



Ireland's Bilateral Climate Finance Ethiopia - 2013 Report

Ethiopia in East Africa has a population of over 90 million people and its territory covers 1,127,127 sq km. Recent reports from the Famine Early Warning Systems Network (FEWS NET) indicate that there has been an increase in seasonal mean temperature in many areas of Ethiopia (IPCC, 2014) and according to the UNDP climate change country profiles, the average annual temperature in Ethiopia is projected to increase by 1.1 to 3.1C degrees by the 2060s (McSweeney et al. 2010). In 2013, Ireland provided a total of €15,425,000 climate finance.

Ethiopia

Country Statistics

Population¹	94,100,756
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Income per capita²	\$1,303
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HDI Rank³	173 rd
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Vulnerability Rank⁴	9 th
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Extreme Events Rank⁵	79 th
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Map of Ethiopia, Irish Aid

¹Population in 2013: World Bank (2014) <http://data.worldbank.org/indicator/SP.POP.TOTL> Available at 28th July 2014.

² Income per capita in 2013, GNI in 2011\$ PPP; UNDP (2014) International Human Development Indicators; <http://hdr.undp.org/en/countries> Available at 28th July 2014.

³ *ibid*

⁴ ND GAIN (2013) <http://index.gain.org/ranking> Available at 20th June 2014. The rank quoted is an inversion of the ND GAIN vulnerability index which gives a higher rank to the least vulnerable. We have inverted so that 1st place is most vulnerable and 183rd place is least vulnerable.

⁵ Average over 1993-2012. Higher rank denotes greater losses from extreme events; Germanwatch (2014); Global Climate Risk Index 2014, <http://germanwatch.org/en/download/8551.pdf> Available at 20th June 2014



Improving harvests in Ethiopia Concern Worldwide with support of Irish Aid, Concern Worldwide 2012

	Bilateral Programme 2013 EUR ⁶
Climate Finance; Adaptation ⁷ (UNFCCC)	14,425,000
Climate Finance; Mitigation ⁸ (UNFCCC)	7,325,000
UN Convention on Biological Diversity (UNCBD)	6,950,000
UN Combat Desertification and Degradation (UNCCD)	6,815,000
Disaster Risk Management (DRM) (UNISDR)	11,450,000
Irish Aid Support for Irish Civil Society Programme Partners in Ethiopia	1,331,642

⁶ These figures should not be aggregated as some disbursements have multiple co-benefits and are marked for multiple environmental impacts. The total climate finance figure for 2013 is €15,425,000.

⁷ Climate relevant disbursements where the principal climate marker is applied are counted at 100% whereas climate relevant activities to which the significant marker is applied are discounted by a coefficient factor of 50%. The principal marker indicates that the specified cross-cutting theme, in this case, climate adaptation, was a main objective of the activity. It implies that the activity may not have gone ahead if not for the climate dimension. The significant marker indicates that the activity had other principle objectives which were the focus of the activity but that co-benefits were planned or mainstreamed into the activity. The application of the 50% coefficient to significant expenditures is a proxy representation of this lesser role of the environmental dimension in the disbursed amount.

⁸ Calculated as above.

Convention on Climate Change (UNFCCC)

Ethiopia is an active participant in the international climate change process of the UNFCCC. Ethiopia is a member of the Least Developed Countries group in the UNFCCC and was chosen by the African constituency as an alternate member of the board of the Green Climate Fund. Ethiopia also holds an African seat on the current Consultative Group of Experts (CGE). The CGE offers expert advice to developing (non-Annex I) countries on the preparation of National Communications and Biennial Reports.

Recent Climate Trends in Ethiopia

The IPCC Fifth Assessment Report WGII found that recent reports from the Famine Early Warning Systems Network (FEWS NET) indicate that there has been an increase in seasonal mean temperature in many areas of Ethiopia (IPCC, 2014). According to the UNDP climate change country profiles, the average annual temperature in Ethiopia increased by 1.3°C between 1960 and 2006 (McSweeney et al, 2010). Daily temperature observations also show an increase in the average number of ‘hot’ days and ‘hot’ nights per year. There is no statistically significant trend in observed average rainfall in any season (McSweeney et al, 2010). Daily rainfall records are insufficient to identify current trends in daily rainfall (McSweeney et al, 2010).

