



Study of Key Issues for Ethiopia Evaluation

Commissioned by Global Affairs
Canada

26 March 2019 (final)

Prepared by

Stephen Lister, Team Leader
Zoe Driscoll, Principal Researcher
Lilli Loveday, Principal Researcher

Mokoro Limited

Mokoro Ltd

The Old Music Hall
106-108 Cowley Road
Oxford OX4 1JE

+44 (0)1865 403179
mokoro@mokoro.co.uk

mokoro.co.uk

Acknowledgements

Catherine Dom and Judith Sandford provided valuable advice and support. The authors are responsible for the opinions expressed and for any remaining errors.

Table of Contents

1. Purpose and structure of this brief.....	1
2. Politics, economics, development strategy and aid relationships.....	2
General context.....	2
Political economy and structure of government	2
3. Agriculture	7
Sector characteristics and performance	7
National policies and stakeholders	9
Dialogue and coordination	14
Key issues	15
4. Food security	16
Conceptual framework.....	16
Food security challenges in Ethiopia.....	17
National policies and stakeholders	20
Dialogue and coordination	25
Key issues	25
5. Nutrition and its links to health, food security, agriculture, environment and climate change	26
Conceptual framework.....	26
Prevalence and incidence of malnutrition in Ethiopia.....	27
National policies and programmes	31
Stakeholders, Dialogue and Coordination	33
Key issues	35
6. Climate change	36
Implications of climate change for Ethiopia	36
National policies and programmes	38
Government responsibilities	41
Dialogue and coordination	41
Key issues	42
Annex 1 Maps	43
Annex 2 Aid Funding Channels	53
Annex 3 Federal Government Structure, as revised in 2018	54
Annex 4 GTP II Vision, Objectives, Pillars	58
Annex 5 Aid Flows	59
Annex 6 Aid Management Architecture	62
Annex 7 World Bank analysis of binding constraints to poverty reduction	65
Annex 8 Second Generation Supplementary Feeding	66
Annex 9 Donors active in food security, nutrition, agriculture, climate change	69
Bibliography.....	82
Acronyms and Abbreviations	96

List of Maps

Map 1	Ethiopia and its neighbours	43
Map 2	Administrative Regions of Ethiopia	44
Map 3	Ethiopia Refugees and Asylum Seekers, as of 31 August 2018	45
Map 4	IDPs and Hotspot Woredas 2017	46
Map 5	Conflict-affected IDPs	47
Map 6	Rainfall and rainfall patterns	48
Map 7	Livelihood types in Ethiopia	49
Map 8	Livestock income as a percentage of annual cash income	50
Map 9	How much do different households depend on the market for food?	51
Map 10	Typical hunger seasons, month-by-month	52
Map 11	Expansion of the Roads Network 2007–2015	52

List of Boxes

Box 1	Topics for this paper	1
Box 2	Insights on poverty reduction	5
Box 3	Is Ethiopia's land tenure system a binding constraint on future progress?	10
Box 4	ADLI in Ethiopia	11
Box 5	Agricultural Transformation Agency (ATA) Strategic Goals	11
Box 6	Reformulating the policy and investment framework for agriculture	12
Box 7	AGP I to AGP II Evolution	13
Box 8	Factors in food security	17
Box 9	Gender dimensions of food insecurity	19
Box 10	Effectiveness of the humanitarian response to drought	24

List of Tables

Table 1	Social protection policy issues and responses over past 15 years	23
Table 2	Key nutrition policies, strategies and programmes	32
Table 3	Key climate change policies, strategies and programmes	38
Table 4	Description of aid funding channels in Ethiopia	53
Table 5	Humanitarian Funding for 2018	61

List of Figures

Figure 1	Agriculture sector shares and export performance	8
Figure 2	Food security and nutrition conceptual framework (CFSVA)	16
Figure 3	Productive Safety Net Programme (PSNP) and humanitarian caseloads 1992–2017	22
Figure 4	Conceptual framework for nutrition showing a multi-sectoral approach	27
Figure 5	Nutrition trends in Ethiopia 2002–2016	29
Figure 6	Trends in stunting in Ethiopia 2011–2014	29
Figure 7	Percentage of women 15–49 years of age with body mass index (BMI) less than 18.5	30
Figure 8	Rural/urban rates of undernutrition	30
Figure 9	Overview of expected climate change impacts for Ethiopia	37
Figure 10	Climate change impacts – sector detail	37

Study of Key Issues for Ethiopia Evaluation

Figure 11	Aid funding channels in Ethiopia	53
Figure 12	Ethiopia – aid at-a-glance 2015–17	59
Figure 13	Humanitarian Aid 2011-2017	60
Figure 14	DAG Working Groups Architecture (from DAG, 2017)	62
Figure 15	DAG Technical Working Groups (from DAG, 2017)	63
Figure 16	Coordination Mechanisms for Disaster Risk Management in Ethiopia	64
Figure 17	Analytical framework and binding constraints.....	65

1. Purpose and structure of this brief

1. This paper has been prepared for Global Affairs Canada (GAC) to address the questions shown in Box 1 below, as support for an upcoming evaluation of Canada's aid to Ethiopia.

Box 1 Topics for this paper

Q1: What have been the key issues in the following sectors, in Ethiopia, over the past five years?

- a) Nutrition,
- b) Agriculture,
- c) Food security,
- d) Environment and climate change

Q2: What are main causes of food insecurity in Ethiopia?

Q3: How is Ethiopia responding to climate change and food insecurity in the region?

Q4: How is the international community supporting efforts to respond to health (linked to nutrition), climate change and food insecurity in Ethiopia and regionally?

Q5: What is the relationship between health and nutrition, food security, agriculture, environment and climate change?

Q6: What are the key bodies, organizations and stakeholders (at the international, regional, national, local, community levels) focussed on nutrition, agriculture, environment, food security and climate change in Ethiopia?

2. The topics are interrelated, and the paper is organised as follows in order to aid clarity and minimise repetition:

- Section 2 provides common background on Ethiopia's political economy, its development strategy and its relationships with donors.
- Sections 3–6 deal successively with agriculture, food security, nutrition and climate change.
- Annexes provide supporting information, including:
 - the collection of maps in Annex 1;
 - details of aid flows and aid management structures in Annex 5 and Annex 6 respectively;
 - details of donors involved in the key sectors reviewed (Annex 9, responding to Q6 in Box 1 above).
- An extensive bibliography is linked to an e-library of documents consulted. (The e-library is also being shared with GAC.)

2. Politics, economics, development strategy and aid relationships¹

General context

3. Ethiopia needs to be understood in the context of:

- Its size: a very large land area and a population of over 100 million.
- Its geographic diversity: Ethiopia's mountainous landscape and its location in the Horn of Africa (Map 1) result in enormous variations in agro-ecology and livelihoods. The interaction of weather systems with Ethiopia's highlands leads to significant differences in the timing, duration and quantity of rainfall from place to place. In turn, this leads to differences in the livelihood strategies followed (pastoral, agro-pastoral and crop-dependent), the livestock reared, the crops grown, the timing of planting and harvesting, and the vulnerability of households.
- Its human diversity: over 70 languages are spoken, and religious affiliations include a large Muslim population² and various Christian denominations.
- Political continuity and exceptionalism: Ethiopia was not colonised except for a brief Italian occupation and has existed for centuries as a political entity. It is never safe to apply generalisations from Sub-Saharan Africa, and Ethiopians themselves have a profound belief that Ethiopia can do things differently. For the purposes of this paper it is important to understand the political and economic strategy of the regime that came to power in the 1990s.
- Geo-strategic importance: Ethiopia's regional location and neighbours (see Map 1), its historical role in Africa and its diplomatic importance as host of the African Union, its perception by Western countries as an element of stability in a troubled region and an ally in the "war on terror" – all give Ethiopia distinct geo-strategic importance and profoundly affect its international relations, including aid.

Political economy and structure of government

Political regime

4. Ethiopia has been ruled since 1991 by the EPRDF³ coalition that overthrew the previous Derg regime. The 1995 constitution embodies the principle of ethnic federalism. As shown in Map 2, the federation comprises nine regional states and two city administrations (Addis Ababa and Dire Dawa). The regions are demarcated on ethnic lines, as are the zones and woredas (districts)⁴ which constitute the lower tiers of government. Under the constitution, regions have the right of secession, but there are tensions between decentralised autonomy and central control mediated by the ruling party:

¹ Key sources for this section include: Lie & Mesfin, 2018, Dom & Vaughan, 2018.

² "Ethiopian Muslims tend to identify primarily with their ethnic kin, and are geographically intermixed except for concentrations in Somali and Afar-inhabited areas." Lie & Mesfin, 2018

³ The Ethiopian People's Revolutionary Democratic Front is principally composed of four political parties, representing the four leading regions of Ethiopia. The EPRDF has historically been dominated by the Tigray Peoples Liberation Front (TPLF) which was at the forefront of the military victory over the Derg.

⁴ There are now roughly 1,000 woredas. Woredas are further subdivided into kebeles.

On the one hand, there has been the adoption of a federal system granting regional governments and subsidiary bodies greater autonomy, with the right to self-governance and representation at the federal level, all in a bottom-up political structure. On the other hand, there are the processes through which the federal government seeks to strengthen its control over the regions and beyond by creating satellite parties and including them within the centralised party structure.. Adopting the language of decentralisation used by foreign donors, the EPRDF has built a local administrative structure heavily dependent on the party apparatus, in effect extending the authoritarian presence of the state to peripheral, rural areas. The result has been a developmental party state: the party is the state, and the TPLF, as the senior and seminal part of the EPRDF coalition, to a large extent is or defines the party. (Lie & Mesfin, 2018)

5. The EPRDF has won successive elections, but suffered a scare in 2005 when disputed election results gave opposition parties strong parliamentary representation, and many people were killed in the subsequent suppression of demonstrations. There followed a reassertion of EPRDF hegemony, with the ruling party and its allies monopolising parliamentary seats after the elections in 2010 and 2015. The aftermath of the 2005 elections strained Ethiopia's relationship with its major donors, who backed away from budget support and substituted a programme for "Protection of Basic Services" (PBS) to fund decentralised education, health and agriculture extension services.

6. Ethiopia's political leader and Prime Minister⁵ from 1991 until his death in 2012 was Meles Zenawi. He was succeeded by the then deputy prime minister, Hailemariam Desalegn (from the Southern Nations Nationalities and Peoples Region (SNNPR). In February 2018, after a long period of unrest, especially in Oromia (Ethiopia's largest and most populous region) he announced his resignation, and was succeeded, after deliberations among the EPRDF factions, by Abiy Ahmed from the Oromo People's Democratic Organisation (OPDO).

7. The unrest that led to the change in leadership was most vociferous in Oromia, but not confined to that region, and there have been continuing ethnic clashes after the change in leadership. There are currently well over a million conflict-affected IDPs (see Map 5).

8. Prime Minister Abiy has embarked on radical political and economic reforms, in a context where the TPLF no longer dominates the EPRDF. He has made peace with Eritrea and reopened the common border. A number of exiled opposition groups have been allowed to return and political prisoners released. He has promised that the elections due in 2020 will be genuinely free and fair,⁶ and has appointed a former political prisoner to head the electoral commission. Restrictions on civil society advocacy have been relaxed. Federal Ministries and agencies have been reorganised (see Annex 3) and women have been given half of ministerial appointments. Economic reforms envisage a greater role for the private sector, and a number of high-profile anti-corruption cases are being pursued. Western aid agencies have been supportive of these political developments⁷ and the Abiy government has also reached out to China and the Gulf states for support. Inevitably there is considerable uncertainty as to what the future holds for Ethiopia and the extent to which there will be continuity in the economic strategy and political institutions described in the rest of this section.

The federal system

9. Federal ministries are mirrored by regional "bureaus" and woreda "offices", which are responsible to the elected governments at regional and woreda level (i.e. there is not a direct

⁵ The federal President is a ceremonial post.

⁶ Ethiopia's last full census was in 2007. The next is scheduled to take place during April 2019; in the light of ethnic tensions and upcoming elections, the census and its results are potentially very sensitive.

⁷ The World Bank is undertaking a new budget support operation (World Bank, 2018b).

sectoral line of command from, say, the Ministry of Education to regional Bureaus and woreda Offices of Education, and nor is there a unified national budget for education). Although most revenues accrue to the federal government, it has a constitutional obligation to "subsidise" lower tiers, which it does through a system of block grants to the regions, with regions similarly making block grants down to woreda level. Block grants are not earmarked to specific purposes, but all tiers follow agreed national policies, so the degree of decentralised fiscal discretion is limited. Block grants are supplemented by various special purpose grants. This has implications for aid disbursements, which the government classifies into three main "channels" as described in Annex 2.

Development strategy and performance

10. Ethiopia has implemented successive national plans focused on poverty reduction and the acceleration of economic growth. The Government is currently implementing the second **Growth and Transformation Plan (GTP II) 2016-2020** (GoE, 2016a). The overarching objective of GTP II is the realisation of Ethiopia's vision of becoming a middle-income country by 2025 (see summary of objectives at Annex 4). The TPLF/EPRDF regime premised its legitimacy on delivering growth and poverty reduction, and Ethiopia's record in both dimensions has been striking.⁸ The centre-piece of economic strategy has continued to be agriculture-development led industrialisation (ADLI), although there have been changes in the focus of agricultural strategy (see section 3 below). Public investment rates have been extremely high by international standards, and private investments very low.⁹

11. As described in the World Bank's "systematic country diagnostic" in 2016:

Ethiopia features a rare political commitment to achieve legitimacy from growth and poverty reduction. Comparatively high government effectiveness arises from a relatively strong technocracy, civil service, and hierarchy, along with the containment of corruption. While commitment to results is needed to maintain political control, it is also part of a broader agenda for achieving domestic and international legitimacy and support. High agricultural growth is driven by a need to achieve food security. Urban jobs are needed to ensure social cohesion and political stability. The current leadership is also compelled to bring progress to a country and population largely ignored by its previous rulers. Major infrastructure projects, such as the Ethiopia Grand Renaissance Dam, are implemented also to symbolize a new and more modern era for the country. Undertaking such projects is facilitated by relative coherence and consistency in Ethiopia's system of governance. (World Bank, 2016a)

Ethiopia's development strategy is unique. Agricultural development is prioritized as reflected by substantial budget allocations, which *inter alia*, supports one of the largest agricultural extension workforces in the world. Structural transformation, industrialization, and urbanization have been encouraged in recent years, particularly through the promotion of light manufacturing industrial parks with the support of foreign investors. Massive public infrastructure investment has been at the center of the country's economic strategy in order to address historic infrastructure deficits and provide the conditions needed for subsequent private sector growth. Although further progress is needed, Ethiopia was able to achieve a substantial expansion of energy, road, railway, and telecom infrastructure, financed by domestic and external public borrowing. An additional key feature has been the focus on equity, particularly addressing historic regional inequalities. Underpinning the strategy is a political

⁸ Overviews of Ethiopia's record on poverty reduction and development include: ODI, 2015, Hill & Tsehaye, 2018, World Bank, 2015c, World Bank, 2016a.

⁹ "The private sector is nominally and in theory accorded a prominent place in official policies, but this is not reflected in practice or in the government's revolutionary democratic vision" (Lie & Mesfin, 2018). "Ethiopia has emphasized public investment with considerable success, but it has not emphasized the promotion of a vibrant private sector." (World Bank, 2016a)

commitment to achieving legitimacy from economic growth and poverty reduction. (World Bank, 2016a)

12. Ethiopia's budgets are seen as having been pro-poor:

Thanks to the relative peace and stability it has enjoyed over the last decade and a half, the government has managed to govern effectively and allocate about 60% of the national budget to sectors that favour poorer people, such as agriculture, education and health. Ethiopia is seen as having taken strong ownership of the Millennium Development Goals (MDGs), integrating them into national policies for poverty reduction since 2005. Except for MDG 3 on promoting gender equality and women's empowerment, and MDG 5 on maternal health, Ethiopia has been successful with regard to the MDGs (NPC and UN 2015). The Agenda 2030 including the Sustainable Development Goals (SDG) have also been integrated into the current GTP2. (Lie & Mesfin, 2018)

13. The poverty headcount declined from 38.7 percent in 2005 to 29.6 percent in 2010/11 and is estimated to have declined further to 23.5 percent in 2016. However, rapid population growth means that absolute numbers in poverty are still very high: some 25 million Ethiopians remain in poverty or live just above the poverty line, making them vulnerable to climatic shocks and seasonal food insecurity. See Box 2 below for further insights.

Box 2 Insights on poverty reduction

Hill & Tsehay, 2018 (in "*Assessing Progress in Ethiopia from 1996 to 2011*") find that "reductions in poverty were largest in places where agricultural output growth has been higher, safety nets have been introduced, and improvements in market access have been made... The government's policy focus on stimulating productivity gains in smallholder cereal farmers contributed to [growth in agricultural output], but only when the weather was good, and prices were high. Access to markets was essential: growth reduced poverty in places close to urban centers, but not in remote parts of the country".

Imi et al, 2018 similarly find that "crop production is increased by major and feeder road improvements" (Map 11 depicts expansion of the road network).

The following points are highlighted by the World Bank diagnostic (World Bank, 2016a):

While inequality remained low, the very poorest became poorer, posing a challenge to the goal of shared prosperity in Ethiopia. Despite rapid growth, Ethiopia continued to be one of the most equal countries in the world, with a Gini coefficient that remained at 30 percent from 2005 to 2011. However, consumption growth of the poorest 40 percent was lower than the top 60 percent in 2005-11, and consumption growth was negative for the poorest 10 percent. This is in part explained by high food inflation affecting net buyers of food, including marginal farmers and urban unskilled workers.

Poverty is just as prevalent in Ethiopia's two largest cities as in rural areas, and is strongly associated with unemployment.

Development has brought regional convergence in poverty rates though geographic determinants of wellbeing persist. Encouragingly, poverty reduction was faster in regions with the highest poverty rates resulting in a convergence in poverty rates of around 1 in 3 in all regions in 2011. A similar trend took place at the district level. The key drivers of convergence are similar to those of poverty reduction: agricultural growth, improvements in basic services, and safety nets. Nonetheless, the spatial dimension of poverty persists. Poverty is much higher in remote areas, and in the periphery and lowland, often pastoral, areas of the country.

Who are the poor and extreme poor in Ethiopia? Although most Ethiopians are rural dwellers and subsistence farmers, the poorest 40 percent tend to be even more likely to live in rural areas and engage in agriculture. While educational attainment among average Ethiopians is low, it is even lower for the bottom 40 percent (1.5 years) compared to the top 60 percent (2.8 years). Remoteness is also a defining characteristic as poverty rates increase by 7 percent for every 10 km from a market town. The poorest of the poor, the bottom decile, reflect similar characteristics, but to an even greater extent and are more likely to be marginal farmers.

Aid relationships

14. Ethiopia is a major recipient of both humanitarian and development aid. Annex 5 provides summary graphics on aid volumes and the main donors. (These data focus on Western donors, but Ethiopia's relationship with China has been conspicuous; the Abiy government has announced a softening of the terms of Ethiopia's substantial debt to China.)

15. The government takes a strong lead in managing and coordinating both humanitarian and development aid, and has sought progress on the "development effectiveness" agenda for aid that supports government strategies and is channelled through government systems (cf. Annex 2). Elaborate mechanisms and bodies for coordinating development aid and humanitarian relief, for assessing humanitarian requirements and for managing dialogue with the government, have been established – see Annex 6.

16. Concerning the political economy of aid, Lie & Mesfin, 2018 note that the Government appears to have considerable "negotiating capital" with donors, and "donors have encountered greater resistance in implementing their agenda than in other sub-Saharan countries". Further:

"Despite [human rights] issues, which are of concern to many internal and external actors, Ethiopia continues to receive increasing amounts of aid from its international partners. One important reason relates to security concerns: Ethiopia is seen as an island of stability in a volatile region. It is committed to the global war on terror and is regarded as an important actor in buffering the spread of religious radicalisation."

"Ethiopia has performed quite well on international indicators of poverty reduction, human development and the MDGs writ large. These results, combined with geopolitics and regional security concerns, seem to have warranted continuous external support despite the government's less impressive performance on other areas central to the Western aid discourse, such as human rights, good governance and democratisation."

"in context of restrictions on civil society,¹⁰ donors have tended to promote government ownership rather than country ownership."

Refugees

17. Ethiopia hosts the second largest refugee population in Africa (after Uganda): over 900,000¹¹ refugees and asylum seekers, mainly from South Sudan, Somalia, Eritrea and Sudan, are in 26 camps across the country (UNHCR, 2019 and see Map 3). This is a major humanitarian concern, but, until recently, the refugee population has mostly been in camps, with their needs addressed separately from the humanitarian needs of Ethiopian nationals. The Administration for Refugee and Returnee Affairs (ARRA) is the lead government agency and works closely with UNHCR and other UN agencies to support them.

18. Refugees have food security issues, and have a major impact on communities where their numbers are large relative to the Ethiopian population, but we have not included refugee concerns within the scope of this paper. In future it is likely that a reformed strategy for assistance to refugees will make their treatment much less compartmentalised. Ethiopia is adopting the principles of the

¹⁰ In what was seen as part of the narrowing of political space after 2005, the Charities and Societies Proclamation of 2009 made it more or less impossible for Ethiopian NGOs whose work had any bearing on human rights to receive any funding from abroad. In early 2019 the lifting of these restrictions is part of the Abiy government's agenda.

¹¹ In January 2018, UNHCR figures.

Comprehensive Refugee Response Framework (CRRF) (ARRA, 2018), and recently enacted legislation will increase refugees' integration into national communities and access to public services.¹²

3. Agriculture¹³

Sector characteristics and performance

19. The most striking features of Ethiopia's agriculture are that:

- it continues to provide the backbone of Ethiopia's economy and underpin the livelihoods of most of its population;
- the agriculture sector has performed very strongly although its share of the economy has reduced;
- agricultural activities and livelihood strategies have to adapt to the variety of agro-ecological systems that reflect Ethiopia's geography;
- efforts to promote large-scale commercial agriculture have had mixed results, and the smallholder sector continues to predominate;
- future challenges are immense, as Ethiopia's growing population demands the creation of employment and other livelihood opportunities for millions of young people.

20. Although the agriculture share of Ethiopia's economy has declined steadily (Figure 1 below, left panel), this is against the background of double-digit overall GDP growth. Growth of the agriculture sector was estimated at over 6% during the decade to 2016, and this is reflected in the data on agricultural trade (Figure 1 below, right panel).¹⁴

¹² See <https://www.unhcr.org/news/press/2019/1/5c41b1784/unhcr-welcomes-ethiopia-law-granting-rights-refugees.html>:

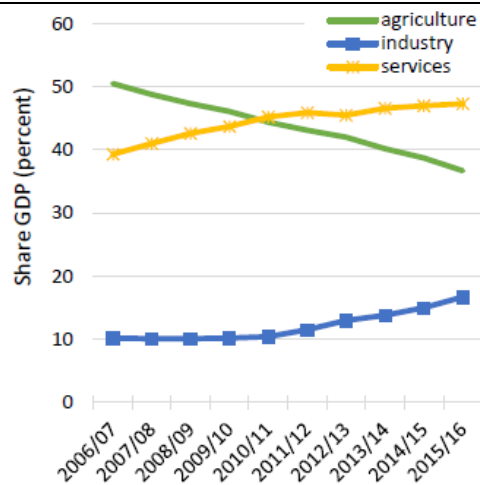
"Ethiopia's parliament adopted revisions in its existing refugee law on 17 January 2019. ... At the heart of this innovative new framework is a more comprehensive response to displacement in which refugees are included in national services like health and education, rather than setting up parallel systems. It also focuses on ensuring refugees have the opportunity to be self-reliant and can contribute to local economies in a way that also benefits their hosts." (UNHCR)

¹³ Key sources for this section include: Bekele, 2017, World Bank, 2016a, World Bank, 2015c, Minten et al, 2018.

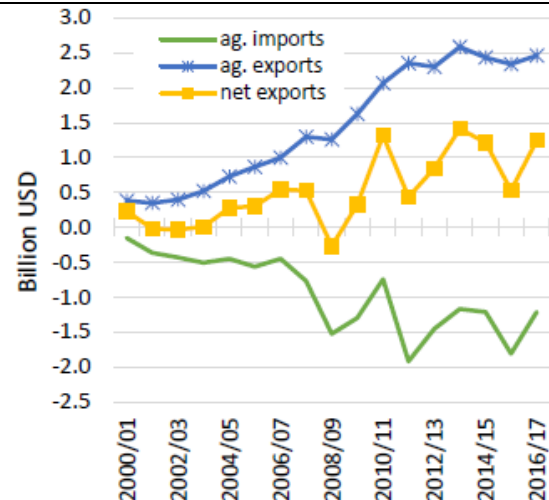
¹⁴ Coffee is the dominant agricultural export, but other exports include oilseeds, chat, flowers, and meat. The value of agricultural exports overall rose six-fold, from 0.4 billion USD in 2000/01 to 2.5 billion USD in 2016/17. This was partly driven by increasing commodity prices in international markets for crops such as coffee and sesame, but also by rapidly increasing exported quantities. (Minten et al, 2018)

Figure 1 Agriculture sector shares and export performance

Share of different sectors in Ethiopia's economy, 2006/07 to 2015/16



Ethiopia's agricultural imports and exports, 2000 to 2016



Source: Minten et al, 2018 (Figures 6.5 and 7.1)

21. There has been a strong upward trend in cereal production. According to Minten et al, 2018: CSA official statistics show that grain production doubled from 13.4 million metric tons (mt) in 2005/6 to 27.0 million mt in 2014/15. Bachewe et al. (2018)¹⁵ triangulate these numbers and assess some of the drivers for that change. They find that there has indeed been substantial growth in agricultural production in Ethiopia, driven by increasing land expansion but even more so by increasing yields. These increasing yields have been achieved through improved total factor productivity but also by increasing use of modern inputs. They argue that this modernization and intensification process in agriculture was driven by expanded availability of agricultural extension agents, improved market access, better price incentives, and higher education levels of farmers.
22. Growth in agriculture, including cereal production, has been an important contributor to poverty reduction (World Bank, 2014. World Bank, 2016a).
23. Although Ethiopia has in recent years allocated large areas of land for large-scale commercial production, the results so far have not met expectations. Thus Minten et al, 2018 observe:
There has been increasing emphasis on large commercial farms as a way to stimulate agricultural production, but only a share of the land allocated to such large-scale farmers is effectively cultivated – amounting to 7 percent of all cultivated land in Ethiopia – and yields have not been much higher on these farms than under smallholder farming conditions.
24. Bekele, 2017 provides an extended critique of Ethiopia's experiences with large-scale commercial farming, and, writing recently, Dom & Vaughan, 2018 observe:

the trajectory of large-scale farming is somewhat uncertain. After an initial 'rush' on the side of both investors and the government, which saw the allocation of very large land areas for commercial farms, came a period of realisation that the outcomes were far from meeting expectations. Following a series of both external and internal assessments the government is in the process of reviewing its strategy in this respect.

¹⁵ Bachewe, F., G. Berhane, B. Minten, and A.S. Taffesse. 2018. "Agricultural transformation in Africa? Assessing the evidence in Ethiopia." *World Development* 105: 286-298.

25. Aggregate data mask enormous diversity in agro-ecology and livelihood strategies across Ethiopia. Map 6 and Map 7 in Annex 1 summarise rainfall patterns and corresponding livelihood types (cropping, pastoral, and agro-pastoral) across Ethiopia. However, these are at a high level of aggregation and there is an even more diverse underlying mosaic. Most rural households rely on subsistence agriculture and livestock despite declining farm sizes and the impacts of environmental degradation. Irrigation has increased in terms of coverage, as well as in terms of the numbers of landholders reached, yet rain-fed agriculture remains predominant. With most of its population dependent on rain-fed agriculture or pastoralism, Ethiopia remains highly vulnerable to rainfall shocks, and rapid population growth is having visible consequences.

26. It is important to note that livestock are very important in all areas. For smallholders they are a crucial source of draught power as well as an integral part of mixed farming. Map 8 in Annex 1 illustrates the importance of livestock to smallholder cash incomes across Ethiopia.

27. Minten et al, 2018 summarise the dynamism of the sector and its ongoing challenges as follows:

At the production level, we have noted significant growth in agricultural production in the last decade. We have seen a process of intensification and modernization – but from a low base – as illustrated by the rapid change in the adoption of chemical fertilizers and agro-chemicals. We also see important structural changes with smallholder agriculture – smallholder farmers are estimated to cultivate 93 percent of all agricultural land. We find over the last decade that:

- Average farm sizes of smallholders declined by more than 10 percent over the last decade;
- Farmers are becoming older – the share of Ethiopian farmers under 35 years of age declined from 36 to 30 percent over the last decade;
- Young farmers have smaller and declining farm sizes, declining from 0.9 to 0.8 hectares on average over the last decade;
- Agricultural land rental markets are becoming more important, with 12 percent of cropland now being rented in. Especially young farmers rely on the rental market to access land.

28. The stresses of population growth are particularly felt in Ethiopia's lowland pastoral areas, where population outstrips the carrying capacity of the land, and successive shocks (particularly drought) can cause substantial numbers to drop out of the pastoral system.

National policies and stakeholders

Land¹⁶

29. Land is a key resource, and one that is unevenly available to the country's diverse populations: pressure on land has long been exceptionally high in highland settled agricultural areas, where population density is at a peak; by contrast, there is a widespread – but often mistaken – perception that the sparsely populated lowland pastoral and transhumant-farming areas of the periphery have extensive "excess lands" which could be more effectively used. Issues of resettlement and the allocation of large tracts of land to commercial investors have been controversial between the Government and its aid partners.¹⁷

30. Up to 85% of Ethiopia's population still live in rural areas, increasingly rapid urbanisation notwithstanding, and the overwhelming majority of these are smallholder agriculturalists with an exceptionally strong economic and cultural interest in their landholdings and the rights of usufruct

¹⁶ This section is drawn particularly from the more extended review of land issues in Dom & Vaughan, 2018.

¹⁷ For example the high-profile PBS programme had to be reorganised and its safeguards strengthened when a World Bank Inspection Panel ruled that there had been insufficient attention to the rights of displaced villagers in some regions.

and tenure they enjoy. Land was placed under state ownership by the Derg's land reform in 1975, and this overarching position was reiterated in the Federal Constitution of 1995 which states:

"the right to ownership of rural land and urban land, as well as of all natural resources is exclusively vested in the state and the peoples of Ethiopia. Land is a common property of the nations, nationalities and peoples of Ethiopia" (FDRE Constitution, 1995, Art.40).

The article further specifies a "*right to obtain land without payment*" for "*Ethiopian peasants*" for grazing and cultivation purposes as well as the right to be "[protected] *against eviction from their possessions*" (sub-sections 4 and 5); any transfer of land is prohibited and "*shall not be subject to sale or any other means of exchange*" (sub-section 3). The existence of a non-achievable Constitutional right to land for every Ethiopian peasant has been criticized in a context where land scarcity and fragmentation effectively brought a halt to land redistribution more than two decades ago, resulting in rising levels of rural landlessness.

31. As noted earlier (§27 above), pressure on land is reflected in declining farm sizes, increasing average age of farmers, growing landlessness and increasing resort to informal rental arrangements. Major programmes to register existing land claims are under way with donor support (see DFID, 2014 and DFID, 2017b) but, interestingly, the World Bank's "systematic country diagnostic" specifically excluded the land tenure system from its list of currently binding constraints (see Box 3 below).¹⁸

Box 3 Is Ethiopia's land tenure system a binding constraint on future progress?

The current **rural land tenure system** has protected a relatively equal distribution of land. It could be argued that the lack of full ownership rights limits investments in the land that benefit agricultural growth, prevents land transactions that would allow helpful consolidation of small plots, and hinders households' ability to exit from agriculture and migrate. However, the evidence does not suggest this is currently the case in Ethiopia.

The introduction of user-rights certification has increased agricultural investments and productivity and improved land rental markets, particularly for women. Appropriate second level certification of land-use rights is needed to ensure the long-term sustainability of land certification interventions but, taken as a whole the review of micro-economic literature does not suggest lack of certification is currently the most prevalent constraint to agricultural income growth or increasing agricultural productivity among women. Existing evidence suggests that improving the security of land tenure does not enable migration in Ethiopia (de Brauw and Muller 2013), instead land scarcity in some parts of the country has encouraged migration among youth (Bezu and Holden 2014) and educational and financial constraints have been found to be important constraints to migration (de Brauw 2014).

The experiences of China and Vietnam suggest that higher rates of welfare-enhancing urban migration are possible within the existing system of land tenure, however it is possible that land tenure may become a more important constraint to urban migration in the future. Land management practices are identified as a binding constraint to urban development and non-agricultural growth in urban areas. In addition, large-scale land acquisitions raise the importance of developing appropriate land-related policies to ensure that smallholders and urban dwellers benefit from such investment.

Source: quoted from World Bank, 2016a.¹⁹

¹⁸ For a summary of the WB's perceived binding constraints to poverty reduction, see Annex 7.

¹⁹ Knippenberg et al, 2018 find that fragmentation of smallholdings has positive effects on food security by enabling farmers to spread risks (e.g. by planting different crops on different parcels of land).

Long-term agricultural strategy

32. As noted earlier (§10 above), Ethiopia's development strategy has been premised on agriculture-development led industrialisation (ADLI, see Box 4 below).

Box 4 ADLI in Ethiopia

Ethiopia's ADLI strategy is centred around the aims of agriculture supplying commodities for exports, domestic food supply and industrial output and the expansion of the market for domestic manufactured goods. The basic premise of the strategy is that growth in the agricultural sector will spur growth in other sectors. Features of the strategy include:

- commercialisation of smallholder agriculture through product diversification
- shifting to higher-valued crops
- promotion of niche high-value export crops
- support for the development of large-scale commercial agriculture
- effective integration of farmers with domestic and external markets;
- tailoring interventions to address the specific needs of the country's varied agro-ecological zones.

One key element of the strategy is the deployment of agricultural extension workers to every *kebele* of the country.

Source: ODI, 2015, Box 4

33. In line with its emphasis on developing peasant agriculture,, Ethiopia has deployed one of the world's largest agricultural-extension workforces, and is said to be "the only country to have met the commitment under the 2003 Maputo Declaration to increase public spending on agriculture to 10 percent of the national budget as it spent 11.7 percent during the period 2003 to 2013 and recorded productivity GDP growth rates in agriculture above 6 percent per annum which was targeted in the Declaration" (IFAD, 2016a).

Ministerial responsibilities

34. Principal responsibility currently rests with the Ministry of Agriculture (see Annex 3). During the past five years there have been several reorganisations, including the creation of a new, separate Ministry for Livestock and Fisheries in the fall of 2015, in line with the GTP II bid to pay much more attention to livestock production; but there was subsequent reintegration of 'animal resources' in the same ministry as agriculture, when the first government of new PM Dr Abiy Ahmed was established in April 2018.

35. In 2011 an Agricultural Transformation Agency (ATA) was established with the strategic goals shown in Box 5 below, and the ATA has been involved in much of the recent innovation in the sector.

Box 5 Agricultural Transformation Agency (ATA) Strategic Goals

- To identify systemic constraints of agricultural development, through conducting studies, and recommend solutions in order to ensure sustainability and structural transformation
- To support implementation of recommended solutions
- To support the establishment of strong linkages among agricultural and related institutions and projects in order to ensure the effectiveness of agricultural development activities
- To manage and lead the implementation of specific solutions as projects.

Source: <http://www.ata.gov.et/about-ata/atas-role/> [accessed February 2019]

Key agricultural policies, strategies and programmes

36. Relevant international commitments include Ethiopia's signature of the **Comprehensive Africa Agriculture Development Programme Compact** in September 2009 (Africa's policy framework for agricultural transformation, wealth creation, food security and nutrition, economic growth and prosperity for all). In 2012, the Government of Ethiopia agreed to a **G8 New Alliance Framework for Ethiopia** with a number of commitments for policy actions to facilitate the expansion of private investment. Under this framework, the Government of Ethiopia stated its intention to focus its efforts in particular on: i) increasing stability and transparency in trade policy; ii) improving incentives for private sector investment; iii) developing and implementing a transparent land tenure policy; and iv) developing and implementing domestic seed policies that encourage increased private sector involvement in this area (G8, 2012).

37. An **Agricultural Sector Policy and Investment Framework (PIF)**, formulated in 2010, was intended as the key framework to align investment and policy priorities in the country and bring about a concerted effort for development partners and the Government of Ethiopia to collaborate and partner on investments. By 2017 this was considered to be in need of renewal – see Box 6 below.

