Gold Standard for the Global Goals

TEMPLATE

# DEVIATION REQUEST FORM

PUBLICATION DATE **16.07.2020**

Version **3.0**

## A. To be completed by Gold Standard

### 1| Decision

**1.1 | Date –** 09/09/2020

**1.2 | Decision -** Approved

The deviation approval is subject to successful compliance with the following requirements -

1. The proposed batchwise segregation of the countries is approved.
2. A batch shall be approved in the PoA only if one VPA from a country in the proposed batch is submitted for design certification along with the PoA.
3. The CME shall present a real case VPA from each batch at time of PoA Design certification. The real case VPA shall include the technology (ies) or combination of technologies that are proposed to be included in the PoA.
4. Alternatively, the CME may add all identified countries of a particular batch in the PoA as and when one real case VPA from that batch is submitted for inclusion.
5. The CME may identify and add new countries post PoA registration in a batch via a PoA design change request.
6. The CME shall conduct the PoA design consultation covering all countries identified for each batch across the entire PoA.

7. As the PoA involves multiple technologies, the CME shall provide information on possible baseline cross-effects if multiple technologies are implemented in the same household within the PoA. The validating VVB shall ensure that this issue is assessed and conservativeness of the baseline is verified.

8. The CME shall conduct Local Stakeholder Consultation, Sustainable Development Goals Assessment and Safeguarding Principles Assessment at the VPA equivalent level.

## B. To be completed by the Project Developer/Coordinating and Managing Entity and/or VVB requesting deviation (Please submit complete deviation request form in Microsoft Word format)

## 2| Background information

| | | |
|---|---|---|
| Deviation Reference Number | DEV_150 | |
| Date of decision | 09/09/2020 | |
| Date of submission | 07/08/2020 | |
| Project/PoA/VPA | ☐ Project | ID – GSXXXX |
| | ☒ PoA | New project |
| | ☐ VPA | ID – GSXXXX |
| Project/PoA/VPA title | EcoAct Multi-country Improved Cooking and Safe Water programme | |
| Location of project/PoA/VPA | **Batch1**: Burkina Faso, DRC (Democratic Republic of Congo), Eritrea, Ethiopia, Guinea, Kenya, Madagascar, Mozambique, Sierra Leone, Tanzania, Togo, Uganda, Zambia, Zimbabwe<br>**Batch2**: Burundi, Ghana, Liberia, Nigeria, Rwanda, Sudan<br>**Batch 3**: Cote d'Ivoire, Malawi, Namibia<br>**Batch 4:** Cameroun, Congo Republic<br>**Batch 5:** Senegal<br>**Batch 6:** Benin<br>**Batch 7:** South Africa | |
| Scale of the project/PoA/VPA | ☐ Microscale<br>☒ Small scale<br>☐ Large scale | |
| Gold Standard Impact Registry link of the project/PoA/VPA | | |
| Status of the project/PoA/VPA | ☒ New<br>☐ Listed<br>☐ Certified design<br>☐ Certified project | |
| Title/subject of deviation | Country batch proposal for multi-country PoA | |
| Specify applicable rule/requirements/methodology and version number | Programme of Activity Requirements v1.2 October 2019, section 17 (Registration of multi-country PoAs) | |
| Specify the monitoring period for which the request is valid (if applicable) | Start date End date | |
| Submitted by | Contact person name: Valerie Morgan<br><br>Email ID: valerie.morgan@eco-act.com | |
| | Organization: EcoAct | |
| | Project participant: Yes ☒ NO☐ | |
| Validation and Verification body (VVB opinion shall be included, | Yes ☐ NO☒ | |

| | |
|---|---|
| where required by the applicable rules/requirements or request is submitted by the VVB). | If yes;<br>VVB name:<br><br>Auditor name: |

## 3| Deviation detail

### 3.1 | Description of the deviation:

*Use the space below to describe the deviation and substantiate the reason for requesting deviation from applicable rules/requirements. Please include all relevant information in support of the request. You are requested to follow the principles for guidelines for requesting deviations, given in the Deviation Approval Procedure.*

EcoAct's mid/long-term objective is to expand its operations across the whole world. This deviation should help to achieve this objective in an efficient and effective way. EcoAct is in the process of implementing a new GS Programme of Activities (PoA) called 'Multi-country Improved Cooking and Safe Water programme' which will include several host countries.