Projections of Future Climate in Ethiopia

According to the UNDP climate change country profiles, the average annual temperature in Ethiopia is projected to increase by 1.1 to 3.1°C by the 2060s. All projections indicate substantial increases in the frequency of days and nights that are considered ‘hot’ in the current climate (McSweeney et al, 2010). Climate model projections under some IPCC scenarios show warming in all four seasons across Ethiopia, which may cause a higher frequency of heat waves as well as higher rates of evaporation (Conway and Schipper, 2011). Thus current ‘hot’ days and nights will increasingly become the new normal for the Ethiopian climate. In highland arabica coffee-producing areas of eastern Africa, warming trends may result in the coffee berry borer (*Hypothenemus hampei*) becoming a serious threat in coffee-growing regions including in Ethiopia.

The UNDP country profile study projections consistently indicate increases in annual rainfall in Ethiopia, largely due to increased rain in the short rainy season of October-December in southern Ethiopia. They project that an increasing proportion of rainfall will fall in ‘heavy’ events mainly in the second half of the year (McSweeney et al, 2010). The World Bank Climate Profile of Ethiopia also supports this assessment. According to the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), precipitation extremes or heavy rainfall events can lead to an increase in soil erosion due to rainfall and thus higher stream sediment loads. Greater runoff due to heavy rainfall events has a negative impact on water quality. Instead of diluting pollution, increased run-off sweeps more pollutants from the soil into watercourses.

The World Bank Climate Profile of Ethiopia lists the following implications for disaster risk management from climate change;

- According to the country's National Adaptation Programme of Action, climate change in Ethiopia will bring changes in precipitation patterns, rainfall variability, and temperature, which could increase the frequency and occurrence of floods and droughts.
- The increasing year-to-year variability and increases in both droughts and heavy precipitation events lowers agricultural production with corresponding negative effects on food security.
- Negative climate impacts on crop and livestock production could lead to food shortages, further hindering economic growth.
- The availability of clean drinking water is likely to decrease due to increasing evaporation and the increasing variability of rainfall events.
- Incidences of malaria will increase in areas of the highlands where malaria was previously not endemic. The warming is further expected to cause an increase in cardio-respiratory and infectious diseases.



Kidane Girmai farmer in operational research programme Tigray, Irish Aid, 2013

Climate Change Adaptation

Ethiopia is a member of the Least Developed Countries' Group in the UNFCCC. As part of the LDC work programme in the UNFCCC, Ethiopia's National Meteorological Agency produced a National Adaptation Programme of Action (NAPA) in 2007 with the aim of identifying priority activities that respond to urgent and immediate needs for adaptation to climate change. In particular, the NAPA identifies those needs for which further delay could increase vulnerability or lead to increased costs at a later stage. Prominence is given to community-level input as an important source of information, recognising that grassroots communities are the main stakeholders.

Ethiopia's NAPA identified the following priority actions for adaptation in Ethiopia;

- Promoting drought/crop insurance programme
- Strengthening/enhancing drought and flood early warning systems
- Development of small scale irrigation and water harvesting schemes
- Improving/enhancing rangeland resource management practices in pastoral areas
- Community based sustainable utilisation and management of wet lands
- Capacity building programme for climate change adaptation
- Realising food security through multi-purpose large-scale water development project in Genale-Dawa Basin
- Community based carbon sequestration project in the Rift Valley System
- Establishment of national research and development centre for climate change
- Strengthening the malaria containment programme
- Promoting on-farm and homestead forestry and agro-forestry practices in arid, semi-arid and dry-sub humid areas

These projects broadly focus in the areas of human and institutional capacity building, improving natural resource management through community participation, enhancing irrigation agriculture and water harvesting, strengthening early warning systems and awareness rising. Further detail on these priorities is provided in the NAPA. Subsequent to the NAPA, there is some evidence of evolution to a more integrated, multi-level and multi-sector approach to adaptation planning e.g. Ethiopia's Programme of Adaptation to Climate Change, which includes sectoral, regional, national and local community levels (Hunde, 2012; IPCC, 2014).