Box 6 Reformulating the policy and investment framework for agriculture

In 2010, the Ministry of Agriculture and Rural Development formulated the **Agricultural Sector Policy and Investment Framework (PIF)** for the years 2010-2020. This contains an overall strategy for agricultural and rural development and is fully aligned with the previous GTP I. The objective of the PIF was to 'sustainably increase rural incomes and national food security' through four strategic objectives that covered productivity and production, rural commercialization, natural resources management, and disaster risk management and food security. The PIF document is meant to be used for coordinating, harmonising and aligning donor support for the agricultural sector, with the Rural Economic Development and Food Security Sector Working Group (RED&FS) (discussed under dialogue and coordination section below) playing a key role in making this happen.

However, the findings of a mid-term review of the PIF make it clear that the PIF did not succeed in helping the GTP I to achieve its ambition to reduce substantially the need for humanitarian and emergency assistance and it is highlighted that the PIF is relatively poorly known and its potential value not fully appreciated due to poor dissemination. Recognising shortcomings in the previous Policy and Investment Framework (PIF), the Government and development partners embarked on the production of a **new National Agricultural Investment Framework (NAIF)** in 2017. The NAIF will be a comprehensive document that will act as the operational guide to the rural development sections of the GTP II and harmonize the various sector strategies in the agriculture sector. The NAIF will be designed to guide agricultural investment through 2025. (DAG, 2017)

38. **GTP II (2016–2020)** continued its predecessor's emphasis on agricultural development, but compared with GTP I, there was more stress on diversification and large-scale commercial agriculture, and also on livestock, with the ATA at the centre of several strategic initiatives.

39. The key Government of Ethiopia programme helping the countries meet the goals set out in the GTP II is the **Second Agricultural Growth Programme (AGP II)**. The programme is implemented in high potential agricultural areas of the country with favourable agro-ecological conditions and access to markets. Under AGP I, the project operated in four national regional states (Amhara, Oromia, SNNP and Tigray) and 96 woreda. AGP II, however, expanded into an additional 61 woredas.

40. Box 7 below shows the slight differences in emphasis between AGP I and AGP II. The latter has a development objective "to increase agricultural productivity and commercialization of small

holder farmers targeted by the Program and also contributes to dietary diversity and consumption at [household] level" (World Bank, 2015b). The programme contributes to the higher-level goal of sustainable food security and agricultural transformation by developing untapped potential of high potential areas. AGP II operates in woredas which have the highest growth potential, primarily based on agro-ecological conditions and access to markets. The Government of Ethiopia is making substantial investments in irrigation as part of AGP II, which is managed by the Ministry of Agriculture, with the collaboration of the Ministry of Water, Irrigation and Electricity (MoWIE) and the Agricultural Transformation Agency (ATA).

Box 7 AGP I to AGP II Evolution

AGP I	AGP II
<p>Agriculture Production and Commercialisation: support to establishment and strengthening of (regional, zonal and woreda) Agricultural and Rural Development Partners Linkages Advisory Councils (ARDPLACs) and to various farmers' organisations (informal 'interest groups', formal associations and cooperatives); support to scaling-up best practices (including through small grants to farmers' groups engaging in innovative practices); support (through parallel USAID funding) to value chain development.</p> <p>Small-scale Infrastructure Development: support to small-scale irrigation and market infrastructure (feeder roads, small bridges etc., market centres) development and management.</p>	<p>Agriculture Public Support Services: focusing on ARDPLACs and scaling-up of best practices as in AGP1, but also on strengthening public service delivery (construction, rehabilitation, equipping of FTCs, animal health clinics, human development/ training for DAs and vets, support to soil labs etc.).</p> <p>Agricultural Research: support to participatory, demand-driven research capacity strengthening.</p> <p>Small-scale irrigation: support to SSI and HHI development and management.</p> <p>Agriculture Marketing and Value Chains: scale-up of community-based seeds and fodder production groups and Direct Seed Marketing system, support to informal and formal farmers' groups (including in business plan preparation), strengthening of selected value chains, market infrastructure development and management.</p>

Source: reproduced from Dom & Vaughan, 2018.

41. Earlier, to address national loss of annual agricultural production due to land degradation in the highlands, the Government of Ethiopia, in collaboration with development partners, also launched the **Sustainable Land Management Programme (SLMP)** in 2008. The programme, also discussed in section 4 below (food security), targets 177 critical watersheds to scale up and increase adoption of sustainable land management technologies, such as stone terraces, soil bunds, and trenches. An evaluation of the impact of this programme on crop production in 2017 suggested that households within an SLMP program kebele did not experience significant increases in the value of total crop production compared to control households. However, the overall change in agricultural productivity across all survey sites suggested a promising trend, as the total value of crop production increased in both treatment and control kebeles over the study period. In addition, a greater number of households reported SLM activities on their private land in 2013 compared to 2009 (IFPRI & EDRI, 2017). The successor to the SLMP is called the Resilient Landscapes and Livelihoods Project (World Bank, 2018a).

42. Although Ethiopia has prioritized the transformation of agriculture, there has been seen to be an absence of clear roadmaps to develop the livestock sector. This led to the development of the **Livestock Master Plan** in 2015 (LMP team, 2015). The Livestock Master Plan sets out investment interventions, including better genetics, feed and health services, which, together with complementary policy support, could help meet the GTP II targets by improving productivity and

total production in the key livestock value chains for poultry, red meat-milk, and crossbred dairy cows (World Bank, 2017b).²⁰

43. Dom & Vaughan, 2018 highlight the following shifts in policy and focus (many of them driven by the ATA):²¹

- a) Over the last decade the agriculture sector moved away from a quasi-exclusive focus on standard crop extension packages towards greater recognition of diversity across the country. Examples of this trend include, for instance, the greater attention to non-traditional cash crops in the GTPII, the recognition of the importance of using different types of **fertiliser** for different types of soil, changes in policy and to an extent practices in relation to **seeds**, and the promotion of different **irrigation** and drainage technologies.
- b) There was also a shift from a narrow focus on production and productivity towards greater attention to issues of **input and output marketing**, and in particular, the development of 'value chains' linking farmers to markets for their produce. The recent adoption and ongoing rollout of the **Agriculture Commercialisation Cluster** (ACC)-based approach (aimed to structure agricultural development and government support around area-specific products) reflects this attention to the whole chain (from farm productivity to links to value chains), whilst it also takes account of diversity – at least up to a certain point.²²
- c) Two major changes are under way in relation to modern inputs for crop farming, namely: diversification in the range of **fertilisers** on offer; and a gradual liberalisation of the **seed** sector. Moreover, after the government stopped the provision of government-guaranteed **credit** for agricultural inputs a new system was designed and is being rolled out, which offers again access to credit (in the woredas in which it is being implemented) for farmers who do not have the capacity to purchase inputs with cash.

44. Related developments include a new **Agricultural Cooperatives Development Strategy**, which supports the strengthened governance and regulation of agricultural cooperatives, and the passing of the **Seeds Proclamation** in 2013, which is designed to increase the efficiency of seed markets and increase farmers' access to good quality seed.

Dialogue and coordination

45. Figure 14 in Annex 6 shows the current structure of joint Government/development partner working groups.

46. The **Rural Economic Development and Food Security Sector Working Group (RED&FS)**, established in 2008, is the Government-Donor coordination platform for agriculture, natural resource management and food security. Its objective is to jointly review sector level implementation status, and to coordinate and harmonize efforts of various development partners supporting thematic areas under RED&FS. It was formally established in April 2008 and is composed of an Executive Committee and three Technical Committees (Agricultural Growth; Sustainable Land

²⁰ Project documents highlighted the creation of a separate Ministry of Livestock and Fisheries: "Previously under the Ministry of Agriculture and Natural Resources, it lacked the autonomy and focus for a scale up of government support for the sectors." (World Bank, 2017b) However, as already noted, these functions have since been reintegrated in the Ministry of Agriculture.

²¹ For an extended summary of these developments, see Dom & Vaughan, 2018 p32ff.

²² The ATA presents the **Agriculture Commercialisation Cluster** as responding to the then-PM Hailemariam Dessalegn's request to identify a "means through which geographically-targeted interventions could be integrated to ensure rapid, sustained and inclusive development of priority agricultural commodity value chains".

Management; and Disaster Risk Management and Food Security). (World Bank, 2014) In 2017-2018 this was co-chaired by the **EU** and **USAID**. (DAG, 2017)

47. The coordination platform for the agriculture sector is the Agriculture Growth Technical Committee, which is chaired by the State Minister of Agriculture and in 2017-2018 has been co-chaired by Global Affairs Canada and Italian Development Cooperation. The Technical Committee consists of four task forces, namely: Private Sector Development; Research and Technology; Extension and Capacity Building; and Inputs and Finance.

48. In order to avoid duplication and to promote synergy, the Government established in 2006 a mechanism for coordinating all sustainable land management (SLM) investments in Ethiopia. The mechanism is steered by the **Sustainable Land Management Technical Committee**, which is chaired by the **State Minister of Agriculture** and also comprises representatives from government, civil society, development agencies and an SLM Support Unit within the Ministry of Agriculture which provide administrative and technical support. In 2017-2018 **GIZ Germany** and the **World Bank** were co-chairs.

49. For livestock, the main coordination platform is **The Livestock and Fisheries Production and Marketing Technical Committee**, which is chaired by the three State Ministers and in 2017-2018 is co-chaired by **UNDP**. The Technical Committee has established four focused Task Forces: i) mixed crop and livestock; ii) pastoral and agro-pastoral production; iii) veterinary services and feed quality and iv) fisheries and aquaculture.

50. Annex 9 includes a detailed overview of **donors and NGOs active in the agriculture sector**.

Key issues

51. High profile issues concerning the agriculture sector include:

- the challenges of population growth, increasing competition for land and the need to find employment/livelihood opportunities for increasing numbers of young people;²³ these challenges are particularly acute in pastoral areas, and responses will certainly include rural-urban migration;²⁴
- lack of resilience to drought (see the later sections of this paper on food security and climate change);
- the balance, and potential competition between, smallholder farming and large-scale commercial agriculture;²⁵
- the need to tailor support programmes more closely to the needs of specific local contexts (as discussed above in respect of fertiliser and seeds).²⁶

²³ See Can Ethiopia Create 2 Million Jobs Every Year? (World Bank, 2018c.)

²⁴ The Rural Job Opportunities Creation Strategy (GoE, 2017a) is one of few government documents to recognise that significant numbers of people may have to move away from where they currently are in order to escape poverty.

²⁵ Urban expansion and industrialisation create additional, and politically sensitive, demands for re-purposing of agricultural land.

²⁶ "**Geographic variation in agro-ecological zones and access to services and markets will require a geographically tailored approach.** Rainfall volatility may be a more binding constraint in some areas and access to markets more binding in others. Inclusive agricultural growth also necessitates increasing the productivity for pastoralist communities that rely on livestock as a main source of income. Further analysis on the constraints to improved livelihoods in pastoral areas is needed." (World Bank, 2016a)

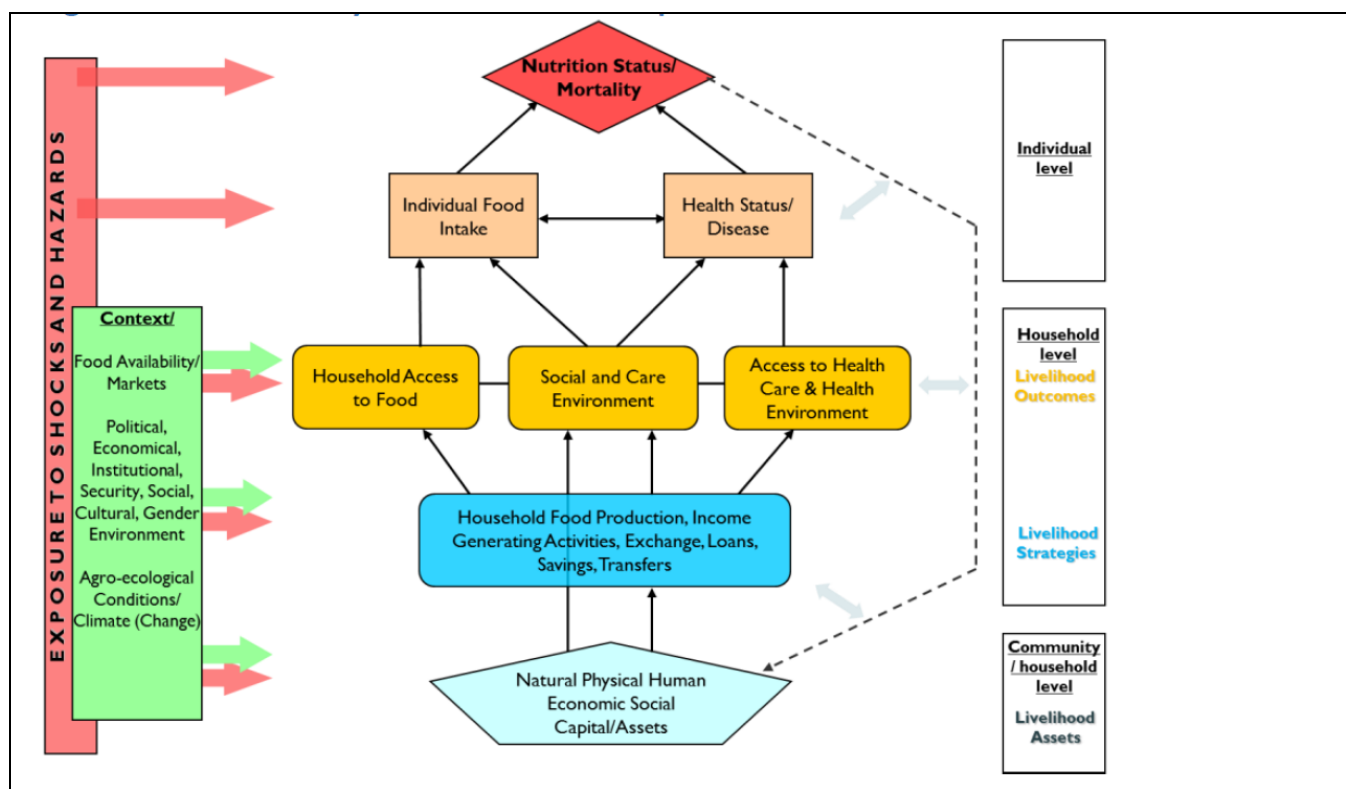
4. Food security²⁷

Conceptual framework

52. The standard definition of food security (from the World Food Summit 1996) is:

Food security defines a situation in which all people at all times have physical and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.

Figure 2 Food security and nutrition conceptual framework (CFSVA)



Source: CSA & WFP, 2014

Note: The conceptual framework was developed by WFP, drawing from several similar frameworks, including the UNICEF framework on the causes of malnutrition, the livelihoods framework, and others that look specifically at food and nutrition security. As food security is multi-dimensional, there is no specific factor or outcome on the framework titled 'food security'; rather, all factors and outcomes are considered when describing the food and nutrition security situation.

53. A "comprehensive food security and vulnerability analysis" (CFSVA), conducted in 2014, used the conceptual framework shown in Figure 2 above. It highlights the community, household and individual dimensions of food security, and proposes four high-level factors that underpin food security – availability, access, utilisation and stability, as described in Box 8 below.

²⁷ Key sources for this section include the comprehensive food security and vulnerability analysis(CFSVA) CSA & WFP, 2014; humanitarian requirements documents (HRDs), most recently GoE and Humanitarian Partners, 2018,and food security analysis included in the recent evaluation of the WFP's portfolio (Lister et al, 2018).

Box 8 Factors in food security

Availability of food Food availability is the physical presence of food in the area of concern through all forms of domestic production, commercial imports and food aid. Food availability might be aggregated at the regional, national, district or community level.
Access to food Food access concerns a household's ability to acquire adequate amounts of food through own home production and stocks, purchases, barter, gifts, borrowing and food aid.
Utilization of food ²⁸ Ability of household members to make use of the food to which they have access. This includes an individual's ability to absorb and metabolize the nutrients. It includes the ways in which food is stored, processed and prepared, including the water and cooking fuel used, and hygiene conditions. Utilization can be impaired by illness or poor caring practices.
Stability of food (availability, access, utilization) Sometimes included as an additional factor to address the time dimension of food security. This can refer to short-term instability or medium term instability, often stemming from climatic, economic, social and/or political factors that may threaten an otherwise food secure situation.

Source: CFSVA (CSA & WFP, 2014).

Food security challenges in Ethiopia

54. On several occasions, Ethiopia has attracted worldwide attention due to disastrous famines, most notably those of 1973 and 1984–85. Despite the agricultural progress described in section 3 above, millions of Ethiopians are vulnerable to weather-related and other shocks, and there remains a dual challenge of providing immediate relief when necessary and promoting long-term resilience. Ethiopia still ranks low on the country global hunger index²⁹ score, ranking 93rd out of 119 countries in 2018. However from 2000 to 2018 this score has decreased from 55.9 to 29.1 (GHI, 2018).

55. Vulnerability to shocks is strongly linked to poverty. Despite high rates of GDP growth over the past decade and a decline in the percentage of people living in poverty, poverty rates remain high in Ethiopia. Between 2004/05 and 2015/16 the share of the population below the poverty line fell from 38.7% to 23.5%. However, with a population growth rate of around 2.6%, the number of people living in poverty has largely remained stable since 2004/05, at around 25 million (Lister et al, 2018).

56. Most rural households make a living on subsistence agriculture and livestock despite declining farm sizes and the impacts of environmental degradation. Average farm sizes in 2011/12 were 0.96 ha, with 40% of the population depending on less than 0.5 ha. The impacts of population pressure on land holdings can be seen in the fact that younger farmers tend to have significantly smaller landholdings. Population pressure has also resulted in populations gradually moving out of the highlands where rainfall is higher and more reliable. This move has led to the clearance of forest for agriculture, cultivation on steep slopes and erodible volcanic, which in turn has left people more vulnerable to the effects of environmental degradation (Headey et al, 2014, CSAG, 2015). Chronic food insecurity is experienced by the poorest sub-sector of households – whose agricultural

²⁸ The discussion of nutrition in section 5 is particularly relevant to this dimension of food security.

²⁹ The Global Hunger Index is a composite of four indicators: (a) undernourishment – the share of the total population whose caloric intake is insufficient; (b) child wasting – the share of children under 5 who have low weight for height, reflecting acute undernutrition; (c) child stunting – the share of under-5s who have low height for age, reflecting chronic undernutrition; and (d) child mortality – the mortality of children under 5 (which in part reflects the mix of inadequate nutrition and unhealthy environments. On a scale of 0-100, higher scores indicate a worse situation. (GHI, 2018)

production on small plots of land (averaging 0.5 hectares) cannot produce enough to meet requirements (GoE, 2010b).

57. Ethiopia is susceptible to considerable variations in rainfall patterns from year to year (cf. Map 6 in Annex 1), and also to major rainfall failures, which are influenced in different ways by the El Niño and La Niña events in the Pacific Ocean, and the Indian Ocean Dipole (IOD).³⁰ Failures of the main rainy season (krempt) affect the largest number of people, but droughts in pastoral areas can be devastating for affected populations. Ethiopia's largest crises 1973–75, 1984/85, 2002/03, and 2015/16 have largely been the result of krempt failures; but for populations living in Somali region or southern parts of Oromiya region it is the years of 1994/95, 2004/05, 2010/11 and 2016/17 which are remembered for being times of hardship. These pastoral area droughts tend to have lower visibility because they affect fewer people.

58. An El Niño-linked rain failure in 2015 led to almost 19 million people receiving some form of food assistance (either in the form of safety net transfers or through general food distributions) in 2016;³¹ while in late 2016/early 2017 poor rains in predominantly pastoral areas (linked to the IOD) led to severe food crises for affected populations.

59. Food insecurity patterns are seasonal and linked to rainfall patterns, with hunger trends declining significantly after the rainy seasons (Boka, 2017), and with different parts of Ethiopia experiencing periods of hunger in different months of the year. The peak hunger season for the majority of crop-dependent populations is between June and October, while in pastoral areas the typical hunger season falls between January and April (see Map 10 in Annex 1). This has implications for when needs assessments are best conducted and the most appropriate timing for safety net support and humanitarian food assistance.

60. However, even smallholders characteristically depend on the market for a proportion of their food supplies and are correspondingly vulnerable to price shocks. (Map 9 in Annex 1 illustrates a high degree of dependence on food markets; it is based on a 2010 study, since when market integration has been steadily increasing – Minten et al, 2018.) As many poor households in Ethiopia are net food buyers this makes them especially vulnerable to the volatility of food markets. In food deficit areas households may rely on food purchases for 50 percent or more of their annual calorie needs. Rises in food prices erode the purchasing power of wages and livestock sales and pose a further challenge to the food security of households who rely on labour and livestock income to ensure their food needs (GoE, 2014b).

61. Hill & Porter, 2016 focus on vulnerability to drought and food price shocks and find that:

many Ethiopians are unable to protect their consumption against lack of rainfall and sudden increases in food prices. A moderate drought causes a 9 percent reduction in consumption for many rural households, and high inflation causes a 14 percent reduction in the consumption of uneducated households in urban areas. Vulnerability of rural households is considerably higher than that of urban households, despite realized poverty rates being fairly similar. ... The results also suggest that significant welfare gains can be made from risk management in both rural and urban areas.

³⁰ The Indian Ocean Dipole (IOD), also known as the Indian Niño, is an irregular oscillation of sea-surface temperatures in which the western Indian Ocean becomes alternately warmer and then colder than the eastern part of the ocean (Wikipedia).

³¹ See Figure 3 on page 29.

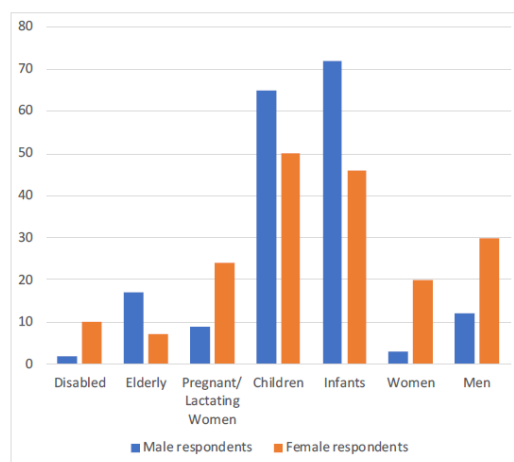
62. Knippenberg and Hoddinott, 2017, in *"Shocks, social protection, and resilience"*, find that: drought shocks reduce the number of months a household considers itself food secure and that these impacts persist for up to four years after the drought has ended. ... This impact is largest for PSNP beneficiaries with little or no land.
63. Droughts have a greater impact on the food security of households in districts characterized by limited primary road networks. There are many inaccessible parts of the country, which have hampered efforts to provide food quickly during the humanitarian response. Furthermore, the humanitarian response has often been held back by delays with transporters and the availability of trucks for rental (Save the Children, 2017). On the other hand, the government's investments in rural roads have greatly increased accessibility for millions of rural dwellers (see Map 11 in Annex 1).
64. A number of factors make women especially vulnerable to food insecurity – see Box 9 below.

Box 9 Gender dimensions of food insecurity³²

A number of sources comment on women's heightened vulnerability to food insecurity in Ethiopia:

- "Although women contribute to much of the agriculture labour, women's access to land continues to be limited despite joint land certification efforts. As a consequence, their access to farm inputs, extension advice and credit are way below men's, which slows down land productivity and the country's economic growth. Women lack economic opportunities, have limited involvement in cash crop production, non-farm enterprises and wage employment." (IFAD, 2016a)

Priorities for food intake for households in Somali and Afar regions



- A consolidated gender analysis undertaken for the 2016 drought response found that women, even pregnant and lactating women, were given a lower priority for food intake than infants, children or men (see the figure above). Furthermore, while both male and female income sources are similarly affected; there are differences in how droughts impact the different genders. For example, men are more likely to migrate in search of seasonal employment opportunities with the risks this entails and women can be severely impacted by the effects of drought on water availability with the result that they have to walk further to find water, wait longer to collect the water, and may have to travel to collect water several times a day. (Oxfam, 2016 cited in Lister et al, 2018).

³² For a broader synopsis of trends in gender issues, see Dom & Vaughan, 2018, pp23-30. A recent IMF paper *"investigates the macroeconomic impact of existing gender gaps in Ethiopia and discusses the authorities' policies in the areas of gender equality and women's rights, with a focus on women's economic engagement. ... The findings suggest that, eliminating gender gaps in both educational attainment and the rate of formal employment could increase output in Ethiopia over time by over 24 percent"* (IMF, 2018a)

- Gender also affects individuals' ability to adapt to stresses such as climate change (Mersha & Van Laerhoven, 2016). Women face greater barriers to adaptation because:
 - Gendered rules and norms reduce potential adaptation measures. For example, in Ethiopia women traditionally are barred from ploughing; as a result female headed households are forced to sharecrop land which means they have to share the resulting harvest. Furthermore, the reliance on male neighbours to plough means women have limited influence over the timing of land preparation which can be important when trying to adapt to changing rainfall patterns.
 - Women face more barriers to access financial and physical capital. For example, land is typically registered in the name of the household head – typically a man. Land certificates, and other assets often also under the control of men, are often more preferred forms of collateral by finance institutions.
 - Women are often underserved by Government extension services. Extension services most typically engage with household heads who are usually men. This means that women in households headed by men are often the most underserved by extension services.

65. Overall, efforts to increase food security in Ethiopia can be seen as a two-way struggle, in which there have been considerable gains through agriculture sector growth and poverty reduction, alongside gains in human development through basic health and education services. These gains have been reinforced by improved road infrastructure and greater market integration, and there has been a substantial strengthening of national safety nets and capacity to respond to humanitarian emergencies (discussed under programmes and policies below). On the other hand, population growth, environmental degradation and climate risks serve to continually reinforce food security challenges.

National policies and stakeholders³³

Policy and programme framework

66. Humanitarian and development aspects of food security have historically been treated as separate tracks, but there has been increasing overlap, with ongoing efforts to increase integration and synergy. Key programmes are intended to mitigate food insecurity in the short term (this includes humanitarian response as necessary) and to address underlying food insecurity issues as part of Ethiopia's development trajectory.

67. As noted section 3 above, in GTP II the agriculture sector is considered as one of the major sectors driving growth. The plan under this sector focuses on: improving agricultural production and productivity and commercialization; reducing degradation of natural resources and improving their productivity; and reducing vulnerability to disaster and building disaster mitigation capacity via ensuring food security.

68. Four relevant Government policies guide food security interventions:

- The National Policy and Strategy on Disaster Risk Management (GoE, 2013b).
- The National Social Protection Policy (GoE, 2014a).
- The Agricultural Sector Policy and Investment Framework (GoE, 2010b).
- The Ethiopia Strategic Investment Framework for Sustainable Land Management (GoE, 2008a).

69. These policies are implemented through a number of government programmes and services, described next.

³³ This section draws directly on the equivalent discussion in Lister et al, 2018.

70. **Early warning and needs assessment:** The Government has a decentralized system of early warning; staff at woreda level collect monthly data on a range of indicators including rainfall, production, livestock and market prices. In addition the Government leads periodic multi-stakeholder needs assessments, which take place at least twice a year, but may be more often in crisis years. The quality of early warning data collected, however, is patchy, and there is an element of negotiation of each needs assessment's conclusions, both at regional and federal levels.

71. **Humanitarian food assistance (HFA):** This is provided to rural households that are food-insecure because of a shock, most often drought. The number of people supported (and duration of this support) is determined through a twice-yearly needs assessment, which recommends that households receive transfers each month for three to twelve months. In reality, the amount of support depends largely on the amount of funds allocated in response to the humanitarian appeal. The needs assessment identifies "hotspot" woredas that become the focus of support (see Map 4 in Annex 1). Humanitarian food assistance is largely provided in the form of food, but can also be provided in cash. Households are selected through a community-based targeting process (HRD & PSNP DPs, 2017).

72. **The Productive Safety Net Programme (PSNP):** Launched in 2005 and funded by the Government and development partners (DPs), the PSNP is the second largest safety net programme in Africa and provides food and/or cash transfers to food insecure households in chronically food insecure woredas. Households that have labour (the majority of PSNP beneficiaries) earn their safety net transfers by participating in labour-intensive public works. Unconditional direct transfers are provided to households without adult able-bodied labour. The PSNP is a key element of the Government of Ethiopia's Food Security Program and plays a critical role in building the resilience of chronically food insecure communities through community asset building, and support for improved nutrition and livelihoods, as well as through cash and food transfers (World Bank, 2017b). Evaluations have shown that the PSNP has reduced household food insecurity and distress sales of assets, increased household expenditures, and boosted uptake of agricultural inputs, although research by Knippenberg and Hoddinott, 2017 suggests that the programme has improved resilience against negative shocks for beneficiary households. However, efforts to "graduate" beneficiaries from the PSNP have had limited results. (See discussion in Dom & Vaughan, 2018, which concludes that "The combination of implementation difficulties of [successive livelihoods components] with the impact of the 2015/18 drought means that, so far, there has been no sustained graduation from the PSNP!".)

73. Other key programmes implemented by the Ethiopian Government to reduce rural livelihood vulnerabilities and enhance food security include the Agricultural Growth Programme, the Sustainable Land Management Programme, and the Food Security Programme, which includes the Productive Safety Net Programme (PSNP). The **Sustainable Land Management Programme (SLMP)**, which was initiated in 2008 has the objective 'to reduce land degradation in agricultural areas and thereby improve land productivity'. The SLMP focuses on sustainable land management measures at micro-watershed and critical watershed levels. Its current phase has been re-titled the Resilient Landscapes and Livelihoods Project (World Bank, 2018a).

74. Also of relevance to the food security sector in Ethiopia are: the **National Policy on Disaster Risk Management** (GoE, 2013b), which aims to reduce disaster risks and potential damage caused by a disaster through establishing a comprehensive and coordinated disaster risk management system in the context of sustainable development; the **National Social Protection Policy** (GoE, 2014a), which aims to create an enabling environment in which Ethiopian citizens have

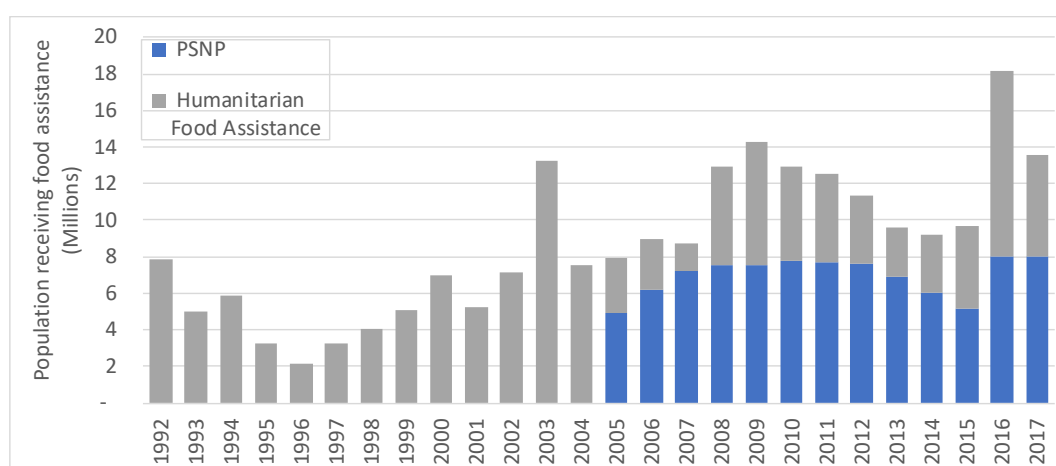
equitable access to all social protection services that will enhance their growth and development; and the **Ethiopian Strategic Investment framework for Sustainable Land Management** (GoE, 2008a), which aims to provide assistance to smallholder farmers to adopt sustainable land management practices on a wider scale.

Recent evolution of food security programmes and responses

75. **Integration of PSNP and humanitarian food assistance:** Figure 3 below shows how PSNP and HFA have complemented each other since 2005. Despite the Government's aim to shift from a reliance on humanitarian appeals to a predictable safety net, HFA continues to support a large number of people in rural areas. The 2016 drought response highlighted the challenge. While the PSNP was designed to have some capacity to scale up in response to shocks, in reality the financial resources available were limited and the triggers to scale up were unclear. In 2016 many humanitarian food assistance beneficiaries received 9 or 10 rounds of support, whereas PSNP beneficiaries (who are among the poorest) were only scheduled to receive six months of support, and some of these transfers were delayed.³⁴ Agreement was made to release additional transfers to PSNP beneficiaries, but in reality only one additional transfer was released and this was late.

76. Consequently, 2017 saw strong interest by development partners and government to learn from this experience and identify ways of improving integration. A number of woreda level opportunities for integration were identified through a field assessment and subsequent workshop, and the mid-year humanitarian update saw an attempt to provide an integrated food-cash plan which considered core PSNP transfers, PSNP contingency financed assistance, and in-kind food aid in one overall planning tool (HRD & PSNP DPs, 2017).

Figure 3 Productive Safety Net Programme (PSNP) and humanitarian caseloads 1992–2017



Source: World Bank data, figure reproduced from Lister et al, 2018.

77. **Urban safety nets:** The safety net is also being extended to urban areas through a "UPSNP" (see programme document at World Bank, 2015a). this is part of a series of adaptations of safety net approaches, as summarised in Table 1 below.

³⁴ In principle, there are monthly rounds of humanitarian assistance, but in practice there are delays that result in fewer rounds being delivered.

78. **Cash assistance:** Until recently, Humanitarian Food Assistance (HFA) has been largely in kind, but there is increasing use of cash, notably as part of the move towards integrating PSNP and HFA, with food being managed by NDRMC and cash by MOFEC (using the PSNP channel).

Table 1 Social protection policy issues and responses over past 15 years

Challenges/ issues	Policy/programming response
Over time there has been a shift in areas most affected by drought; there are pockets of food insecurity in mostly food secure areas.	Afar and Somali Regions included in PSNP3; PSNP4 providing for gradual expansion to the whole country; scalable rural safety net envisioned as a response to chronic and transitory food insecurity, in principle in line with the Disaster Risk Management Policy (2013).
Food insecurity in rural areas is only one of several aspects of vulnerability; other aspects and urban vulnerability need addressing too; PSNP direct support (DS) beneficiaries are mostly people who need permanent social protection assistance.	Development and adoption of the National Social Protection Policy (2014); Urban PSNP (2015); PSNP DS beneficiaries to be supported throughout the year , and responsibility for the DS caseload to be shifted onto MoLSA .
Improved food security but continued poor nutritional outcomes, with massive implications in terms of human development and economic growth.	Strengthening PSNP links with the National Nutrition Programme through nutrition promotion & nutrition-sensitive PSNP activities (in PSNP4).
Improving NRM and addressing climate change are indispensable to strengthen rural livelihoods.	Increasing 'climate smart' focus of PSNP public works, through a Climate Smart Initiative pilot (GOVERNMENT3), now mainstreamed in GOVERNMENT4. GOVERNMENT contributing to the government Climate Resilient Green Economy strategy.
Developing viable options in rural areas with poor agricultural potential requires a broad range of measures going beyond a focus on farm-based livelihoods.	By design, GOVERNMENT3 and GOVERNMENT4 are meant to support rural households and individuals to invest/diversify in non-farm and labour market-based livelihood options .

Source: reproduced from Dom & Vaughan, 2018 (Table 3) where an extensive commentary is provided.

79. **Government leadership and contribution:** The Government has historically relied on the humanitarian appeal to fund the response to droughts. This changed in 2015/16, when the Government contributed USD 735 million to the overall humanitarian response and a further USD 119 million in 2016/17 (World Bank, 2017b).

80. There has been a substantial strengthening of Ethiopia's ability to cope with major droughts, and the Government led an effective humanitarian response to the droughts of 2015/16 and 2016/17 (see Box 10 below).³⁵

³⁵ A more extensive analysis of the drought response is provided in Lister et al, 2018, and a multi-agency evaluation of the response, led by OCHA, is currently in progress.

