to broader economic plans. Initiatives such as the Economic Growth Corridor Initiative have had strong conceptual grounding but have faced challenges in implementation.

Geographically focused approaches (also known as economic corridors or zones) have been successfully used in Asian, Latin American, and African countries to drive agricultural transformation and rural industrialization. Geographic and commodity-specific clusters that focus on commercialization provide a strategic and sustainable platform to drive transformation of agriculture, and consequently, economic growth.

The ACC initiative in Ethiopia has four main objectives:

1. Drive specialization, diversification and commercialization of agriculture for priority commodiy value chains
2. Enhance production and productivity, quality of outputs, aggregation, value addition and market linkages
3. Provide an integrated platform to implement multiple, priority interventions across the value chain and across sectors
4. Improve focus and coordination among public sector, private sector, donors and NGOs

Using a multiple commodity production system approach, each cluster (designed for optimal size to encompass 5-15 woredas) will build connections across all components of the value chain. Clusters have been selected based on their production potential, natural resource availability, access to market, and presence of the private sector around priority commodities. For the first phase of implementation, prioritized commodities include the major cereal crops (tef, wheat, maize), horticulture crops (pepper, potato, onion), high-value crops (coffee and sesame), and livestock products (various meats, cow milk, eggs and honey).

The Transformation Agenda aims to leverage the Agricultural Commercialization Clusters initiative as an “anchor” deliverable by integrating all interventions for impact on the ground. It provides a mechanism for aligning various donor and government interventions and engaging smallholder farmers in a coordinated manner. It also provides smallholder farmers with a structured mechanism to integrate their input, needs and aspirations into the planning process.
OPERATIONAL SUMMARY
Human Resources

Since the inauguration of program activities in July 2011, the ATA has grown from an idea on paper to an organization with 317 employees (as of July 2015). While this rapid growth has occurred in a relatively short time frame, the growth has been deliberate, following a well-structured and planned process. A clear understanding of the ATA’s HR status can be gathered if one looks at the issue in a disaggregated manner, across the three different parts of the organization: Core Staff, Project Staff and Regional Staff.

Staffing by Organizational Area

Core Staff at the ATA are positions approved by the Ministry of Civil Service, including Program and Operational Staff. These staff members are responsible for supporting and tracking the implementation of the Transformation Agenda deliverables by working closely with the MoA and all deliverable owners to provide real-time problem solving and analytical support. They also provide capacity building and coordination support to ensure that deliverables are well aligned with other activities being undertaken within the Transformation Agenda and more broadly across the agriculture and other relevant sectors in the economy.

The Ministry of Civil Service approved 144 Core Staff positions in the ATA during GTP I. Since this work is central to the execution of Transformation Agenda deliverables, considerable effort was placed to quickly fill these positions. By the second year of operations (2013), 91% of Core Staff positions had been filled. There has been very little variability since then, with attrition and recruitment of new staff keeping the percentage of Core Staff positions filled between 90-95% in 2014 and 2015.

Project Staff at the ATA work on specific deliverables within the Transformation Agenda that the ATA has been asked to jointly own and implement. These staff members, who are hired for specified time periods, are not only responsible for the execution of the deliverable but also for building the capacity of the joint owner of the deliverable in the public sector.

In July 2012, the ATA had 30 individuals classified as Project Staff, working exclusively on two deliverables, the largest of which was the EthioSIS soil mapping project. In 2013, the number of deliverables for which the ATA served as the joint owner had increased to five, with the number of Project Staff increasing to 55. Similar to 2012, the EthioSIS project accounted for the largest segment of Project Staff in 2013, but other jointly owned deliverables, such as Rural Financial Services and Extension Capacity Building, were also initiated during that year.

By 2014, the ATA jointly owned 13 deliverables with 96 Project Staff members. New jointly owned deliverables initiated during this period included: Direct Seed Marketing, Community Based Seed Multiplication and Groundwater Mapping. Finally, by the end the GTP I period, in July 2015, the ATA jointly owned 20 deliverables with 154 Project Staff. The major deliverable that the ATA was asked to jointly own in the final year of the GTP I period was the ACC Initiative.