Mitigation

In 2010 Ethiopia submitted to the UNFCCC approximately 70 specific actions or projects as its Nationally Appropriate Mitigation Action (NAMA) up to the year 2020. These actions include projects in; renewable energy from hydro, wind, solar, geothermal and biofuel sources; railway projects; agriculture including soil and agro-forestry measures; forestry; and waste management. Ethiopia seeks financial and technical support for these actions.



Farmers harvesting from Sinana to Boset, Hailu Wudineh.

Resources:

IPCC 5th Assessment Report (2014), Working Group II Impacts, Adaptation and Vulnerability: <http://ipcc-wg2.gov/AR5/>

McSweeney et al, (2010); UNDP climate change profile for Ethiopia:

<http://www.geog.ox.ac.uk/research/climate/projects/undp-cp/index.html?country=Ethiopia&d1=Reports>

World Bank Climate Profile (Available at 20th June 2014):

http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCode=ETH&ThisTab=ClimateFuture

Ethiopia's NAPA: http://unfccc.int/adaptation/workstreams/national_adaptation_programmes_of_action/items/4585.php

Ethiopia's NAMA: http://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/ethiopiaphaccord_app2.pdf

Ethiopia & the UN Convention on Biological Diversity (UNCBD)

There are eight terrestrial ecosystems within Ethiopia. These range from afro-alpine and sub-afroalpine grasslands, through to moist evergreen and montane forest to desert and semi-desert scrubland ecosystems. In addition there are wetlands and aquatic ecosystems. Because of the diversity of ecosystems, Ethiopia is endowed with a wide diversity of fauna and flora. The protected areas of Ethiopia constitute 14% of the total land area, but the montane forest ecosystems are not represented. According to the most recent study, Ethiopian forest cover had declined from an estimate approximately 35% in 1900 to 3.56% of the total. However, forestation efforts since 2000 have seen some recovery in total area. The loss of the highland montane forest areas of Ethiopia has been estimated at between 150,000 and 200,000 ha per annum.

The country is also a center of origin and diversity for a number of crop and animal genetic resources, reflecting its long history of agriculture. There is an immense variation in the farmer' varieties of different crops and breeds of livestock. More than one hundred crop plant species are cultivated with a sizeable proportion of them having their center of origin or diversity in Ethiopia. There are also thirty cattle, fourteen sheep, fourteen goat, four camel, four donkey, two horse, two mule, five chicken and five honey bee breeds/ecotypes/populations recorded which are indigenous to the country. This biodiversity is of crucial importance in the socio-economic, cultural and political life of the people. However, farmer's varieties are being replaced by uniform improved varieties, and livestock breeds are also similarly threatened through cross-breeding with exotic breeds.

The rich biodiversity of the country is under serious threat from deforestation and land degradation, overexploitation, overgrazing, habitat loss, invasive species and some water pollution. The underlying causes for these problems emanate from poverty, population growth, lack of alternative livelihoods, inadequate policy support, inappropriate investment and inadequacy of law enforcement. A number of endemic wild animals, birds, trees and herbaceous plants are reported to be endangered or critically endangered. However, recovery is possible.

The conservation status of the Walia ibex has improved from being critically endangered to endangered while on sites where area closure has been applied, rehabilitation of the land has occurred and with restoration of species which were on the point of local extinction. It appears that soil seed banks are still rich even in the most denuded and degraded areas, and protection alone can result in sizeable recovery. Such success stories show that active conservation programs can revive the biodiversity; however, these alone are far from adequate in the face of the alarming magnitude of the threats.