Box 10 Effectiveness of the humanitarian response to drought

In contrast to devastating droughts of earlier decades, the Government-led response to recent 2015/16 El Niño and 2016/17 Indian Ocean Dipole crises has protected citizens from famine, illustrating strengths of the combined response by Government and humanitarian partners. There is strong evidence that the humanitarian response made the difference between drought and catastrophe. Hirvonen et al., 2018 showed firstly that the number of food/cash aid recipients doubled in 2015 relative to 2013 and this increased aid was largely directed to the areas hit by the drought. Secondly, however, chronic undernutrition rates did increase due to the drought in areas characterized by limited road network. "Together, these findings highlight the role of road infrastructure in contributing to resilience as well as the efficiency of the humanitarian system in delivering and targeting aid in the country." (Lister et al, 2018)

Ministerial responsibilities

81. The **Ministry of Agriculture** is responsible for the overall management and coordination of the **PSNP**; there is a **Food Security Coordination Directorate (FSCD)** within the ministry. In addition, the Ministry of Agriculture, through the Public Works Coordination Unit of **Natural Resource Management Directorate (NRMD)**, provides implementation support, technical coordination, and oversight of all public works conducted under the rural safety net. Furthermore, the **Livelihoods Implementation Unit**, coordinates and oversees the livelihood-related services under the PSNP. The **Ministry of Agriculture** is also the leading institution coordinating the **SLMP** programme from federal level down to the regional, woreda and kebele levels where the programme is implemented by regional Bureaus of Agriculture (World Bank, 2013).

82. The **Ministry of Labour and Social Affairs (MoLSA)** manages the direct support component of the programme. Cash transfers of the PSNP are channelled through the **Ministry of Finance and Economic Cooperation**. Food transfers are channelled through the Government's food management system, which is currently the responsibility of the **National Disaster Risk Management Commission (NDRMC)**.

83. The **NDRMC** has overall responsibility for the coordination of disaster management and direct implementation responsibility for HFA. Until the 2018 reorganisation of ministries, it reported directly to the Deputy Prime Minister (DPM). The NDRMC is responsible for early warning systems, the mobilization of humanitarian resources (through the biannual needs assessment and Humanitarian Requirements Document (HRD) process), and allocation and prioritization of these resources geographically.³⁶

84. The NDRMC was created in 2015, which involved splitting the previous Disaster Risk Management and Food Security Sector (DRMFSS) in two. DRMFSS was within the Ministry of Agriculture. NDRMC then became a separate entity reporting to the DPM. Following the reshuffle under PM Abiy Ahmed, the NDRMC is now an agency under the Ministry of Peace (to which the Administration for Refugee and Returnee Affairs (ARRA)³⁷ is also affiliated – see Annex 3). Meanwhile the FSCD was previously part of the DRMFSS, then was located in rural job opportunities and food security and now shares a state minister with natural resources (but always within the Ministry of Agriculture).

³⁶ Until recently HFA has been largely in kind, but there have been increasing amounts in cash, but as part of the move towards integrating PSNP and HFA, with food being managed by NDRMC and cash by MOFEC (with the PSNP using Channel 1).

³⁷ Now retitled "Immigrants and Returnees Affairs Agency".

Dialogue and coordination

85. The **Rural Economic Development and Food Security Sector Working Group (RED&FS)** – already highlighted in ¶46 above – is the government-donor coordination platform for agriculture, natural resource management and food security. Established in 2008, its objective is to jointly review sector level implementation status, and to coordinate and harmonise efforts of various development partners supporting thematic areas under RED&FS, addressing gaps and avoiding overlaps. It is composed of various sector (Agricultural Growth; Sustainable Land Management; and Disaster Risk Management and Food Security) and sub-sector platforms that allow direct dialogue between Government and Development Partners. It encourages a coordinated programme approach to the Productive Safety Net Programme (PSNP), the Agricultural Growth Programme (AGP) and the Sustainable Land Management Programme (SLMP). (See Figure 14 in Annex 6.)

86. Donor financing for the Productive Safety Net Programme (PSNP) in Ethiopia is pooled and the coordination of the programme is facilitated by a **PSNP Donor Working Group (DWG)**, supported by a donor coordination team, which sits within the World Bank. A number of joint Government-Development Partner coordination bodies provide day-to-day implementation support to the PSNP. These include an overall Coordination and Management Committee and technical committees that allow focused discussion on different aspects of the programme, such as public works.

87. Similarly, there is a high degree of donor coordination in support of the humanitarian response in Ethiopia. Multiple donors are involved in financing disaster preparedness, including early warning, and humanitarian assistance. A series of higher-level coordination committees and technical working groups/task forces support coordination of interventions and technical support to the National Disaster Risk Management Agency. These are outlined in Figure 16 in Annex 6.

88. Primary responsibility for coordinating and monitoring progress of the DRM Strategic Programme lies with the **DRM Technical Working Group (DRMTWG)** which provides a platform for the mutual engagement and support of humanitarian organisations and development partners. The DRMTWG is supported by a set of technical sector task forces, which are primarily responsible for coordination and actions under each sector and are headed by respective relevant government line ministries. Crosscutting to all these is the Working Group on Mainstreaming Gender in DRM. These joint (development partner and Government) coordination mechanisms are complemented by the **Ethiopia Humanitarian Country Team (EHCT)** – which is chaired by the **Resident Humanitarian Coordinator** for the UN and comprised of donors, NGOs, UN agencies and the Red Cross – and the Humanitarian Resilience Donor Group.

89. Annex 9 includes a detailed overview of **donors and NGOs active in supporting food security**.

Key issues

90. Significant issues on the food security agenda for Ethiopia include:

- Further strengthening of the humanitarian–development nexus (cf. ¶75–76 above). Under the PSNP, the Government is putting in place a framework that brings together the PSNP and HFA, involving extending the systems and procedures of the PSNP to include the HFA (HRD & PSNP DPs, 2017; Lister et al, 2018).
- A continuing trend towards increased use of cash in safety nets and humanitarian relief.

- Strengthening of national ownership and sustainability: in 2014, the Government committed to progressively increase its funding to the PSNP with the aim of fully funding the programme by 2025. Recent analysis of the Government's fiscal space suggests that current levels of expenditure on the PSNP are affordable and can be sustained over time (World Bank, 2017b).
- Improved, and more focused targeting of food security assistance.
- Better adaptation of the PSNP and other programmes to pastoral areas.
- Increased attention to nutrition (see the next section of this paper).
- Strengthening resilience to drought is a key element of agricultural strategy (identified as a binding constraint by the World Bank, see Annex 7), and one where the challenge is accentuated by negative effects of climate change (see the final section of this paper).

91. Ultimately alternative livelihoods are key:

More broadly, trends in the past few years point to the **need to accelerate the structural change in the economy** envisaged in the GTP II, linking this macro agenda to **practical and realistic ways of supporting a growing number of individuals in rural vulnerable areas to move away from farming**. As shown above, the PSNP4 design supports this, in principle. However, implementation is faced with challenges, some of them operational as highlighted above (weak Development Agent capacity etc.), others more fundamental – such as for instance, the **lack of clear directions in handling rural-urban migration** in spite of the government urbanisation and youth employment policies and strategies; and what to do, at scale and in the shortest possible timeframe, to ensure that the skills of the rural poor match potential non-farm employment. (Dom & Vaughan, 2018)

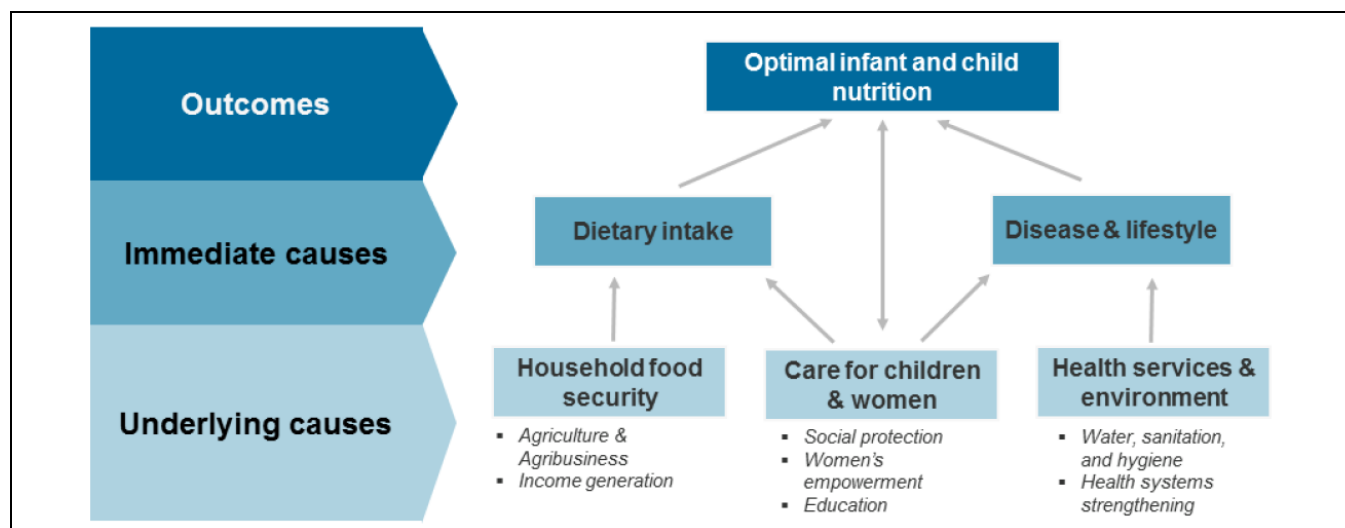
5. Nutrition and its links to health, food security, agriculture, environment and climate change³⁸

Conceptual framework

92. The conceptual framework presented in section 4 above (food security) is also relevant here (see ¶53 and Figure 2). In similar vein, Figure 4 below focuses more specifically on nutrition outcomes for infants and children. As will be apparent throughout this section, approaches to nutrition in Ethiopia are well informed by an understanding of the broad factors (beyond simple food intake and health services) that influence people's nutrition status.

³⁸ The queries posed for this paper (Box 1 above) include "What is the relationship between health and nutrition, food security, agriculture, environment and climate change?" Key sources for this section include: Mokoro, 2015 (pp477-485 provide background for assessment of Ethiopia's engagement with the SUN initiative); Lister et al, 2018, Dom & Vaughan, 2018, and the European Commission's nutrition profile of Ethiopia (European Commission, 2017).

Figure 4 Conceptual framework for nutrition showing a multi-sectoral approach



Reproduced from GoE, undated (Adapted from UNICEF Conceptual Framework (2008). Retrieved from <http://www.unicef.org/nutrition/training/2.5/4.html>)

93. The nutrition sector is noted for its complexity and dynamism. Increased global attention to nutrition in the past 10–20 years has been linked to better understanding of underlying factors and the increased salience of nutrition issues in all countries (with many countries facing the so-called "double burden" where persistent issues of undernutrition co-exist with growing problems of overweight and obesity). A growing body of scientific evidence has increased – and continues to increase – understanding of the effects of malnutrition (e.g. the serious consequences and irreversibility of stunting), and there have been advances too in the treatment and prevention of undernutrition. Robust evidence on the benefits of appropriate nutrition, particularly during the first 1,000 days (from conception to the age of two) was summarised in *The Lancet*, 2008. Extensive evidence for the efficacy of various nutrition interventions was presented in its follow-up, *The Lancet*, 2013. A key development (highlighted by Figure 2 and Figure 4) has been the recognition that interventions which directly target nutrition (i.e. are nutrition-specific) need to be complemented by a much broader effort to make other interventions (e.g. in health, education, agriculture, water supply, etc) nutrition-sensitive (i.e. to design them in a way that promotes secondary nutritional benefits).

94. A complex international architecture for nutrition and food security has formed and continues to develop,³⁹ and many aid agencies have become much more active in supporting nutrition. As discussed below, Ethiopia's approach to nutrition is well informed by recent intellectual advances, and Ethiopia's development partners have shown increasing interest in supporting the country's nutrition objectives.

Prevalence and incidence of malnutrition in Ethiopia

Health expenditures and performance

95. Ethiopia has made substantial improvements in basic health care by rolling out an efficient primary health care system (see e.g. ODI, 2015). The most recent World Bank public expenditure review notes that:

Ethiopia's **spending on health expenditure has increased but is still among the lowest in the region at about US\$21 per capita**. Nevertheless, the health sector analysis shows the country

³⁹ Mokoro, 2015 provides a detailed review of its evolution.

achieved remarkable health outcomes with limited increase in expenditure. The analysis concludes that some of the positive outcomes can be attributed to increased allocative efficiency but there is scope to increase technical efficiency and equity in access to health services.

Priority has been given to primary care, flagged by the well-known Health Extension Program, a living program with different focus at different stages.... The deployment of more than 35,000 Health Extension Workers, the backbone of the HEP, has accounted for a significant portion of government health expenditure, in particular the recurrent expenditure... (World Bank, 2016b).

Nutrition indicators and explanatory factors⁴⁰

96. Despite recent improvements, child mortality and malnutrition remain critical issues in Ethiopia. One in 14 children die before their fifth birthday (CSA & the DHS Program, 2017) with undernutrition believed to be an underlying cause of more than half of these deaths.⁴¹ An estimated 38 percent of children under 5 are stunted (chronic malnutrition) and 10 percent wasted (acute malnutrition). One fifth of women (22.4 percent) of reproductive age are undernourished with a body mass index (BMI) of less than 18.5 (CSA & the DHS Program, 2017).

97. Multiple factors contribute to malnutrition in Ethiopia. Poverty, insufficient availability of food, and inadequate child care and feeding practices are compounded by low access to basic services and by recurring humanitarian crises. As noted earlier, 25 million Ethiopians live on or below the poverty line, and there is an estimated per capita food deficit of 236 kcal per day (FAO, 2015b). Even where households are able to meet their calorie requirements, on average, 76 percent of energy is derived from staples, indicating that the diet is lacking in diversity and adequate nutrition. Infant and young child feeding practices across the country are poor. Despite early initiation, the duration of breastfeeding is limited and there are inadequate complementary feeding practices, with just 57 percent of infants exclusively breastfed to 6 months as recommended by the World Health Organization (WHO) (CSA & the DHS Program, 2017).

98. Poor sanitation, open defecation (estimated to still be practised by 28.3 million people in 2015)⁴² and poor water quality are linked to reduced birth size by causing gut infections, diarrhoea and intestinal parasites, and contributing to maternal anaemia (EDRI & IFPRI, 2015).⁴³ Infections (such as HIV and TB) reduce appetite and impair absorption of nutrients. Urban rates of HIV prevalence are increasing (projected to reach 3 percent by 2016; compared to 0.4 percent in rural areas) (USAID, 2018b). Shocks also increase household food insecurity, contributing to undernutrition. For example, according to the Ethiopia Humanitarian Requirements Document for 2016, the drought-induced increase in household food insecurity was expected to result in acute malnutrition. At that point, 435,000 severely malnourished children across the country were being targeted, as well as one million moderately malnourished children aged 6–59 months and 700,000 moderately malnourished pregnant and lactating women (ECHO et al, 2016).

99. Trends in stunting, wasting and underweight are shown in Figure 5 below. Although strong progress has been made on stunting, Ethiopia is not on track to meet the World Health Assembly target of a 40 percent reduction in stunting rates between 2012 and 2025. At the current rate of progress, Ethiopia will have a 31.9 percent prevalence of stunting in 2025 compared to the target of 23.1 percent (European Commission, 2016).

⁴⁰ This section draws strongly on Lister et al, 2018.

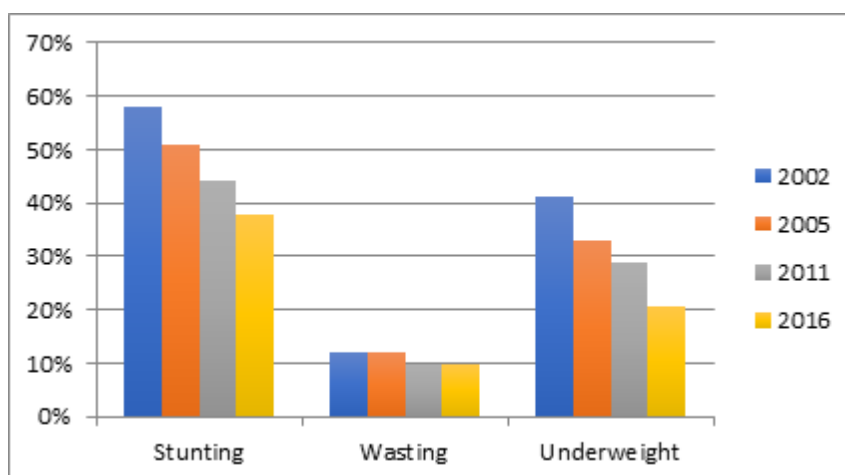
⁴¹ Based on the general empirical work reported in The Lancet, 2008.

⁴² Headey in EDRI & IFPRI, 2015 identifies reductions in open defecation as probably a major explanation for improvements in nutrition indicators in rural areas.

⁴³ See also CSA, 2017.

100. Little progress has been made on the prevalence of wasting (acute malnutrition) in recent years, with a 2016 estimate of 9.9 percent compared to 10.5 percent in 2002. This is in part due to successive, large-scale droughts (the 2016 survey was conducted during the El Niño drought). The highest rates were in drought-affected Somali (22 percent), and Afar (18 percent) as well as Gambella.

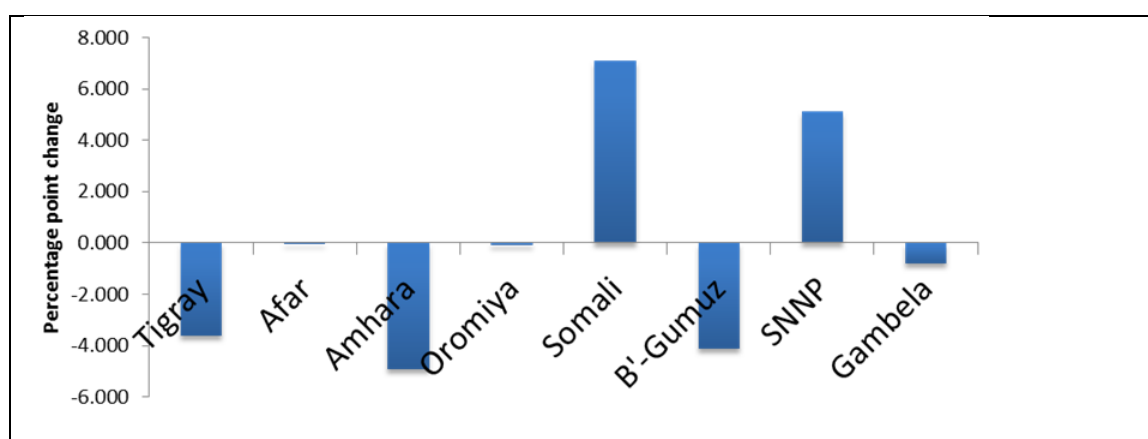
Figure 5 Nutrition trends in Ethiopia 2002–2016.



Source Demographic and Health Surveys 2002, 2005, 2011, 2016.

101. Regions affected by the country's 2011 drought made little or no progress on stunting reduction in the subsequent years, as shown in Figure 6 below; many regions saw increases in wasting rates when the droughts of 2015/2016 and 2017/2018 affected a large proportion of the country. There are potentially long-term and severe effects on nutrition from these droughts, which may not be measured until the next demographic and health survey (DHS) in 2020. Therefore further emphasis is needed to ensure that the decline in stunting will meet the WHO target.

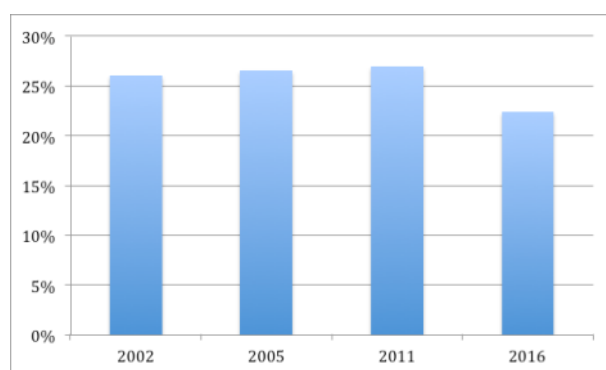
Figure 6 Trends in stunting in Ethiopia 2011–2014



Source: DHS 2011 and 2014.

102. Undernourished women are more likely to give birth to low-birth-weight infants, perpetuating the inter-generational cycle of poor nutrition and poverty. In Ethiopia, 22.4 percent of women have a body mass index under 18.5 and only limited progress has been made on this indicator in recent years with a comparative rate of 26 percent in 2002 (Figure 7 below). (There is also evidence that the children of younger mothers are more likely to be stunted, meaning that the prevalence of early marriage and childbirth is a contributing factor – World Bank, 2017d.)

Figure 7 Percentage of women 15-49 years of age with body mass index (BMI) less than 18.5.

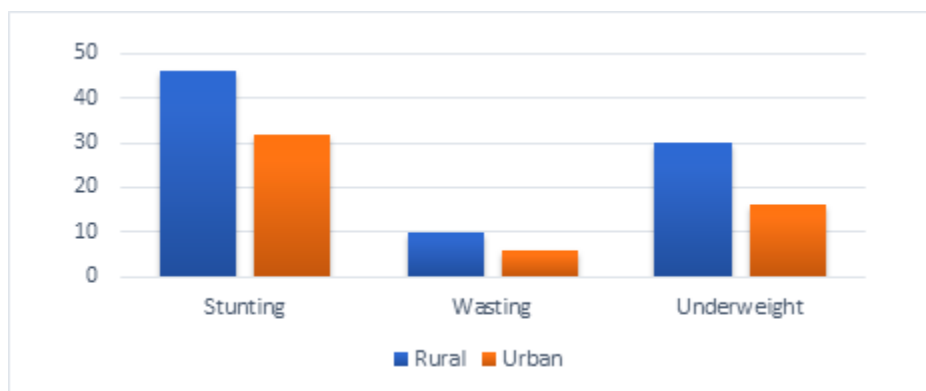


Source: DHS surveys 2002–2016.

103. Micronutrient deficiencies, including iodine, vitamin A and iron, are prevalent. Data from 2011 indicated that nearly four million, or 19 percent of, women of reproductive age had anaemia, linked to diet and high incidence of malaria and other parasitic diseases. Vitamin A deficiency affects 50 percent of children aged 6-59 months old (2013), and iodine deficiencies are especially prevalent in mountainous areas of the country.

104. Undernutrition continues to be more prevalent in rural areas, compared to urban areas (WFP, 2013, see Figure 8 below). There is also significant regional variation, with stunting highest in Amhara (46 percent), Benishangul-Gumuz (43 percent), and Afar (41 percent), and wasting highest in Somali (22 percent), Afar (18 percent) and Gambella (14 percent) (USAID, 2018b). Factors contributing to regional variation include poverty levels, as well as access to health services, but also exposure to shocks (such as flooding and droughts).

Figure 8 Rural/urban rates of undernutrition



Source: CSA & ICF, 2012 in WFP, 2013.

105. Although obesity is not yet a major issue, it is likely to become increasingly salient, the more so because, over the lifecycle, childhood stunting is a risk factor for obesity amongst adults.

106. The overall picture is of rapid progress but from a very poor starting position. Thus, there have been steady overall reductions in rates of undernutrition over the past decade and the country has experienced the fifth-fastest reduction in pre-schooler stunting in the world (EDRI & IFPRI, 2015). However, in terms of child undernutrition, it remains amongst the countries with the highest prevalence in the world (Sohnesen et al, 2015). The Cost of Hunger study estimated that the annual costs of child malnutrition alone are equivalent to 16.5 percent of GDP (COHA, 2013).

National policies and programmes

Evolution of national approaches to nutrition⁴⁴

107. Ethiopian history has included some severe famines, and for many years emergencies and acute malnutrition commanded much more attention than problems of chronic hunger. Sophisticated famine early warning systems were developed, and a major Productive Safety Net Programme (PSNP) was designed to promote development and forestall emergencies.⁴⁵ During the past decade perspectives on undernutrition have transformed, with a growing realisation of the persistence of chronic undernutrition and a greater understanding of its individual, social and economic effects. Thus the 2005 DHS showed clearly that undernutrition was a problem in areas not regarded as food insecure, there was a very influential workshop on stunting in 2011, and the COHA (Cost of Hunger in Africa) study highlighted the economic cost of undernutrition: "Eliminating stunting in Ethiopia is a necessary step for growth and transformation" (COHA, 2013). Before the emergence of the Scaling Up Nutrition (SUN) initiative, Ethiopia had already prepared a National Nutrition Strategy (NNS) which reflected many of the elements subsequently advocated by the SUN movement, including proposing a multi-sectoral approach to address underlying as well as immediate causes of malnutrition, with stunting highlighted as a key indicator.

108. Ethiopia is affiliated to the SUN movement⁴⁶ and participates in its activities. It is regarded as an 'early riser' country. Before the SUN movement began, Ethiopia had in place a National Nutrition Programme (NNP) since 2008, framed by the Health Sector Development Plan and aimed at improving nutrition across sectors. The first phase of the NNP focused on growth monitoring, micronutrient supplementation and treatment of severe-acute-malnutrition (SAM).⁴⁷

109. Ethiopia has demonstrated an ability to take interventions to scale once they have government support (the upscaling of CMAM is a celebrated example) and makes good use of village-level workers (health extension workers, development agents and the "development army"). On the other hand, the scale of need and of the country is a challenge, with the need to roll out interventions and systems to regional and district levels within a decentralised federal system.

Current policy framework

110. Alongside the broader commitment to addressing food insecurity (see section 4 above), undernutrition is a priority focus for the Government of Ethiopia. The second Growth and Transformation Plan (GTP II) mentions strengthening household nutrition and expanding the implementation of the nutrition programme as a 'major target'. Key policies and programmes are highlighted in Table 2 below.

111. Nutrition interventions in Ethiopia have been guided in particular by:⁴⁸

- a) The **National Nutrition Programme 2013–2015 (NNP)**. This was a considerable advance on the National Nutrition Strategy published by the federal Ministry of Health in

⁴⁴ Drawn from Mokoro, 2015.

⁴⁵ As discussed above in section 0 of this paper.

⁴⁶ Although it never formally applied to join (Mokoro, 2015).

⁴⁷ Before the NNP, nutrition interventions had focused largely on emergency feeding and micronutrient supplementation, with less attention given to prevention of undernutrition.

⁴⁸ In addition, the *National Guidelines for HIV/AIDS and Nutrition in Ethiopia* define the nutrition actions for service providers to take in providing quality care and support to people living with HIV and AIDS at sites that provide HIV counselling and testing (HCT), maternal and child health (MCH) care, anti-retroviral therapy, services for orphans and vulnerable children, and home-based care.

2008. It was redesigned to build stronger linkages across sectors, notably with the agriculture sector, as well as establishing community programmes and interventions, and was intended to provide a road map for achieving zero child malnutrition, focusing on reducing stunting through the first 1,000 days. It appeared as a federal government publication, and thirteen government ministries and agencies were signatories to this version of the NNP.⁴⁹ The NNP outlined programmes across sectors, organised under 5 strategic Objectives, and for each one provided an estimated total cost for the period 2013–2015: (1) to improve the nutritional status of women and adolescents – USD 75m / 14% of the total programme; (2) to improve the nutritional status of infants and young children – USD 409m / 75%; (3) to improve nutrition service delivery for communicable and non-communicable diseases – USD 11m / 2%; (4) strengthen nutrition-sensitive interventions in various sectors – USD 19m / 4%; and (5) improve multi-sectoral coordination and capacity for NNP implementation – USD 33m / 6%.

- b) The **Health Sector Development Plan IV (2010–2015)** provided the framework for the NNP with a basic package of nutrition services delivered by the health extension programme (HEP) at a network of community-level health posts staffed by health extension workers (HEWs) responsible for primary health care. Its successor is a Health Sector Transformation Plan.
- c) The **Humanitarian Requirements Document (HRD)** (most recently GoE and Humanitarian Partners, 2018) is the annual humanitarian response plan, which reports the number of people in need of humanitarian assistance following food security and nutrition assessments, including the expected number of acutely malnourished children and pregnant and lactating women. Budgets and supply calculations are based on the numbers provided in this document.
- d) In 2015, the Government's "**Seqota Declaration**" committed to ending child undernutrition by 2030 (GoE, 2016c).

Table 2 Key nutrition policies, strategies and programmes

Date	Document	Reference
2008	National Nutrition Strategy (NNS)	GoE, 2008b
2012	National CMAM Guidelines	
2012	National School Health and Nutrition Strategy	GoE, 2012
2013	National Nutrition Programme June 2013 – June 2015 (2008 NNS redesigned to build stronger cross-sector linkages)	GoE, 2013a
2015	Seqota declaration set ambitious nutrition targets	GoE, 2016c
2015	Mainstreaming of nutrition in the design of PSNP4	World Bank, 2014 and EEAS, 2016
2016 (?)	Second NNP (2016-2020), provides a road map for achieving zero child malnutrition, focusing on reducing stunting through the first 1,000 days	GoE, 2016e
2016	The Nutrition-Sensitive Agriculture Strategic Plan 2016-2021 (NSASP)	GoE, 2016f

⁴⁹ Ministry of Health (MoH); Ministry of Agriculture and Natural Resources (MoANR); Ministry of Water, Irrigation, and Electricity (MoWIE); Ministry of Education (MoE); Ministry of Industry (MoI); Ministry of Finance & Economic Cooperation (MoFEC); Ministry of Livestock and Fishery Resource Development (MoLFR); Ministry of Trade (MoT); Ministry of Women and Children Affairs (MoWCA); Ministry of Labour & Social Affairs (MoLSA); Ministry of Youth and Sport (MoYS); National Disaster Risk Management Coordination Commission (NDRMCC); and the Federal Government Communication Affairs Office.

112. A number of other initiatives to combat undernutrition have also been announced including the Accelerated Stunting Reduction Strategy, the Food Fortification Initiative (USAID, 2014b), as well as improved linkages between the NNP and the Productive Safety Net Programme (PSNP) – reflected in the design of PSNP 4, and the Nutrition-Sensitive Agriculture Strategic Plan adopted in 2016, which aims to increase production, access and consumption of nutrient-dense foods from animal and plant sources.

113. Alongside this, there are a number of other important guidelines and policies which have guided interventions supporting nutrition in Ethiopia. These include the National Guidelines for HIV/AIDS and Nutrition in Ethiopia (outlining nutrition actions for service providers offering e.g. counselling and testing, or anti-retroviral therapy, in order to improve care and support) and the National CMAM Guidelines (2012).⁵⁰

114. Ethiopia was early to adopt the community-based management of acute malnutrition (CMAM) approach to detect and treat acute malnutrition. Whilst initially this was used as an emergency response, in 2004 it was handed over to the Ministry of Health (MoH) (Ljungqvist, 2015). There was a subsequent major scale-up of CMAM across Ethiopia, delivered through the Enhanced Outreach Strategy, combined with the Targeted Supplementary Feeding (TSF) Programme. More recently, the Government launched the Health Development Army (HDA), a network of women volunteers, trained to facilitate knowledge sharing and identification of health issues. The Health Extension Programme has been recognised as significant for improvements in nutrition services (as well as for the effectiveness of disaster risk management interventions) to mitigate impacts of shocks.

Stakeholders, Dialogue and Coordination

Government Stakeholders

115. The Government of Ethiopia has shown a commitment to addressing nutrition multi-sectorally since the development of the first NNP. Similarly, the second NNP has emphasised the importance of the governance structures to facilitate multi-stakeholder engagement which enables both nutrition-specific, as well as nutrition-sensitive responses to be coordinated. This is reflected in the coordination structure for the nutrition sector – the National Nutrition Coordinating Body (NNCB) – which brings together ministries with direct, as well as indirect involvement in nutrition (Kennedy et al, 2015).

116. Nutrition response is separated between different government ministries (supported by donor agencies):

- a) Treatment of severe acute malnutrition (SAM) is managed at the federal level by the **Ministry of Health**. A basic package of services is delivered at the local level through the Health Extension Programme (HEP), via community-based health facilities staffed by **Health Extension Workers** (HEWs) (Lister et al, 2018). HEWs screen for acute malnutrition and make referrals within the health system. There is at least one health post and two HEWs per *kebele* (sub-district). At the community level the Women Development Army (WDA), a network of volunteers, links the neighbourhood with HEWs. Some five health posts are supported by one health centre, staffed by nurses and providing more advanced curative services.

⁵⁰ It should be noted that the 2012 Guidelines retained higher thresholds for SAM and MAM treatment than the 2006 WHO Guidelines.

- b) Treatment of moderate acute malnutrition (MAM) and for undernourished pregnant and lactating women is managed through the **National Disaster Risk Management Commission (NDRMC)** at the federal level. At the local level, Disaster Prevention and Preparedness Bureaus manage delivery via Food Distribution Centres (FDCs) using a network of Food Distribution Assistants (FDAs); with one FDC, equipped with two or three FDAs serving five health posts (Lister et al, 2018).
- c) Further, the **Administration for Refugee and Returnee Affairs (ARRA)** leads the nutrition response for refugees in Ethiopia. In doing so it collaborates closely with both UNICEF and WFP.

Dialogue and Coordination

117. As noted, to facilitate multi-sectoral responses, the Government has established a number of dialogue and coordination mechanisms. These include:

- a) **The NNCB**, which convenes nine ministries across relevant sectors, including the Ministry of Women's Affairs, the Ministry of Labour and Social Affairs as well as the Ministry of Finance and Economic Cooperation, as well as representatives of UN agencies, donors and academia. It is chaired by the Ministry of Health, and co-chaired by the Ministries for Agriculture and Education. The NNCB is supported by the **National Nutrition Technical Team**.
- b) **The Emergency Nutrition Coordination Unit (ENCU)**, established in 2000, sits within the Ministry of Agriculture (MoA) aligned with the cluster approach, coordinates nutrition partners at federal and sub-national levels in emergency nutrition response via a range of coordination platforms. These govern assessment, information management, response planning and implementation. It is embedded within the NDRMCC at federal level. The ENCU is staffed by UNICEF employees.
- c) **Nutritional Development Partners Group**: which engages UN agencies, donors and civil society. The Department for International Development (DFID) and the UN Children's Fund act as donor conveners and civil society participates in the NDPG and other relevant platforms (Lister et al, 2018, and see also Figure 15 in Annex 6).
- d) The **Ethiopian Civil Society Coalition (ECSC)** was established in 2013, it is the most active of the SUN networks in Ethiopia, and the only standalone network. It is currently hosted by Save the Children (co-chaired by Concern) and forms a coalition of 63 member organisations. The coalition work with the Global SUN Network, as well as the Government of Ethiopia NNP and nutrition platforms.
- e) **Multi-stakeholder Food Fortification Working Group** (instrumental in setting quality standards for salt iodisation and flour and oil fortification).⁵¹

118. The **Ministry of Health** is also part of the **Hotspot Technical Working Group (HTWG)** which prioritises woredas that are in utmost need of humanitarian interventions (and which determines caseloads for SAM and MAM). (See also the food security section.)

119. Annex 9 includes a detailed overview of **donors and NGOs active in supporting nutrition**.

⁵¹ Mentioned on the SUN website, but not clear if it is currently active.

Key issues

Efforts to promote a second-generation approach to supplementary feeding

120. Annex 8 describes the continuing evolution of efforts to make **diagnosis and treatment of acute malnutrition** more systematic and effective.

Other issues in nutrition strategy

121. Other pertinent issues include:

- a) The challenge of increasing efforts to address the **prevention of stunting**.
- b) The likelihood that the **"double burden"** will become increasingly relevant as incomes and urbanisation increase and food systems evolve.
- c) Links to **WASH**. The World Bank's systematic country diagnostic notes that:
Unsafe water use in rural areas is a binding constraint to achieving good health and nutrition and to improving agricultural productivity among women. Although the proportion of the population with access to clean water doubled from 2000 to 2011, Ethiopia performs poorly in comparison to peers and also where it should be given its level of income. A number of studies for Ethiopia have found that children with unclean hands and unsafe water access are more likely to be anemic or underweight [Mahmud et al. 2013; Mekonnen et al. 2005; Silva 2005; Teshome et al. 2009; Headey et al. 2014.]. (World Bank, 2016a)
- d) The **targeting of assistance**: current systems for identifying "hotspot woredas" to receive supplementary nutrition assistance are rather broad-brush, and may overlook needs within other woredas.
- e) **Ethiopia standards vs. global standards**. The 2012 CMAM guidelines did not move to the WHO 2006 admission guidelines with admission for SAM treatment at a MUAC⁵² <11cm (compared to WHO standard of 12.5) and MAM treatment admission at <12cm. Updated guideline which adhere to the WHO guidelines are in draft. It is expected that if the WHO guidelines are adopted, the caseload will significantly increase.
- f) Continuing **efforts to mainstream nutrition** into various government programmes. For example, within the PSNP there have been recent efforts improve links to nutrition (and not just CMAM) through: early transition of women to temporary direct support(TDS) once pregnant (they then stay on TDS until child is 12 months old); linking these women to ante-natal and early childhood health services; allowing participation in behaviour change communication sessions to counted as a public works contribution; and undertaking nutrition-sensitive public works.