The final component of the ATA’s staff are the regional ATA offices, located in the capitals of the Amhara Region (Bahir Dar), Tigray Region (Mekele), Oromia Region (Addis Ababa), and SNNP Region (Hawassa). Initially, the ATA expected that 1-2 staff members in each regional office would be sufficient to facilitate integration of the Transformation Agenda deliverables into the plans and activities of the regional governments. By 2013, feedback from the RBoAs and other stakeholders indicated that a more robust approach was necessary. As such, the ACC initiative, which requires a larger number of regionally based staff, was launched in late 2014. As the various positions in the ACC design began to be filled throughout 2015, the number of ATA staff in the regional offices increased, from 11 individuals in July 2014 to 31 in July 2015.

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Hybrid Staffing Model

Another key aspect of the ATA’s organizational and HR structure is its unique hybrid staffing model. By and large, the ATA aims to attract and retain the highest quality local Ethiopian professionals within a salary scale approved by the Transformation Council. However, there is also a recognition that the ATA and the country as a whole could benefit from expertise and skillsets that might not be found at the level of the government approved salary scale. As such, the regulation establishing the ATA allows for the organization to hire staff with “rare skills” in key positions to bring such expertise to the organization and sector.

“Rare skills” staff at the ATA are found in four different parts of the organization: 1) Senior Management; 2) Program team leadership; 3) Technical experts; and 4) Analytics. In consultation with the Ministry of Agriculture, the ATA has developed a clear and differentiated approach on the tenure and role of the “rare skills” staff in each of these different areas. Consistent with this approach, the percentage of “rare skills” staff has fallen every year since inception, from 27% in 2012 to 8% in 2015.

“Rare skills” staff by organizational area

Rare skills staff as a % of all staff

Senior Management team

Directors

Technical Experts

Analytics

“Rare skills” staff in each role as a % of all rare skills staff

N/A


E.C. E.C. E.C. E.C. E.C.


34% 33% 33% 34% 33%

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PROGRESS REPORT

Gender Composition

Following guidelines provided to all government organizations, the ATA prides itself on creating a working environment that welcomes diversity of all types. In addition to the hybrid staffing model detailed above, the ATA follows government guidelines to ensure there is no discrimination among job seekers and civil servants due to ethnic origin, sex, religion, political outlook, disability, HIV/AIDS or any other grounds.

One particular metric that the ATA tracks extremely closely is the Agency’s ability to attract and retain high-caliber women into positions across the organization. More specifically, the ATA’s Senior Management Team has established an internal target of having women account for at least 30% of all positions across the organization. While an ideal target would be to have 50% of all positions filled by women, this would not be a realistic one given the fact that historically, the sheer number of women professionals working in the agriculture sector in Ethiopia is still very difficult.

One perspective for looking at the gender balance within the ATA is to analyze the composition of the staff at the five organizational staffing levels: 1) Senior Management; 2) Program/Project Leadership, 3) Senior Experts; 4) Mid-level/Junior Experts; and 5) Operational Support Staff.

When broken down this way, it can be observed that the percentage of women in the ATA’s Senior Management Team has increased from 0% in the first full year of operation to 40% by 2015. Unfortunately, the percentage of women in Program/Project Leadership positions has decreased from 23% in 2012 to only 9% in 2015. A similar trend is also seen in the area of Senior Experts where women accounted for 25% in 2012 but only 13% in 2015. While some of this decrease could be credited to the difficulty in finding highly qualified women for the increasing number of senior positions available as the ATA has grown, more effort must still be made to identify and attract high-caliber women to these roles.

On the positive side, women have accounted for at least 30% of Mid-level/Junior Experts since the ATA’s founding and accounted for nearly 40% of all such positions in 2015. In the areas of Operational Support Staff, women accounted for 32% of these positions in 2015, and have represented at least 25% of such positions since the Agency’s inception.

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Analysis of Expenditure by Type

Overall, the ATA’s total expenditures over the four years the organization was operational during GTP I amounted to approximately $44.9 million USD. Significant budget increases were seen year-by-year as the ATA gained encouragement from the government to engage in increased program activities, and confidence grew among stakeholders due to the ATA’s financial performance, which is necessary to support more systemic transformational interventions where the ATA primarily played a capacity building and support role. Based on the feedback received from the MoA and various other stakeholders, significant budget increases were seen year-by-year as the ATA gained encouragement from the government to engage in increased program activities, and confidence grew among stakeholders due to the ATA’s financial performance, which is necessary to support more systemic transformational interventions where the ATA primarily played a capacity building and support role. Based on the feedback received from the MoA and various other stakeholders, in 2005 E.C. (2012/13) the Agricultural Transformation Council asked the ATA to jointly own and execute some of the deliverables in the Transformation Agenda. In parallel, the ATA has developed a more robust and structured approach to providing strategy and analytical support to partners in the Transformation Agenda.