The National Biodiversity Strategies and Action Plan (NBSAP) is a vital strategic document that should guide biodiversity conservation, sustainable utilization, as well as access and benefit sharing. Nonetheless, none of the stakeholders, including the Institute of Biodiversity Conservation (IBC), which is the focal point institution, have used it as a governing guide to undertake development, research and conservation activities. The Institute of Biodiversity Conservation (IBC) needs to work aggressively in the coordination and monitoring of the implementation of the Strategy. There are fragmented efforts by institutions at federal and regional levels, one way or the other, to address the problem through biodiversity conservation related projects/activities, which reflect the NBSAP.

Beyond the sectors that directly deal with biodiversity and environmental issues, there are many other sectors in the country that are supposed to, but that have failed, to integrate biodiversity issues into their strategies and programs. Some of those that have failed include; the health, mining, investment, tourism, and trade and industry sectors. Some of the regional states (e.g. Southern Nations, Nationalities and People (SNNP) and Tigray Regions) have taken crucial steps towards assigning experts to oversee the conservation of biodiversity.

Resources:

UNCBD Country Profile: <http://www.cbd.int/countries/?country=et>

National Communication: <http://www.cbd.int/doc/world/et/et-nr-05-en.pdf>



Women collecting firewood for open fire cooking, VITA 2010

Ethiopia & the UN Convention to Combat Desertification (UNCCD)

The arid, semi-arid and dry sub-humid areas of Ethiopia account for about 70% of the total land mass. The overall goal for Ethiopia under the UNCCD is “to increase human well-being in the arid, semi-arid and dry sub-humid areas of the country through the conservation and sustainable utilisation of land and other natural resources. Priority areas identified were *inter alia*; participatory development planning and programme implementation including capacity building and institutional support; improving knowledge of drought and desertification including research; action programme areas for managing natural resources leading to sustainable development; improved socioeconomic environment; and promotion of alternative livelihood systems. Ethiopia submitted its National Action Programme to the UNCCD in 2000.

Resources:

Ethiopian EPA (1998), National Action Program under the UNCCD <http://www.unccd.int/en/regional-access/Pages/countries.aspx?place=68>

Key Partner Country's Bilateral Projects and Programmes

1. Productive Safety Nets Programme (PSNP), Ministry of Finance & Economic Development

Ethiopia's Productive Safety Net Program (PSNP) is a large national social safety net (SSN) program that responds not only to chronic food insecurity among Ethiopia's poor, but also to shorter-term shocks, mainly droughts. It targets a highly climate-vulnerable population, offering a practical model of how social safety nets can be designed to meet the social protection needs of the most vulnerable, while simultaneously reducing the risks from disaster and climate-related impacts. The PSNP incorporates a number of interesting features, such as: public works activities geared towards improving climate resiliency; a risk financing facility to help poor households and communities to better cope with transitory shocks, including households outside of the core program; and the use of targeting methods that assist the most climate-vulnerable community members to obtain the full benefits of consumption smoothing and asset protection. The IPCC 5th Assessment Report Working Group II noted that by using social protection to buffer against shocks through building assets and increasing resilience of chronically and transiently poor households, the PSNP surpasses repeated relief interventions to address slower onset climate shocks. The PSNP is marked as 'principal' in adaptation due to its target of a highly climate vulnerable population and substantial efforts to reduce risks from climate related impacts. It is therefore counted at 100% towards climate finance.



Holding up cash payment forms from the Productive Safety Nets Programme Ethiopia, Irish Aid 2011

2. Integrated Livelihood Programme, Adigrat Diocese Catholic Secretariat (ADCS)

This project aims to improve production and productivity capacity of the area and the targeted community which has been identified as very vulnerable to climate change including increased occurrence of droughts. The target area and community are rural and agricultural. The project aims to increase agricultural productivity including through improved natural resource management, especially of water resources which are key in enhancing ground water potential. Measures are also taken to conserve soil. In promotion and facilitation of improved management of water resource, this project contributes to adaptation. Improved management of water resources and prevention of soil erosion mean that this project also contributes to combating desertification and degradation of land. This project is marked as ‘principal’ adaptation and thus counts at 100% towards climate finance.