⁵² Mid upper arm circumference.

6. Climate change⁵³

Implications of climate change for Ethiopia

122. We have already noted Ethiopia's vulnerabilities to climate-related events (particularly droughts). The precise effects of climate change are inherently uncertain, and have to be assessed in a context where Ethiopia anyway experiences a high degree of volatility and spatial variability in climate and is prone to extreme weather events (Irish Aid, 2017). There is substantial consensus that climate change will exacerbate existing vulnerabilities. An assessment published by USAID characterises expected effects of climate change as follows:⁵⁴

Future projections of temperature and rainfall patterns in Ethiopia exhibit a high degree of uncertainty, but most projections agree that:

- Mean annual temperature is projected to increase by between 1°–2°C by 2050.
- The frequency of hot days and nights will substantially increase. About 15–29 percent of days will be considered hot by 2060.
- It is uncertain whether rainfall will increase or decrease; projections range from -25 percent to +30 percent by the 2050s.
- Increases in the proportion of total rainfall that falls in "heavy" events with annual increases of up to 18 percent. (USAID, 2016)

123. An earlier analysis of climate risk and food security in Ethiopia concluded that:

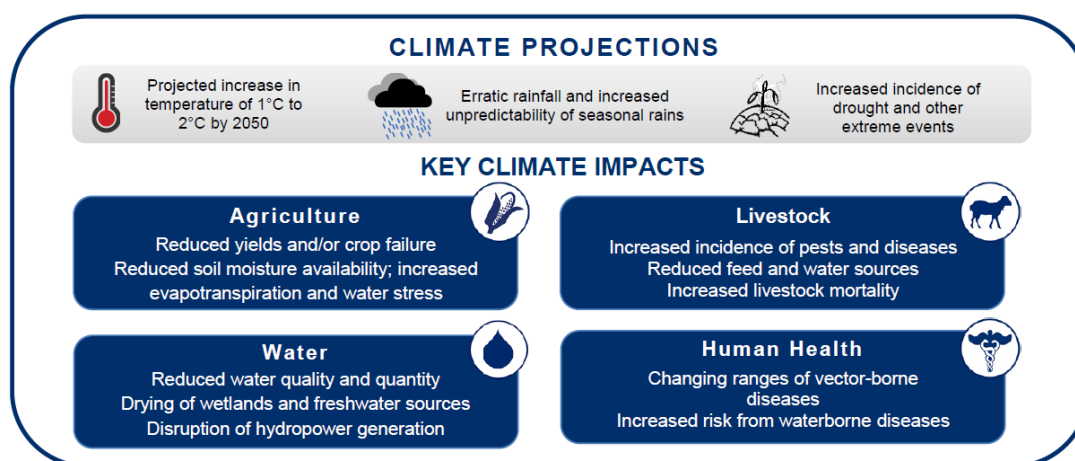
- Food security is highly vulnerable to climate-related risks in Ethiopia.
- There are multiple drivers of food insecurity in Ethiopia – including drought risk, environmental degradation, demographic pressure, rural-urban migration, and conflict. **In the absence of adaptation measures, climate variability and change act as risk multipliers, exacerbating the conditions which affect food security trends.** (WFP, 2013, emphasis added)

124. Figure 9 and Figure 10 below summarise anticipated climate impacts at sector level.

⁵³ Key sources for this section: World Bank, 2010b analyses the economic implications for Ethiopia of climate change; WFP, 2013 considers the implications of climate change for food security and livelihoods; Echeverría & Terton, 2016 provide a comprehensive review of the evolution of climate adaptation strategy and of associated institutional responsibilities up to 2015.

⁵⁴ USAID, 2015 is a factsheet on greenhouse gas emissions.

Figure 9 Overview of expected climate change impacts for Ethiopia



Source: USAID, 2016

Figure 10 Climate change impacts – sector detail

Climate Risks and Potential Impacts AGRICULTURE PRODUCTION		Climate Risks and Potential Impacts WATER RESOURCES	
Climate Risk	Potential Impacts	Climate Risk	Potential Impacts
Increased minimum and maximum temperatures	Increased heat stress, evapotranspiration and reduced soil moisture content, negatively impacting crop yields	Increased temperatures	Reduced runoff and river flows, reducing water availability
	Loss of arable land due to shifting agro-ecological zones	Increased intensity of precipitation	Drying of wetlands, impacting key bird species
Increased intensity of precipitation events	Increased incidence of floods and landslides, damaging crops and increasing soil erosion	Increased unreliability of rains, especially the <i>belg</i>	Damage and/or destruction of supply and storage infrastructure
Drought and erratic rainfall	Altered growing cycles (delayed planting and early harvests)		Increased conflict over usage of scarce water resources in arid regions
	Increased incidence of pests and diseases such as maize lethal necrosis, wheat rust and Faba bean leaf and stem gall	Increased pressure on groundwater supplies; decreased reliability of groundwater sources	
		Recurrent drought	Disruption of hydropower generation; increased energy costs

Climate Risks and Potential Impacts LIVESTOCK		Climate Risks and Potential Impacts HUMAN HEALTH	
Climate Risk	Potential Impacts	Climate Risk	Potential Impacts
Increased temperatures	Reduction of water and feed resources for livestock, leading to lower productivity and higher susceptibility to diseases	Increased temperatures	Expansion of range of malaria to highland areas
Increased unreliability of rains, especially the <i>belg</i>	Increased incidence of heat stress; higher mortality rates	Increased intensity of precipitation	Increased incidence of waterborne illnesses, such as diarrhea, cholera and dysentery
	Increased conflicts over limited water and feed resources	Increased variability of rains, especially the <i>belg</i>	Aggravation of respiratory diseases caused by allergens and air pollution
Recurrent drought	Loss of grazing lands		Increased malnutrition, exacerbating vulnerability to diseases
	Loss of livestock-dependent livelihoods; forced migration	Recurrent drought	

Source: USAID, 2016

125. Significant negative effects for human health are anticipated:

As climate is changing for worse, the existing diseases will aggravate and new diseases will emerge. Morbidity and mortality due to vector-borne infectious diseases like malaria, trypanosomiasis, onchocerciasis, schistosomiasis and leishmaniasis including the 2013/2014 phenomenon of yellow fever

(after 65 years) and dengue fever outbreak for the first time are the common direct health sector impacts of weather variability and climate change in Ethiopia. Accordingly: focus should be on preventive actions to protect the people against diseases that can be aggravated during season change like diarrhoea, malaria, meningitis and others. (GoE, 2016d)

126. A number of modelling exercises have attempted to estimate the potential costs of climate change for Ethiopia. For example:

Robinson et al, 2013 examine possible impacts for agriculture, roads and for dam infrastructure. They conclude that “by 2050 climate change could cause GDP to be 8–10 percent smaller than under a no-climate change baseline; it could induce a two-fold increase in variability of growth in agriculture; and it would affect more severely the poor and certain parts of the country.” The paper also finds that adaptation to climate change might cost an annual average of USD 0.8–2.8 billion; and an additional USD 1.2 to 5.8 billion if one takes into account residual damages which may not be addressed by adapting existing development plans. The paper also provides sector-specific insights on impacts and adaptation options in agriculture, road transport, and hydropower. In particular, rapid development of Ethiopia’s hydro-potential, upgrading of the road design standards, and gradual diversification of the economy away from the more climate vulnerable sectors are likely to be important elements of any climate-resilient development strategy.

- A World Bank study in 2010 with a similar focus also predicted that effects on GDP would be negative, albeit to somewhat different degrees, under all future climate scenarios considered (World Bank, 2010b).

National policies and programmes

127. Ethiopia has been prompt and proactive in responding to climate change issues, as indicated by the series of policy documents shown in Table 3 below.

Table 3 Key climate change policies, strategies and programmes

Date	Document	Reference
2007	Ethiopia's first National Action Plan for Adaptation (NAPA)	GoE, 2007
2010	Updated Programme of Adaptation on Climate Change	
2011	Government publishes Climate-Resilient Green Economy (CRGE) Strategy	GoE, 2011
2012	To financially support initiatives under the <i>CRGE Strategy</i> , the Ethiopian CRGE Facility was set up in 2012 as the national financial mechanism to mobilize funds from national, private, and international sources ⁵⁵	Echeverría & Terton, 2016
2013	National Policy and Strategy on Disaster Risk Management (DRM)	GoE, 2013b
2013	Working group on health adaptation established	GoE, 2016d
2015	Second national Communication to UNFCCC. Intended Nationally Determined Contribution (INDC) to reduce emissions by at least 64 percent below the 'business-as-usual' scenario	
2015	Sectoral climate resilience strategy for agriculture and forestry	GoE, 2015a
2016	CRGE reflected in GTP II (Pillar 9 – see Annex 4)	GoE, 2016a
2017	Launch of <i>15 Year National Adaptation Plan to Address Climate Change</i>	GoE, 2017a
2018	<i>National Health Adaptation Plan to Climate Change (2018-2020)</i>	GoE, 2018a
2019	Updated (Final Version) <i>National Adaptation Plan (NAP-ETH)</i>	GoE, 2019

⁵⁵ There is an MPTF fund, details at <http://mptf.undp.org/factsheet/fund/3ET00> So far the mechanism is being used by Norway to fund a Forest Sector development Project managed by UNDP (see UNDP MPTF, 2018).

128. The 2010 programme is described as follows:⁵⁶

Ethiopia's Programme of Adaptation on Climate Change (EPACC) updates and replaces Ethiopia's National Adaptation Programme of Action (NAPA), which was formulated in 2007. EPACC is a programme of action to build a climate resilient green economy through support for adaptation at the sectoral, regional, and community levels. It was initiated by the Government to update the NAPA with a more participatory approach at the grassroots level. For example, the programme will reach from the federal level down to the village level where local communities will be responsible for developing their own work programmes and by-laws to ensure climate resilience.

The objective of EPACC is "to contribute to the elimination of poverty and to lay the foundation for a climate resilient path towards sustainable development". In order to achieve this, the programme lays out 29 components. EPACC also aims to mainstream climate change throughout government sectors by ensuring climate change is embedded within government policies and plans through Sectoral Climate Programmes and Action Plans. EPACC is closely interlinked with the Climate Resilient Green Economy (CRGE) Strategy.

129. Ethiopia's "Climate-Resilient Green Economy" (CRGE) strategy is summarised as follows by Lie & Mesfin, 2018, who note that climate change and environmental degradation are recognised as requiring critical attention in order for Ethiopia to realise its projected growth and development goals, and that Ethiopia has led the way in making a number of key commitments to support climate-resilient development:

The government appears serious about achieving a green economy. It fully understands that climate change will directly intensify the frequency and severity of droughts in Ethiopia, setting back progress for years to come. It recognises that the agricultural sector has been putting increasing pressure on natural resources, as well as generating around 50% of greenhouse gas emissions in Ethiopia. The CRGE strategy, launched in 2011, sets ambitious objectives for streamlining climate through all relevant development sectors and for achieving carbon-neutral growth (Evans 2012). It rests on four pillars: expanding electricity generation from hydropower; improving crop and livestock production practices; protecting and re-establishing forests for their economic and ecosystem services; and leapfrogging to modern and energy-efficient technology in the transport and industrial sectors. The government advocates the use of alternative energy such as solar-, hydro- and wind-power to mitigate the problems of deforestation, erosion and desertification prevalent in many parts of Ethiopia. Hydropower is also pivotal to the government's ambition of achieving a Climate-Resilient Green Economy (CRGE), with greenhouse gas emissions by 2030 limited to 2010 levels. While 2025 was the original CRGE target, 2030 has since been communicated to the UN Convention on Climate Change.

130. In 2015, Ethiopia made an Intended Nationally Determined Contribution (INDC) to reduce emissions by at least 64 percent below the 'business-as-usual' scenario. Whilst realisation is dependent on the finance, technology transfer and capacity building support under the CRGE Strategy, making this commitment put Ethiopia ahead of many others. Alongside these key commitments, a number of other policies exist that support environmental protection and response to climate change, including the: Environment Policy (1995); the National Energy Policy (1994); the Disaster Management and Preparedness Policy (1997); the Ethiopian Programme of Adaptation to Climate Change (2010); and Climate Resilience Strategies for Health and for Agriculture and Forestry (2015).⁵⁷

⁵⁶ from: <https://theredddesk.org/countries/plans/ethiopias-programme-adaptation-climate-change>

⁵⁷ The agriculture sector was prioritised in terms of climate resilience but it was expected to provide an entry point for preparing strategies across other sectors.

131. Published in 2016, GPE II includes building a climate-resilient economy as one of the nine priority pillars (see Annex 4), through adaptation activities, mitigation of greenhouse gas emissions, enhanced productivity of crop and livestock sub-sectors, and protection/rehabilitation of forests. The GPE II integrates the Climate-Resilient Green Economy (CRGE) Strategy, which was developed in 2011 and which is the first of its kind in Africa. It provides a new model of development to guide the country to middle-income status by 2025, integrating measures of economic development with markers of environmental performance (e.g. improved climate resilience, mitigation of greenhouse gases, and ensuring access to clean water and energy).

132. There have also been systematic efforts to incorporate climate-related factors into the Productive Safety Net Programme (PSNP), which is a pivotal player in realising the goals of the GTP II and the CRGE, both within Ethiopia's chronically food insecure areas and in the wider rural economy. The PSNP's Climate Smart Initiative (CSI) sought to improve how climate issues are addressed through PSNP4. The CSI was an action research programme carried out by a consortium of agencies under the leadership of CARE International. Working through existing PSNP structures, the CSI developed and piloted a variety of climate-smart processes and approaches across 212 watersheds in six regions – Afar, Amhara, Oromia, SNNPR, Somali, and Tigray – between July 2013 and September 2015. It has also identified a number of enabling conditions that must be addressed if the PSNP is to realise its full potential in this regard (Lind et al, 2015).

133. The PSNP is the Ministry of Agriculture's largest single investment in climate resilience-building, and its fourth, 2015-2020, phase is one of the major components of the Government's strategy to address climate vulnerability; it contributes to both the adaptation and mitigation goals. The core multi-year transfers to chronically food insecure households of the PSNP help households to avoid distress asset sales in the face of changing climatic variability, as well as encouraging household production and investment, and promoting market development. Furthermore, public works – including watershed rehabilitation. reduce erosion, improve infiltration, replenish water tables and enable the introduction of small-scale irrigation, boosting household and community resilience to low or unusually timed rains.

134. In terms of policies and institutional response, Ethiopia is arguably in a good state of preparedness to address climate change. However, the negative impacts of climate change and environmental degradation on agriculture and food security highlight the need for implementation of planned adaptation interventions in order to build resilience to respond (CGIAR, 2015). As such, the launch in 2017 of a fifteen-year National Adaptation Plan (NAP-ETH) to address climate change marked a significant development (GoE, 2017a). The NAP-ETH focuses on sectors identified as 'vulnerable' (including agriculture, forestry, health, transport, power, industry, water and urban sectors) and is aimed at bringing about a 'transformational change' in the country's capacity to address adverse climate change. The plan takes account of the considerable geographic and social diversity influencing vulnerability across Ethiopia.

135. There has also been a shift from disaster preparedness and response to risk management, reflected in the development of a National Policy and Strategy on Disaster Risk Management (DRM) in 2013. Indeed, the Ethiopian Government is focused on tackling the impacts of climate change (notably, drought and food insecurity) through a proactive approach to DRM. DRM and strengthening the early warning system is emphasised in GPE II, with increased investments in poverty reduction programs, including food security and other programmes (GoE, 2014b). The policy and strategy is supported by the DRM Strategic Program and Investment Framework.

136. The Woreda Disaster Risk Profiling (WDRP) programme, initiated in 2008, was intended to underpin DRM activities in the country, by providing detailed information on district-level risks and vulnerabilities as well as capacity to respond (GoE, 2014b). However, by 2018, only 347 profiles had been completed and to date it is not clear whether or how they can be used to support planning (Lister et al, 2018).

Government responsibilities

137. Since 2009, climate change coordination has fallen under the responsibility of the **Ministry of Environment and Forestry** (MoEF), formerly the Environmental Protection Authority (EPA). MoEF leads coordination of national adaptation and mitigation activities and represents the country at the United Nations Framework Convention on Climate Change (UNFCCC).

138. However, the new Ministerial structure announced in 2018 has "Environment,, Forest and Climate Change Commission" (including Ethiopian Biodiversity Institute, Ethiopian Environment and Forest Research Institute and Ethiopian Wildlife Conservation Authority) under the Prime Minister. The National Meteorology Agency remains under the Ministry of Water, Irrigation and Energy. (See Annex 3.)⁵⁸

139. The National Meteorological Agency (NMA), within the Ministry of Water, Irrigation and Energy (MoWIE), provides technical and analytical inputs on climate data collection, monitoring and prediction. The Ministry of Water, Irrigation and Energy (MoIE) acts as the lead agency with respect to floods and other water supply associated disasters. A CRGE facility has been established under the Ministry of Finance and Economic Cooperation (MOFEC), aimed at mobilising financial resources, for channelling to regions where CRGE activities are carried out.⁵⁹

140. The coordination for DRM is managed by the NDRMC (who also convene the Humanitarian Response, as well as early warning and needs assessment in Ethiopia) (see the earlier section on food security). The Early Warning system in Ethiopia is decentralised, with woreda staff collecting information against a range of indicators (including rainfall).

Dialogue and coordination

141. In 2018, Ethiopia established the **National Framework for Climate Services** (NFCS) to provide coordination and to enable evidence to be incorporated into policy- and decision-making. The NFCS comprises a Steering Committee (which brings together different ministries, including the Ministry of Agriculture and Natural Resources (MoANR), the MOH, the MoWIE, MOFED, and MoEF amongst others). The Steering Committee is supported by four expert groups, focusing on climate and i) agriculture/food security; ii) water/energy; iii) health; and iv) climate modelling/research and capacity development (WMO, 2018 at <https://www.wmo.int/gfcs/node/1183>).

142. The **Disaster Risk Management Technical Working Group** (chaired by the NDRMC, and co-chaired by OCHA) supports coordination and provides support to the National Disaster Risk

⁵⁸ According to the most recent NAP-ETH:

"At the highest level, oversight of NAP-ETH is the responsibility of an Inter-Ministerial Steering Committee, a Management Committee and the Ministry of Environment, Forests and Climate Change (MEFCC). For efficiency, financing and implementation of NAP-ETH will be led by the existing CRGE mechanisms, which are in place at national, regional and Woreda levels. However, some adjustments and investments will be required to ensure that the necessary personnel and capacity are in place for effective coordination and implementation of adaptation initiatives alongside existing structures focusing on mitigation." (GoE, 2019)

⁵⁹ See footnote 55.

Management Commission (NDRMC). This is complemented by the **Ethiopian Humanitarian Country Team** (EHCT) (see food security section above).

143. Annex 9 includes a detailed overview of **donors and NGOs active on climate change issues**.

Key issues

144. Monitoring, understanding, mitigating and adapting to the effects of climate change will be a continuing challenge. Practical challenges and constraints include insufficient capacity to carry out analysis and advocacy for enhanced understanding of risks and impacts, development and strengthening of building codes, land-use and urban planning, contingency planning, among others (Irish Aid, 2017).

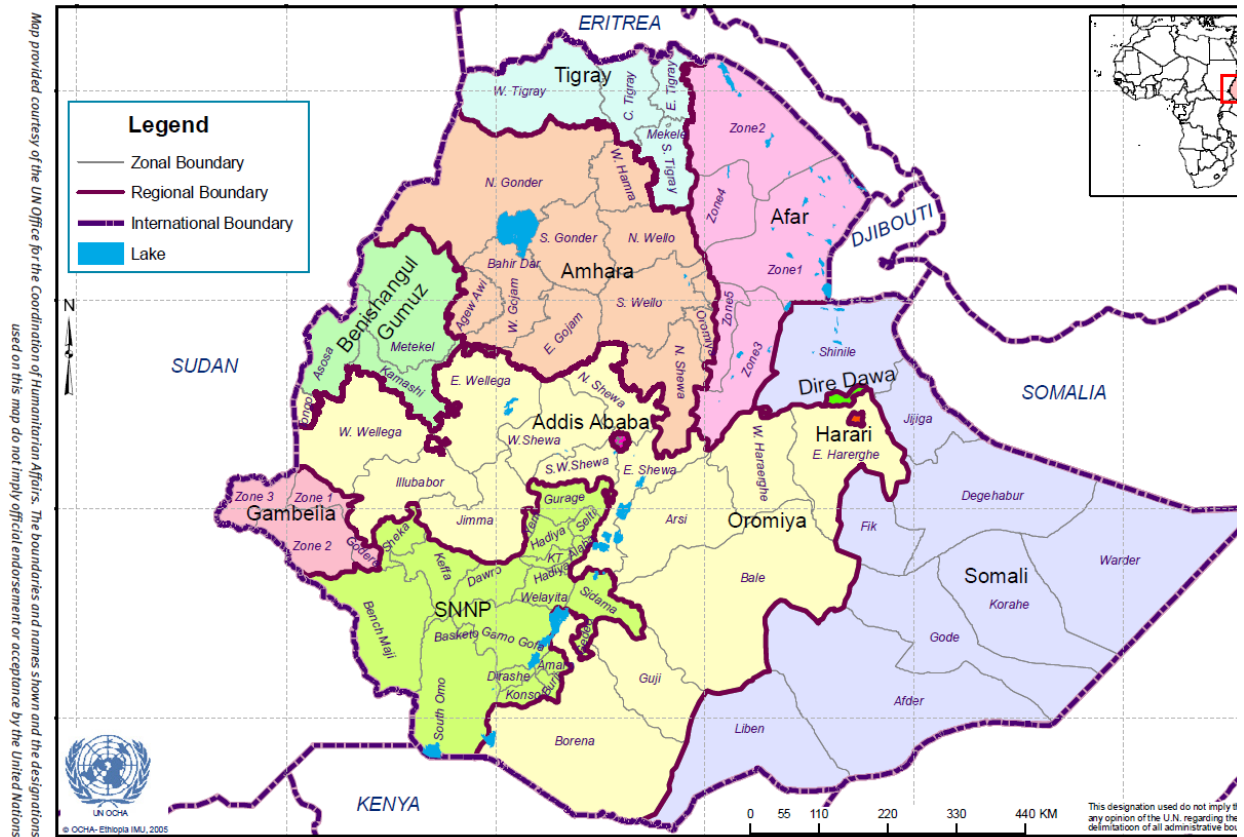
Annex 1 Maps

Map 1 Ethiopia and its neighbours



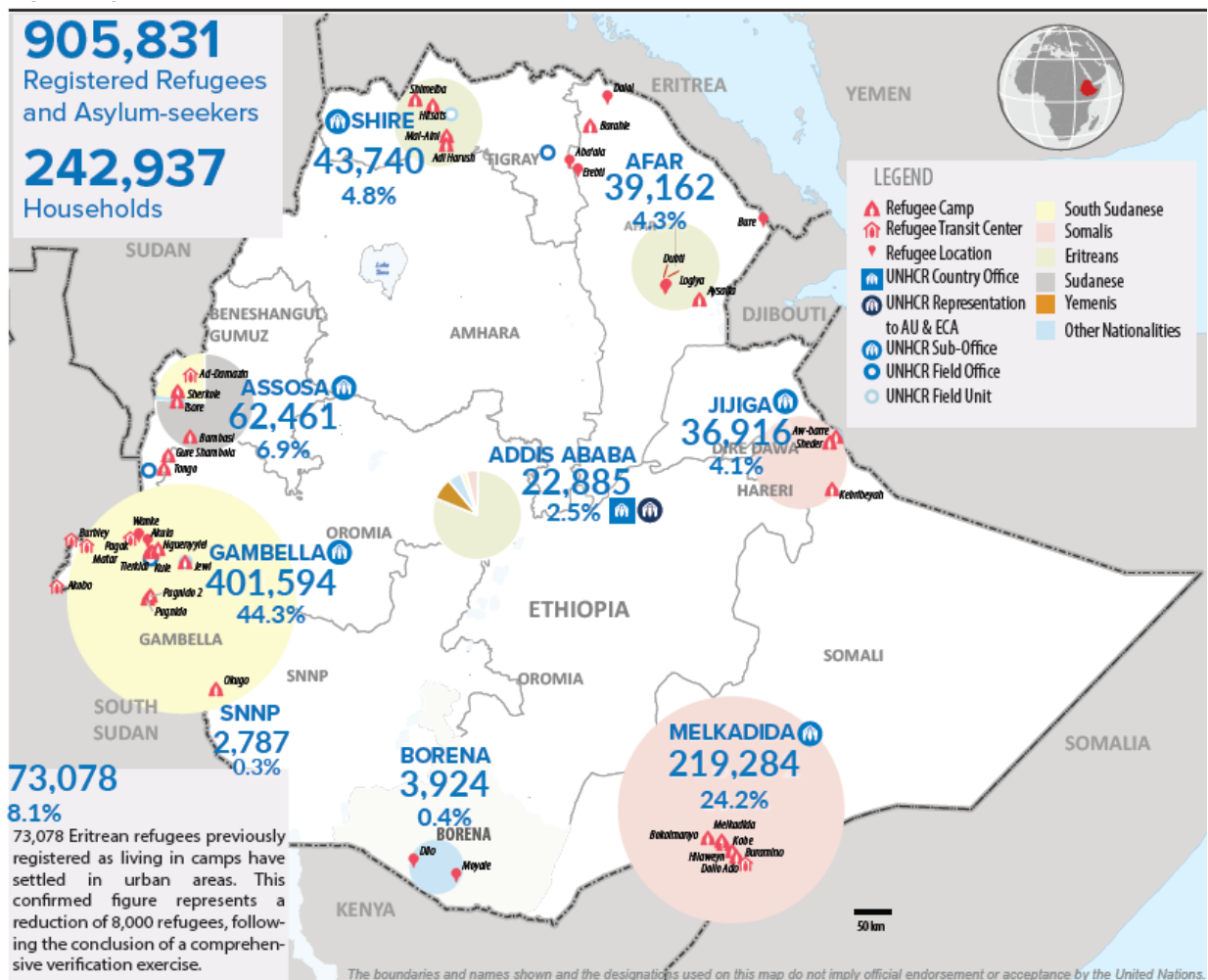
Source: reproduced from Lie & Mesfin, 2018

Map 2 Administrative Regions of Ethiopia



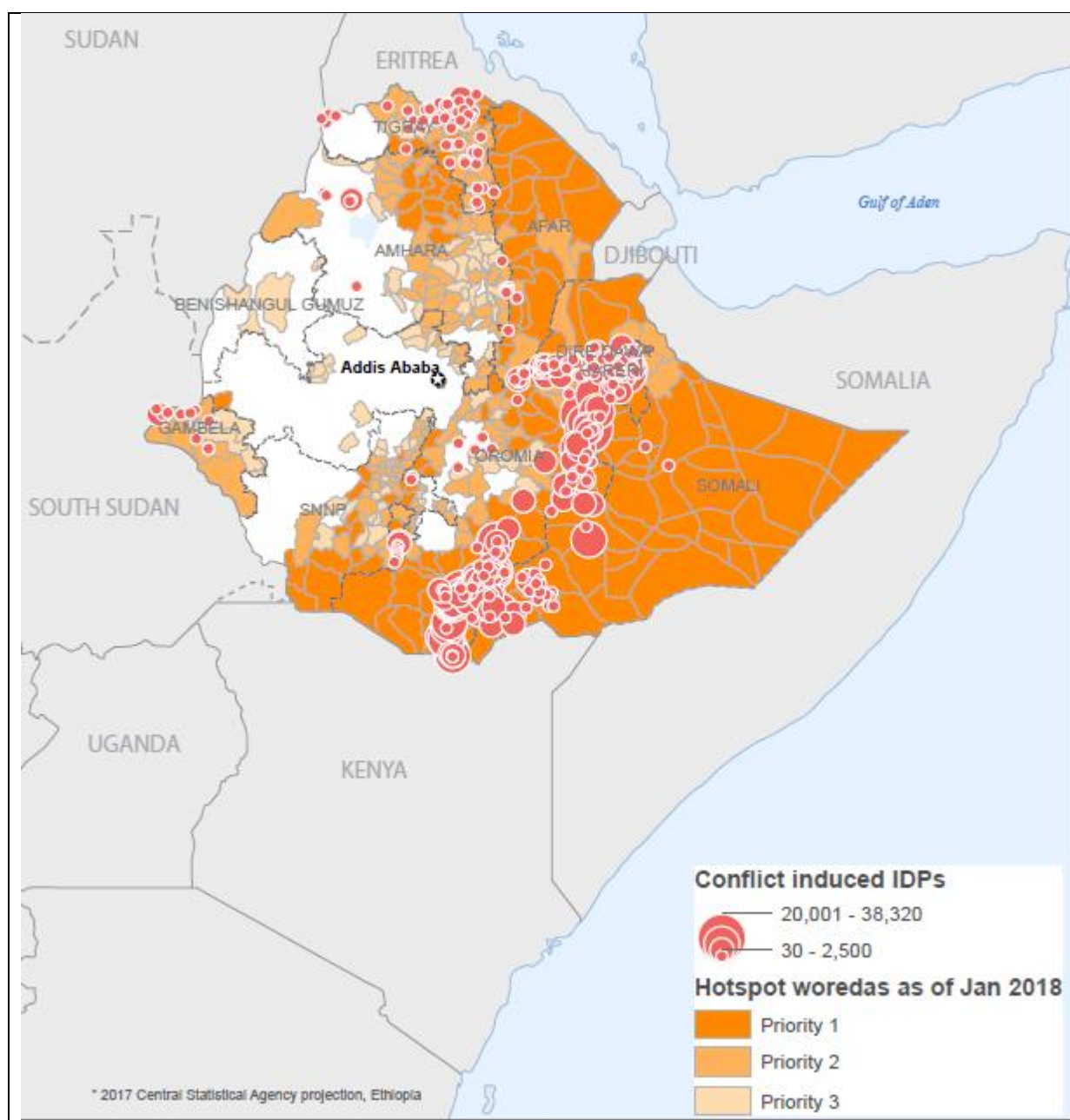
Source: reproduced from Lie & Mesfin, 2018

Map 3 Ethiopia Refugees and Asylum Seekers, as of 31 August 2018



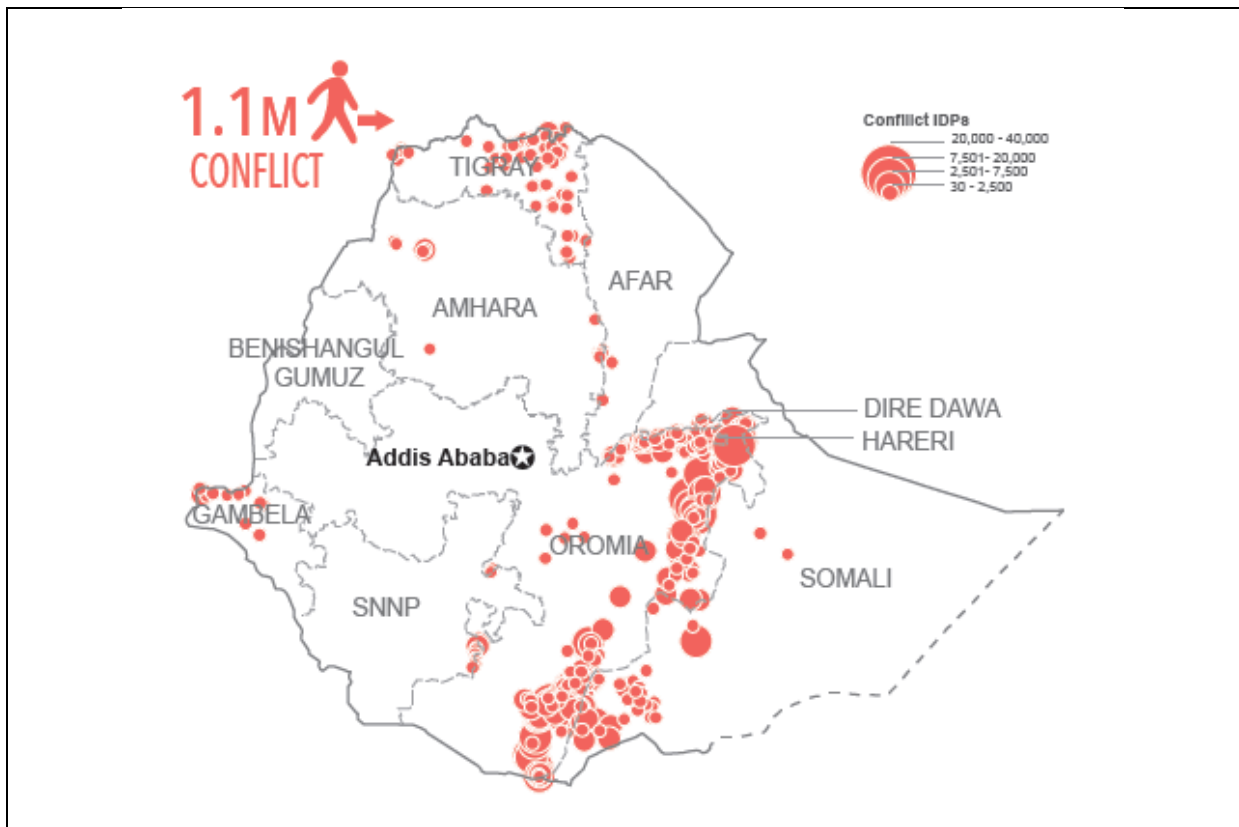
Source: UNHCR, 2018

Map 4 IDPs and Hotspot Woredas 2017



Source: GoE and Humanitarian Partners, 2018

Map 5 Conflict-affected IDPs

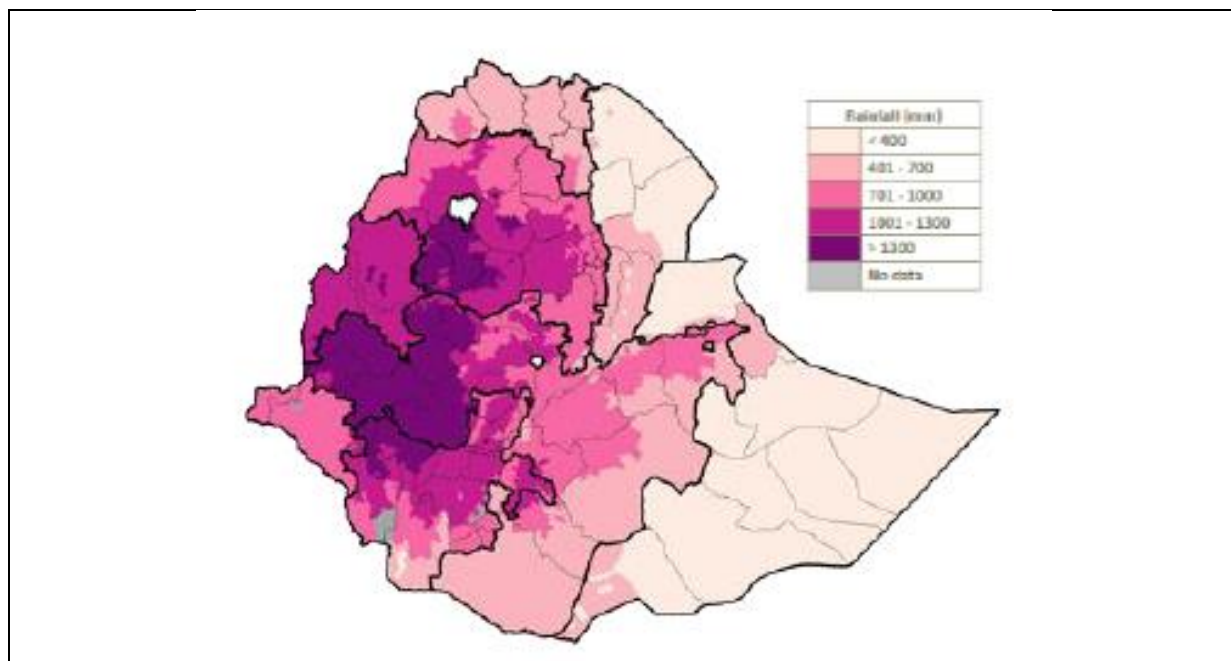


Source: GoE and Humanitarian Partners, 2018

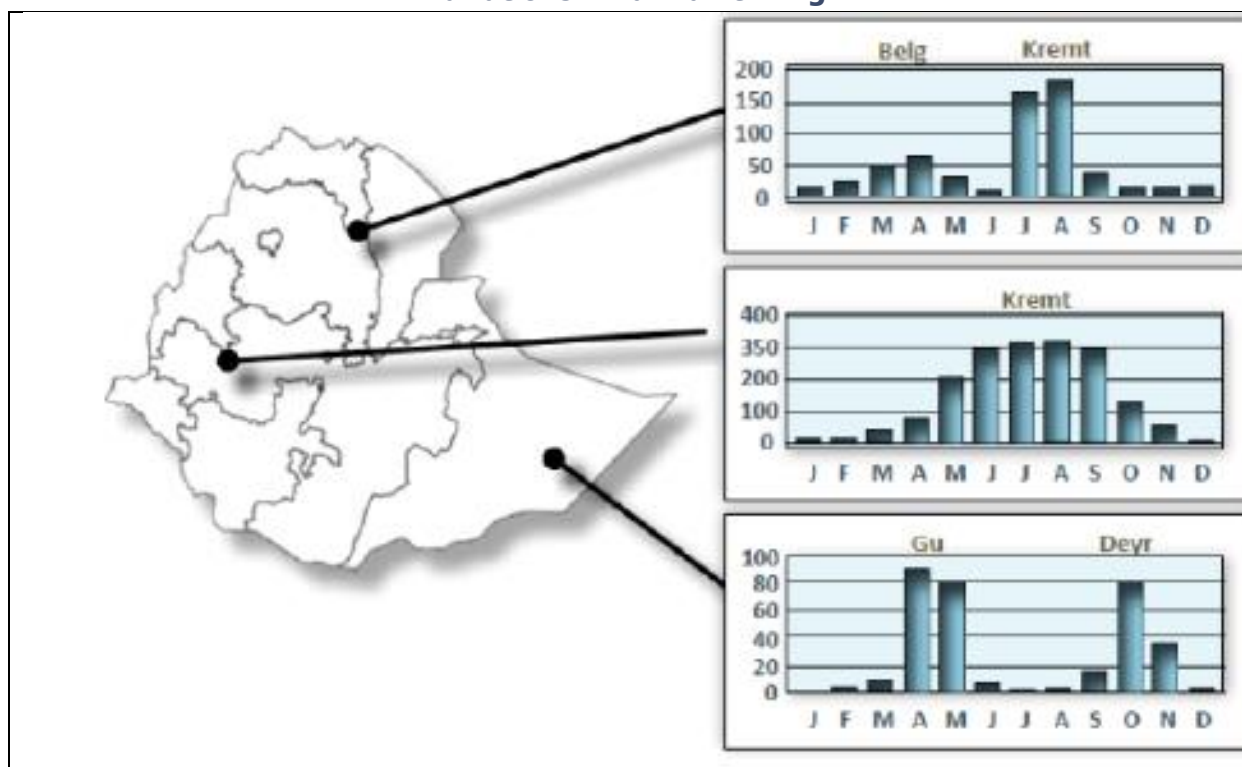
Note: This map is included to depict the main locations of conflict IDPs. Current estimates of numbers are substantially higher. According to a recent update:

"The country registered one of the fastest growing internally displaced population (IDPs) in the world in 2018. More than 80 per cent of the at least 3 million IDPs in the country (1/3 of whom displaced in 2018) cited inter-communal violence as the primary driver of displacement. Other displacements are due to protracted drought and seasonal flooding. ... Of additional concern are the IDP-hosting communities who will need sustained assistance in 2019. The majority of the displaced population in the country are residing with host communities (37 per cent), which are often themselves vulnerable; or are settled in make-shift camp sites (33 per cent)². The unrests have disrupted basic public services and upset livelihoods, contributing to the deterioration of the food, health and nutrition situation in some areas. Even prior to the displacement crisis, there was widespread food insecurity and acute malnutrition in most of the IDP-hosting communities." (GoE and Humanitarian Partners, 2019)

Map 6 Rainfall and rainfall patterns
Annual rainfall

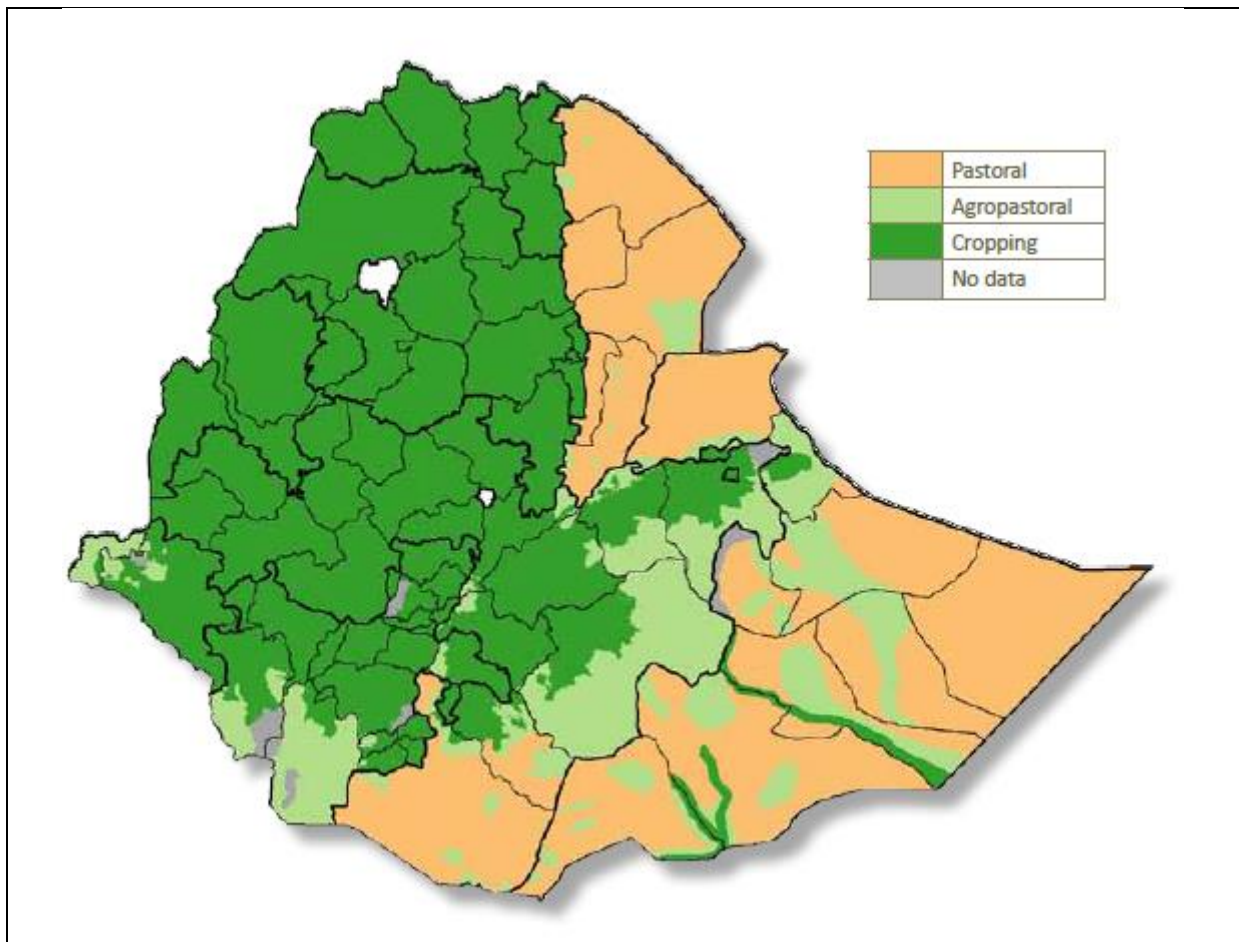


Variations in rainfall timing



Source: Livelihoods Integration Unit, 2010

Map 7 Livelihood types in Ethiopia

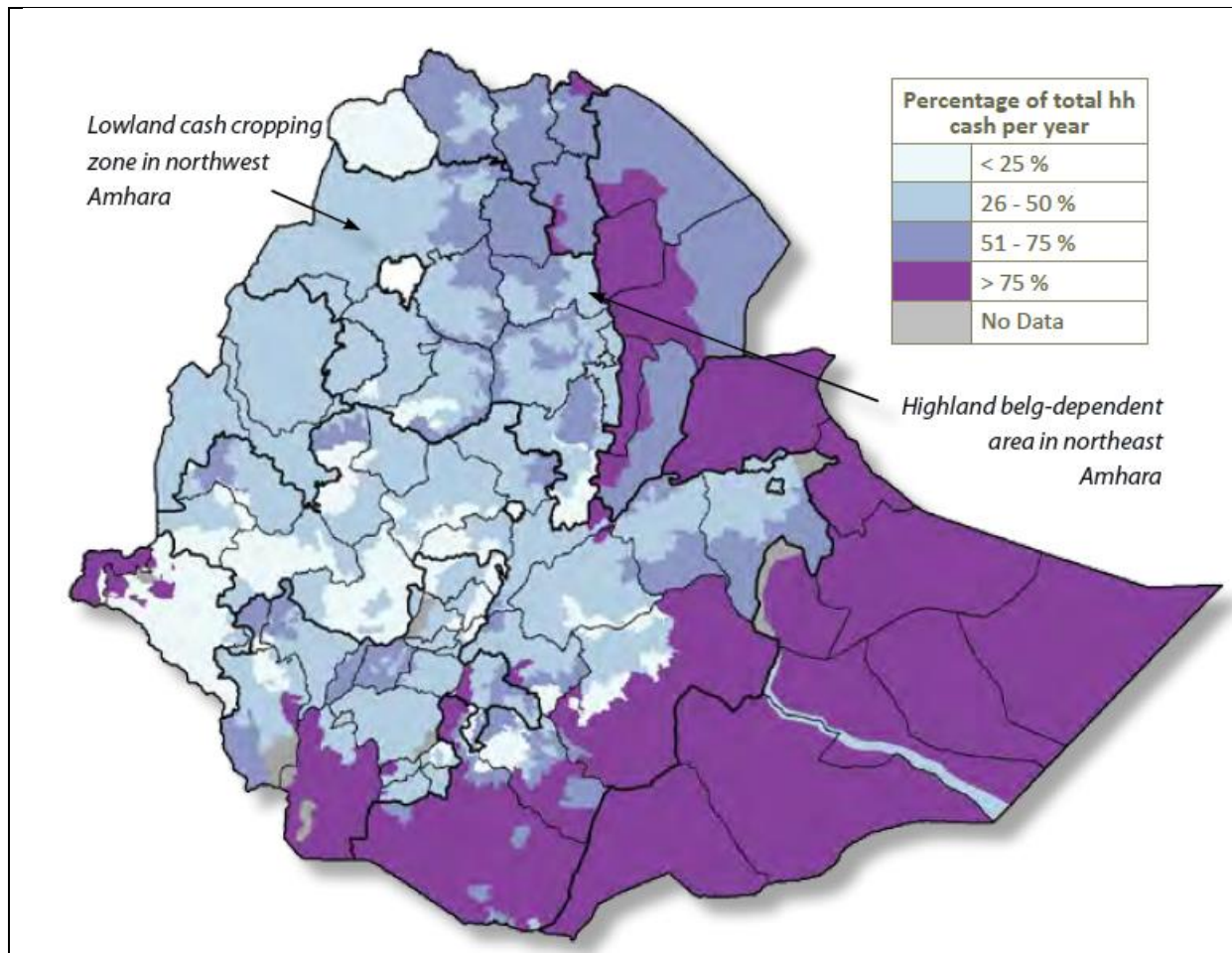


Source: Livelihoods Integration Unit, 2010

Note: Varying influences interact with Ethiopia's highlands leading to significant differences in the timing, duration and quantity of rainfall from place to place (Map 6 above). These differences, in turn, lead to variations in livelihood strategies (pastoral, agro-pastoral and crop dependent) in the livestock reared, the crops grown, the timing of planting and harvesting, and vulnerability.

- **Cropping:** reliance on crops primarily, with livestock providing draught power and/or supplementary income; undertaken by the majority of the rural population (89 percent) in the northern highlands and the lowland western areas (where there is sufficient rainfall to support agriculture);
- **Pastoralism:** reliance on livestock; undertaken by a small proportion (6 percent) of the rural population, in the eastern and southern areas of the country, where rainfall is highly variable temporally and spatially; and
- **Agro-pastoralism:** mixed-reliance on herding and livestock alongside crop cultivation; undertaken by a small proportion (5 percent) of the rural population, in the margin between the highlands and lowlands, where slightly higher elevations means more rainfall or there are rivers/seasonal water courses (WFP, 2013; GoE, 2014b).

Map 8 Livestock income as a percentage of annual cash income



Source: Livelihoods Integration Unit, 2010

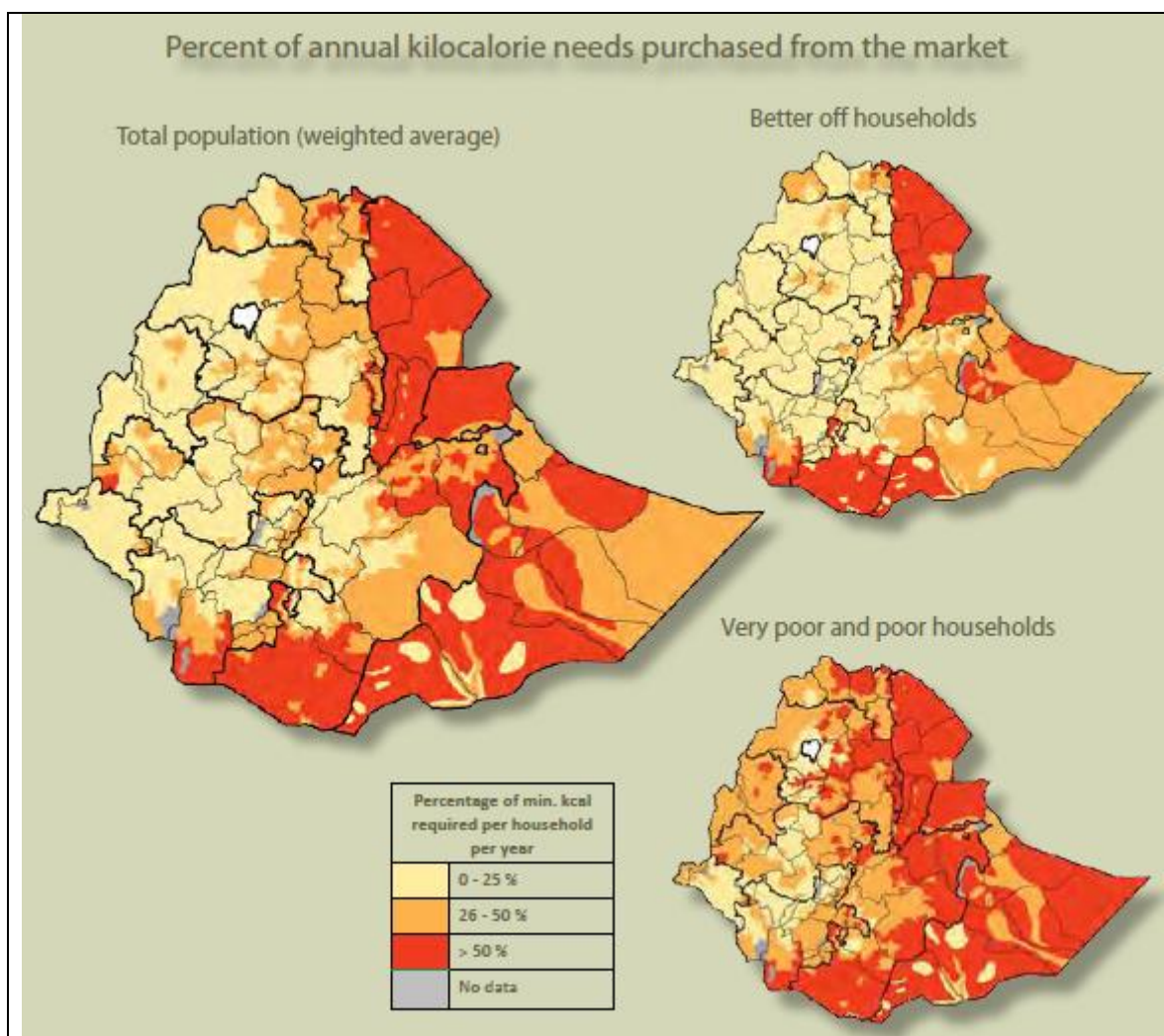
Note: The cash from livestock

In terms of cash income, what is remarkable is the extent of the cropping areas where between one-quarter and one-half of household income averaged across all wealth groups is from livestock and livestock products. But is this because of high livestock holdings? Or is it because crop income is so low that any livestock holdings become relatively valuable?

In fact, both are true depending on specific local conditions. Ethiopia covers a wide range of average livestock holdings and income as well as big differences in crop production and income – in sum a wide range in average *absolute* income.

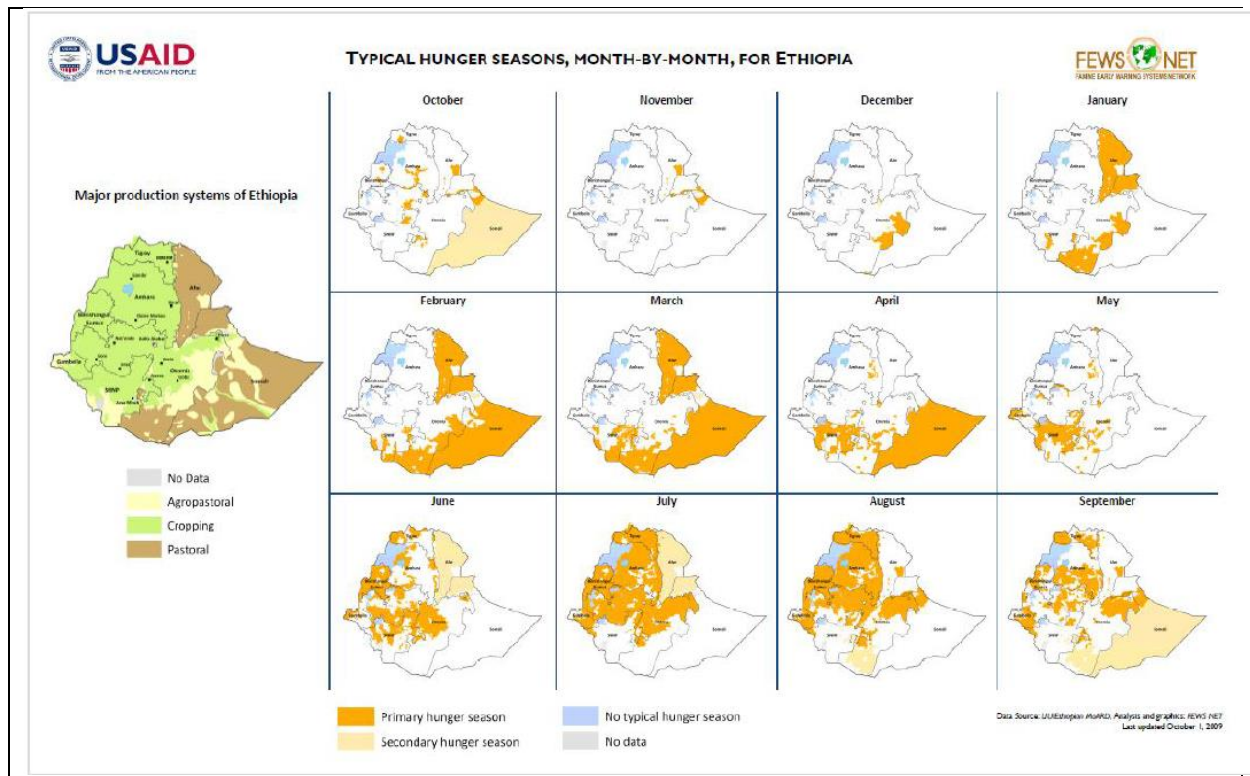
For instance, if we compare in Amhara Region the lowland cash-cropping zone in far north-west and a high mountain *belg*-dependent area in the north-east, both are in the band of 26-50% of total income from livestock. But average household cash income in the north-west is more than three times that in the north-east. (See pages 64 and 65.) The former is rich in sesame and cattle, whilst the latter has so little to sell of the barley, flax and lentils it produces that the modest sales of sheep, together with the butter made from most of the cow's milk, figure large in the annual budget.

Map 9 **How much do different households depend on the market for food?**



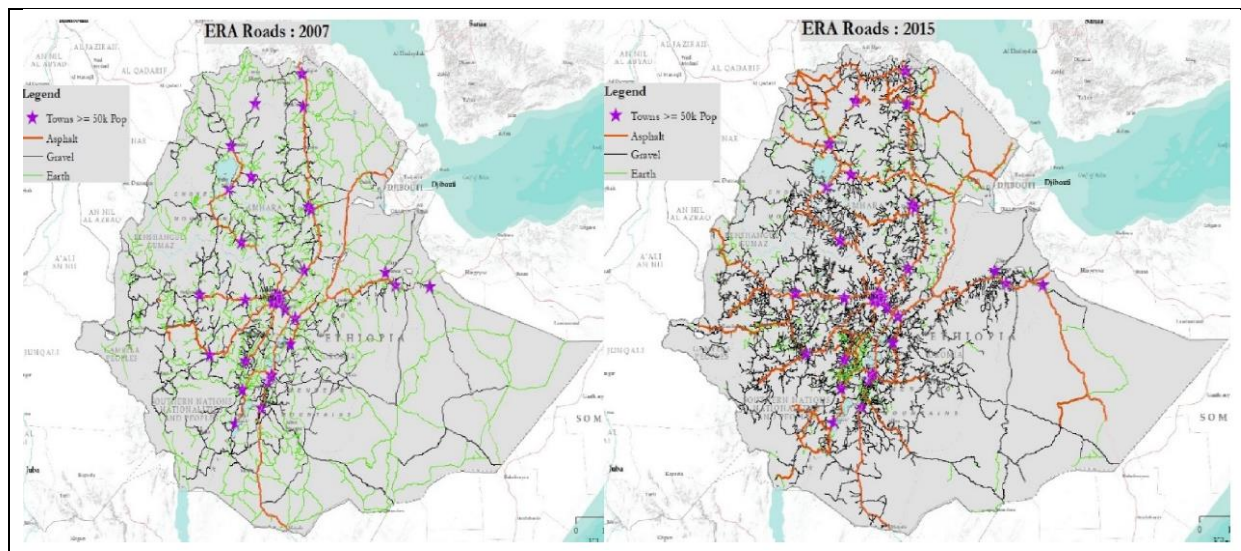
Source: Livelihoods Integration Unit, 2010

Map 10 Typical hunger seasons, month-by-month



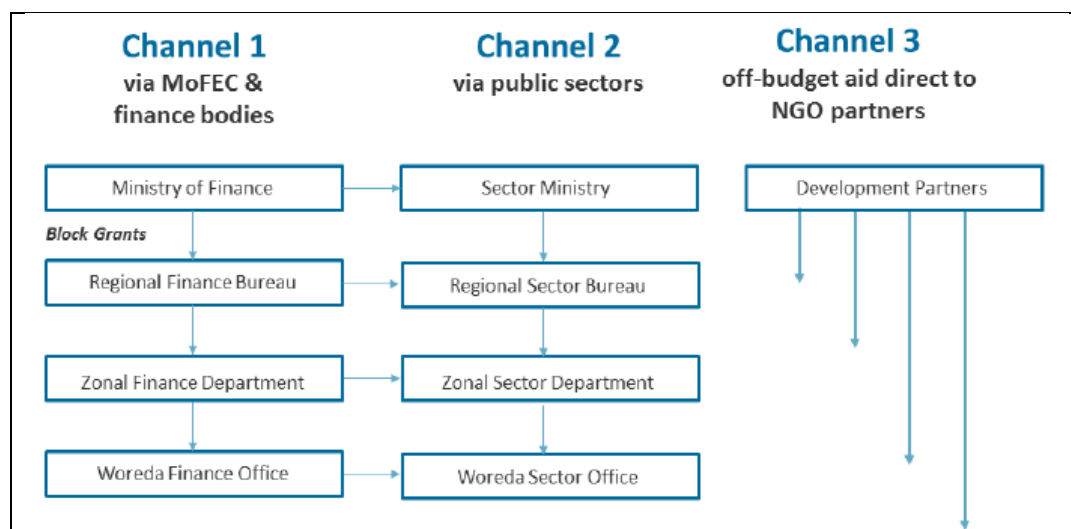
Source: reproduced from CSA & WFP, 2014 (2009 data)

Map 11 Expansion of the Roads Network 2007–2015



Annex 2 Aid Funding Channels

Figure 11 Aid funding channels in Ethiopia



Source: reproduced from GoE, undated.

Table 4 Description of aid funding channels in Ethiopia

Funding channel	Description	Examples	Implications for aid coordination
Channel 1	Funding flows are channeled through the Ministry of Finance and Economic Cooperation (MoFEC), including its regional, zonal and woreda-level subdivisions. Channel 1 funding can be categorized as 1A (non-earmarked) and 1B (earmarked).	<ul style="list-style-type: none"> » Direct budget support from a donor (Channel 1A) » PSNP and ONE WASH programs (Channel 1B) 	On-budget and managed by the government.
Channel 2	Public sector budget support and block grants. Development partners bypass MoFEC and instead disburse funds directly to sector ministries, e.g., the Ministry of Health, including its regional, zonal or woreda-level subdivisions. Channel 2 funding can be categorized as 2A (non-earmarked) or 2B (earmarked).	<ul style="list-style-type: none"> » Millennium Development Goal (MDG) Pooled Fund within the FMoH (Channel 2A) (IHP+, 2015) » Funding from UNICEF to the FMoH for specific program implementation (Channel 2B) 	Investments are government-managed, and sector ministries report funding flows to MoFEC. However, there may be risk for inconsistent reporting between sectors.
Channel 3 (off-budget)	Funding that is outside of the government financial management system. Development partners implement projects directly with non-governmental partners (i.e., funding is channeled from development partners directly to NGOs).	<ul style="list-style-type: none"> » Development partner funding channeled directly to a local NGO for implementation » USAID's direct funding to international and local NGOs for the PSNP-IV, outside of the pooled funding mechanism managed by MoFEC 	These investments are considered off-budget. In these cases, the government may have visibility into the use of funds, but only when they are reported directly by partners through public reporting systems. This is often done sectorally.

Source: reproduced from GoE, undated.

Annex 3 Federal Government Structure, as revised in 2018

Accountable Institutions (1 of 4)			New institution Change of accountability Public enterprise			
1	The Ministry of Peace	<ul style="list-style-type: none">National Information Security ServiceInformation Network Security AgencyFinance Security Information CenterFederal Police CommissionImmigration, Nationality and Vital Events AgencyImmigrants and Returnees Affairs AgencyNational Disaster Risk Management CommissionEthiopian Foreign Relations Strategic Studies Institute	4	The Ministry of Finance	<ul style="list-style-type: none">Public Enterprises Holding and Administration AgencyEthiopian Accounting and Auditing BoardPublic Procurement and Property Admin. AgencyPublic Procurement and Property Disposal Service	
	2	The Ministry of Defense	<ul style="list-style-type: none">National Defense Engineering University CollegeGafat ArmamentHomicho Ammunition EngineeringBrana Printing PressDefense Construction EnterpriseDefense Construction Design EnterpriseDefense Construction Materials Production Factory	5	The Attorney General	<ul style="list-style-type: none">Charities and Societies AgencyEthiopian Intellectual Property OfficeFederal Prisons AdministrationJustice and Legal Research and Training InstituteDocuments Authentication and Registration AgencyFederal Tax Appeal Tribunal
	3	The Ministry of Foreign Affairs	<ul style="list-style-type: none">Foreign Relations Services Training InstituteDiaspora Agency	6	Ministry of Agriculture	<ul style="list-style-type: none">Ethiopian Institute of Agricultural ResearchAgricultural Research Council SecretariatCooperatives AgencyAgricultural Transformation AgencyCoffee and Tea Development and Marketing AuthorityAgricultural TVET CollegesVeterinary Drug & Animal Feed Admin & Control Auth.National Animal Health Diagnostic and Invest. CenterNational Artificial Insemination CenterNational Institute for Control and Eradication of Tsetse Fly and TrypanosomosisNational Veterinary Institute

Study of Key Issues for Ethiopia Evaluation

7	Ministry of Trade and Industry	<ul style="list-style-type: none"> ▪ Textile Industry Development Institute ▪ Leather Industry Development Institute ▪ Metals Industry Development Institute ▪ Food Beverage and Pharma. Industry Dev. Inst. ▪ Chemical & Construction Inputs Industry Dev. Inst. ▪ Meat and Dairy Industry Development Institute ▪ Federal Small and Medium Manufacturing Industry Development Authority ▪ Ethiopian Trade Competition and Consumers Protection Authority ▪ Ethiopian Commodity Exchange Authority ▪ Ethiopian National Accreditation Office ▪ Ethiopian Standards Agency ▪ National Metrology Institute of Ethiopia ▪ Ethiopian Conformity Assessment Enterprise ▪ Industrial Inputs Development Enterprise 	9	Ministry of Transport	<ul style="list-style-type: none"> ▪ Ethiopian Civil Aviation Auth. ▪ Federal Transport Authority ▪ Maritime Affairs Authority ▪ Ethiopian Roads Authority ▪ Road Fund Office ▪ Insurance Fund Administration Agency ▪ Ethiopian Railroad Corporation ▪ Ethio-Djibouti Standard Gauge Railway Transport S.C. ▪ Public Service Transport Service Enterprise ▪ Ethiopian Toll Roads Enterprise 	Change of accountability Public enterprise
		<ul style="list-style-type: none"> ▪ Radiation Protection Authority ▪ Ethiopian Space Science and Technology Institute ▪ Ethiopian Biotechnology Institute 			<ul style="list-style-type: none"> ▪ Urban Real Property Registration and Information Agency ▪ Urban Job Opportunities Creation and Food Security Agency ▪ Integrated Infrastructure Development Coordination Agency ▪ Construction Project Management Institute ▪ Construction Works Regulatory Authority 	
8	Ministry of Innovation &		10	Ministry of Urban Dev. & Construction		

Accountable Institutions (3 of 4)					
11	The Ministry of Water, Irrigation & Energy	<ul style="list-style-type: none"> Irrigation Development Commission Water Development Commission <ul style="list-style-type: none"> Water Dev. Fund Basins Authority Great Renaissance Dam Coordination Project Office Water Technology Institute National Meteorology Agency Ethiopian Energy Authority Ethiopian Electric Power Ethiopian Electric Utility 	14	Ministry of Science & Higher Education	<ul style="list-style-type: none"> Higher Edu. Strategic Center Addis Ababa Science and Tech. Adama Science and Tech. Uni. All government universities Higher Education Relevance and Quality Agency Federal TVET Agency Federal TVET Institute
12	The Ministry of Mines & Petroleum	<ul style="list-style-type: none"> Ethiopian Geological Survey Ethiopian Rural Energy Development and Promotion Center Ethiopian Petroleum and Gas Production and Supply Corporation 	15	Ministry of Health	<ul style="list-style-type: none"> St. Peter's TB Specialized Hospital St. Paul's Hospital and Mill. Medical College St. Amanuel Mental Specialized Hospital All Africa Leprosy Tuberculosis and Rehabilitation Training Center Ethiopian Food, Medicine, and Health Care Administration and Control Authority Ethiopian Public Health Institute Pharmaceutical Supply Agency Ethiopian Health Insurance Agency National Blood Bank Services Office Armauer Hansen Research Institute Federal HIV/AIDS Prevention and Control Office
13	Ministry of Education	<ul style="list-style-type: none"> National Educational Assessment and Examination Agency Educational Materials Production and Distribution Enterprise 			
			16	Ministry of Women, Children & Youth	

New institution

Change of accountability

Public enterprise

Accountable Institutions (4 of 4)				<div> <div>New institution</div> <div>Change of accountability</div> <div>Public enterprise</div> </div>	
17	Ministry of Labor & Social Affairs	<ul style="list-style-type: none"> Private Organizations' Employees Social Security Agency 	<div>House of People's Rep'ves</div> <div>Prime Minister</div>	<ul style="list-style-type: none"> Eth. Broadcasting Authority Ethiopian Press Agency 	
18	Ministry of Culture & Tourism	<ul style="list-style-type: none"> Authority for Research and Conservation of Cultural Heritage National Archives and Library Agency National Theatre Hotels&Tourism Works Training Center Sport Commission <ul style="list-style-type: none"> Ethiopian Youth Sport Academy Athlete Tirunesh Dibaba Athletics Training Center Anti-Doping Office 		<ul style="list-style-type: none"> Ethiopian Investment Commission <ul style="list-style-type: none"> Land Bank and Development Corporation Industrial Parks Development Corporation Civil Service Commission <ul style="list-style-type: none"> Civil Service University Meles Zenawi Leadership Academy Ethiopian Kaizen Institute Ethiopian Management Institute Public Servants Social Security Agency Environment, Forest & Climate Change Comm. <ul style="list-style-type: none"> Ethiopian Biodiversity Institute Ethiopian Env. and Forest Research Institute Ethiopian Wildlife Conservation Authority Job Creation Commission Ethiopian National Bank Tourism Ethiopia Palace Administration 	
19	Ministry of Revenues	<ul style="list-style-type: none"> Customs Commission National Lottery Administration 			
20	Planning & Develop. Commission	<ul style="list-style-type: none"> Central Statistics Agency Policy Research Institute 			

Annex 4 GTP II Vision, Objectives, Pillars



GTP Vision for Ethiopia

"The main basis of GTP II is the country's vision to become a lower middle-income country by 2025. In the coming 10 years, Ethiopia's vision is to reach the level of lower middle-income countries where democracy, good governance and social justice are maintained through people's participation."

GTP Objectives

1. Maintain macroeconomic stability and achieve average real GDP growth rate of 11 percent;
2. Boost competitiveness of the domestic productive sectors in agricultural and manufacturing industries for greater structural transformation;
3. Promote further public mobilization for ownership of development outcomes; and
4. Ensure a stable democratic developmental state.

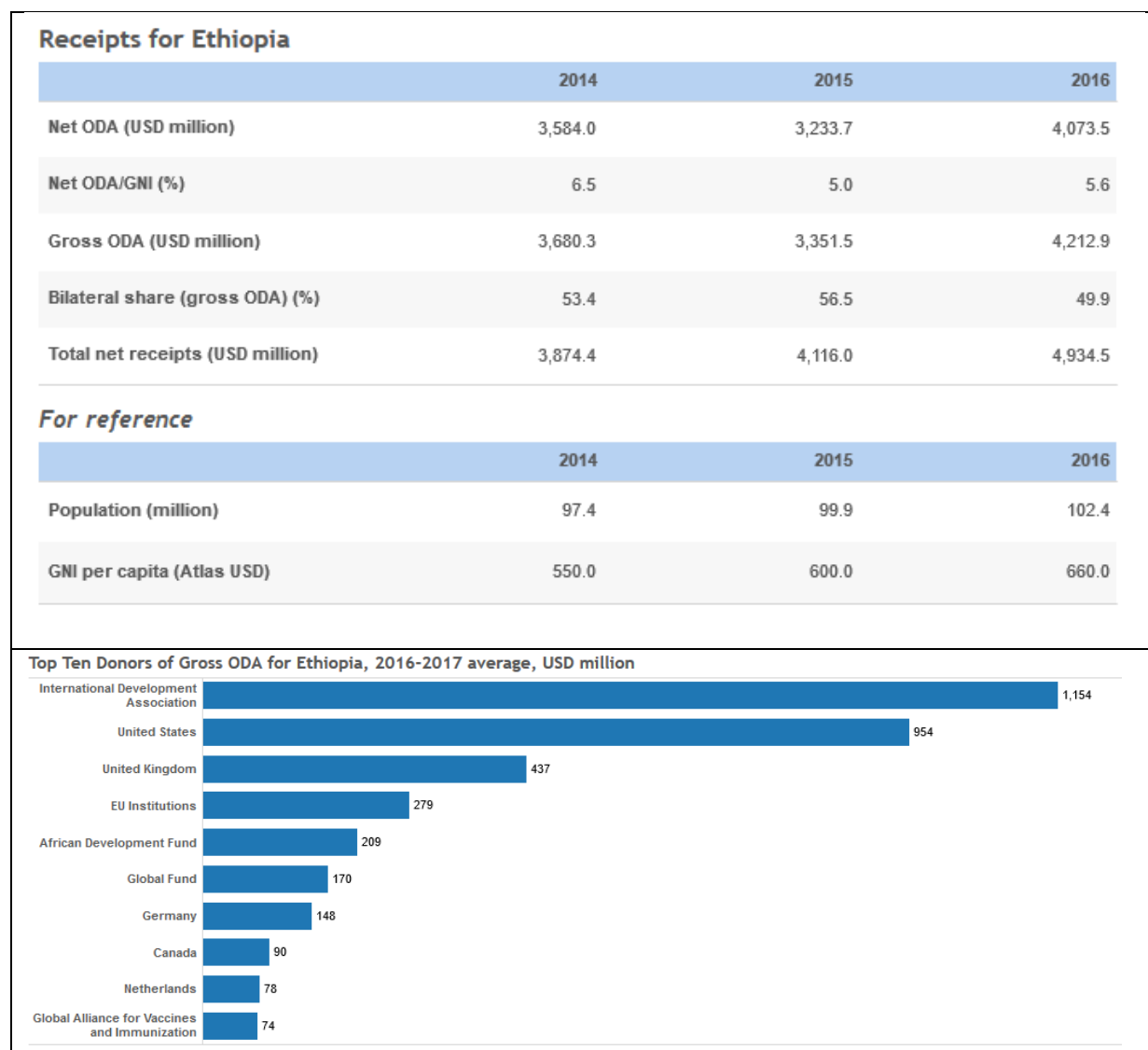
GTP Pillars

1. Sustain rapid and equitable economic growth and development;
2. Increase productivity and competitiveness of agricultural and manufacturing sectors;
3. Enhance transformation of domestic private sector;
4. Bridge infrastructure gaps through the domestic construction industry;
5. Manage urbanization as part of the structural transformation of the economy;
6. Enhance human development and sustainable technological capacity building;
7. Enhance democratic good governance and public participation;
8. Promote women and youth empowerment;
9. Build climate-resilient green economy.

