Appraisal of climate change mitigation and adaptation regulatory frameworks in Ethiopia and their congruency with the UN climate change convention

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Abstract

Purpose – The purpose of this paper is to critically investigate the Ethiopia’s climate change adaptation and mitigation regulatory frameworks and their congruency with the guiding principles under the United Nations (UN) Climate Convention, to show the alignment of the regulatory frameworks with the UN Climate Change rules. Rising temperatures, erratic rainfall distribution, recurrent droughts and floods require robust climate change mitigation and adaptation policies and effective implementation in the country.

Design/methodology/approach – Through the doctrinal legal research method, the author has used a detailed analysis of primary sources, both national and international legislative enactments. Besides, the research has benefited from secondary sources like research reports, online publications, scientific journals, international reports, books and journal articles.

Findings – The findings reveal that in Ethiopia, there is no national climate change-specific policy and legislation. Although there are scattered sectoral climate-related policies and strategies, they are not consistent with the principles of the United Nations Framework Convention on Climate Change (UNFCCC).

Originality/value – This study argues that having comprehensive specific climate change policy and legislative frameworks consistent with UNFCCC guiding principles could help to mitigate and adapt to the adverse effects of climate change in the country.

Keywords Ethiopia, Climate change, Mitigation, Adaptation, UN climate convention, Regulatory frameworks

Paper type Research paper

1. Introduction
Currently, anthropogenic climate change is the largest, most pervasive threat to the natural environment and human societies the world has ever experienced (UNEDP and Sabin Center

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Developing countries like Ethiopia, in particular, are more vulnerable to the adverse impacts of climate variability and change (Tadege, 2007). There is a consensus among the scientific community about the impacts of climate change on the natural rights of human beings as it threatens the enjoyment of a range of human rights inter alia the right to life, water, food, health and development. Therefore, one can rightly argue that the linkages between climate change and human rights violations are beyond dispute. Making development more sustainable can enhance both mitigation and adaptive capacity and reduce emissions and vulnerability to climate change (Zhang, 2019).

Ethiopia has been identified as one of the most vulnerable countries to climate variability and change and is frequently faced with climate-related hazards, commonly drought and floods (Gezie, 2019). The country is among the low-income countries where climate change severely affected its socio-economic development processes (Bekele et al., 2021). Substantial warming across the entire country has exacerbated the dryness because of climate change and the pattern of observed existing rainfall declines adversely affecting crop yields and pasture conditions (U.S. Geological Survey, 2012). Thus, the country is vulnerable to many of the effects of climate change, including increases in average temperature and changes in precipitation (World Health Organization, 2017). For instance, because of widespread below-average rainfall observed from October to December 2021, extreme drought conditions have occurred in southern Ethiopia and resulted in the deaths of over 220,500 livestock in the Borena, Dawa, Liben and Afar zones (U.S. Geological Survey, 2012). There has been a rising trend in aggregated national greenhouse gas emissions in Ethiopia as estimated emissions in 2013 were about 927.46% higher than in 1990, but 29.35% and 28.86% lower than the 2000 and 2010 emissions, respectively (Engdaw, 2020).

Even though the country has scattered climate change policies, strategies and programmes in place, still climate change is acute problem in the country. Moreover, scholars argue that even though the country has started adaptation interventions against adverse effects of climate change, endeavours are still at a relatively early phase: it is practically more acceptable to state that these implementation measures are fragmented and limited (Destaw and Fenta, 2021). Hence, the purpose of this article is to critically compare and analyse Ethiopia’s national climate change mitigation and adaptation regulatory frameworks to know whether the country has paid attention to or adhered to the United Nations Framework Convention on Climate Change (UNFCCC) principles or not. The basic justification for comparing is that the signatory states including Ethiopia are duty-bound to follow the guiding principles stated in the UNFCCC and ensure at least the reduction of the adverse impacts of climate change in their jurisdictions. The other reason behind having the comparison is the fact that in Ethiopia (as one of the developing countries), there is sometimes prioritizing economic growth over environmental concerns. That is why in many development-related policies, a minimal place is given to environmental protection.