The PoA's objective is the widespread distribution of improved biomass cooking technologies, LPGs, and clean water devices (boreholes and water filters) resulting in biomass fuel savings (compared to traditional cooking devices for the improved stoves). The applied methodology is TPDDTEC, version 3.1.

An individual VPA will cover as a maximum one country.

As per Programme of Activity Requirements, paragraph 17.1.1, multi-country voluntary PoA shall provide a VPA-DD for each country considered at the time of PoA registration. However, exceptions may be granted on a case-by-case basis. EcoAct hereby submits a formal request to Gold Standard with convincing justification/documentation that targeted communities within host countries are homogeneous with respect to additionality, baseline scenario, emission reductions and legislation.

GS approval of this Request for Deviation would allow for EcoAct to submit one VPA-DD (from one of the homogeneous countries within a batch) at the time of PoA Design Certification and subsequent VPAs for the other homogeneous countries within a batch can be included in the PoA at a later stage.

EcoAct will ensure that Sustainable Development Goals Assessment and Safeguarding Principles Assessment will be carried out at VPA equivalent level. It will be ensured that at

least one real case VPA for each of the batches will be submitted at the time of PoA Design Certification or in case that not all of the countries of all the batches will be included at the time of PoA Design Certification, they may be included later on as and when EcoAct will include a representative VPA from the batch.

EcoAct seeks GS approval for the approach and the batches being accepted as presented below.

**VVB opinion (if applicable):**

……

### 3.2 | Assessment of the deviation:

In the following, it will be demonstrated that targeted households within the countries are homogeneous with respect to a) Additionality; b) Baseline scenario; c) Emission reductions; d) Legislation; regarding clean cooking and clean water programmes.

**Additionality**

For the VPAs involving cookstove projects (household biomass and LPG stoves and institutional biomass stoves) and household water filter to be included under the PoA will be in compliance with item 1.1.3 of Annex B – positive list mentioned in the 'Community Services Activity Requirements'. All VPAs will be solely composed of isolated units (efficient cookstoves or clean water devices) where the users of the technology/measure are households and where each unit results in <= 600 tCO2e of thermal energy savings per year per unit. Hence, according to paragraph 4.1.9 of the 'Community Services Activity Requirements', each of the VPAs, regardless of the host country in which the project activity is being implemented, is deemed additional and therefore is not required to prove financial additionality at the time of Design Certification.

For VPAs involving water projects whereby the users of the technology/measure are communities where each results in >600 tCO2e (namely borehole projects), additionality shall be demonstrated a minima at the PoA level as required by rule 4.1.2 of Gold Standard PoA requirements v1.2. During the deviation exercise the legislation review demonstrated that all

countries chosen for the PoA have either a policy/framework for water targets. However, as demonstrated by the UN Water and WHO report on "National Systems to support drinking water sanitation and hygiene: global status report 2019", the countries selected for this PoA have either reported to not have sufficient financial resources, or not have sufficient human resources, or both[1]. Those that have not responded are countries that have either not developed implementation plans or developed cost estimates for their objectives and targets. Therefore, in the absence of implementation plans, financial and human resources, the PoA will enable countries to lead to a greater level of enforcement (for water policies) or greater level of adoption for existing voluntary schemes, and therefore additional at a PoA level according to the PoA requirements 4.1.2 v 1.2.

**Baseline scenario**

Baseline scenario for Improved Cookstoves and LPG stoves

A very thorough literature analysis has been carried out for credible data sources in regard to proportion of woody biomass (firewood + charcoal) used in rural areas for cooking and LPG use in rural areas in the respective countries as well as the proportion of improved cookstoves (ICS) using woody biomass in rural areas of the countries selected. The literature review focused on rural areas as the PoA will be focused on distributing improved and clean cooking solutions in rural areas.