Source: GoE, 2016a, as reproduced in World Bank, 2017c, p93.

Annex 5 Aid Flows

Figure 12 Ethiopia – aid at-a-glance 2015–17

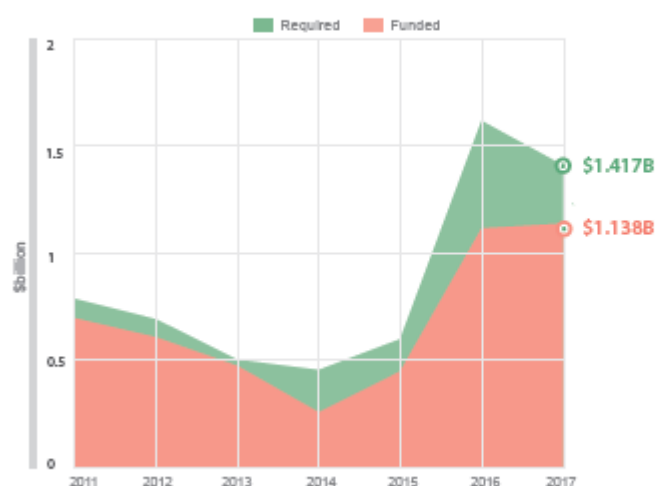


Source: OECD DAC

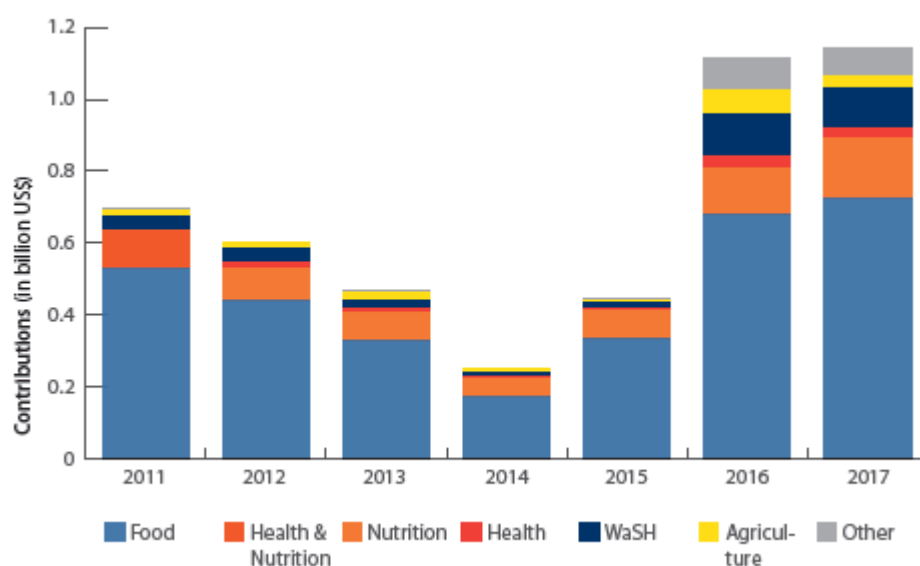
https://public.tableau.com/views/OECDACaidataglanbyrecipient_new/Recipients?:embed=y&:display_count=yes&:showTabs=y&:toolbar=no?&:showVizHome=no

Figure 13 Humanitarian Aid 2011-2017

HUMANITARIAN REQUIREMENTS AND CONTRIBUTIONS, 2011-2017

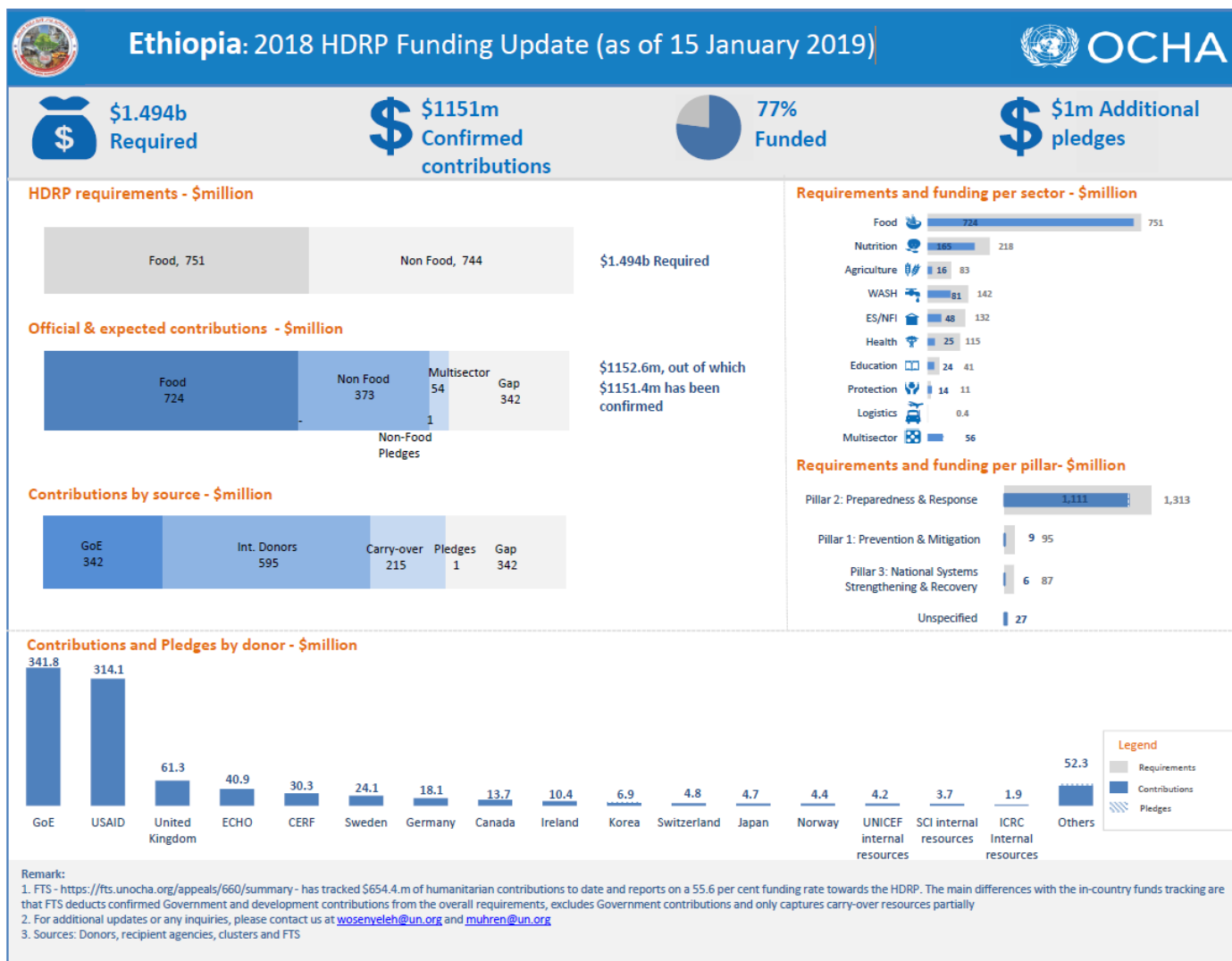


CONTRIBUTIONS TOWARDS THE HRD, BY MAIN SECTOR (2011-2017)



Source: GoE and Humanitarian Partners, 2018

Table 5 Humanitarian Funding for 2018



Source: OCHA, 2019 (Updates available at: <https://www.humanitarianresponse.info/en/operations/ethiopia>)

Annex 6 Aid Management Architecture

General aid coordination

Figure 14 DAG Working Groups Architecture (from DAG, 2017)

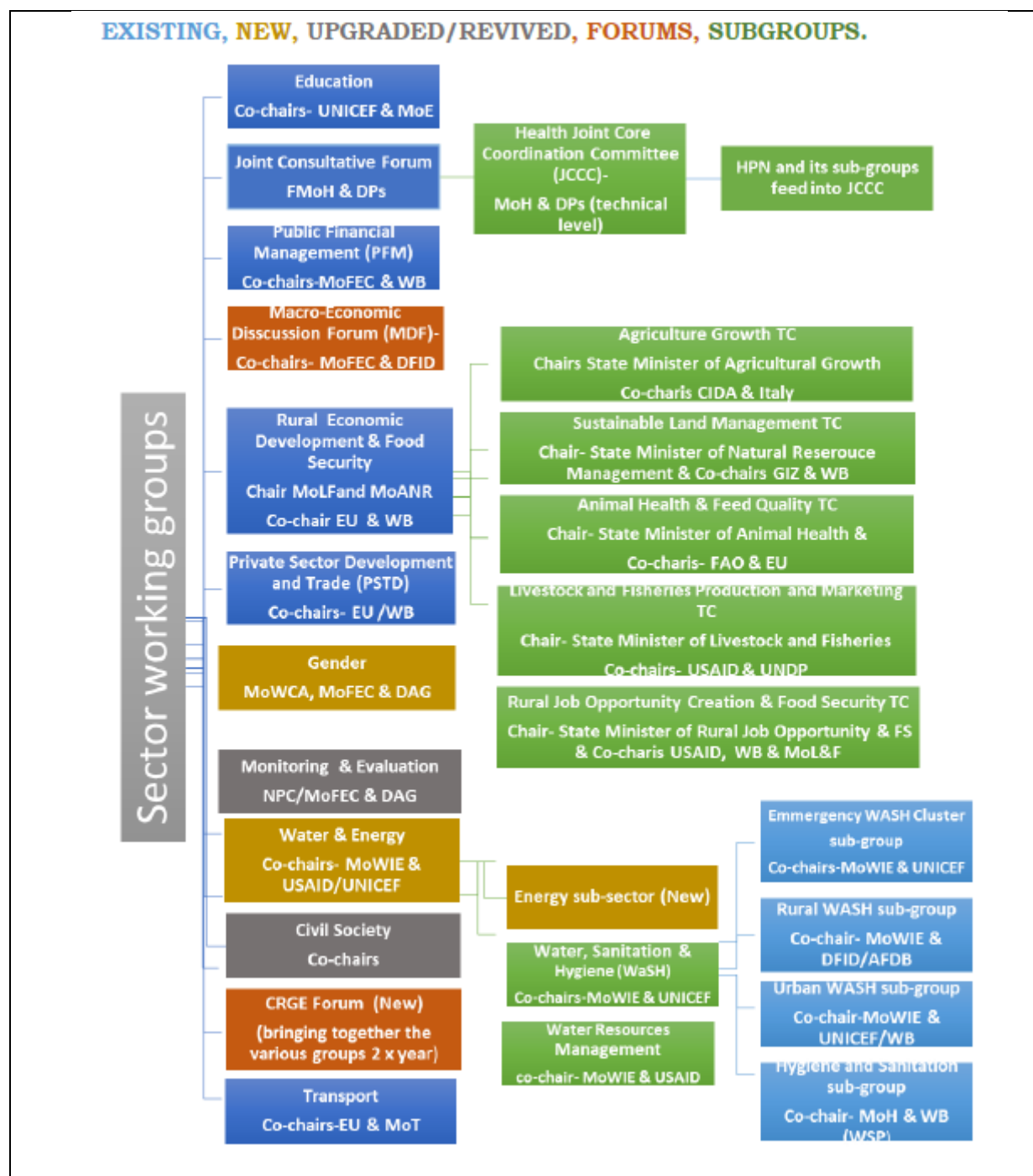
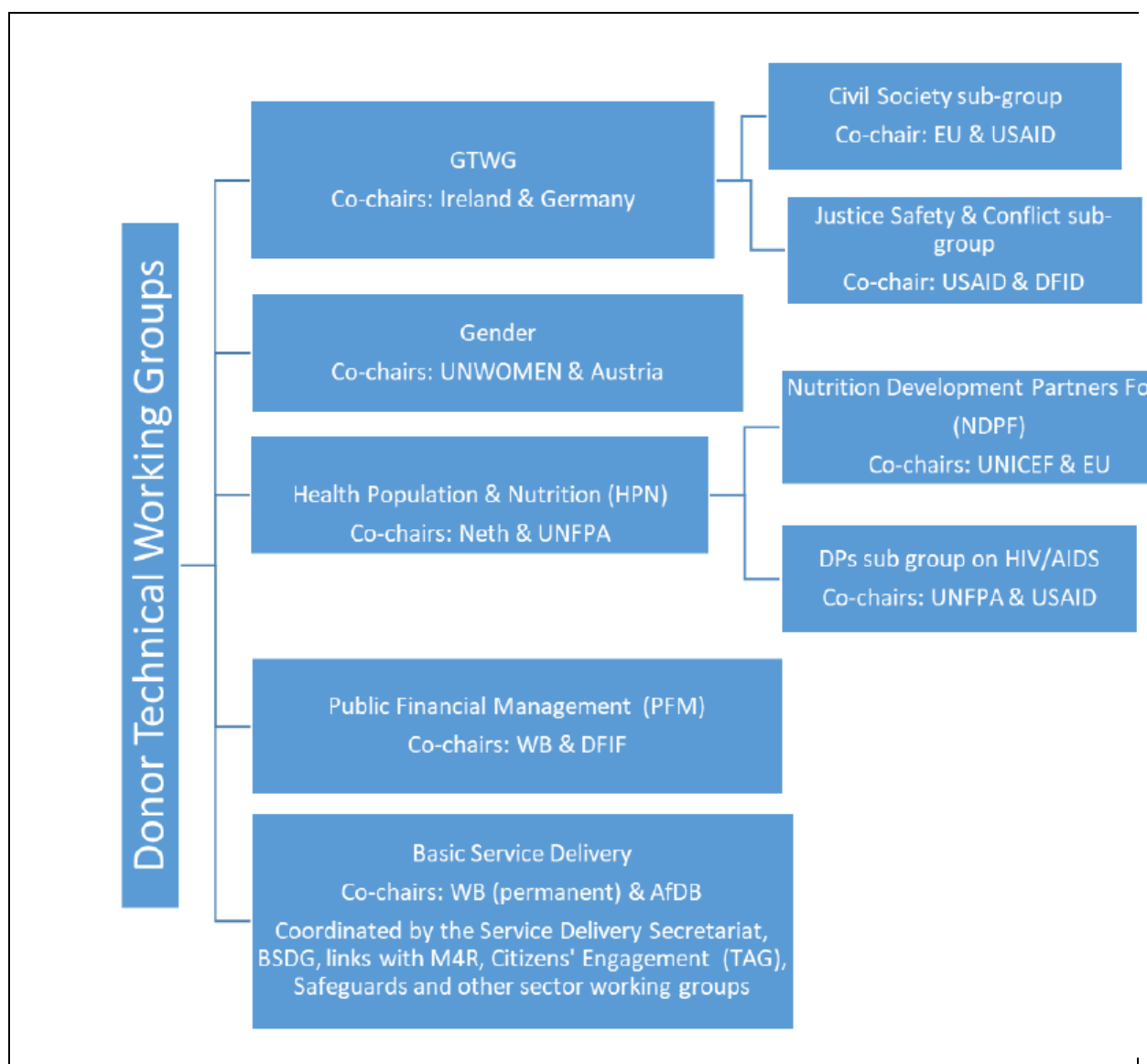


Figure 15 DAG Technical Working Groups (from DAG, 2017)

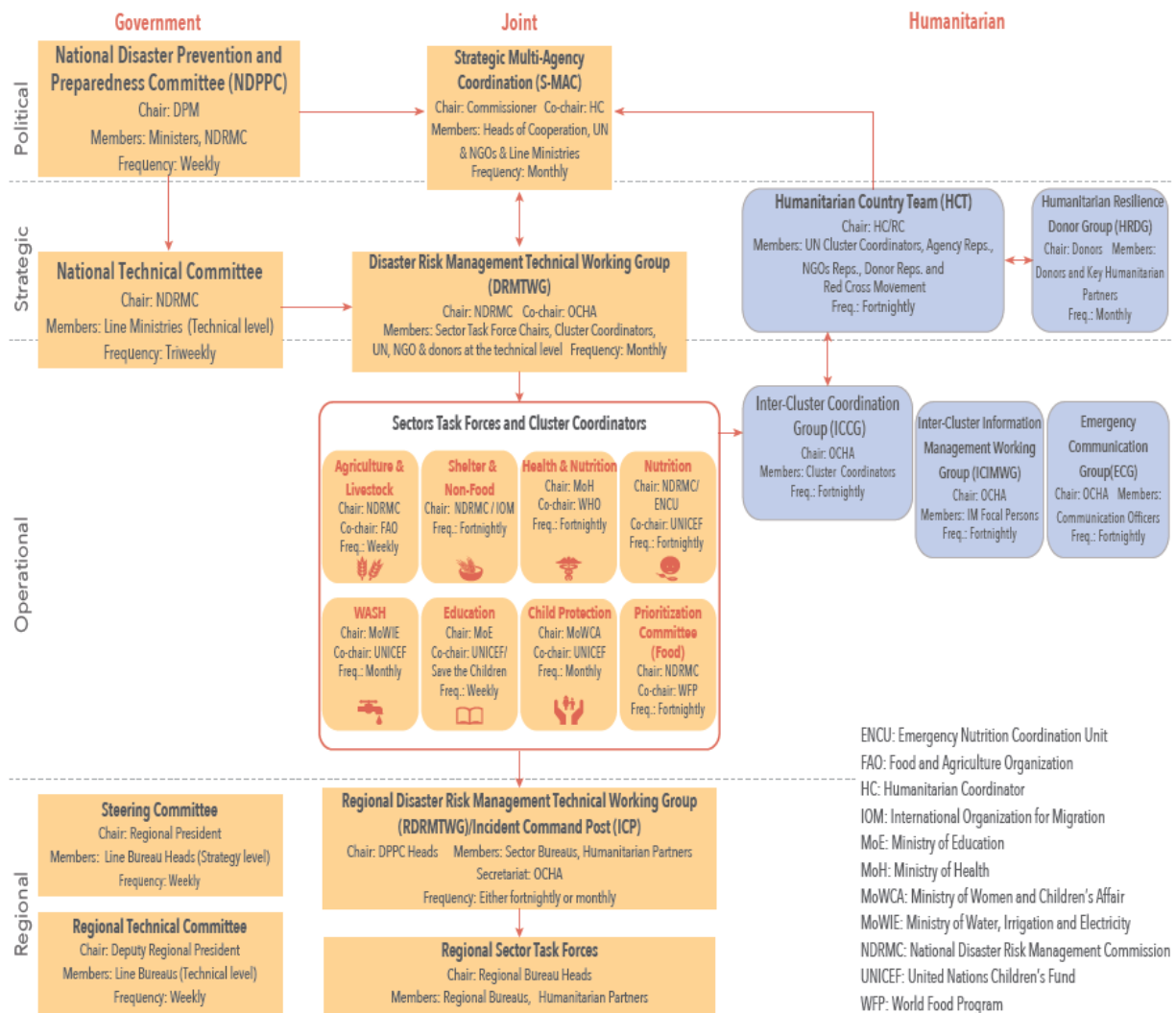


Coordination of humanitarian aid

- The overall humanitarian coordination in Ethiopia is led by the Government's National Disaster Risk Management Commission (NDRMC). The NDRMC leads federal and regional level Disaster Risk Management Technical Working Groups (DRMTWGs) and hosts a series of specialized task forces that work jointly with the cluster lead agencies. The DRMTWG is the umbrella forum that brings all actors together at the technical level, including government and donor representatives. With the development of the crisis, the Government and humanitarian partners are working to strengthen regional DRMTWGs. At a higher level, NDRMC Commissioner and the Humanitarian Coordinator co-chair a Strategic Multi-Agency Coordination (S-MAC) forum to deliberate on humanitarian response operations and address challenges (GoE and Humanitarian Partners, 2019).

- Of importance too is *The Humanitarian Requirements Document (HRD)*, which is the annual humanitarian response plan for Ethiopia, which reports the number of people in need of humanitarian assistance following food security and nutrition assessments. Budgets and supply calculations are based on the numbers provided in this document. The 2018 HRD was re-named to include resilience in the title – see GoE and Humanitarian Partners, 2018.

Figure 16 Coordination Mechanisms for Disaster Risk Management in Ethiopia



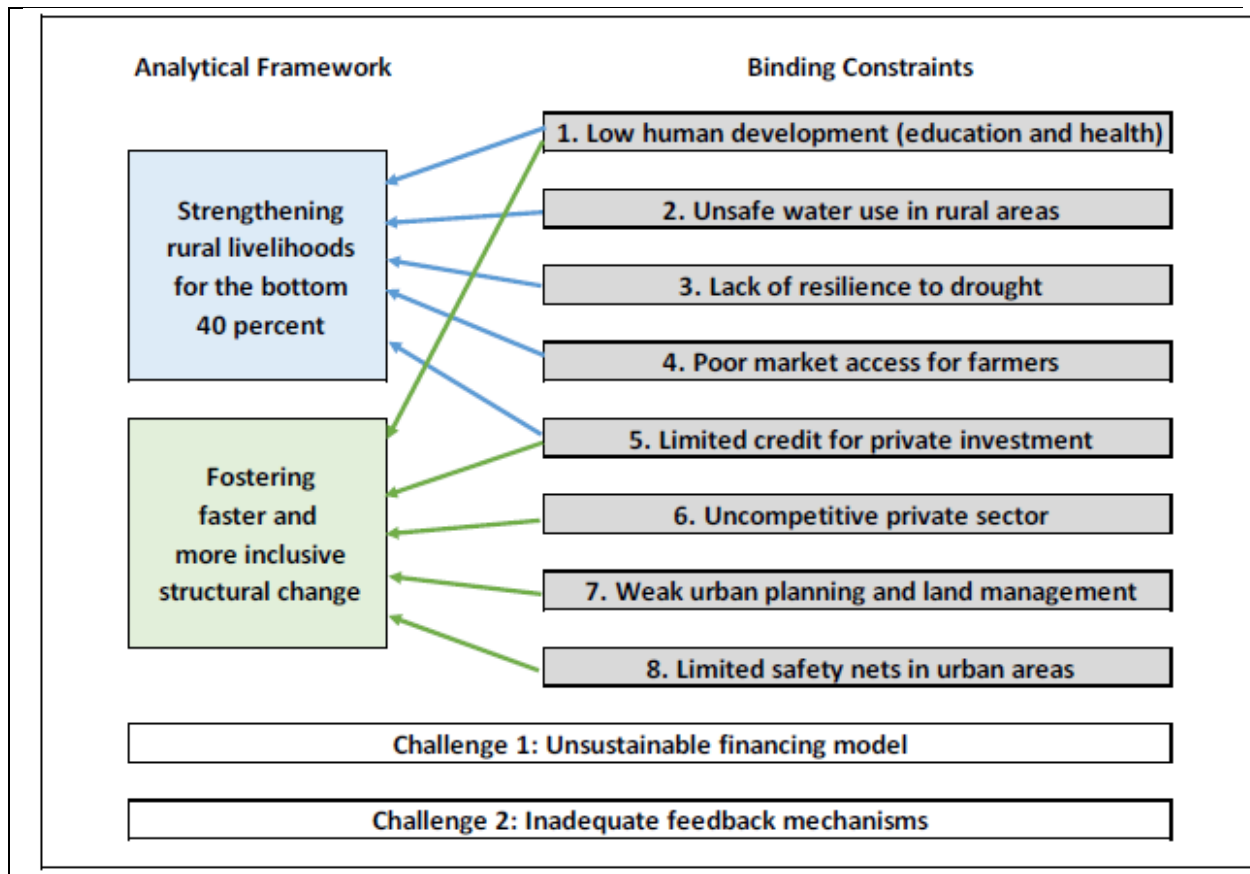
Source: GoE and Humanitarian Partners, 2017

Annex 7 World Bank analysis of binding constraints to poverty reduction

From Systematic Country Diagnostic (World Bank, 2016a – for details see pp xii–xviii)

Eight binding constraints have been identified for Ethiopia’s progress on ending extreme poverty and promoting shared prosperity.

Figure 17 Analytical framework and binding constraints



Annex 8 Second Generation Supplementary Feeding⁶⁰

1. The national nutrition programme (NNP) manages SAM treatment with delivery through the health system. However, for most of the country, programmes to address MAM and malnourished pregnant and lactating women are not delivered routinely, but are launched in response to a worsening humanitarian situation.
2. Targeted supplementary feeding/MAM treatment is usually initiated as part of the programme identified in the Humanitarian Requirements Document. The Government has a system of hotspot classification based on food security and nutrition assessments where it determines which are the highest priority woredas. This differs from most contexts as it not necessarily based on nutrition surveys that assess the malnutrition rate. Once the government has classified the woredas, interventions for MAM and pregnant and lactating women are initiated in the most severely affected, Priority 1, and often Priority 2, woredas.
3. Treatment of acute malnutrition is divided between two government departments and two UN agencies. SAM is managed through the Ministry of Health and the Health Extension Programme, supported by UNICEF. MAM and pregnant and lactating women are treated through targeted supplementary feeding programmes (TSFP) managed through the National Disaster Risk Management Commission (NDRMC) supported by WFP.
4. The mode of outreach for screening has changed over this time period. At the start of the evaluation period, the health system used the enhanced outreach strategy (EOS) approach to for screening for acute malnutrition, as well as delivery of vitamin A supplementation and deworming. This was a twice-yearly nationwide campaign, which received significant external support in terms of funding, logistics and supervision. In 2012, the Ministry of Health began to transition to community health days in more developed woredas. Through community health days, the health extension worker (HEW) is expected to visit every kebele in her catchment area every quarter. This scheme has less external support. In recent years, the MOH has been continuing the transition to routine health extension programme (HEP) where there are no stand-alone days for these services, they are integrated into broader services. HEWs are expected to conduct outreach activities on an ongoing basis and screen all children monthly.
5. Targeted Supplementary Feeding Programmes (TSFPs) are used to treat moderate acute malnutrition (MAM) in children 6-59 months and acute malnutrition in pregnant and lactating women. The majority of services are managed nationally by NDRMC and sub-nationally through Disaster Prevention and Preparedness Bureaus, with services delivered at food distribution points using a network of Food Distribution Assistants (FDAs).
6. The TSFP for Ethiopian nationals is implemented using a different model to that used in most countries. In most countries targeted supplementary feeding is delivered alongside SAM treatment to ensure continuity of care between treatment of SAM and MAM, with the child returning to the programme every two weeks for follow up and to receive more supplementary food. Efforts are being made to improve delivery in Ethiopia resulting in a number of programmes and initiatives. The different models used are described below.

⁶⁰ Drawn from Lister et al, 2018.

- a) **First Generation TSFP:** This modality was used for the majority of TSFP programming 2012-2017. This modality is managed through the NDRMC (and Disaster Prevention and Preparedness Bureaus at regional level). Programmes are usually launched in Priority 1 and sometimes Priority 2 woredas following the hotspot classification exercise. During this evaluation period, mass screening took place every three to six months depending on the region and, following this exercise, a three-month ration of supplementary food was delivered quarterly at food distribution points in the woredas. Outcomes of children and pregnant and lactating women were not followed or recorded. In 2016, developed regions moved to monthly screening. Where an NGO supported implementation during this period, screening was sometimes monthly. However, data were not available on which woredas had NGO support during the evaluation period.
 - b) **Second Generation TSFP:** To address some of the concerns surrounding First Generation TSFP and increase programme effectiveness, a pilot of delivery through the health system – "second Generation TSFP" – was launched in 44 woredas. In the Second Generation TSFP the management of moderate acute malnutrition is integrated into the health system, specifically by allowing the Health Extension Workers (HEWs) to identify and treat moderate acute malnutrition at health post alongside SAM treatment. This pilot has allowed regular screening, nutritional follow up and linking of severely malnourished children to the management of moderate acute malnutrition services upon discharge in the 44 pilot woredas of Amhara, Oromia, SNNPR and Tigray regions.
 - c) **Emergency TSFP:** In response to large-scale emergencies 2015–2017, and the recognised limitations of standard TSFP programming, the Nutrition Cluster/ Emergency Nutrition Coordination Unit (ENCU) encouraged NGO technical support for the delivery of TSFP. NGOs received funds through the Ethiopia Humanitarian Fund (EHF) or other donors for technical support for SAM and MAM and would either support transport of supplies from the government or would receive supplementary food directly from WFP. The NGO would then support the health posts to deliver both SAM and MAM treatment with TSFP operating on a monthly basis.
 - d) **Mobile health and nutrition teams:** Where malnutrition rates were high, the population was hard-to-reach and the health system was weak, integrated MAM and SAM services were delivered using mobile health and nutrition teams (MHNTs) which visit several different locations each week.
7. **Blanket supplementary feeding programme (BSFP).** This provided a supplementary ration to pregnant and lactating women and children 6-23 months regardless of nutrition status. Children 24-59 months can also be included in blanket supplementary feeding where GAM rates are thought to be above 15 percent. It has not been possible to get data on the locations where blanket supplementary feeding was used for Ethiopian nationals throughout the project period.⁶¹ It was used in 2016–2017 for three months

⁶¹ Blanket supplementary feeding interventions require additional funding and are often short term. As a result, the number of programmes frequently changed, and it would have required very effective data management to keep track of this.

instead of targeted supplementary feeding in 45 woredas. This was due to an increasing caseload of malnourished children and pregnant and lactating women and concerns over insufficient capacity to delivery high quality targeted supplementary feeding.

8. **Integrated road map for targeted supplementary feeding.** An advisory group chaired by the NDRMC and the Ministry of Health and supported by UN agencies and donors is working to integrate targeted supplementary feeding services for Ethiopian nationals into the health system, building on lessons learned and the experiences from the pilot "Second Generation" targeted supplementary feeding in the 44 woredas. The plan proposed (WFP, undated) has three delivery options:

- Integrated management of SAM and MAM services within the health system to improve the continuum of care.
- Strengthening the Mobile Health and Nutrition Team (MHNT) activities through integrating MAM services in Somali and Afar regions.
- Implementation of emergency targeted supplementary feeding services in response to sudden onset shocks and acute needs, with support from NGOs and other agencies as needed.

Annex 9 Donors active in food security, nutrition, agriculture, climate change

This annex draws on our document review to identify the main donors active in each of the sectors reviewed by this study. There is considerable overlap, since many programmes and projects straddle more than one sector, and this summary does not claim to be exhaustive

Food security

1. In addition to humanitarian aid, a substantial part of the development assistance to food security in Ethiopia is channelled through three programmes: the PSNP, the AGP, and the Sustainable Land Management Programme.

UN agencies

2. **UNOCHA** oversee humanitarian coordination in Ethiopia. OCHA works closely with the Government of Ethiopia and humanitarian partners at all levels to enhance the coherence and quality of humanitarian response. OCHA supports the Humanitarian Coordinator and humanitarian partners in operational coordination, humanitarian financing, public information, humanitarian analysis, advocacy and information management. At the federal level, OCHA is co-Chair and Secretariat to the **National Disaster Risk Management Technical Working Group** (NDRMTWG), discussed further below.

3. **WFP** play a key role in Ethiopia in supporting **humanitarian food assistance and safety-net support** to vulnerable households experiencing shocks, as well as leading the provision of food assistance for refugees. They also play a key role in technical support to government in the areas of early warning, preparedness and needs assessment. WFP food assistance programming is closely linked to the Government's system of humanitarian response and to its Productive Safety Net Programme. Under the PSNP and humanitarian food assistance, WFP provides food baskets that are in line with government guidance regarding the two systems of support. Whether supporting PSNP or GFA distributions, WFP is operating within a government-led system. WFP procure and transport food, but key programmatic and operational decisions are made by the Government at federal and woreda level. The Government also leads the needs-assessment process that results in the geographic targeting of GFA and has defined woreda level quotas for PSNP. Food distributions are also conducted by local government-employed storekeepers, with records maintained following government guidelines.

4. WFP participates in the key Government and development partner coordination forums, which are detailed further below, and they play a lead role in the food prioritisation committee within the disaster risk management coordination structures. WFP is also a member of the PSNP donor working group and participates in the various technical committees of the PSNP. WFP has been active in supporting the expansion and national ownership of long-term social-protection programmes. and has also worked with other PSNP donors to support the evolution of the PSNP into a scalable safety net programme through consolidating PSNP and humanitarian food assistance operations. (For full details on WFP see Lister et al, 2018.)

Multilaterals

5. **The World Bank** coordinates the PSNP on behalf of a donor coordination team, which is chaired by a rotation system amongst the donors and coordinates amongst development partners and Government agencies involved in the programme and unifies a pool of research and technical support for the programme. Development Partners have pooled their financing for the PSNP through a World Bank executed multi-donor trust fund. The World Bank are the largest contributor to PSNP IV. In 2016, during the El Niño crisis, the World Bank committed extra funding through the PSNP to allow the program to extend the duration of safety net support to existing beneficiaries negatively affected by the continued drought (World Bank, 2017a).

Bilaterals

6. The first development objective in **USAID's** Country Development Cooperation Strategy is 'Increased Economic Growth with Resiliency in Rural Ethiopia', which at its core includes the USAID Feed the Future Programme (USAID, 2011). This programme has three components: 1) Agricultural Growth Enabled Food Security; 2) Linking the Vulnerable to Markets; and 3) Policy and Capacity Enabler. Under this object, USAID supports the PSNP, which they are one of the top contributors to. Through their Office of Food for Peace (FFP), USAID funding to the Government's **PSNP is channelled through NGOs**. These include The Relief Society of Tigray (REST), Catholic Relief Services, Food for the Hungry, and Save the Children (World Bank, 2017a). The USA has also be a significant contributor to **humanitarian appeals**. Through FFP and OFDA, the USA has supported emergency food assistance to conflict-and drought-affected populations countrywide. This includes providing in-kind food aid to the **USAID/FFP-funded Joint Emergency Operation (JEOP)**, a consortium of NGO partners led by Catholic Relief Services (CRS). The JEOP provides food assistance to food-insecure people in the city of Dire Dawa and regions of Amhara, Oromiya, SNNP, and Tigray regions.⁶² The proportion of food assistance managed through the JEOP consortium has grown since the 2015/16 crisis, with the WFP share of the response falling (Lister et al, 2018). USAID are also a partner of WFP and have contributed in-kind food to enable WFP to reach vulnerable people in Somali. See also USAID's further support to the agricultural sector as detailed below.