Methodologically, a qualitative research approach was adopted and being a legal investigation, purely doctrinal legal research methodology was used to appraise the climate change regulatory frameworks from international and national perspectives. When one needs to conduct a critical, qualitative analysis of legal documents to support his/her argument, the appropriate research methodology is a purely doctrinal legal research approach (Amrit Kharel, 2018). Through the doctrinal legal research method, the author has used a detailed analysis of primary sources (legal rules found in environmental legislations or United Nations (UN) Climate Conventions). Therefore, the multilateral environmental treaties, legislative enactments and climate change policies constitute the primary sources used in the data gathering process. Moreover, this research has also relied on secondary sources of research reports, online publications, scientific journals, international reports, books and journal articles. The data collected were analysed by using content analysis. This type of data analysis technique is suitable for doctrinal legal research (Salehijam, 2018).
Given the problem stated above, previous studies on the climate change in Ethiopia have suffered from a lack of critical research on the analysis of the regulatory frameworks from the perspectives of the country’s international climate obligations. The justification for comparing is that firstly, as a signatory state, Ethiopia is duty-bound to follow the guiding principles stated in the UNFCCC and ensure at least the reduction of the adverse impacts of climate change in their jurisdictions. Secondly, in the country there is sometimes prioritizing economic growth over environmental concerns. That is why in many development-related policies, a minimal place is given to environmental protection. The scholarship gap in climate change policies and strategies initiated the need for more research on the climate change mitigation and adaptation legal efforts in Ethiopia to enable the government to revisit its national climate regulatory frameworks.

The paper explores the Ethiopia’s legal and policy responses to climate change from the perspectives of the UNFCCC guiding principles. The climate change impacts on human rights is also highlighted mitigation and adaptation measures the country is being use. This study advocates for inclusion of UNFCCC guiding principles into the country’s climate regulatory as well as having separate legal framework for effective climate system protection and core challenges in the existing regulatory frameworks are addressed.

2. Overview of Ethiopian’s response to climate change
Ethiopia’s active participation in various international environmental negotiations and being a signatory member state of multilateral environmental treaties including the UNFCCC or UN Climate Convention, United Nations Convention on Biological Diversity, Kyoto Protocol to the UNFCCC and the Paris Agreement shows that the country has a strong commitment to responding to climate change. Nationally, the country is taking mitigation and adaptation as two kinds of responses to climate change. To adapt to climate change, the country has prepared the National Adaptation Programme of Action and to mitigate climate change there is Nationally Appropriate Mitigation Action. Nationally, Ethiopia has put in place a Climate Resilient Green Economy Strategy with the aims of, inter alia, improving crop and livestock production practices for higher food security and farmer income simultaneously by reducing green house gas (GHG) emissions, protecting forests for their economic and ecosystem services, including as carbon stocks and expanding electricity generation to replace the use of fossil fuels.

The observed rainfall distribution changes and temperature variability are indications of the existence of climate change in a particular region. In Ethiopia, the mean annual temperature has risen by 1.3°C between 1960 and 2006 and is projected to increase up to 1.8°C by 2050s and 3.7°C by the end of the century, under a high-emission scenario (RCP8.5) (Teshome et al., 2021). Regarding the rainfall situation in Ethiopia, the literature shows that existing rainfall declines coincide with heavily populated areas of the Rift Valley in south-central Ethiopia and is likely already adversely affecting crop yields and pasture conditions (U.S. Geological Survey, 2012). Very recent rainfall data shows that there is an overall decline in rainfall in different parts of the country resulting in more intense and frequent droughts across the country. For instance, because of widespread below-average rainfall from October to December 2021, extreme drought conditions have occurred in southern Ethiopia and resulted in the deaths of over 220,500 livestock in the Borena, Dawa, Liben and Afar zones (Ethiopia Broadcasting Corporation (EBC), 2021). The website sources from Ethiopian National Metrological Service Agency show that in the future as well the country will face a related decline in rainfall because of the climate change we are experiencing.
Climate change mitigation and adaptation strategies differentiated