The following steps have been conducted to compare the baseline scenario between the different countries:

1) Literature research in regard to values for the proportion of charcoal and firewood used for rural cooking in the different countries.

2) Calculating the woody biomass used for cooking as the sum of proportions of charcoal and firewood for each of the countries.

3) Literature research in regard to values for the proportion of improved cookstoves (ICS)[2] using woody biomass used for cooking in the different countries.

4) Calculating the product of proportion of woody biomass (item 2) and proportion of ICS (item 3).

[1] See Annex 7 in the report: https://apps.who.int/iris/bitstream/handle/10665/326444/9789241516297-eng.pdf?ua=1

[2] *Penetration rate for Improved Cookstoves in Rural areas*: the information regarding penetration rates for improved cookstoves in rural areas came from various sources. The sources either come from direct literature on the penetration rates of improved cookstoves in rural areas, or was calculated by adding traditional cookstove use in rural areas to clean cooking solutions (gaseous stoves, solar, electricity, etc.). The remaining difference was conservatively assumed to be taken by improved cooking solutions. See "EcoAct PoA Deviation Request" excel file for further information.

5) Literature research on the usage of gaseous fuels in rural areas in the different countries
6) Adding Item 5 and Item 4 to have a proportion of woody biomass of ICS using woody biomass and gaseous fuel used for cooking in rural areas
7) Creating batches in 5% intervals:
-Batch 1 consists of countries for which the calculated number as per item 4 is between 0 and 5%;
-Batch 2 consists of countries for which the calculated number as per item 4 is bigger than 5% but <=10%;
-Batch 3 consists of countries for which the calculated number as per item 4 is bigger than 10% but <=15%;
-Batch 4 consists of countries for which the calculated number as per item 4 is bigger than 15% but <=20%;

The 5% batch intervals have been chosen since considered as a reasonable magnitude for this evaluation. Any difference within the 5% threshold has not been considered as material. The 5% criterion is also used in GS TPDDTEC methodology in 2 cases:
a) Page 9: Classification of project technologies with similar design and performance characteristics under one single project scenario.
b) Page 43: Emissions from production, transport, installation and delivery of clean water supply or treatment options are not considered as material when below 5% of the overall project emissions.

Baseline scenario for access to clean water

A literature analysis has been carried out looking for credible data sources in regard to the percent of population without water access[3]. Water access rates came from the 2019 report of WHO, UNICEF and JMP report on "Progress on household drinking water, sanitation and hygiene".

The following steps have been conducted to compare the baseline scenario between the different countries:

1) Literature research in regard to values for the population not having access to clean water. Water access is defined as the WHO definition of 'at least basic' drinking, meaning that water

[3]

is provided in piped supplies (tap water in the dwelling), non-piped supplies (boreholes, protected wells, rainwater, bottled water, delivered water) and is available within less than 30 minutes.

2) Creating batches in 25% intervals:

-Batch 1 consists of countries for which the calculated number as per item is between 50 and 75% of people not having access to basic water in rural areas;

-Batch 2 consists of countries for which the calculated number as per item is bigger than 25% but <=50% of people not having access to basic water in rural areas

-Batch 3 consists of countries for which the calculated number as per item is bigger than 0% but <=25% of people living in rural areas not having access to water

-Batch 4 consists of countries for which the calculated number as per item is bigger than 0% but <=20%;

The literature research focused on those without water access, as they would be targeted to obtain the variable of Qp,y (quantity of safe water than can be consumed in the project scenario) and variable Cj (portion of users of project safe water supply who were aleady in baseline using a non-boiling safe water supply. The WHO categorizes countries in 25% intervals[4] in their reporting, on progress on household drinking water and sanitation, therefore this threshold was used for purposes of establishing homogeneity across countries.