3. Operational Research Technologies Dissemination Project, Southern Agricultural Research Institute (SARI), Tigray Agricultural Research Institute (TARI)

Operational research in the agricultural sector is a form of farmer participatory research and extension. The participatory approach places greater emphasis on on-farm trials and farmer validation of technologies. This project concentrated on crops, livestock, natural resource management technologies and socio-economic analysis. Ethiopia is highly vulnerable to climate change, not least because most agriculture is rain fed. Wheat yields are expected to decline by 33%. Introduction of new crops and varieties contributes to diversity of the farming system and contributes to resilience to climate change. This project also contributes to tackling the seed supply challenge by facilitating access to improved varieties and by experimenting with sustainable models for enhanced access to better quality seed. By addressing food security, and development of more climate resilient food and farming systems, this project supports adaptation to climate change. This is a key goal of the project and therefore it is marked as ‘principal’ for adaptation and is counted at 100% towards climate finance.

4. Humanitarian Response Fund, UN

The aim of this fund in 2013 was to prioritize livelihood interventions by linking beneficiary targeting between livelihood and ongoing emergency nutrition activities in order to enhance the sustainability of the humanitarian response. The activities included interventions designed to address the livelihood needs of drought-affected vulnerable households. The affected people received direct and indirect cash transfers. Beneficiaries of conditional cash transfers participated in public works which included water catchment treatment, gully reclamation, percolation schemes and construction of flood diversion check dams. Overall, the interventions contributed to adaptation and disaster risk management by improved management of water sources, and by minimizing negative coping mechanisms including distress migration and sale of productive household assets. As improving resilience is not a principal objective of this activity, it is marked as ‘significant’ for adaptation and is counted at 50% towards climate finance.

5. Civil Society Support Programme, British Council

In 2013 the Civil Society Support Programme included funding for Climate Resilient Pilot Programme Grants. One of these grants was awarded to a small group of NGOs lead by Christian Aid for their project proposal “Piloting Community Driven Climate Resilience Building in Four Woredas’ of Benshangul Gumuz Region”. The project supports adaptation by focusing on building resilience capacity of hardest to reach men and women (especially, local indigenous people) in 4 target woreda’s through alternative livelihoods, maintaining the eco-system, supporting community innovations and promoting learning. It strives to develop innovative community driven actions that can be replicated elsewhere in terms of transforming policies, strategies, programs and practices of climate change institutions in favour community driven approach to climate adaptation programs. As climate resilience or mitigation is not the principal objective of this programme, it is marked as ‘significant’ in adaptation and is counted at 50% towards climate finance.

6. Alleviation of Food Insecurity and Malnutrition in Tigray, International Potato Centre (CIP)

The improved varieties the International Potato Center and partners are currently working with produce high yields and are drought resistant and well adapted to the agro-climatic conditions prevalent in Southern Nations, Nationalities, and Peoples' Region (SNNPR). Among the important food crops, sweet potato is one of the most drought-tolerant crop species available to mankind. Given its large genetic diversity, sweet potato varieties differ substantially in their genetic makeup and characteristics such as drought tolerance. White flesh sweet potato is generally more drought tolerant than orange flesh sweet potato. A farmer growing exclusively orange flesh sweet potato would therefore be more exposed to the risk of droughts than a farmer growing white flesh sweet potato. This project therefore encouraged farmers to grow both types. Farmers are advised to plant orange flesh sweet potato closer to the homestead where water for irrigation might be available in the form of shallow wells, rainwater harvesting structures, or household wastewater. For vine maintenance, an innovative practice has been developed in SNNPR; the crop is grown shaded under enset plantations where soil fertility and the soil’s water-holding capacity are usually much higher than in other parts of the farm, thereby ensuring that the planting material can be maintained during the dry season and other periods of drought.