Climate change mitigation refers to any activities that reduce or avoid the overall concentration of greenhouse gases in the atmosphere and includes efforts to shift from fossil fuels to renewable energy sources such as wind and solar, or to improve energy efficiency. Climate change mitigation is a human intervention to reduce the sources or enhance the sinks of greenhouse gases. There are two options in climate change mitigation: one is reducing the consumption of fossil fuels by reducing GHG emissions. This is usually done by simply replacing the use of fossil fuels with electric power utilization. The second mitigation option is by maintaining forest cover to facilitate carbon sinks or carbon sequestration. Thus, through these two mitigation options, it is possible to reduce the concentrations of GHGs in the atmosphere and then, eventually combat climate change.

Moreover, protecting existing forests and planting trees are also climate change mitigation strategies. Climate change adaptation designates activities to protect coastal areas from rising seas, sowing drought or flood-resistant crop varieties and early warning systems for warning of disease outbreaks, droughts and floods (Wasserman, 2012). Considering the direct and indirect impacts of climate change on human rights, governments are legally required to take certain climate change actions. In this vein, Kling (2019) has asserted that “states have an affirmative obligation to take effective measures to prevent and redress the climate change impacts, and therefore, to mitigate climate change, and to ensure that all human beings (rights-holders) have the necessary capacity to adapt to the climate crisis.” Therefore, lowering or removing greenhouse gas emissions from the atmosphere is about mitigation and the efforts to adjust systems and societies to withstand the impacts of climate change is adaptation.

Apart from the direct impacts of climate change on human rights mentioned above, climate change adaptation measures can also adversely affect the exercise of human rights. According to the United Nations Environmental Development Programme report:

There is a high risk of human rights violations resulting from the implementation of resettlement programs for those who are displaced or at risk of displacement because of climate change, and a corresponding need to ensure that such programs are undertaken with adequate input and consent from those who are relocated. UNEDP (2015)

The above-indented paragraph evokes an idea that climate change adaptation measures of resettlement can violate human rights, particularly in developing countries, where there is limited economic capacity.

The clean development mechanisms afforestation/reforestation project at 2,728 ha in the Humbo district at Wolaita, Southern Ethiopia, is one instance to indicate the climate change mitigation efforts of the country. The project involves the restoration of indigenous tree species in a mountainous region of South-Western Ethiopia and contributes to climate change mitigation objectives by contributing to the GHG removals by sinks through assisted natural regeneration project and aimed to cut about 880,296 tons of CO₂ from the atmosphere in 30 years. According to the Ethiopia Climate Resilient Green Economy Strategy, the followings are the climate change mitigation and adapting measures in Ethiopia:

Protected area systems, afforestation and reforestation programmes, renewable energy sources and energy efficiency, enhance socio-economic development and fight climate change, ecological agriculture, flexible livestock production home gardens and traditional agroforestry systems, and climate change education (Zegeye, 2018).
4. Ethiopian Great Renaissance Dam and climate change mitigation

In discussing the climate change mitigation efforts in Ethiopia, the attention-grabbing issue is the contribution of the Ethiopia Great Renaissance Dam (GRD) in fighting against the adverse effects of climate change. In Ethiopia, of more than 110 million total population, only 46% use electric energy for day-to-day activities like food preparation (Getie, 2020). This means the majority of the citizens depend on using wood and charcoal for energy production by cutting trees. Moreover, the forest cover is now generally very sparse in the densely populated areas where rapid rates of deforestation and forest degradation have occurred because of the heavy demand for forest products, mainly fuel wood (Berhanu et al., 2017). The Ethiopia GRD as the largest hydroelectric dam in Africa is currently under construction on the transboundary Abbay (Blue Nile) river. One of the underlined purposes of the dam is, inter alia, to provide clean energy. It is a scientific fact that the number of greenhouse emissions into the atmosphere can be reduced only when fossil-fuel generation is avoided or replaced by renewable systems or electric generation systems. Therefore, the GRD as the electric power generating project will contribute to the reduction of greenhouse gas and carbon emission. Because of that, it could be fair to say that Great Ethiopian Renaissance Dam (GERD) is one step forward for the country to discharge its international climate change-related obligation in the country.