7. **DFID** are providing GBP 276 million of support to the PSNP IV over five years, with DFID making public commitments to food security and cash transfer coverage in Ethiopia (DFID, 2015). A small proportion of these funds are allocated for technical assistance (GBP 5 million allocated to the PSNP Donor Coordination Team to manage analytical work and provide effective coordination to the donors who support the PSNP; GBP 2.5 million for a Capacity Development Facility; and GBP 2.2 million for DFID-managed research and technical assistance). DFID have also been a significant contributor to the humanitarian response. In 2017/2018 the **Building Resilience in Ethiopia (BRE)** programme was initiated to support the Government of Ethiopia to lead an effective and accountable humanitarian response system (DFID, 2017a). This programme has four key strands: providing technical assistance to the Government of Ethiopia to lead and deliver an effective and accountable humanitarian response; delivering food and cash to people in humanitarian

⁶² The USA has also supported WFP which leads the international response in Somali and Afar regions.

need in the most effective way; responding to emergency humanitarian needs in the most effective way; and monitoring, evaluation and learning to strengthen humanitarian delivery in Ethiopia. The programme has a value of GBP 168 million, running from 2017/18 to 2021/22. GBP 47 million of this will be provided to WFP to provide emergency food and cash. DFID's further support to the agricultural sector is detailed in the agriculture section below.

8. A primary objective of the **European Commission** in Ethiopia is to contribute to sustainable growth in the agricultural sector and to improve the food and nutrition security situation of vulnerable population groups (European Commission, 2014). This includes support to agricultural production, natural resource conservation and management and safety nets. The EC is another major contributor to the PSNP through the World Bank-managed Multi-Donor Trust Fund and **ECHO** has continued to provide humanitarian assistance to support both those devastated by drought and refugees from neighbouring countries. The RESET programme is also relevant to food security and is of special interest because of its explicit efforts to link relief to rehabilitation and development (LRRD).

9. **Canada** is a core development partner supporting the **PSNP**. From 2011 to 2015 it also supported an institutional strengthening project known as the **Safety Net Support Facility (SNSF)**, provided on-going capacity development support to federal, regional, zonal, and woreda institutions responsible for PSNP delivery. The SNSF supplied international and national expertise in adult education, organisational development, human resource management and facilitation, among others. The SNSF worked on improving the quality of PSNP training and on addressing functional capacity gaps, such as leadership, coordination, and program management. However, an assessment of capacity development for the PSNP from 2011 to 2014 identified issues with this project, stating that there was a lack of a comprehensive systematic capacity development strategy leads to costly inefficiencies (World Bank, 2017a). Canada has also funded **emergency food assistance** through support to WFP's operations. Canada's further support to the agricultural sector is detailed in the agriculture section below.

10. Smaller donors to the PSNP include the **Netherlands, Ireland** and **Denmark**. **Irish Aid** actively engaged in the design of the current phase of the PSNP. Irish Aid also supported the pilot of cash transfer modalities for labour-constrained households in the PSNP. With UNICEF, Irish Aid co-funded the **Integrated Nutrition and Social Cash Transfer (IN-SCT) Pilot** in Ethiopia (Roelen et al, 2017). **Denmark** has made several contributions to the PSNP since 2010. Denmark has actively engaged in partnerships with Government and other donors to promote Danish priorities beyond traditional food security within the overall scope of the programme. These include priorities such as family planning, gender mainstreaming, and climate smart solutions.

NGOs

11. The JEOP consortium (cf. ¶6 above) is an emergency free food distribution program targeting transitory or acute food insecure households in USAID approved woredas (districts) through a beneficiary targeting process led by the Government of Ethiopia. CRS are the lead consortium member of the JEOP and a key NGO implementing partner for PSNP. The EU RESET programme also works with various NGOs.

12. Other international NGOs active in Ethiopia include Farm Africa, SOS Sahel, CARE etc.

Nutrition

13. Nutrition is a priority focus of a number of external stakeholders, supporting nutrition-specific as well as nutrition sensitive interventions, as well as influencing nutrition policy and strategy alongside programme design.

14. The **Scaling Up Nutrition Movement (SUN)** in Ethiopia is convened by the UK Department for International Development (DFID) and GoE. The EU has made nutrition a special area for coordination among the EU+ group (European Commission, 2015).

15. A snapshot of nutrition financing to Ethiopia was prepared for fiscal years 2013/2014 and 2014/2015 with support from R4D and CIFF, but it is not known if this has been updated since (see GoE, undated).

UN

16. Amongst **UN Agencies**, **UNICEF** and **WFP** have played an important role in supporting nutrition interventions as well as supporting government coordination.

- **UNICEF**, alongside WHO, supports the MoH to strengthen the overall health system and to provide quality and timely treatment for SAM as well as key preventative interventions. UNICEF is the lead agency of the Nutrition Cluster and supports the ENCU within the NDRMC. It is also part of the Hotspot Technical Working Group (HTWG).
- **WFP's** nutrition programme predominantly focuses on supporting the NDRMC in humanitarian response through targeted supplementary feeding for the treatment of moderate acute malnutrition (MAM) in children and all acute malnutrition in pregnant and lactating women. The majority of this programme forms part of humanitarian response as indicated in the Humanitarian Requirements Documents. WFP provides specialised nutrition products and some capacity-building support to the Government to deliver these services. In areas where the government system is weak and malnutrition rates are very high, WFP has contributed to financing operational costs for NGOs to provide this support. WFP also operates Second Generation targeted supplementary feeding through the health system in 44 food insecurity woredas in that health systems that are strong enough to integrate targeted supplementary feeding services. This supports the Ministry of Health National Nutrition Programme as well as the Humanitarian Requirements Document (Lister et al, 2018).
- **WFP** also supports the Ethiopia Government's nutrition programme for and focuses on prevention and treatment of acute malnutrition through targeted and blanket supplementary feeding with provision of specialised nutrition products to partners to deliver these services.

17. The whole humanitarian relief structure is significant: **UNOCHA**, strengthens and coordinates humanitarian preparedness and response throughout the country, including for nutrition interventions. **UNHCR** is the lead agency for refugees in Ethiopia, with

responsibilities for supplementary feeding in refugee camps. (See food security section above.)

Bilateral

18. In terms of **bilateral support** some of the key donors include DFID, USAID, Canada, ECHO (and the EU) and Japan.

19. Ethiopia was the largest recipient of **DFID** nutrition Overseas Development Assistance (ODA) in 2015, receiving US\$227 million. In 2015, both nutrition-specific and nutrition-sensitive spending were greater in Ethiopia than any other country and continue to be an important area of investment (MQSUN, 2017). A significant proportion of DFID funding is channelled through the Productive Safety Net Programme (see SECTION) as well as through provision of emergency response (for example support to the WFP emergency response project). DFID also funded '**Accelerating reductions in under nutrition in Ethiopia**' (2013-2018).⁶³ which is aimed to improve health and nutrition outcomes in Ethiopia through improved service coverage and capacity strengthening within the Government. In 2015/16, the value of DFID's investment in this programme peaked with a total spend of over GBP21.5 million – with a scale up of CMAM coverage in particular, in response to the drought (DFID, 2018b).

20. **USAID** provides technical assistance in developing national policy, programmes, guidelines and institutional capacity to monitor undernourished populations. Through their Feed the Future initiative, Empowering New Generations to Improve Nutrition and Economic Opportunities (ENGINE) is a multi-sector response aimed at improving nutritional status of women, young children and adolescents (e.g. through provision of seeds and poultry/small livestock, alongside nutrition education). ENGINE is integrated to support the Government in delivering the NNP.

21. The **European Union** has a core focus on nutrition – with a Roadmap for EU+ programming on nutrition to support the implementation of the NNP II (See European Commission, 2015). The Nutrition Implementation Plan for 2014–2020 lays out plans to focus on sustainable agriculture and food security (EUR240 million) and health (EUR200 million). Between 2014-2017, funding channelled through the **European Development Fund (EDF)** focuses on integrating nutrition services, supporting agricultural growth as well as supporting the PSNP. Funding channelled through **ECHO** – focused on lifesaving interventions (food aid), including the detection and treatment of malnourished children. Key programmes include the Supporting the Horn of Africa's Resilience (SHARE) initiative, aimed at increasing nutrition services through the Integrated Nutrition Services component – contributing to household nutrition and dietary diversity (through nutrition-specific interventions, implemented by UNICEF) and nutrition-sensitive agriculture (implemented by FAO and MoA) (Alliance2015, 2018).

22. **Canada** supports nutrition programming in Ethiopia as one of their main objectives, including funding **Nutrition International's** programme to improve Infant and Young Child Feeding (IYCF) education for caregivers (Government of Canada, 2017). More recently,

⁶³ UNICEF was the main implementing partner, with Save the Children, GAIN, and Nutrition International amongst others 'downstream' implementing partners.

Canada partnered with UNICEF to improve nutritional status of adolescent girls (UNICEF, 2018).

23. **Japan** has supported UNICEF in providing nutrition support to drought affected populations in Somali region (UNICEF, 2017).

Other organisations

24. There are a number of **non-governmental organisations** which are delivering nutrition-sensitive and nutrition-specific interventions.

- **Save the Children** is a key organisation in delivering nutrition, including through emergency response. Alongside others, they are implementing the Growth through Nutrition (2016-2021) multi-sector nutrition project (ENGINE) (funded by USAID's Feed the Future) (Save the Children Ethiopia, no date). They are delivering the Integrated approach to Improved Maternal and Child Health and Nutrition Status' in Afar and Amhara region (funded by the Canadian Government) as well as the Peace and Development' Programme in the Somali Region (funded by DFID) (Save the Children, 2017). They provide Emergency Health and Nutrition, including responding to the El Niño drought, providing support (food, water, essential services) to one-third of the 9.7 million people suffering from malnutrition (Save the Children Ethiopia, no date). Save the Children also provided technical and financial support to the development of the NFP.
- **Save the Children, Action Contre la Faim** and **GOAL** all have field level agreements with WFP for TSF products. The **International Rescue Committee (IRC)** are the consortium lead for USAID financing for NGO TSF in Ethiopia.
- **Nutrition International** (formerly the Micronutrient Initiative) is supporting IYCF (working with 6 to 23-month old children), providing micronutrient powders, complemented by local foods. Support is also provided to the MoH to provide vitamin A distribution at health facilities, as well as to enforce salt iodisation and assist with micro-fortification of staple foods (Nutrition International, 2018).
- The **Global Alliance for Improved Nutrition (GAIN)** has been mainly supporting the Universal Salt Iodization Partnership Project, with UNICEF, since 2008. However, GAIN has also supported the government through fortification of wheat flour and oil, supporting fortification standards, as well as capacity building and building quality control systems (GAIN, no date).
- The **Children's Investment Fund Foundation (CIFF)** is supporting a number of nutrition-related initiatives, including a programme to test innovations for improving maternal, new-born and child health and to scale-up evidence-based interventions through the HEP. The programme has been delivered with the MoH since 2013. It is linked to the **African Development Bank** Sustainable Undernutrition Reduction in Ethiopia (SURE!) programme which is a government-led multi-sectoral programme to improve nutrition outcomes, focusing on health and agriculture, implemented by the MoH and the MoA. It aims to reduce childhood stunting through the promotion of complementary feeding, enhanced community-based nutrition, systems

strengthening, and developing coordination (see <https://ciff.org/grant-portfolio/ethiopia-stunting-prevention/>).

Agriculture

UN organisations

25. Pillar One of the **UNDAF** is 'Inclusive Growth and Structural Transformation', of which Outcome One is 'By 2020 Ethiopia will achieve increasingly robust and inclusive growth in agricultural production and productivity and increased commercialisation of the agricultural sector.' Under this outcome the UN are working with the relevant Government and other partners to strengthen the capacities of farmers and agro-pastoralists to adopt innovative farming techniques and inputs for increased production and productivity (UNDAF, 2016).

26. **FAO** support the transformation of agriculture, livestock and natural resource management sectors in Ethiopia. Priority One of their Country Programming Framework focuses on improved crop production, productivity and commercialisation through: crop diversification and intensification; promotion of nutrition-sensitive agriculture; promotion of value chain and agribusiness development and reduction of postharvest losses; and promotion of climate-smart agriculture. Much of their work focuses on policy and strategy engagement and development, as well as capacity strengthening. (FAO, 2015a)

27. **IFAD's** country programme in Ethiopia has two main objectives: improved resilience and productivity of ecosystems and livelihoods through improved management of natural resources, particularly water; and expanded linkages with the private sector to ensure increased and sustained access to markets, finance and agricultural technology. As part of the second objective, IFAD finance the Government of Ethiopia's '**Participatory Small-scale Irrigation Development Programme Phase II (PASIDP II)**', which aims to improve income and food security of rural households on a sustainable basis. The programme involves the development of about 18,400 hectares of small-scale irrigation schemes in four regions: Amhara, Oromia, Tigray and the Southern Nations, Nationalities and People's Region (IFAD, 2016b).

Multilaterals

28. The **World Bank** are key stakeholders in the agriculture sector. In the World Bank Country Partnership Framework (CPF) FY18-FY22, there is a focus on improving agricultural productivity and commercialisation under Focus Area 1 'Promote structural and Economic Transformation through Increased Productivity' (World Bank, 2017c). The World Bank has allocated USD 350 million to the **AGP II**, with the required funding for the whole programme estimated at USD 581.8 million. The World Bank manage the MDTF which channels significant resources for implementation support and enhanced supervision of AGP2 (World Bank, 2015b). The World Bank also contribute significantly to the **SLMP II** and manage a trust fund to channel the contribution from the Government of Norway to the programme (World Bank, 2013).

29. The **World Bank** has also led the multi-donor **PBS** (Promoting Basic Services) programme and its sequel (**ESPES** – Enhancing Shared Prosperity through Equitable

Services). Both have supported basic services delivered at woreda level, which includes funding for the Development Agents (DAs) who deliver agricultural extension services.

30. Agriculture forms a component of the **African Development Bank's** (AfDB's) Country Strategic Paper in Ethiopia, focusing on agro-industrial value chains. The Bank's support to agriculture in Ethiopia has decreased over time due to implementation issues (AfDB, 2016).

Bilaterals

31. **USAID** is one of a group of development partners supporting the **AGP II** through pooled financing. However, the majority of USAID's support is parallel financing of a sub-component, which aims to increase small scale farmer market access, market efficiency, and value adding products and services along selected value chains (World Bank, 2015b). Through the **Feed the Future Programme** (The U.S. Government's global hunger and food security initiative), the US also support sustainable production and market systems. This involves: supporting technologies and better farming and livestock management; supporting improved natural resource management; strengthening the linkages between rural producers, including smallholders and markets; promoting the growth of private sector input retailers and service providers (including animal health services); supporting improvements in land tenure and use policies; and providing livelihoods diversification investments for smallholder farmers (Feed the Future, 2018).

32. The **United States Department of Agriculture (USDA)** also fund the **Feed Enhancement for Ethiopian Development (FEED)** Project, which focuses on creating new and market-driven business opportunities for Ethiopian feed producers, including small and large operations. This project is implemented by **ACDI/VOCA** (SDA, 2017).

33. **The UK Department for International Development (DFID)** provide support to the **Private Enterprise Programme Ethiopia 2013-2020 (PEPE)**, which facilitates agro-industrial growth and enables access to finance. This involves strengthening market systems in three priority sectors of the Government of Ethiopia (cotton, textile and apparel; leather and livestock; and fruits and vegetables) (DAI, 2019). DFID also fund the **Land Investment for Transformation (LIFT) Programme (2013-2020)**, which supports the Government of Ethiopia's efforts for rural land certification to drive investment and increase productive land use. LIFT aims to enhance economic growth through second level land certification, improved rural land administration, and improving farmers access to rural markets (land rental, access to finance and agriculture) (BEAM Exchange, 2019; DFID, 2014, DFID, 2017b).

34. **Canada** is an important contributor to the **AGP II** (World Bank, 2015b). Canada provides financing through the World Bank pooled fund for the programme. Canada also provides parallel financing for the **Capacity Development Support Facility (CDSF)**. The CDSF provides technical support to all human capacity development, throughout the AGP II in order to improve the quality of capacity development interventions and strengthen the institutional capacity of Implementation Agencies such as the Ethiopian Institute for Agriculture Research (EIAR) and soil fertility laboratories. Canada also co-finance a **Small Scale Irrigation (SSI) Technical Assistance Project** in Ethiopia, which is aligned with the sub-component of AGP II that focuses on capacity building under 'Small Scale Irrigation

Infrastructure Development and Improvement'. In addition, Canada is an important contributor to the 2012 G8 New Alliance for Food Security and Nutrition (G8, 2012; Government of Canada, 2017).

35. **The Netherlands** is another key development partner supporting the **AGP II**, through which development partners have pooled their financing and agreed to provide a unified pool of technical advice and analytical work in support of this programme led by the Government of Ethiopia (World Bank, 2015b). Along with contributions to the PSNP, the Dutch support to the AGP is the largest part of their delegated budget for food security programming in Ethiopia. The Dutch also finance the Capacity Building for scaling up of evidence based best practices in agricultural production in Ethiopia (**CASCAPE**) project. CASCAPE aims at improving agricultural productivity through promoting evidence based best fit agricultural practices. A key component of AGP II is supporting the scaling up of "best" practices of agricultural technologies and management practices in agricultural production and post-harvest activities. This component of AGP II is aligned to the CASCAPE project and also receives additional support through the project (World Bank, 2015b). It was noted in the 2017 evaluation of the Dutch Food Security Programme that the link between CASCAPE and AGP did not materialise as envisaged during 2012-2015 and there are efforts to improve this as these projects have entered their second phase (Sørensen et al, 2017). Canada and the Netherlands also co-finance a **Small Scale Irrigation (SSI) Technical Assistance Project**, which is again aligned with the sub-component of AGP II that focuses on capacity building under 'Small Scale Irrigation Infrastructure Development and Improvement'. Coordination between CASCAPE, SSI Technical Assistance, and AGP II is under the Technical Committee for Agriculture Growth of the Rural Economic Development and Food Security Sector Working Group (RED&FS), which are detailed more below (World Bank, 2015b).

36. The CASCAPE Project is part of the Bilateral Ethiopian Netherlands Effort for Food, Income and Trade (2016 -2019) (**BENEFIT**) partnership in Ethiopia, which aims to stimulate synergy and collaboration between projects and to improve efficiency. This partnership, led by Wageningen University and Research Centre, unites five agricultural development projects: Integrated Seed Sector Development Ethiopia (**ISSD**), **CASCAPE**, Ethiopia-Netherlands Trade for Agricultural Growth (**ENTAG**), the **REALISE** programme (Realising Sustainable Agricultural Livelihood Security in Ethiopia), and the Sesame Business Network support project (**SBN**). BENEFIT aims to increased quantity and quality of sustainable agricultural production; improve markets and trade; and strengthen an enabling institutional environment for the agricultural sector (Wageningen, undated).

37. The Dutch also provide support to **agribusiness**, generally focusing on high value crops or food items. These include support to: dairy (Enhancing Dairy Sector Growth in Ethiopia (**EDGET**)), agri-business promotion (Agri-Business Support Facility (**ABSF**)); horticulture and floriculture (Horticulture Development Programme (**HDP**)); apiculture (Apiculture Scaling-up Programme for Income and Rural Employment (**ASPIRE**)); and market-based innovations of agricultural value chains (Food Security and Rural Entrepreneur Fund (**FSREF**)) (Sørensen et al, 2017).

38. **Finland** has supported sustainable development and employment in the Amhara region through the bilateral agricultural value development project, **AgroBIG**. The project supports irrigation development and agro-processing, both priorities for the Government of

Ethiopia in GTP II. AgroBIG aims to provide decent and sustainable agriculture-based livelihoods to people in rural Amhara. The pilot phase of the AgroBIG project, which ended in 2016, focused on the value chains of onions, potatoes, rice and maize and improved farmers' income, as well as enlarging the livelihood basis in rural Amhara. The second phase, began in 2017, supporting a larger variety of value chains in an increasingly market-led drive (AgroBIG, 2017). Finland also fund a land management and registration project 'Responsible and Innovative Land Management Project (REILA) 2017-2021' in Ethiopia. This supports Ethiopia's Ministry of Agriculture and Natural Resources in increasing land tenure security for farmers (Mokoro 2016).

39. **Norway** provided funding for the **SLMP** through a World Bank Trust Fund. Part of this contribution provided technical assistance to the Ministry of Agriculture to augment their capacity in watershed management, climate smart agriculture and sustainable land and water management (World Bank, 2013).

Climate change

40. Climate change adaptation often features within other sector projects; efforts to make the PSNP climate smart are an example, see Lind et al, 2015. The paper by Echeverría & Terton, 2016 (prepared under the auspices of the IDRC) was a much more detailed review than it has been possible to include within the present exercise.

41. The CRGE initiative is government-led, however the private sector and civil society organisations have become increasingly involved in its implementation since 2011 (Colvin and Mukute, 2016). The number of adaptation projects has been relatively high in Ethiopia since around 2011, compared to other countries in the region. Many projects focus on the agricultural sector (see agriculture section), whilst a number work to build the capacity of government to facilitate adaptation to climate change (Hove et al, 2011). Further, with the expansion of disaster risk management programming, there are a number of interventions which bring together 'resilience'.

UN Agencies

42. **UNDP** plays a key role in Ethiopia in policy and advocacy on environmental issues including climate change. UNDP's focus on building national capacity has involved supporting Ethiopia's key development strategies, including the CRGE Strategy. Pillar two of the UNDP Country Programme 2016–2020 'Climate Change and Resilience-building' focuses on UNDP's upstream and downstream support for the implementation of the CRGE Strategy (UNDP, 2015). UNDP also partner with the African Development Bank, United Nations Economic Commission for Africa, the Global Environment Facility (GEF) and the World Bank to support the Government in enhancing the national network for profiling risk and sharing climate information and in strengthening the early warning and response system.

43. **FAO's** third priority in their Country Programming Framework for Ethiopia 2016-2010 focuses on sustainable natural resource management and improved livelihood resilience to threats and disaster. This includes promotion of climate-smart agriculture, the development and strengthening of natural resource management, information systems, including irrigation, land use, soils and water resources databases, and the creation of national and regional levels capacity for the development and implementation of climate change

adaptation and mitigation strategies. Ethiopia is also a focus country for the regional FAO initiative on **Building Resilience in Africa's Dry lands**, which aims to strengthen institutional capacity for resilience through, for example, supporting early warning and information management systems (FAO, 2015a).

44. **WFP's** portfolio includes providing support to the Government's Productive Safety Net Programme (PSNP); programmes that include drought insurance; programming on improved community natural resource management; and programmes that support livelihood diversification (Lister et al, 2018).

45. **The Rural Resilience Initiative (R4)** is a collaboration between WFP and Oxfam, piloting an approach that links climate insurance to public works. The programme has four broad components: a disaster risk management component with labour intensive public works addressing some of the underlying causes of food insecurity; a crop insurance component which allows eligible farmers to insure a proportion of their crop production against the risk of drought; a savings component which encourages participating farmers to regularly save; and a credit, financial literacy and business development component, which enables farmers to invest in future production and livelihood diversification.

46. A new programme for WFP is the **Satellite Index Insurance for Pastoralists in Ethiopia (SIIPE) programme** which is a pilot project that aims to test the use of livestock insurance linked with the Productive Safety Net Programme. The regional government is the policy holder for the insurance, with pay-outs being directed to pastoralist households, already benefiting from the PSNP who have livestock equivalent to five tropical livestock units. The programme is financed by Sida and the Swiss Development Cooperation

Multilaterals

47. The **World Bank** Country Partnership Framework includes operations that address natural resource management and aim to build resilience to climate shocks. The energy operations ensure clean energy and are designed to be climate friendly.

48. The **AfDB's** most recent country strategy gave more attention to climate change, through providing support to green growth by focusing on the agriculture, forestry, transport and renewable energy sectors. The Bank are also providing support to the government in developing carbon accounting rules and understanding and modelling climate resilience and vulnerability at sector levels. However, support up until 2016 had been relatively limited – provided through two grants to support renewable energy and multinational power projects to reduce emissions (AfDB, 2016).

Bilaterals

49. Climate change is a significant component of the **USAID** portfolio, with a focus on climate proof project planning and implementation that improves access to science and analysis for decision-making, effective governance systems, and identifies and disseminates actions that reduce long-term vulnerability to climate change (USAID, 2011). USAID recently published the USAID Climate Change Adaptation Thought Leadership and Assessment (ATLAS) to provide guidance to the Food for Peace (FFP) program in Ethiopia aimed at identifying and prioritising climate risk and developing interventions that effectively address food security in light of climate risk. USAID Fund **GRAD** (Graduation with Resilience to

Achieve Sustainable Development), a CARE-led consortium aiming to move households towards graduation from PSNP, through climate-resilient approaches to diversify their livelihoods, build assets and link to financial services and markets.

50. A key focus of **DFID** in Ethiopia is 'building resilience to crises', ensuring that Ethiopians are able to withstand climate shocks (DFID, 2018a).

51. **EU** support resilience programming in Ethiopia, largely through NGOs. The Supporting Horn of Africa Resilience (SHARE) initiative is a regional humanitarian-development initiative aiming to break the vicious cycle of crises in the region. As part of this initiative, the EU fund the Resilience Building Program (RESET) in Ethiopia, which is an innovative programme based on the premise that chronic humanitarian and longer term needs and recurrent food insecurity can be more efficiently addressed via a longer-term resilience approach that links humanitarian and development actions, rather than via short-term, reactive, rapid response actions and disconnected development activities. The strategy consists of an integrated approach wherein different partners, working in close coordination, implement a multi-sectoral resilience program together with the local authorities in a defined geographic area. Areas are called clusters of districts and are selected on the basis of their repeated vulnerability. This concept is based on four cornerstones for building resilience: improving the provision of basic services (health, wash, nutrition, etc.); and support to livelihoods; safety nets; and disaster risk reduction. These pillars are complemented by other areas of support such as: natural resource management (NRM), sustainable land management, climate change adaptation, and social protection (European Commission, 2014). The resilience framework is basically designed to address chronic food insecurity by intervening in multiple sectors. The fact that it considers multiple sectors—health; water, sanitation and hygiene (WASH; nutrition; livelihoods; NRM; DRR; and more—makes it relevant to building resilience. However, the framework has no intentional focus on the "building back better" households' livelihood under CC-induced shocks and stress for poverty alleviation. (Boka, 2017)

52. **Irish Aid** has provided climate relevant funding, including through the PSNP, as well as other programmes focusing on livelihoods support and building resilience of farmers (Irish Aid, 2017).

NGOs

53. A **CARE Ethiopia**-led consortium project, known as **GRAD** (Graduation with Resilience to Achieve sustainable Development), aims to move households towards graduation from PSNP, through climate-resilient approaches to diversify their livelihoods, build assets and link to financial services and markets. **Other Consortium members:** REST, ORDA, CRS/MCS, Agri Service Ethiopia, and SNV (USAID & CARE, 2018). Earlier, CARE led the group of NGOs that participated in action research for the PSNP Climate Smart Initiative (Lind et al, 2015).

54. **Mercy Corps** Partners with WFP for the SIIPE programme. **Oxfam** partners with WFP for R4 programmes. They also implemented the **African Climate Change and Resilience Alliance** (ACCRA); the second phase ran from 2011 to 2016 as part of the Oxfam GB's global CHASE Programme Partnership Arrangement (PPA4). The main goal of

ACCRA Ethiopia phase 2 was to promote local adaptive capacity development through advising governance changes at a system level (Colvin and Mukute, 2016).

Bibliography

"Location" in the listing below refers to folder and document numbers in the review team's electronic library of documents (which has been shared with GAC).

Short reference	Full reference	Location
AfDB, 2016	<i>Ethiopia: Evaluation of the Bank's Country Strategy and Program 2004–2013. Summary Report.</i> African Development Bank Group.	2.4.5-1
AgroBIG, 2017	<i>Growing Agribusiness. The AgroBIG Programme in Amhara Region, Ethiopia.</i> AgroBIG 2017.	2.4.11-2
Alliance2015, 2018	<i>The Implementation of the EU Action Plan on Nutrition: A contextual analysis of Ethiopia, Nepal, Niger, Pakistan and Zambia. June 2018.</i> Available at: http://www.alliance2015.org/fileadmin/pdf_docs/DEF_report_eu_action_plan_A4.pdf	2.4.4-7
ARRA, 2018	<i>Road Map for the Implementation of the Federal Democratic Republic of Ethiopia Government pledges and the practical application of the CRRF in Ethiopia,</i> Administration for Refugee and Returnee Affairs [undated, but published March 2018] https://data2.unhcr.org/en/documents/details/62655	2.3.0-*3
BEAM Exchange, 2019	<i>LIFT: Land Investment for Transformation,</i> BEAM Exchange. https://beamexchange.org/practice/programme-index/107/ . Accessed February 2019.	webpage
Bekele, 2017	<i>Ploughing New Ground – Food, Farming & Environmental Change in Ethiopia,</i> Getnet Bekele, 2017.	2.2.3-7
Berhane et al, 2013	<i>Evaluation of Ethiopia's Food Security Program: Documenting Progress in the Implementation of the Productive Safety Nets Programme and the Household Asset Building Programme.</i> Guush Berhane, John Hoddinott, Neha Kumar, Alemayehu Seyoum Taffesse, Michael Tedla Diressie, Yisehac Yohannes, Rachel Sabates-Wheeler, Mulugeta Handino, Jeremy Lind, Mulugeta Tefera, and Feyera Sima. IFPRI; EDRI, 2013.	2.4.9-1
Boka, 2017	<i>Measuring Resilience to Climate Change in Ethiopia.</i> Gutu T. Boka. Working Paper Series no. 268, June 2017, African Development Bank Group.	2.4.5-2
Buehren et al, 2018	<i>The Impact of Strengthening Agricultural Extension Services: Evidence from Ethiopia,</i> Niklas Buehren, Markus Goldstein, Ezequiel Molina, and Julia Vaillant, Gender Innovation Lab, Policy Brief 25, World Bank, April 2018.	2.4.12-16

Short reference	Full reference	Location
CGIAR, 2015	<i>Agricultural Adaptation and Institutional Responses to Climate Change Vulnerability in Ethiopia</i> . Bewket W, Radeny M, and Mungai C. 2015. CCAFS Working Paper no. 106, CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: www.ccafs.cgiar.org	2.2.1-12
COHA, 2013	<i>The Cost of Hunger in Africa: Implications for the Growth and Transformation of Ethiopia. The Social and Economic Impact of Child Undernutrition in Ethiopia</i> . Cost of Hunger in Africa study, 2013 [date inferred].	2.2.2-6
Colvin and Mukute, 2016	<i>Governance in Ethiopia. Impact evaluation of the African Climate Change and Resilience Alliance (ACCRA) project</i> . Effectiveness Review Series 2016/17. Oxfam.	2.4.3-1
CSA & ICF, 2012	<i>Ethiopia Demographic and Health Survey 2011</i> . Central Statistical Agency, Addis Ababa, Ethiopia; ICF International Calverton, Maryland, USA. March 2012.	2.2.2-9
CSA & the DHS Program, 2017	<i>Ethiopia – Demographic and Health Survey 2016</i> . Central Statistical Agency & The DSA Program, ICF: Addis Ababa, Ethiopia & Rockville, Maryland, USA: July 2017.	2.2.2-10
CSA & WFP, 2014	<i>Ethiopia: Comprehensive Food Security and Vulnerability Analysis (CFSVA)</i> , CSA & WFP, March 2014.	2.2.3-14
CSA, 2017	<i>Drinking Water Quality in Ethiopia: Results from the 2016 Ethiopia Socioeconomic Survey</i> , A Report by the Central Statistical Agency of Ethiopia in collaboration with the Ministry of Water, Irrigation and Electricity (MOWIE), LSMS, World Bank, UNICEF, WHO, and JMP, December 2017.	2.2.2-27
CSAG, 2015	<i>Climate and Food Security Risks in Ethiopia: Climate Analysis</i> . Climate System Analysis Group. University of Cape Town.	2.2.1-4
DAG, 2017	<i>Development Effectiveness in Ethiopia –DAG Annual Report 2016/17</i> , Development Assistance Group, Ethiopia, 2017.	2.4.18-1
DAI, 2019	<i>Ethiopia—Enterprise Partners/Private Enterprise Programme Ethiopia (PEPE)</i> . https://www.dai.com/our-work/projects/ethiopia-private-enterprise-programme-ethiopia-pepe Accessed February 2019.	webpage
DFID, 2014	<i>DFID Business Case – LIFT (Land Investment for Transformation) Programme</i> , December 2014.	2.4.1-6
DFID, 2015	<i>Business Case Summary Sheet. Ethiopia Productive Safety Net Programme Phase 4 (PSNP 4)</i> https://devtracker.dfid.gov.uk/projects/GB-1-204290/documents	2.2.3-15
DFID, 2017a	<i>DFID Business Case – Building Resilience in Ethiopia</i> , DFID 2017.	2.4.1-5

Short reference	Full reference	Location
DFID, 2017b	<i>DFID LIFT Annual Review 2017.</i>	2.4.1-7
DFID, 2018a	<i>DFID Ethiopia Profile 2018 (2pp).</i>	2.4.1-4
DFID, 2018b	<i>Accelerating Reduction of Undernutrition in Ethiopia: Project Completion Review, DFID 2018.</i>	2.2.2-11
Dom & Vaughan, 2018	<i>WIDE Bridge –Policy Review – First Quarter 2018, Catherine Dom with Sarah Vaughan, Mokoro Limited, August 2018.</i>	2.1.1-3
ECHO et al, 2016	<i>Consolidated Gender Analysis for the Ethiopian Drought Response. Joint agency consolidated gender analysis by ECHO, CARE, OXFAM.</i>	2.2.4-3
Echeverría & Terton, 2016	<i>Review of Current and Planned Adaptation Action in Ethiopia, , Daniella Echeverría and, Anika Terton, CARIAA (Collaborative Adaptation Research Initiative in Africa and Asia) Working Paper #8, 2016.</i>	2.2.1-24
EDRI & IFPRI, 2015	<i>Nutrition in Ethiopia: An emerging success story? Synopsis of Presentation at Together For Nutrition 2015 Conference. EDRI and IFPRI, 2015.</i>	2.2.2-2
EEAS, 2016	<i>Overview of nutrition-sensitive interventions under PSNP 4, Europa EEAS, February 2016.</i>	2.2.2-26
EMCAD, 2018	<i>External evaluation of Oxfam's 2017 drought response in Ethiopia. EMCAD; Oxfam.</i>	2.4.3-2
EPCC, 2015	<i>An assessment of Ethiopia's Policy and Institutional Frameworks for Addressing Climate Change. Ethiopian Panel on Climate Change – First Assessment Report VII. Available at: http://publication.eiar.gov.et:8080/xmlui/bitstream/handle/123456789/2423/Ethiopia%20Panel%20on%20climate%20change.pdfabbbyyy.pdf?sequence=1&isAllowed=y</i>	2.2.1-20
European Commission, 2014	<i>National Indicative Programme for Ethiopia 2014–2020, 19 June 2014.</i>	2.4.4-5
European Commission, 2015	<i>We Can Overcome Undernutrition – Ethiopia Case Study, European Commission 2015.</i>	2.4.4-3
European Commission, 2016	<i>Nutrition graphs, Ethiopia 2016. European Commission. On EuropeAid website: https://ec.europa.eu/europeaid/sites/devco/files/nutrition-graphs-ethiopia-2016_en.pdf</i>	
European Commission, 2017	<i>Ethiopia: Country Profile on Nutrition, European Commission, July 2017.</i>	2.4.4.1-1
FAO, 2008	<i>Ethiopia Nutrition Country Profile. FAO, 2008.</i>	2.2.2-4
FAO, 2015a	<i>Country Programme Framework for Ethiopia 2016-2010. http://www.fao.org/3/a-i7527e.pdf</i>	2.4.19-1