Baseline Batching methodology:

The batching provided groups of countries based on their water access characteristics and their ICS/LPG penetration rates. The proposed batching groups countries into the various combinations of water/energy access in order to reflect the countries that are homogeneous in this respect. These nuances are important as the baselines of water access and energy access are not necessarily similar. Countries may have both relatively better energy access or water access, or some may have less water access but relatively better energy access. The proposed batching groups the counties according to the different baseline combinations. See "EcoAct PoA Deviation Request" excel file for the batch results.

**Emission reductions calculation**

[4] 2019 report of WHO, UNICEF and JMP report page 7, "Progress on household drinking water, sanitation and hygiene, https://www.who.int/water_sanitation_health/publications/jmp-2019-full-report.pdf

Emission reductions of all improved cookstove VPAs will be calculated using the approach as defined in the GS methodology TPDDTEC. The same approach will be applied for VPAs from all countries in the PoA boundary. Equation (1) of TPDDTEC will be applied in case that baseline fuel and project fuel are the same and baseline emission factor and project emission factor are not considered the same, else equation (2) of TPDDTEC will be applied. In order to estimate emission reductions ex-ante in the VPA-DDs, equation (7) of TPDDTEC will be followed.

For safe water projects, the VPA will follow the application of the TPDDTEC methodology to safe water supply projects as outlined in Annex 3 of the methodology. Baseline scenarios will use equation (11), and project scenario fuel consumption will use Equation (12), with overall ex-ante emission reductions being calculated using Equation (13).

**Legislation**

An analysis of cookstoves (including ICS and LPGs) and clean water access related legislation has been conducted for each of the host countries.

Cookstoves: In none of the countries there is a mandatory law, policy or regulation which would oblige households to use energy efficient cookstoves. Even though many countries defined targets for the dissemination/promotion of improved cookstoves, those ones are not binding and not enforced. Often, efficient government structures and institutions are lacking, which prevent the targets from being implemented on the ground. In addition, financial, technological and capacity/knowledge barriers exist resulting in a failure of the intended cookstove mitigation measures.

Water:

Access to water and sanitation are recognized by the United Nations as human rights, reflecting the fundamental nature of these basics in every person's life. People are 'rights-holders' and states are 'duty -bearers' of providing water and sanitation services. This human right to safe drinking water was first recognized by the UN General Assembly and the Human Rights Council as part of binding international law in 2010[5].

[5] https://www.unwater.org/water-facts/human-rights/

States have an obligation to international law to provide safe drinking water systems. The countries chosen for the PoA have all have a WASH policy targeting rural drinking water that is either under development or completed[6]. However, as demonstrated by the UN Water and WHO report on "National Systems to support drinking water sanitation and hygiene: global status report 2019", the countries selected for this PoA have either reported to not have sufficient financial or human resources[7]. Those that have not responded are countries that have either not completed an implementation plans or developed cost estimates for their objectives and targets.

Therefore, legislatively, the countries are homogeneous in the sense that they have obligations to their citizens to provide safe drinking water access and have either developed or are developing WASH targets, but in practice the countries are all homogeneous in that they do not have adequate financial or human resources to achieve these targets, or are missing implementation plans.

Please find the detailed analysis for each country in the following as well as see all the data sources used and more information in the attached excel file "EcoAct PoA Deviation Request."

**Benin**

***Water***

Benin has recognized the human right to water and sanitation since 2010 and its long-term vision includes achieving universal access to water by 2025. [108]. Its objective is to drive the current water supply rate up from over 70 percent in rural areas and about 90 percent in urban and peri-urban areas to 100 percent in 2021. [109]

However, despite water access and sanitation is recognized a human right, the country doesn't have sufficient financial and human resources to implement its policies and plans of the program 'Drinking water' in rural areas. [110] There is indeed a gap in financing and in human resources. The PoA will lead to a greater level of enforcement of the existing policies/regulation.