As the hydropower reservoirs have been estimated to absorb 2.5% of anthropogenic carbon emissions globally (Parekh, 2004), the GERD helps to reduce the greenhouse effect. We need to be mindful of the fact that climate change affects the water availability, water supply as well as energy production of the dam. The other related issue here is the Nile political situation in case of reduced rainfall. Two points worthy to mention here are: one is that currently, the country is largely doing the trees planting programme amid rehabilitating the destroyed environment which would have the effect of stabilizing rainfall distribution and second is that, the country firmly believes in the principle of equitable and reasonable utilization of Nile river, meaning even in times of shortage of rainfall the country would not significantly affect downstream countries like Egypt and Sudan.

5. Climate action guiding principles under the United Nations Framework Convention on Climate Change

The UNFCCC was adopted in 1992 and came into force in March 1994. Article 2 contained the overall objective of the Convention, which is to achieve a stabilization of the concentration of greenhouse gases in the atmosphere at a level that prevents dangerous anthropogenic interference in the climate system. Since then, the Convention is serving as an internationally binding legal framework for intergovernmental efforts to address the adverse effects of climate change.

The Paris Agreement was adopted at the Paris climate conference (COP21) in December 2015 to enhance the implementation of the UNFCCC. Thus, the Paris Agreement is the implementing legal regime for the UNFCCC. The Paris Agreement is a binding international legal framework set out to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C [see Article 2(1) (a)]. This Convention provides for strengthening countries’ ability to deal with the impacts of climate change and support them in their efforts [Article 2(1) (b)] and building climate-resilient economic development. As can be inferred from Article 2(1) (c) of the Agreement, bringing economic development in an environmentally friendly way is desirable. Moreover, one objective of the Convention is to support state parties to effectively undertake climate change mitigation and adaptation measures. Regarding the mitigation efforts, member states have agreed to undertake immediate greenhouse gas reduction measures with the best available science, to
achieve a balance between emissions and removals. Unlike the mitigation efforts, adaptation is taking some coping measures to live with the climate change impacts. State parties of the Convention have also agreed to provide continued and enhanced international support for adaptation to developing countries.

5.1 Climate change mitigation and adaptation guiding principles under the United Nations Framework Convention on Climate Change

The member states of the Convention are required to take certain actions to achieve the objective of the UNFCCC or to implement its provisions. There are some guiding principles that the efforts of the countries shall be guided in responding to climate crises within their jurisdictions. One of the principles is the principle of intergenerational equity, which means, in this context, protection of the climate system for the benefit of present and future generations of humankind, based on equity (United Nations Framework Convention on Climate Change, 1992). Climate issues just like any other natural resources concern shall be seen through the lens of intergenerational equity. This is because the harm done by the current generations of the earth definitely will have negative consequences for the future generations. The principle of intergenerational equity does not oblige the current generation not to use natural resources entirely, which is unrealistic and undesirable. Rather the intergenerational equity principle takes account of both costs and benefits for current and future generations.

The other guiding principle stated under the Convention and member states is the precautionary principle. The precautionary principle under current international law formulations provides for three fundamental elements:

1. risk or threat of serious damage to human health and/or environment;
2. lack of complete or absolute certainty as to causes and/or impacts; and
3. reasonable action (Elamparo, 2005).