The project showed that OFSP is an agronomically suitable and socially acceptable crop for reducing food insecurity in Tigray. It is a hardy, drought tolerant, ‘low maintenance’ crop, that can be easily grown by inexperienced farmers after some basic training. Building on the growing evidence and achievements at local level, there are timely opportunities at the national and regional level for the project extension to contribute to the formulation and implementation of agriculture and nutrition strategies in priority policy areas such as climate resilience and child nutrition. This project makes explicit effort to take climate change into account and improve the climate resilience of its target group. Therefore this is counted as ‘significant’ in adaptation and is counted at 50% towards climate finance.

7. Community Based Seed Production, FARM London

The aim of this project is increased food security and economic growth for women and men farmers in SNNPR through local production of quality seed to increase agricultural yields. The project also promotes natural resource management practices, particularly through supporting nurseries for seedling production to reduce the environmental damage to land and promote agricultural growth in a sustainable way. With a rapidly increasing population, marginal and steep lands are increasingly being brought under cultivation, leading to accelerated soil erosion, and to declining and more variable crop yields. Ethiopia in general and SNNPR in particular has experienced massive environmental degradation due to natural factors, misuse of natural resources, unsound ecological practices and population pressure. As population grows, arable land per capita declines and the fragmentation and degradation of land through overuse increases. In response to the increased population density and shortage of arable land, fallowing practices, which were traditionally used by farmers to maintain land fertility, have either been abandoned or the periods shortened. The disappearance or decline of fallow periods leads to soil erosion, and a reduction in soil fertility and land productivity. As a result agricultural production has decreased resulting in food insecurity (shortages) and poverty in the region. The project will promote natural resource management practices through community training and experience sharing visits for local government experts to reduce the environmental damage to land. Thus the project supports the combat against desertification and land degradation.

8. Electrifying Rural Health Centres, GIZ

As part of the EnDev Programme, GIZ signed a letter of agreement with Irish Aid (IA) in 2011 and an amendment in for the installation of PV systems in health centres. In 2013, IA continued cooperation on electrifying rural health institutions and scaling-up activities to Tigray Region. The IA contribution was used to provide health centres with access to electricity based on solar photovoltaic (Solar PV) systems, as well as installations of 8 solar water pumping and 6 solar water heating systems. Investments in renewable energy to increase energy access represents support for mitigation as it represents a saving in greenhouse gas emissions compared to provision of energy access using fossil fuel sources. It also supports mitigation because it supports the shift in the development pathway towards low carbon/green growth. The partnership with GIZ continues in 2014 with a project on dissemination of improved cook stoves (ICS) along with fuel wood supply enhancement through promoting and implementing tree plantation both in private and communal lots in Tigray Region. In 2014, the Project will also consider options for introducing technologies, e.g. a briquetting plant for modern briquette charcoal production as a substitute to traditional charcoal as a component of the supply side intervention. Briquettes would be produced by using agricultural or agro-industrial residues and other biomass waste. Cook stoves also support mitigation because due to their increased efficiency, less fuel is burnt with consequently less greenhouse gases and air pollutants emitted. Furthermore, by implementing tree plantation for fuel wood, the project supports mitigation by reducing emissions from deforestation and degradation (REDD). These efforts are in line with Ethiopia's Climate Resilient Green Economy (CRGE) targets. This project is counted as 'principal' in mitigation and is counted at 100% towards climate finance.

9. Improve Nutrition & Food Security, International Potato Centre (CIP)

SNNPR is characterized by a diverse agro-ecology, relatively high population density, exposure to recurrent periods of droughts, and erratic rain patterns. Generally, crop yields are low and the majority of the population, particularly women and children, continue to face high levels of poverty, hunger, chronic food insecurity, and widespread malnutrition, in spite of ongoing donor programs designed to address these issues. Research undertaken to determine the causes of chronic malnutrition in both regions, and in Ethiopia in general, has identified a number of factors, including poverty, a largely rain-fed agricultural system prone to adverse climatic conditions (droughts, inadequate rainfall), limited access to land, poor cropping practices, increasing population pressure, weak agricultural policies, inflation, low crop diversification, and limited income opportunities. This project contributes to addressing this through a program of work that expands the production, utilization, and consumption of nutritious sweet potato and potato varieties. Target groups were chosen based on criteria including drought and water stress. The project will conduct evaluation trials of the improved potato varieties in several locations to determine performance and adaptation emphasizing drought and high altitude tolerance. This project supports adaptation and resilience to climate change by pursuing improved nutritional outcomes that are developed and tested for resilience to locally relevant climate extremes e.g. drought. It is marked as 'significant' for adaptation and is counted at 50% towards climate finance.