The ATA has thus evolved to play three distinct roles in the implementation of prioritized deliverables in the Agricultural Transformation Agenda. These are:

- Provide Implementation Support (problem solving, coordination and capacity building) to partners who are executing the majority of deliverables in the Transformation Agenda;
- Jointly own and execute specific deliverables within the Transformation Agenda;
- Undertake analytical and strategy related studies based on the request of senior policy makers.

The ATAs budget across these three areas of program activities also reflects the realities of the funding modalities most commonly available to the ATA from development partners. During GTP I, many partners typically preferred to finance deliverables (projects) that the ATA jointly owns, rather than provide the ATA with core funding which is necessary to support more systemic solutions through a problem solving and capacity building modality.

Financial Report

The ATA’s expenditures over the past four years must be viewed within the context of the overall growth and evolution pattern of any new organization.

Since the concept of a “Transformation Agency” was relatively new in Ethiopia, the GTP I period was one of intensive learning about how the ATA could best engage with partners and leverage new and existing resources to achieve its mandate of catalyzing and supporting agricultural transformation.

In the following sections, a review of the ATAs financial expenses over the past four years is provided by: 1) type of expenditures; and 2) source of expenditures.

Program Activities

Expenses related to program activities have increased as a percentage of the overall budget, from 72.1% in the first year of the ATAs activities to over 86% in 2007 E.C (2014/15). In the GTP II period, program activities are expected to account for at least 85% of the overall budget.

When the ATA began program operations in 2004 E.C. (2011/12), the approach to catalyze agricultural transformation was based on a broad collaboration between the ATA and the Ministry of Agriculture on a select number of transformational interventions where the ATA primarily played a capacity building and support role. Based on the feedback received from the MoA and various other stakeholders, in 2005 E.C (2012/13) the Agricultural Transformation Council asked the ATA to jointly own and execute some of the deliverables in the Transformation Agenda. In parallel, the ATA has developed a more robust and structured approach to providing strategy and analytical support to partners in the Transformation Agenda.

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PROGRESS REPORT

Analysis of Expenditure by Source

During the GTP I period, the ATA has received financial support from over 20 different partners as well as from the Government of Ethiopia.

Of the $444.9 million USD directly expended by the ATA during this time, over 70% was contributed by four primary development partners: the World Bank based Agricultural Growth Program/Global Agriculture & Food Security Program (26.0%), the Royal Netherlands Embassy (20.9%), the Bill & Melinda Gates Foundation (14.8%), and the Department of Foreign Affairs, Trade and Development (DFATD) – Canada (10.4%). The United Nations Development Program (UNDP) also provided 8.1% of the resources for the ATA’s activities.

During the initial start-up phase of the past four years, UNDP also served as the administrator for the funds from DFATD–Canada along with part of the resources from the Gates Foundation.

It should be noted that while the contribution of the Danish Government (via DANIDA) accounts for only 1.8% of the ATA’s budget over the past four years, this support was provided only during the final year of the GTP I period. More importantly, the contribution from the Danish Government represents the inception period of a broader engagement, which, assuming successful completion of the inception phase, would make the Danish Government’s support to the greening of the Transformation Agenda one of the top three contributors to the ATA during the GTP II period.

Other important funders to the ATA include: USAID, the Rockefeller Foundation, the Nike Foundation, UN Women, the World Food Programme, FAO, AGRA, Irish Aid, GIZ, Allana Potash, ICL Africa, OCP, and CASCAPE.

Finally, as a government organization, the ATA also receives financial support from the Government of Ethiopia. These contributions have accounted for approximately 5% of the overall budget during the past four years. This amount is expected to increase significantly during the GTP II period. The lag of funding support from the GoE was due to the delay in finalizing the approval of the ATA’s organizational structure and headcount by various government agencies. All of the approvals required have now been finalized and an increase in government budget support, particularly to cover the operational expenses of the Agency, is expected, beginning 2008 E.C. (2019/16).