The idea here is that “if there is a strong suspicion that a certain activity may have environmentally harmful consequences, it is better to control that activity promptly rather than to wait for incontrovertible scientific evidence” (United Nations, 1992). In this principle, the idea that the scientific uncertainty about the occurrence or not shall be an agenda for discussion and cause for the delay to take measures to avert damage to the environment. Even though much of the science on the causes and effects of climate change is clear, there are many issues particularly those related to future impacts and the deployment of solutions that remain uncertain (Pinto Bazurco, 2020). The precautionary principle is included in the UN Climate Convention as: the parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects and a lack of full scientific certainty should not be used as a reason for postponing measures to prevent serious or irreversible damage (UNFCCC, 1992).

Sustainable development is another guiding principle under the Convention. Sustainable development is a concept that connotes the idea that the use of natural resource utilization by the current generation shall not compromise the share or interest of future generations to use its share. It has three pillars: economic development, social development and environmental development. There is a strong link between climate change and sustainable development as climate change has serious effects on the economic, social and natural resources management endeavours. In recognizing the links between climate change and sustainable development, member states of the 2030 Agenda for Sustainable Development expressed their commitment to protect the planet from degradation and take urgent action on climate change. Among the targets of Sustainable Development Goal 13, one is focusing
on the integration of climate change measures into national policies, strategies and planning (The Global Goals, 2022). Moreover, the Convention has expressly enunciated that:

The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change. UNFCCC (1992)

As could be inferred from the above provision, the member states of the UNFCCC while taking climate actions are required to ensure promoting sustainable development, integration of climate change efforts into national development policies and that the actions are appropriate for the specific country context.

Each state parties shall develop a national climate change adaptation policy framework to achieve the objective of the Convention. Considering the special vulnerability of women, children, disabled persons and aged persons, the UNFCCC has provided that climate change actions should be given full consideration for especially vulnerable sections of the society. The efforts to adapt to climate change may be done collaboratively by interested parties.

6. Analysis of the climate change regulatory frameworks in Ethiopia

6.1 Legal frameworks

In addition to the international legal commitments, the Government of Ethiopia has enacted national environmental legal frameworks. To give an instance, the Federal Democratic Republic of Ethiopia (FDRE) Constitution under article 44 (1) stipulates that all persons have the right to live in a clean and healthy environment, (FDRE Constitution, 1995) and the government shall endeavour to ensure that all Ethiopians live in a clean and healthy environment. Besides, according to the Environmental Pollution Control Proclamation No. 300/2002, the protection of the environment, in general, and the safeguarding of human health and well-being, as well as the maintaining of the biota and the aesthetic value of nature, in particular, is the duty and responsibility of all (Federal Democratic republic of Ethiopia Environmental Pollution Control Proclamation Number 300/2002). Hence, it is not only the government’s duty to protect the environment rather citizens are also expected to protect the environment from degradation. Polluting or causing others to pollute the environment is amounted to a violation of this legislation and shall be required to pay the cost of cleaning up the polluted environment (Federal Democratic republic of Ethiopia Environmental Pollution Control Proclamation Number 300/2002). In addition, the Forest Development, Conservation and Utilization Proclamation No. 1065/2018 in its first paragraph affirms that the forest sector plays an important role in addressing the adverse effects of climate change in the country. According to the Food and Agricultural Organization report, the forest cover in the country is estimated at 15.7% (Mather, 2003). Except for this legislation, all other laws do not include the term “climate change” in their provisions directly.