An Ethiopian woman sells locally grown onions tomatoes and chillies, Irish Aid 2010

10. Climate Resilience in Lake Hawassa, SOS Sahel Ethiopia

The project aims to build resilience and adaptation to climate extremes of smallholder households in the Lake Hawassa ecosystem by bringing measurable improvements in their food and nutritional status. The project will identify and promote different climate-smart agricultural practices, technologies and approaches that increase productivity whilst ensuring environmental sustainability. The project will build the resilience of individuals, households and communities by improving and diversifying livelihoods, developing community based management systems of resources critical to resilience (water, wetlands, farmlands, communal land and forests. This will also have benefits for biological diversity. The project will also embed disaster risk reduction, climate change adaptation and mitigation into long term development, strengthening market access, building institutional capacity for effective disaster risk management and development and action research to generate evidence to influence policy and practices. The project supports adaptation to both slow onset disasters

(e.g. droughts) and sudden onset events like floods and landslides. Interventions range from community based integrated watershed management, piloting and testing of various climate-smart agriculture practices, technologies and approaches such as agroforestry, identification and promotion of non-farm rural economic enterprises, strengthening access to rewarding and new market opportunities, institutional building of public and private sectors and community based organisations to effectively manage disaster risk and long-term development, strengthening early warning schemes, access to weather/climate information and provision of reliable and affordable energy. The project is consistent with Ethiopia's Climate Resilient Green Economy (CRGE) that has identified agriculture, forestry and energy as priority sectors for low carbon development. The project began with an inception phase in 2013 and continues with implementation for 5 years. This project is counted as 'principal' for adaptation and 'significant' for mitigation and is therefore counted at 100% for climate finance.

11. Two projects for agroforestry and smallholders, Tigray Bureau of Agriculture and Rural Development

The goal of the first project is to contribute to the regional agricultural GTP through effective and efficient use of improved crop varieties that are responsive to climate change and distribution of improved livestock technologies. The project also includes support for Farmer Training Centres. In this way the project contributes to adaptation by assisting farmers in production of climate resilient crops. This project aims to address the seed supply challenge by facilitating access to improved seed varieties and enhanced access to better quality seed.

The focus of the second project, "Enhancing Climate Resilient Green Economy through re-afforestation, participatory agro-forestry and alternative energy sources" is on 1) Watershed management through the promotion of multipurpose tree plantation, 2) participatory agro-forestry and 3) provision of alternative energy sources from wasted sesame straw. Forestry and agro-forestry production systems have been found to provide a multitude of goods and services and hence the capacity to address different constraints for different consumers over different time periods. They can contribute to household income/consumption directly through the production of goods and services such as fodder for livestock, reduction of land degradation, improved soil and water conservation. In addition, other benefits can be realised downstream through reduction of soil erosion and/or increased water flow control. Promotion of agro-forestry thus supports mitigation by contributing to carbon sequestration, supports adaptation by its contribution to water management and supports the combat of desertification by reduction in soil erosion. The project also supports capacity building for climate change by training farmers in agro-forestry techniques.

Together these projects are marked as 'principal' for adaptation and are counted at 100% towards climate finance.

12. Promotion and Dissemination of Improved Cook Stoves and Fuel Wood Enhancement in Tigray; GIZ

Ethiopia

Improved cook stoves support mitigation of greenhouse gas emissions because due to their efficiency, less fuel is burnt. They also contribute to mitigation by reducing emissions from deforestation and forest degradation as less fuel wood is harvested. This reduced demand for fuel wood has the further positive impact of protecting wildlife habits and thus supports biodiversity.