Not all of the support provided by development partners to the ATA is reflected in these financials. A number of partners support the ATA by seconding their employees to serve in key positions. This includes organizations such as UNDP, IFPRI, ILRI, WFP and AGRA, among others. Some development partners also provide funding support to partners, such as Synergos, UNDP or IFPRI, to undertake specific activities to directly support the ATA. Finally, a number of development partners provide funding support to NGOs to undertake specific areas of implementation identified in the Transformation Agenda. While none of these areas of support are reflected in the ATA’s audited financial statements, they are all critical to the effective implementation of the Agricultural Transformation Agenda.

As the ATA successfully completes its initial phase of work during GTP I, it is encouraging development partners to evaluate the internal systems and processes of the organization to assess the possibility of providing a greater percentage of their support to the Transformation Agenda directly to the ATA, rather than working through other intermediary organizations. Movement in this direction is expected to improve the alignment of Transformation Agenda investments and leverage them for greater impact for target smallholder farmers.

Operational Activities

Like any new organization, the ATA went through an initial start-up period when a number of one-time investments were needed to provide the basis for overall operations in the following years. Hence, during the first two years of the organization’s history, operational activities accounted for more than 20% of the overall budget. However, as these initial investments were completed, operational activities accounted for only 13.4% of the overall budget in 2007 E.C. (2014/15). Going forward, operational expenses are expected to remain in the 10-15% range.

Over the past four years, logistics (including all expenses related to rent, utilities, transportation, supplies, etc.) accounted for the lion’s share of the operational budget, representing approximately 45-52% each year. Three other areas have each accounted for 10-15% of the operational budgets annually: IT, HR and various teams that sit within the CEO’s Office (such as Communications, Partnerships, Internal Audit, and Planning, Monitoring & Performance Management). The Finance and Procurement areas have each accounted for approximately 5-8% of the overall operations expenses.
**Our Partners**

The Agricultural Transformation Agenda works in partnership with a wide range of organizations, in order to achieve its ambitious goals.

Foremost among these partners are public sector organizations who must take the lead in providing the implementation capacity, as well the regulatory and policy making direction, to all partners in the sector. Public sector partners range from senior policy makers at the federal and regional levels all the way down to local woreda and kebele officials. There are also a wide range of public sector organizations, in terms of scope – ranging from Ministries and Agencies to AVTETS and FTCs. In the public sector, the most important partners are the Development Agents (extension workers) that work directly with smallholder farmers, introducing new technologies and supporting farmers to adopt the most appropriate ones for their current circumstances. Development partners and NGOs/Civil Society Organizations also play a vital role in the Transformation Agenda. In addition to providing critical thought partnerships, these institutions also play an important part in identifying international best practices and working with public sector partners to introduce them to the Ethiopian context.

Their access to experiences in various countries allows Ethiopia to learn from others and avoid having to “reinvent the wheel.” In addition, NGOs/Civil Society Organizations play an important role in supplementing the implementation capacity of public sector organizations in key parts of the agriculture sector.

As they have over the past four years, private sector partners are also expected to play an increasing role in the Transformation Agenda. This private sector participation will become even more critical in the years to come, as Ethiopian agriculture strives to move from subsistence based, low-input/low-output farming, to one that is more market oriented and integrated into the global food system. This will ensure that interventions are more efficiently executed and ultimately financially sustainable.

Finally and most importantly, the main drivers of agricultural transformation in Ethiopia are the smallholder farmers of the country. The indigenous knowledge that exists with these farmers must be recognized and leveraged. At the same time, farmers must be engaged as true partners in evaluating and contextualizing any technologies and supporting farmers to adopt the most appropriate ones for their current circumstances. Development Agents (extension workers) that work directly with smallholder farmers, introducing new technologies and supporting farmers to adopt the most appropriate ones for their current circumstances. Development partners and NGOs/Civil Society Organizations also play a vital role in the Transformation Agenda. In addition to providing critical thought partnerships, these institutions also play an important part in identifying international best practices and working with public sector partners to introduce them to the Ethiopian context.

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