6.2 Policy and strategy frameworks

6.2.1 Climate resilience and green economy strategy. The main justification for the development of this strategy among others is increasing the emission of greenhouse gases and unsustainable use of natural resources. Importantly, in developing this strategy, the government has boldly recognized that bringing economic growth at the expense of environmental degradation is a vicious circle. The climate resilience and green economy strategy (CRGES) vision is: to shift the country to a middle-income country by 2025 and to achieve this through economic growth that is resilient to climate change and results in no
net greenhouse gas emissions. (Ethiopia CRGE document, p. 13). The CRGES is based on four pillars: improving crop and livestock production practices while reducing emissions, protecting and re-establishing forests, expanding electricity generation and using modern and energy-efficient technologies (Ethiopia CRGE document, p. 14). From these listings, one can deduce that CRGES has given more emphasis to climate change mitigation measures than adaptation options. The CRGES seeks to integrate the climate change efforts within the country’s development policy framework. The foregoing indicates that the country has a good plan to achieve one of the objectives of the UN Climate Convention. But the practical efforts in terms of climate change mitigation and adaptation fall short of the expected because soil erosion, droughts, desertification and rainfall decline are among the common environmental challenges resulting from climate change in the country.

However, the climate change-related actions and guiding principles under the CRGES are not consistent and comprehensive with the guiding principles of UNFCCC. For instance, the principle of intergenerational equity and precaution measures related to climate change is overlooked, provision on climate change-related information exchange is silent about the sustainable protection of the natural climate system and measures to be taken against the adverse effects of response to climate change.

6.2.2 Ethiopia’s agriculture and rural development policy and strategies. Ethiopia’s economy is dependent on agriculture, which accounts for 40% of the GDP, 80% of exports and an estimated 75% of the country’s workforce (USAID, 2019). In the country, the natural resources are under the influence of various interconnected factors like population pressure, agricultural expansion, migration, rapid urbanization, resettlement, climate change and environmental pollution (Wassie, 2020). The agriculture-centered rural development programme has been adopted as a major strategy expected to assist in the realization of the country’s economic development objectives [Ministry of Finance and Economic Development Economic Policy and Planning Department, 2003]. The main objective of this policy document is to build a market economy in which:

- a broad spectrum of the Ethiopian people is beneficiaries;
- dependence on food aid is eliminated; and
- rapid economic growth is assured.

Sector-wise, Ethiopia’s GHG emissions are dominated by agriculture, which contributes 80% of the total GHG emissions. However, this policy is nowhere contained in climate change mitigation and adaptation directions. The National Adaptation Plan (NAP) has identified that agriculture is of the sectors highly vulnerable to climate change and one of the leading sectors in GHG emissions, thus it needs effective climate change adaptive strategies. This policy is silent about the climate change mitigation and adaptation measures that have to be taken to combat climate change in the country. Importantly, some argue that the government prioritized agricultural sector adaptation at the expense of natural resource utilization and there should be a stronger emphasis on ecosystem-based adaptation (Yirgu et al., 2013).

6.2.3 Environmental policy of Ethiopia. The Environmental Policy of Ethiopia (1997) in its guiding principles also provides that every person has the right to live in a healthy environment. The environmental policy of the country caters for the promotion of environmental education through strong communication networking to introduce environmental protection and environmental health care. As far as climate change is concerned, the policy is also dedicated to raising awareness creation among the stakeholders and community about the adverse effects of GHGs emissions, the effects on climate change and natural environment. According to Article 4 (1) of the UNFCCC, state parties shall be
committed to promoting education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations. That is one step forward to mitigating as well as adapting to the impacts of climate change. Moreover, the policy document underlined the importance of natural resources conservation and development projects through tree planting, soil conservation, protection of water resources and introduction of appropriate water harvesting techniques. Lastly, the environmental policy of Ethiopia has given value to building national capacity to undertake climate monitoring programmes. Relatively, this policy is comprehensive in terms of the basic objectives and principles of the Climate Change Convention.

7. Addressing challenges

7.1 Ethiopia lacks a relevant and appropriate climate change policy framework

According to the UNFCCC, each state’s parties shall develop and implement national climate change legal frameworks to achieve the objective of the Convention. In Ethiopia, except for sectoral climate change policies and strategies, there is no national climate change policy. The sectoral policies and strategies are even not comprehensive in the sense that they fail to include the climate change mitigation and adaptation options. For instance, given the fact that agriculture contributes to 80% of the country’s greenhouse gas emission rate, the Ethiopia’s agriculture and rural development policy and strategies are silent about mitigating and adapting to the adverse effects of climate change in the country.