Irish Aid funding to Irish civil society programme partners in Ethiopia

The following disbursements by Irish Aid were identified as relevant to climate change, environment and/or disaster risk reduction by the beneficiary CSOs but are not included in Ireland Climate finance reports;

- Irish Aid disbursed €266,149 to support Trócaire contributing to the sustainable improvement of the livelihood of the target beneficiaries.
- Irish Aid disbursed €345,000 to support Concern enhancing the resilience of extreme poor households to risk and shocks through strengthening natural resource base in target communities
- Irish Aid disbursed €230,353 to support Self Help Africa increasing smallholder skills and knowledge to benefit nutritionally and economically from intensified and diversified agricultural production and to engage smallholders and networks with relevant corporate, national, regional and global policy processes supported leading to more favourable environment for smallholder farmers.
- Irish Aid disbursed €108,776 to support Vitas in the provision of stoves, assistance in carbon pricing and CLTS.
- Irish Aid disbursed €381,364 to support GOAL in reducing vulnerability to disasters in Borena and West Haraghe, in strengthening institutions and policies for improved access, availability and utilisation of food and diversification of income sources.

Mapping of Bilateral Expenditure

Project/Programme	2013 Actual	2014 Planned	Env	CBD	CC Mit	CC Ad	CCD	Agri	DRR	CB	TT	REDD
8 Productive Safety Nets Programme (PSNP), Ministry of Finance & Economic Development	11,000,000	10,400,000	1	1	1	2	1	0	2	1	0	1
10 Integrated Livelihood Programme, Adigrat Diocese Catholic Secretariat (ADCS)	250,000	250,000	1	1	0	2	1	1	1	1	0	0
13 3rd Payment for Technology Dessimation in SNNPR	115,000	125,000	0	0	0	2	1	1	0	0	1	0
113 DCD1307-Humanitarian Response Fund, UN	500,000	0	1	0	0	1	0	1	1	1	0	0
114 DCD1307-IA'S CONTRIBUTION TO 2013 Civil Society Support Programme (CSSP), British Council	1,370,000	0	0	0	0	1	0	1	0	0	0	0
122 DCD1310-Community Based Seed Production, FARM London	500,000	0	1	1	0	0	1	1	0	1	0	0
123 DCD1310-Electrifying	500,000	500,000	1	0	2	0	0	0	0	0	1	0

Project/Programme	2013 Actual	2014 Planned	Env	CBD	CC Mit	CC Ad	CCD	Agri	DRR	CB	TT	REDD
Rural Health Centres, GIZ												
[124] DCD1310-Improve Nutrition & Food Security, CIP	720,000	0	0	0	0	1	0	1	0	0	0	0
295 Payment for Climate Resilience in Lake Hawassa, SOS Sahel Ethiopia	150,000	370,000	1	1	1	2	1	1	1	0	0	1
298 Payment for two projects agroforestry and smallholders, Tigray Bureau of Agri and Rural Development	1,500,000	0	1	1	1	2	1	1	0	1	0	1
357 Support to OR Technology dissemination-TARI	115,000	175,000	0	0	0	2	1	0	0	0	1	0
HQ Promotion of Cookstoves and Fuelwood enhancement, GIZ Ethiopia	500,000	0	1	1	2	0	0	0	0	0	0	0

Significant versus Principle Markers

The OECD DAC Rio Markers and the anticipated Disaster Risk Management Rio Markers work on a three-score system. Activities can be identified with;

- Principal marker of 2
- Significant marker of 1
- Or not targeted; 0.

The choice of principle, significant or not-targeted relates to hierarchy of objectives in the programme or project design. A principle marker is applied if the marker policy is one of the principle objectives of the activity and has a profound impact on the design of the activity. A significant marker is applied if the marker policy is a secondary objective, or a planned co-benefit, in the programme or project design. The zero marker is applied to show that the marker policy was not targeted in the programme or project design. If this is unknown, the marker is left blank.