Short reference	Full reference	Location
FAO, 2015b	<i>FAO Statistical Pocketbook 2015. World food and agriculture.</i> Food and Agriculture Organization of the United Nations, Rome, 2015.	2.4.19-2
Feed the Future, 2018	<i>Global Food Security Strategy (GFSS) Ethiopia Country Plan September 2018.</i> Feed the Future, 2018.	2.4.3-5
G8, 2012	<i>G8 Cooperation Framework to Support the "New Alliance for Food Security and Nutrition" in Ethiopia.</i> G8 Camp David 2012.	2.2.3-18
GAIN, no date	https://www.gainhealth.org/knowledge-centre/country/ethiopia/	webpage
GHI, 2018	<i>2018 Global Hunger Index – Forced Migration and Hunger,</i> Welthungerhilfe & Concern Worldwide, Dublin / Bonn, Bonn 2018 (see https://www.globalhungerindex.org/ethiopia.html)	2.2.2-8
GNR, 2015	Nutrition Profile 2015 – Ethiopia. Global Nutrition Report. Available at: http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129816/file/ename/130027.pdf	2.2.2-12
Government of Canada, 2017	<i>Canadian international assistance in Ethiopia</i> https://international.gc.ca/world-monde/issues_developpement-enjeux_developpement/priorities-priorities/where-ou/ethiopia-ethiopie.aspx?lang=eng	webpage
GoE and Humanitarian Country Team, 2016	<i>Ethiopia – Humanitarian Requirements Document 2016.</i> Government of Ethiopia and Ethiopia Humanitarian Country Team. 2016.	2.2.4-9
GoE and Humanitarian Partners, 2017	<i>2017 Ethiopia Humanitarian Requirements Document.</i> Government of Ethiopia, Addis Ababa, 2017.	2.3.0.1-2
GoE and Humanitarian Partners, 2018	<i>Ethiopia – Humanitarian and Disaster Resilience Plan, 2018,</i> Joint Government and Humanitarian Partners' Document.	2.3.0.1-1
GoE and Humanitarian Partners, 2019	<i>Ethiopia: Humanitarian Response Situation Report No. 20 (January 2019),</i> A product of the Disaster Risk Management Technical Working Group (DRMTWG), for the period 1 December 2018 to 31 January 2018.	2.3.0.1-3
GoE, undated	<i>Tracking Funding for Nutrition in Ethiopia Across Sectors,</i> Ethiopian Fiscal Years 2006 to 2008, (2013/14 to 2015/16), Federal Ministry of Health, undated.	2.2.2-23
GoE, 2007	<i>Climate Change National Adaptation Programme of Action (NAPA) of Ethiopia,</i> Federal Democratic Republic of Ethiopia, Ministry of Water Resources and National Meteorological Agency, June 2007, Addis Ababa, Ethiopia.	2.3.4-2

Short reference	Full reference	Location
GoE, 2008a	<i>Ethiopian Strategic Investment Framework for Sustainable Land Management</i> . Prepared for The Ethiopian Federal Democratic Republic, Ministry of Agriculture and Rural Development, SLM Secretariat. Addis Ababa, GoE, 2008.	2.3.2-5
GoE, 2008b	<i>National Nutrition Strategy</i> , Federal Ministry of Health, January 2008.	2.3.2-3
GoE, 2010a	<i>Growth and Transformation Plan 2010/11 – 2014/15. Volume 1: Main Text</i> . Federal Democratic Republic of Ethiopia, Ministry of Finance and Economic Development, September 2010.	2.3.0-1
GoE, 2010b	<i>Ethiopia's Agricultural Sector Policy and Investment Framework (PIF) 2010-2020</i> . Draft Final Report, 15 September 2010. Federal Democratic Republic of Ethiopia, Ministry of Agriculture and Rural Development, 2010.	2.3.2-3
GoE, 2011	<i>Ethiopia's Climate-Resilient Green Economy – Green economy strategy</i> , Government of Ethiopia, Addis Ababa, November 2011 (website at: http://www.ethcrge.info/home.php)	2.3.4-1
GoE, 2012	<i>National School Health and Nutrition Strategy</i> , Ministry of Education, October 2012.	2.3.1-6
GoE, 2013a	<i>National Nutrition Programme June 2013 – June 2015</i> , Government of the Federal Democratic Republic of Ethiopia [not dated, assumed 2013].	2.3.1-1
GoE, 2013b	<i>National Policy and Strategy on Disaster Risk Management</i> . July 2013. The Federal Democratic Republic of Ethiopia: Addis Ababa, 2013.	2.3.3-1
GoE, 2014a	<i>National Social Protection Policy</i> . Government of the Federal Democratic Republic of Ethiopia: Addis Ababa, November 2014.	2.3.0.2-1
GoE, 2014b	<i>Disaster Risk Management Strategic Programme and Investment Framework</i> . Disaster Risk Management and Food Security Sector, Ministry of Agriculture and Rural Development, 2014.	2.3.2-1
GoE, 2015a	<i>Climate Resilience Strategy: Agriculture and Forestry</i> . Sectoral strategy for Ethiopia's Climate Resilient Green Economy. Federal Democratic Republic of Ethiopia, 2015.	2.3.4-5
GoE, 2015b	<i>Climate Resilience Strategy: Water and Energy</i> . Sectoral strategy for Ethiopia's Climate Resilient Green Economy. Federal Democratic Republic of Ethiopia, 2015.	2.3.4-6
GoE, 2016a	<i>Growth and Transformation Plan II (GTP II) 2015/16-2019/20. Volume I: Main Text</i> . National Planning Commission, Federal Democratic Republic of Ethiopia: Addis Ababa: May 2016.	2.3.0-2

Short reference	Full reference	Location
GoE, 2016b	<i>National Social Protection Strategy of Ethiopia – Accelerating social transformation</i> , The Federal Democratic Republic of Ethiopia, Ministry of Labour and Social Affairs, Addis Ababa, GoE 2016.	2.3.0.2-2
GoE, 2016c	<i>Seqota Declaration: A commitment to end child under-nutrition in Ethiopia by 2030. Implementation Plan (2016 – 2030). Summary Programme Approach Document</i> , March 2016. Federal Democratic Republic of Ethiopia, 2016.	2.2.2-13
GoE, 2016d	<i>Climate Change and Health – Ethiopia Lesson learned documentation</i> , Ethiopia Ministry of Health, 2016.	2.2.1-23
GoE, 2016e	<i>National Nutrition Program 2016–2020</i> , Government of Ethiopia 2016.	2.3.1-9
GoE, 2016f	<i>Nutrition Sensitive Agriculture Strategy</i> , Ministry of Agriculture and Natural Resource (MoANR) and Ministry of Livestock and Fisheries (MoLF), October 2016.	2.3.1-10
GoE, 2017a	<i>Ethiopia Launches 15 Year National Adaptation Plan to Address Climate Change</i> https://reliefweb.int/report/ethiopia/ethiopia-launches-15-year-national-adaptation-plan-address-climate-change	webpage
GoE, 2017b	<i>Rural Job Opportunity Creation Strategy</i> , Ministry of Agriculture and Natural Resources, May 2017.	2.3.2-7
GoE, 2018a	<i>National Health Adaptation Plan to Climate Change (2018-2020)</i> , Federal Ministry of Health, GoE 2018.	2.3.4-3
GoE, 2018b	<i>Assessment on CRGE Task Structure and Climate Smart Agriculture (CSA) Mainstreaming</i> , May 2018, Addis Ababa, Ethiopia. Ministry of Agriculture and Natural Resources, Agricultural Transformation Agency, Ministry of Livestock and Fisheries.	2.2.3-19
GoE, 2019	<i>Ethiopia's Climate Resilient Green Economy, National Adaptation Plan</i> , Federal Democratic Republic of Ethiopia, Addis Ababa, 2019.	2.3.4-7
Headey et al, 2014	<i>Land constraints and agricultural intensification in Ethiopia: A village-level analysis of high-potential areas</i> , in Food Policy 48 (2014) 129–141 Headey, D., Dereje, M. and Taffesse, A.S. 2014.	
Hill & Porter, 2016	<i>Vulnerability to Drought and Food Price Shocks – Evidence from Ethiopia</i> . Ruth Vargas Hill and Catherine Porter, World Bank Policy Research Working Paper 7920, December 2016.	2.4.12-15
Hill & Tsehaye, 2018	<i>Growth, Safety Nets and Poverty – Assessing Progress in Ethiopia from 1996 to 2011</i> , Ruth Vargas Hill and Eyasu Tsehaye, World Bank Policy Research Working Paper 8380, March 2018.	2.4.12-12

Short reference	Full reference	Location
Hirvonen et al., 2018	<i>Impact of Ethiopia's 2015 drought on child undernutrition</i> , Kalle Hirvonen, Thomas Pave Sohnesen, and Tom Bundervoet, IFPRI and Ethiopian Development Research institute (EDRI), Strategy Support Program, Working Paper 114, February 2018.	2.2.2-14
Hove et al, 2011	<i>Review of Current and Planned Adaptation Action: East Africa. "Adaptation Partnership" /</i> International Institute for Sustainable Development. Hove, Hilary; Echeverría, Daniella; Parry, Jo-Ellen. (2011). Available at: http://adaptationlearning.net/project/ethiopia-national-programme-action-napa	2.2.1-21
HRD & PSNP DPs, 2017	<i>Improving the continuum of response: A look at the front line of PSNP transfers and emergency consumption smoothing interventions.</i> Joint HRD and PSNP Development Partners Team, 2017.	2.2.3-16
IFAD, 2016a	<i>Federal Democratic Republic of Ethiopia Country Programme Evaluation.</i> FAD Independent Office of Evaluation.	2.4.7-1
IFAD, 2016b	<i>Proposed loan and grant to the Federal Democratic Republic of Ethiopia for the Participatory Small-scale Irrigation Development Programme – Phase II (PASIDP II.)</i>	2.2.3-17
IFPRI & EDRI, 2017	<i>Synopsis: The Sustainable Land Management Program in the Ethiopian highlands: An evaluation of its impact on crop production</i> , Emily Schmidt and Fanaye Tadesse, IFPRI Ethiopia and Ethiopian Development Research Institute, Strategy Support Program, Research Note 68, August 2017.	2.4.9-2
Iimi et al, 2018	<i>Heterogeneous Impacts of Main and Feeder Road Improvements – Evidence from Ethiopia</i> , Atsushi Iimi, Haileyesus Mengesha, James Markland. Yetmgeta Asrat and Kefargachew Kassahun, World Bank Policy Research Working Paper 8548, August 2018.	2.4.12-13
IMF, 2018a	<i>Selected Issues: Women and the Economy in Ethiopia</i> , IMF Country Report No. 18/355, November 13, 2018.	2.4.14-2
IMF, 2018b	<i>Ethiopia Article IV Consultation, December 2018</i> , IMF Country Report No. 18/354.	2.4.14-1
Irish Aid, 2017	<i>Ethiopia Climate Action Report for 2016.</i> Resilience and Economic Inclusion Team, Irish Aid., November 2017 https://www.irishaid.ie/media/irishaid/allwebsitemedia/30whatwedo/climatechange/Ethiopia-Country-Climate-Action-Reports-2016.pdf	2.2.1-21
JaRco Consulting, 2015	<i>Second Generation Targeted Supplementary Feeding Programme Evaluation in Ethiopia. Draft, April 2015.</i> World Food Programme: 2015.	2.4.10-1

Short reference	Full reference	Location
Kennedy et al, 2015	<i>Multisector Nutrition Programme Governance and Implementation in Ethiopia: Opportunities and Challenges</i> . Food and Nutrition Bulletin, 2015. Vol. 36(4) pp. 534-548. Eileen Kennedy, Masresha Tessema, Tesfaye Hailu, Dilnesaw Zerfu, Adamu Belay, Girmay Ayana, Desalegn Kuche, Tibebu Moges, Tsehai Assefa, Aregash Samuel, Tarik Kassaye, Habtamu Fekadu, and Joan Van Wassenhove. Available at: https://www.researchgate.net/publication/315493101_Food_and_Nutrition_Policy_Multisector_Nutrition_Program_Governance_and_Implementation_in_Ethiopia_Opportunities_and_Challenges/	2.2.2-15
Knippenberg and Hoddinott, 2017	<i>Shocks, social protection, and resilience: Evidence from Ethiopia</i> . Knippenberg, E., and J. Hoddinott. August 2017. ESSP Working Paper 109, Addis Ababa: International Food Policy Research Institute (FPRI).	2.2.1-22
Knippenberg et al, 2018	<i>Land Fragmentation and Food Insecurity in Ethiopia</i> . Erwin Knippenberg, Dean Jolliffe, John Hoddinott. World Bank Policy Research Working Paper 8559, August 2018.	2.4.12-17
Lavers, 2015	<i>Land registration and gender equality in Ethiopia: How state-society relations influence the enforcement of institutional change</i> , Tom Lavers, 2015.	2.2.3-10
Lavers, 2016	<i>Agricultural Investment in Ethiopia: Undermining National Sovereignty or Tool for State Building?</i> Tom Lavers, 2016.	2.2.3-11
Lavers, 2018	<i>Responding to Land-based Conflict in Ethiopia: the Land Rights of Ethnic Minorities under Federalism</i> , Tom Lavers, African Affairs, 117/468, 462–484, Advance Access Publication 29 March 2018.	2.2.3-12
Lemma et al, 2012	<i>CMAM rollout in Ethiopia: the 'way in' to scale up nutrition</i> . Field Exchange 43. F. Lemma, T. Daniel, H. Fekadu, and E. Mates. Available at: https://www.enonline.net/fex/43/CMAM	webpage
Lie & Mesfin, 2018	<i>Ethiopia: A Political Economy Analysis</i> . Jon Harald Sande Lie and Berouk Mesfin, Norwegian Institute of International Affairs, 2018.	2.4.17-1
Lind et al, 2015	<i>Strengthening resilience in a changing climate: Toward a climate-smart Productive Safety Net Programme (PSNP) in Ethiopia</i> , Jeremy Lind, Alastair Strickland, Lars Otto Naess, Rachel Sabates-Wheeler, Isobel Birch, Addis Hailemichael, Sarah Kohnstamm, and Mulugeta Tefera, PSNP (no date, ?2015).	2.2.1-14
Lister et al, 2016	<i>Evaluation of Finland's Development Cooperation Country Strategies and Country Strategy Modality: Ethiopia Country report</i> . Stephen Lister, Jyrki Salmi, Gadissa Bultosa, Zoe Driscoll. Mokoro Ltd in collaboration with Indufor Oy; MFA Finland.	2.4.11-1

Short reference	Full reference	Location
Lister et al, 2018	<i>Ethiopia: An Evaluation of WFP's Portfolio (2012-2017). Evaluation Report.</i> Stephen Lister, Doe-e Berhanu, Liv Bjørnstad, Alison Donnelly, Zoe Driscoll, George Fenton, Adam Leach and Judith Sandford. Mokoro Ltd; WFP Office of Evaluation.	2.1.5-1
Livelihoods Integration Unit, 2010	<i>The Atlas of Ethiopian Livelihoods.</i> Livelihoods Integration Unit, Addis Ababa, 2010.	2.2.3-9
Ljungqvist, 2015	<i>A situation analysis of nutrition in Ethiopia. Policy and Program options.</i> Bjorn Ljungqvist, 2015. Available at: https://eeas.europa.eu/sites/eeas/files/a_situation_analysis_of_nutrition_in_ethiopia_-_policy_and_programme_options.pdf	2.2.2-16
LMP team, 2015	<i>Ethiopia livestock master plan: Roadmaps for growth and transformation, A contribution to the Growth and Transformation Plan II (2015-2020),</i> Developed by the LMP team for the Ministry of Agriculture, Livestock Resources Development Sector, August 2015.	2.3.2-6
Mersha & Van Laerhoven, 2016	<i>A gender approach to understanding the differentiated impact of barriers to adaptation: responses to climate change in rural Ethiopia,</i> Azeb Assefa Mersha and Frank Van Laerhoven, Reg Environ Change (published online 7 January 2016).	2.2.1-1
MFA Sweden, 2016	<i>Strategy for Sweden's development cooperation with Ethiopia, 2016–2020,</i> Ministry for Foreign Affairs of Sweden (no date, ?2016).	2.4.16-2
Ministry of Health, 2008	<i>National Nutrition Strategy.</i> Federal Ministry of Health, GoE 2008.	2.3.1-3
Minten et al, 2018	<i>Evolving food systems in Ethiopia: Past, present and future,</i> Bart Minten, Mekdim Dereje, Fantu Bachewe, and Seneshaw Tamru, IFPRI and EDRI Strategy Support Program, Working Paper 117, April 2018.	2.2.3-20
Mokoro, 2015	<i>Independent Comprehensive Evaluation of the Scaling Up Nutrition Movement – Final Report,</i> Mokoro Limited, 1 May 2015.	2.1.7-1
Mokoro 2016	<i>Evaluation of Finland's Development Cooperation Country Strategies and Country Strategy Modality – Ethiopia Country Report,</i> Stephen Lister (country team coordinator), Jyrki Salmi, Gadissa Bultosa, Zoe Driscoll, Mokoro Ltd in collaboration with Indufor Oy, 2016.	2.1.2-1
MQSUN, 2017	DFID's aid spending for nutrition: 2015, March 2017. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/DFIDs-aid-spending-for-nutrition-2015_0.pdf	2.2.2-17
Nutrition International, 2018	Interventions in Ethiopia, Nutrition International. Available at: https://www.nutritionintl.org/content/user_files/2018/05/ethiopia-report-final-2018-05-WEB.pdf	2.2.2-18

Short reference	Full reference	Location
OCHA, 2016	<i>El Niño: Overview of Impact, Projected Humanitarian Needs and Response</i> . OCHA, 2016.	2.2.4-5
OCHA, 2019	<i>Ethiopia: 2018 HDRP Funding Update (as of 15 January 2019)</i> , OCHA, 2019.	2.3.0.1-4
ODI, 2015	<i>One Foot on the Ground , One Foot in the Air: Ethiopia's Delivery on an Ambitious Development Agenda</i> . Lenhardt, A.; Rogerson, A.; Guadagno, F.; Berliner, T.; Gebreeyesus, M. and Bayru, A., Overseas Development Institute 2015.	2.4.21-1
Oxfam, 2016	<i>Consolidated gender analysis for the Ethiopian Drought Response</i> , Oxfam, 2016.ff	2.2.4-8
Robinson et al, 2013	<i>The Cost of Adapting to Climate Change in Ethiopia: Sector-Wise and Macro-Economic Estimates</i> . Sherman Robinson, Kenneth Strzepek, and Raffaello Cervigni. EDRI; IFPRI.	2.2.1-3
Roelen et al, 2017	<i>Cash 'plus' - Integrated Nutrition and Social Cash Transfer (IN-SCT) Pilot in Ethiopia: perceptions and feedback from clients and service providers</i> . Research Report. IDS and Centre for Social Protection. August 2017. https://transfer.cpc.unc.edu/wp-content/uploads/2017/12/IN-SCT-operational-report-REVISED-v2-25-aug-17-002.pdf	2.2.2-19
Save the Children Ethiopia, no date	<i>Growth through Nutrition, Save the Children</i> https://ethiopia.savethechildren.net/programs/growth-through-nutrition	webpage
Save the Children, 2017	<i>Two Years of Drought Response in Ethiopia</i> . June 2014-June 2016. Save the Children.	2.2.4-7
Save the Children, no date	<i>Emergency Health and Nutrition, Save the Children</i> , https://www.savethechildren.org/us/what-we-do/global-programs/health/health-and-nutrition-emergencies	webpage
Singh et al. 2016	<i>Reality of Resilience: perspectives of the 2015–16 drought in Ethiopia</i> . Roop Singh, Mulugeta Worku, Solomon Bogale, Adrian Cullis, Alebachew Adem, Ben Irwin, Sheri Lim, Lorenzo Bosi, and Courtenay Cabot Venton. BRACED, December 2016.	2.2.1-11
Sohnesen et al, 2015	<i>Small area estimation of child undernutrition in Ethiopian woredas</i> . Thomas Pave Sohnesen, Alemayehu Azeze Ambel, Peter Fisker, Colin Andrews, Qaiser Khan. World Bank, 2015.	2.4.12-4
Sørensen et al, 2017	<i>Evaluation of the Dutch Food Security Programme in Ethiopia – including an impact study of the Integrated Seed Sector Development Project (ISSD II)</i> . Pernille Nagel Sørensen, Erwin Bulte, Martin van der Linde, Gonne Beekman, Raya Abagodu, Dereje Kebede and Eskindir Tenawi. Ecorys and Erasmus Universiteit Rotterdam, 2017.	2.4.2-1

Short reference	Full reference	Location
SUN, 2015	<i>Ethiopia commits to ending undernutrition by 2030 with the Seqota Declaration, 21 July 2015.</i> Available at: https://scalingupnutrition.org/news/ethiopia-commits-to-ending-under-nutrition-by-2030-with-the-seqota-declaration/	webpage
The Lancet, 2008	<i>The Lancet's series on Maternal and Child Undernutrition: Executive Summary.</i> The Lancet, 2008.	2.2.2-20
The Lancet, 2013	<i>Maternal and Child Nutrition: Executive Summary of The Lancet Maternal and Child Nutrition Series,</i> The Lancet, 2013.	2.2.2-22
UNDAF, 2016	<i>United Nations Development Assistance Framework for Ethiopia 2016-2010.</i> United Nations Country Team, 2015 [date inferred].	2.4.20-1
UNDP, 2015	<i>Country programme document for Ethiopia (2016-2020),</i> United Nations Development Programme, 27 November 2015.	2.4.15-2
UNDP, 2018	<i>Ethiopia National Human Development Report 2018: Industrialization with a Human Face.</i> UNDP (no date, ?2018).	2.4.15-1
UNDP MPTF, 2018	<i>Annual Progress Report: Institutional Strengthening for the Forest Sector Development in Ethiopia, Reporting period: January - December 2017,</i> Submitted in February 2018 (available at: http://mptf.undp.org/factsheet/fund/3ET00)	2.2.1-25
UNFPA, 2017	<i>End line evaluation of the H4+ Joint Programme Canada and Sweden (Sida) 2011-2016,</i> Volume 1, UNFPA Evaluation Office, May 2017.	2.4.16-4
UNHCR, 2018	<i>Ethiopia Refugees and Asylum Seekers,</i> UNHCR infographics 2018.	2.4.22-2
UNHCR, 2019	<i>UNHCR Ethiopia Fact Sheet, January 2019.</i>	2.4.22-1
UNICEF, 2012	<i>Evaluation of Community Management of Acute Malnutrition (CMAM) –Ethiopia Country Case Study,</i> UNICEF Evaluation Office, September 2012.	2.4.8-1
UNICEF, 2017	<i>New EU funding will provide essential nutrition treatment for 130,000 children under the age of five in Ethiopia</i> https://unicefethiopia.org/tag/malnutrition/	webpage
UNICEF, 2018	<i>Canada partners with UNICEF to improve reproductive health and nutrition among adolescent girls in Ethiopia,</i> https://reliefweb.int/report/ethiopia/canada-partners-unicef-improve-reproductive-health-and-nutrition-among-adolescent	webpage
UNICEF, no date	Nutrition, UNICEF Ethiopia, https://www.unicef.org/ethiopia/nutrition	webpage
UNICEF-WFP-FAO, 2012	<i>Strengthening Food Security & Nutrition Resilience in Ethiopia.</i> A Collaborative UNICEF-WFP-FAO Initiative. draft for EHCT members.	2.2.1-13

Short reference	Full reference	Location
USAID & CARE, 2018	<i>Learning Brief: Graduation with Resilience to Achieve Sustainable Development (GRAD)</i> , USAID and CARE, brief published 22 June 2018. Available at: https://careclimatechange.org/publications/learning-brief-graduation-with-resilience-to-achieve-sustainable-development-grad/	2.4.13-9
USAID, 2011	<i>Country Development Cooperation Strategy 2011-2018: Accelerating the Transformation Toward Prosperity</i> . Available at: https://www.usaid.gov/sites/default/files/documents/1860/CDCS_Ethiopia_December_2018r1.pdf	2.4-13-6
USAID, 2012	<i>A Climate Trend Analysis of Ethiopia</i> . Famine Early Warning Systems Network—Informing Climate Change Adaptation Series. FEWSNET; USAID.	2.2.1-6
USAID, 2014a	<i>Resilience in action: changing horizons in Ethiopia's Drylands</i> . USAID.	2.4.13-1
USAID, 2014b	<i>Ethiopia Nutrition Profile</i> (updated June 2014)	2.4.13-3
USAID, 2015	<i>Greenhouse Gas Emissions in Ethiopia</i> , Factsheet, USAID, November 2015.	2.2.1-15
USAID, 2016	<i>Factsheet: Ethiopia Climate Change Risk Profile</i> , USAID, July 2016.	2.2.1-16
USAID, 2018a	<i>Ethiopia Factsheet: Nutrition for Health</i> .	2.4.13-4
USAID, 2018b	<i>Ethiopia: Nutrition Profile</i> . Available at: https://www.usaid.gov/sites/default/files/documents/1864/Ethiopia-Nutrition-Profile-Mar2018-508.pdf	2.4.13-7
SDA, 2017	US Department of Agriculture <i>Supporting the Development of Ethiopia's Feed Industry</i> . https://usembassyaddis.wordpress.com/2017/11/17/us-department-of-agriculture-supporting-the-development-of-ethiopias-feed-industry/ Accessed February 2019.	webpage
Venton, 2018	<i>Economics of Resilience to Drought, Ethiopia Analysis</i> , Courtenay Cabot Venton for the USAID Center for Resilience January 2018.	2.4.13-8
Weldesilassie et al, 2017	<i>Strategy Options to Build Resilience in the Eight Geographical Clusters under the EU Resilience Building Program in Ethiopia (RESET)</i> . Alebel B. Weldesilassie, Getnet Alemu, Tibebe Sado and Habtemariam Kassa. Ethiopian Development Research Institute; European Union Delegation to Ethiopia.	2.4.4-2
Wageningen, undated	<i>Project summary: BENEFIT-Partnership to promote food production, income and trade</i> , Wageningen Centre for Development Innovation, undated. Available at: https://www.wur.nl/en/project/BENEFIT.htm	2.4.4-2

Short reference	Full reference	Location
WFP, undated	<i>Concept Note for the Integration of Management of Moderate Acute Malnutrition (MAM) Services into the Health System.</i> World Food Programme Ethiopia, undated.	2.2.2-27
WFP, 2013	<i>Climate risk and food security in Ethiopia: Analysis of climate impacts on food security and livelihoods.</i> Report coordinated by the World Food Programme. [Undated ?2013].	2.2.1-2
White & Mason, 2012	<i>Assessing the impact on child nutrition of the Ethiopia Community-based Nutrition Program,</i> Report to UNICEF of an evaluation study, September 2012, Jessica White, MPH, and John Mason, PhD, Tulane University School of Public Health and Tropical Medicine, New Orleans, 2012.	2.4.8-1
WMO, 2018	<i>Ethiopia Establishes National Framework for Climate Services.</i> Global Framework for Climate Services. Accessed February 2019. https://www.wmo.int/gfcs/node/1183	2.2.1-19
World Bank, 2010a	<i>Economics of Adaptation to Climate Change – Synthesis Report,</i> World Bank 2010	2.4.12-3
World Bank, 2010b	<i>Economics of Adaptation to Climate Change – Ethiopia,</i> World Bank, 2010.	2.4.12-3a
World Bank, 2010c	<i>The Social Dimensions of Adaptation to Climate Change in Ethiopia,</i> Ethiopian Economic Association/Economic Policy Research Institute, World Bank Discussion Paper no 14, December 2010.	2.4.12-19
World Bank, 2013	<i>Sustainable Land Management Project II (SLMP-2).</i> The World Bank October 29, 2013.	2.2.1-18
World Bank, 2014	<i>Project Appraisal Document for a Productive Safety Net Program 4.</i> World Bank, 2014.	2.4.12-1
World Bank, 2015a	<i>Project Appraisal Document for an Urban Productive Safety Net Programme (UPSNP),</i> World Bank November 20, 2015.	2.4.12-5
World Bank, 2015b	<i>Project Appraisal Document for a Second Agricultural Growth Project,</i> World Bank March 5, 2015 http://documents.worldbank.org/curated/en/287411468026947887/pdf/PAD10520PAD0P100Boxx385443B00OUO090.pdf	2.2.3-13
World Bank, 2015c	<i>Ethiopia Poverty Assessment 2014.</i> World Bank, Ethiopia, January 2015.	2.4.12-20
World Bank, 2016a	<i>Ethiopia: Priorities for Ending Extreme Poverty and Promoting Shared Prosperity,</i> Systematic Country Diagnostic, Report No: 100592-ET, World Bank, MRCH 30, 2016.	2.4.12-7
World Bank, 2016b	<i>Ethiopia Public Expenditure Review,</i> World Bank, April 2016.	2.4.12-14

Short reference	Full reference	Location
World Bank, 2017a	<i>Project Appraisal Document for the Ethiopia Rural Safety Net Project.</i> World Bank, 2017.	2.4.12-2
World Bank, 2017b	<i>Livestock and Fisheries Sector Development Project (P159382), Combined Project Information Documents /Integrated Safeguards Datasheet (PID/ISDS),</i> World Bank, 31-Oct-2017.	2.2.3-8
World Bank, 2017c	<i>World Bank Group Country Partnership Framework for the Federal Democratic Republic of Ethiopia for the period FY18–FY22.</i> Report No. 119576-ET, World Bank, May 22 2017.	2.4.12-6
World Bank, 2017d	<i>Early Child Birth and Under-Five Malnutrition in Ethiopia,</i> World Bank Knowledge Brief, Adenike Onagoruwau and Quentin Woodon, June 2017.	2.4.12-11
World Bank, 2017e	<i>Project Appraisal Document (PAD) on a proposed credit to the FDRE for a Livestock and Fisheries Development Project,</i> Report No. PAD2396, World Bank, 17 November 2017.	2.2.3-21
World Bank, 2018a	<i>Project Appraisal Document for Ethiopia Resilient Landscapes and Livelihoods Project,</i> World Bank July 9 2018 http://documents.worldbank.org/curated/en/671621533180654816/pdf/ETHIOPIA-PAD-07112018.pdf	2.2.1-17
World Bank, 2018b	<i>Ethiopia Growth and Competitiveness – Project Information Document,</i> World Bank, 27 September 2018, Report No. PIDA25537.	2.4.12-21
World Bank, 2018c	<i>Can Ethiopia Create 2 Million Jobs Every Year? Insights from a recent High-Level Forum on job creation in the rural non-farm economy held in Addis Ababa.</i> Lauren Kelly and José Carbajo Martinez, September 4 2018. available at: https://ieg.worldbankgroup.org/blog/can-ethiopia-create-2-million-jobs-every-year	2.4.12-22
Yutiso et al, 2014	<i>European Union Civil Society Fund II (CSF II) and Civil Society Support Programme (CSSP): Non-State Actors in Ethiopia – Update Mapping, Final Report,</i> by Dr. Gebre Yutiso (Team Leader), Debebe Haile-Gebriel, Kelkilachew Ali, February 2014, Addis Ababa, Ethiopia.	2.4.4-6

Acronyms and Abbreviations

ACCRA	African Climate Change and Resilience Alliance
ADLI	Agricultural Development-Led Industrialisation
AfDB	African Development Bank
AGP	Agricultural Growth Programme
ARRA	Administration for Refugee and Returnee Affairs
ATA	Agricultural Transformation Agency
BENEFIT	Bilateral Ethiopian Netherlands Effort for Food, Income and Trade
BRE	Building Resilience in Ethiopia
CAADP	Comprehensive Africa Agriculture Development Programme
CASCADE	Capacity building for scaling up of evidence-based best practices in agricultural production in Ethiopia
CDSF	Capacity Development Support Facility
CFSVA	Comprehensive Food Security and Vulnerability Analysis
CIFF	Children's Investment Fund Foundation
CMAM	Community-based management of acute malnutrition
COHA	Cost of Hunger Analysis
CRGE	Climate Resilient Green Economy
CRRF	Comprehensive Refugee Response Framework
CRS	Catholic Relief Services
CSA	Central Statistics Agency
CSAG	Climate System Analysis Group
CSI	Climate Smart Initiative
CSO	Civil Society Organisation
DA	Development Agent
DAC	Development Assistance Committee (of OECD)
DAG	Development Assistance Group
DFID	UK Department for International Development
DHS	Demographic and Health Survey
DPM	Deputy Prime Minister
DPs	Development Partners
DPPB	Disaster Prevention and Preparedness Bureau
DRM	Disaster Risk Management
DRMFSS	Disaster Risk Management and Food Security Sector
DRMTWG	Disaster Risk Management Technical Working Group
DRR	Disaster Risk Reduction
EC	European Commission
ECHO	European Commission Humanitarian Aid
ECSC	Ethiopian Civil Society Coalition
EDF	European Development Fund

Study of Key Issues for Ethiopia Evaluation

EDHS	Ethiopia Demographic and Health Survey
EDRI	Ethiopian Development Research Institute
EHCT	Ethiopian Humanitarian Country Team
ENCU	Emergency Nutrition Coordination Unit
ENGINE	Empowering New Generations to Improve Nutrition and Economic Opportunities
EPA	Environmental Protection Agency
EPACC	Ethiopia's Programme of Adaptation on Climate Change
EPRDF	Ethiopian People's Revolutionary Democratic Front
ERA	Ethiopia Roads Authority
EU	European Union
FAO	Food and Agriculture Organization
FDRE	Federal Democratic Republic of Ethiopia
FFP	Food for Peace
FMOH	Federal Ministry of Health
FSCD	Food Security Coordination Directorate
GAC	Global Affairs Canada
GAIN	Global Alliance for Improved Nutrition
GAM	Global Acute Malnutrition
GFA	General Food Assistance
GHI	Global Hunger Index
GHG	Greenhouse gas
GiZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German aid agency)
GNR	Global Nutrition Report
GoE	Government of Ethiopia
GRAD	Graduation with Resilience to Achieve sustainable Development)
GTP	Growth and Transformation Plan
HAD	Health Development Army
HEP	Health Extension Programme
HEW	Health Extension Worker
HFA	Humanitarian Food Assistance
HRD	Humanitarian Requirements Document
HTWG	Hotspot Technical Working Group
IDP	Internally Displaced Person
IDRC	International Development Research Centre
ICRC	International Committee of the Red Cross
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contribution
IOD	Indian Ocean Dipole
IRC	International Rescue Committee

Study of Key Issues for Ethiopia Evaluation

IYCF	Infant and Young Child Feeding
JEOP	Joint Emergency Operation
LIFT	Land Investment for Transformation
LMP	Livestock Master Plan
LRRD	Linking Relief to Rehabilitation and Development
M&E	Monitoring and Evaluation
MAM	Moderate Acute Malnutrition
MDG	Millennium Development Goal
MFA	Ministry of Foreign Affairs
MoA	Ministry of Agriculture
MoEF	Ministry of Environment and Forestry
MOFEC	Ministry of Finance and Economic Cooperation
MoH	Ministry of Health
MoLSA	Ministry of Labour and Social Affairs
MoT	Ministry of Transport
MoWIE	Ministry of Water, Irrigation and Electricity
MPTF	Multi-Partner Trust Fund
NAIF	National Agricultural Investment Framework
NAPA	National Adaptation Programme of Action
NAP-ETH	National Adaptation Plan for Ethiopia
NDRMC	National Disaster Risk Management Commission
NDRMTWG	National Disaster Risk Management Technical Working Group
NGO	Non-Governmental Organisation
NMA	National Meteorological Agency
NNCB	National Nutrition Coordination Body
NNP	National Nutrition Programme
NNS	National Nutrition Strategy
NNTC	National Nutrition Technical Committee
NPC	National Planning Commission
NRM	Natural Resource Management
NRMD	Natural Resource Management Directorate
NRMS	Natural Resource Management Sector
OCHA	UN Office for the Coordination of Humanitarian Affairs
ODA	Official Development Assistance
ODI	Overseas Development Institute
OECD	Organisation for Economic Cooperation and Development
OPDO	Oromo People's Development Organisation
PBS	Promoting Basic Services
PEFA	Public Expenditure and Financial Accountability
PER	Public Expenditure Review
PFM	Public Finance Management

Study of Key Issues for Ethiopia Evaluation

PIF	Policy and Investment Framework
PM	Prime Minister
PSNP	Productive Safety Net Programme
REACH	Renewed Effort Against Child Hunger and Undernutrition – Ending Child Hunger
RESET	Resilience Building in Ethiopia [EU programme]
REST	Relief Society of Tigray
RED&FS	Rural Economic Development and Food Security Sector
SAM	Severe Acute Malnutrition
SDG	Sustainable Development Goal
SHARE	Supporting Horn of Africa Resilience
Sida	Swedish International Development Cooperation Agency
SIPE	Satellite Index Insurance for Pastoralists in Ethiopia
SLMP	Sustainable Land Management Programme
SNNPR	Southern Nations Nationalities and Peoples Region
SSA	Sub-Saharan Africa
SSI	Small-Scale Irrigation
SUN	Scaling Up Nutrition movement
TPLF	Tigray People's Liberation Front
TSF	Targeted Supplementary Feeding
TSFP	Targeted Supplementary Feeding Programme
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
UPSNP	Urban Productive Safety Net Programme
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WB	World Bank
WFP	World Food Programme
WHO	World Health Organisation
WIDE	Well-being and Ill-being Dynamics in Ethiopia (an ongoing longitudinal study of twenty rural communities in Ethiopia which began in 1994)
WMO	World Meteorological Organization