7.2 Policy and strategy-related gaps

As indicated before, Ethiopia is one of the most vulnerable countries to climate variability and climate change because of its high dependence on rain-fed agriculture and natural resources and relatively low adaptive capacity to deal with these expected changes (World Bank Group, 2021, p. 7). Given the seriousness of the impacts of climate change in the country, the government has committed and accepted international obligations by becoming a signatory and ratifying many international multilateral environmental treaties including UNFCCC, the international Convention on Biodiversity and Convention to Combat Desertification in Africa. Moreover, nationally, the country has committed to initiating and launching different climate change adaptation options through the NAP of Action. Assessing the practical implementation of these adaptation options is not the concern of this paper, the review of relevant works of the literature shows that although the country has started adaptation interventions against adverse effects of climate change, the implementation is still at a relatively early phase and practically the efforts are fragmented and limited.

As explained somewhere else in this paper, under the Convention, the followings are guiding principles: intergenerational equity, taking precautionary measures, ensuring sustainable development, integrating the climate change efforts into development plans and programmes or building a climate-resilient economy. The basic economic development objectives underlined under the agriculture and rural development policy and strategies of the country are to ensure making the majority of Ethiopian people beneficiaries of economic development, eliminate dependence on food aid and assuring rapid economic growth. However, perhaps, this policy document is more economic growth-oriented rather than aspects of sustainable development. Almost all climate change-related policies, strategies, programmes and plans in Ethiopia fail to include the principle of the precautionary principle, the principle of intergenerational, the issue of climate change-related information exchange, sustainable protection of natural climate system as well as measures to be taken against the adverse effects of response to climate change are missed elements under the policy and strategy frameworks.
7.3 Indicating the legal gap

In Ethiopia, although there are FDRE Constitutional provisions, environment-specific legislation and the environmental policy, the climate change-related stipulations are very limited and some related provisions are too general in articulating the necessary measures to be undertaken in response to climate change. Having national strategies and policies can help to address immediate climate concerns, long-term results cannot be attained through only policy directions. Policy directions are not binding and hence, there has to be a legal framework intended to achieve the policy objectives. Climate legislation can predictability and legitimately regulate citizens’ activities and encourages coordination and consistency of policies across government agencies, which is critical for climate change. The author believes that given the fact that the impacts of climate change on the right to adequate food, health and housing in the country, regulating it through separate robust legal frameworks helps the country in twofolds: one is discharging its international obligation under the UNFCCC and the other is augmenting the achievement of the policy directions.

8. Concluding remarks

The article has critically investigated the Ethiopian climate change mitigation and adaptation regulatory frameworks and their congruency with the UNFCCC. Accordingly, the article has targeted to assess whether the country’s national climate change adaptation policies and strategies are in line with its UNFCCC or not. To achieve this purpose, the doctrinal legal research methodology was adopted to scrutinize the legal provisions of the Convention and other national legal frameworks. The multilateral environmental treaties, legislative enactments and climate change policies constitute the primary sources used in the data gathering process and the data collected were analysed by using content analysis. After a critical look into the relevant legal and policy documents, it can be disclosed that because of climate change, many rain-fed dependent farmers are facing food insecurity and because of landslides because of heavy rains or droughts in some parts of the country people are being resettled to places where there is no adequate water, sanitation system and healthy institutions. This finding is in line with the UN OCHA Report, several flood incidences were reported in Afar, Oromia, South Nation, Nationalities and Peoples Regional States and Somali regions displacing 202,202 people in the country, the majority (127,524 people) in the Somali region. These all show that climate change has serious negative impacts on human rights enforcement. To at least minimize the adverse effects of climate change in the country, the Government of Ethiopia has committed in many ways including becoming state parties to the UNFCCC internationally and formulating a national climate change adaptation plan, sectoral policies and strategies as well as its main target to build the climate-resilient green economy through execution of NAP of Action.

However, climate change regulatory frameworks are not comprehensive and consistent with the UN Framework Convention on Climate Change, and strategies, in Ethiopia failed to include some of the guiding principles stated under the UNFCCC like the precautionary principle, the principle of intergenerational equity, the principle of sustainable protection of climate system, climate change-related information exchange, sustainable and managing the adverse effects of response to climate change. The author believes that given the fact that the impacts of climate change violate numerous human rights like the right to adequate food, health and housing in the country, regulating it through separate robust legal frameworks help the country in twofolds: one is discharging its international obligation under the Paris Agreement and the other is augmenting the achievement of the policy directions. Climate legislation can predictability and legitimately regulate citizen’s activities and encourages coordination and consistency of policies across government agencies, which is critical for climate change.
**9. Note**

Without the alignment of the policy and strategies directions with the country’s international obligations, the country will not be free from the impacts of climate change. Let alone the challenges in the policies and strategies, the policy directions are not binding and hence, there has to be a legal framework intended to achieve the policy objectives (Tables 1 and 2).

| No. | Principles under the Ethiopia National Climate Resilient Green Economy Strategy | UNFCCC Principles of Climate Change Mitigation |
|-----|--------------------------------------------------------------------------------|------------------------------------------------|
| 1   | The principle of intergenerational equity is not clearly mentioned              | The principle of intergenerational equity is recognized |
| 2   | Is silent about taking of precaution measures related to climate change        | Take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects |
| 3   | No stipulation on climate change related information exchange                 | Public access to information on climate change and its effects |
| 4   | Consider integrating climate change within the national development goals      | The need to integrate climate change actions with national development programmes |
| 5   | Afforestation and reforestation programmes in general as a mitigation measure  | Sustainable management of sinks and reservoirs of all greenhouse gases to reduce the greenhouse gas emission |
| 6   | Is silent about the sustainable protection of natural climate system           | Protect the climate system for the benefit of present and future generations of humankind/sustainable development |
| 8   | Is silent about the measures to be taken against the adverse effects of response to climate change | Care must be taken for impacts of the measures taken in response to climate change |
| 9   | No prohibition for arbitrary measures under the guise of combating climate change | No arbitrary or unjustifiable measures be taken to combat climate change, including unilateral ones |

*Source:* Ethiopia Climate Resilient Green Economy Strategy document and UNFCCC Articles 3 and 4

| No. | Principles under the FDRE CRGEAC | Principles under the UNFCCC |
|-----|----------------------------------|-----------------------------|
| 1   | Ethiopia lacks national relevant and appropriate climate change adaptation policy framework | Each state parties shall develop national climate change adaptation policy framework to achieve the objective of the Convention |
| 2   | Only women are given due attention as more vulnerable to climate change | Not only women but children, disabled persons and elderly people are given special emphasis/those particularly vulnerable to the adverse effects of climate change should be given full consideration |
| 3   | Stakeholders such as federal ministerial offices, regional bureaus, NGOs, private sector entities, academic institutions and bilateral and multilateral donors be participants | Efforts to address climate change may be carried out cooperatively by interested parties |
| 4   | Stakeholder empowerment is a vital step in terms of achieving results | It is silent about stakeholders empowerment |

*Source:* FDRE Climate Resilient Green Economy National Adaptation Plan (2019), pp. 50–51, and Articles 3 and 4 of UNFCCC

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**Table 1.**
Comparing the Ethiopia’s national climate change mitigation guiding principles with the UNFCCC principles

**Table 2.**
Comparing the Ethiopia climate change adaptation guiding principles under the FDRE climate resilient green economy National Adaptation Plan (FDRE CRGEAC) and principles under the UNFCCC
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