***Cookstoves***

[6] See "Policies and Plans" and "National Wash Targets" table in EcoAct PoA Deviation Request Excel File, sourced from UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2018 data

[7] See Annex 7 in the report: https://apps.who.int/iris/bitstream/handle/10665/326444/9789241516297-eng.pdf?ua=1

Regarding the energy sector, Benin's NDC mentions the promotion of cleaner cookstoves (140,000 ICS for which 94,000 ICS are under conditional contribution) [1] (p.15 2nd line of the table) and focuses on LPG penetration (275,000 households for which 185,000 households are under conditional contribution) [1] (p.15 3rd line of the table). These are envisaged measures and only targets, but no mandatory laws or regulations are in place [1] (p.15).

**Ivory Coast**

***Water***

As the Ivory Coast was a member of the United Nations Human Rights Council (UNHRC) in 2018, the country recognizes water access is a human right, it is thus a mandatory objective for Ivory Coast to allow 100% of the population to have access to safe water by 2030. [112] To achieve that, the NDC of the country (implemented in 2016) has the objectives to implement Integrated Water Resources Management (IWRM) and national watersheds (BV) in order to reduce vulnerability, increasing resilience, improve irrigation efficiency to limit water consumption and collect stormwater and floodwaters (capture and storage of runoff water). [4] p.12

However, the country does not have an implementation plan yet, and therefore doesn't have yet the sufficient financial resources to meet its national targets in 'Drinking-water supply' and 'Drinking-water quality in rural areas. [111] The PoA will lead to a greater level of enforcement of the existing policies and regulations regarding water.

***Cookstoves***

Regarding to the energy sector, the NDC mentions the promotion of improved cookstoves in rural area and the promotion of charcoal alternatives through the valorization of agricultural biomass as planned mitigation actions. Even if this planned mitigation actions are in the NDC, there is no other information concerning cookstoves or LPG stoves. [4] p.7 (2nd line of the table) and p.1. Indeed, these are only targets and not mandatory laws.

***Both***

Ivory Coast intends to mobilize international or domestic private financing (equity and loans) as much as possible for the co-financing of relevant shares of these INDCs (including water and energy sectors), particularly actions that can generate an acceptable financial return for the private sector. To this end, Ivory Coast will focus on some actions, including Ivory Coast's attractiveness for foreign investment (investment climate). [4] p.15

Indeed, as an external financer, the PoA will lead to a greater level of enforcement of both mandatory and voluntary targets for water and cooking solutions, respectively.

**Togo**

***Water***

The strategy is to reinforce and promote integrated, sustainable water resources management by implementing a pilot program based on Integrated Water Resource Management (IWRM) and measures to increase water resource availability, in both quantity and quality. Togo has an objective to provide safely managed services to 80% of the rural population by 2022, and is developing a WASH plan for 2030. The Ministry of Water, Rural Equipment and Village Water has set itself the objectives of the availability and use of water resources for all uses in a context marked by a rapidly growing population, a developing economy and an environment affected by climate change. However, the water resources sector is the 4th priority on 6 others according to Togo NDC.[6] p.7, l.8. Even if Togo has a financing plan in place, there is a reported insufficiency of funds to meet most national targets. [113] p.4 Indeed, human resources in Togo are currently constrained by financial resources for staffing and recruitment practices [113] p.1 & p.3

Thus, the PoA will help support the implementation and enforcement of these developing objectives to provide a greater level of adoption of the existing targets.

***Cookstoves***

The NDC of Togo evokes that Togo needs technology transfers in producing energy-efficient stoves using wood, charcoal and gas among all of the country's social strata (a process that will need to begin with subsidies or appropriate tax benefits) [7] p.13 5.b. The NDC indicates promoting the roll-out of energy-efficient cookstoves, however no specific target is mentioned. [7] p.8 3.2.(I) Moreover, according to the UNEP research (Togo Air Quality Policies, 2015) no programs or policies in regard to promotion of clean/efficient cookstoves yet exist. [9] p.3

There aren't any mandatory obligations, but the PoA will help enable to uptake of these technologies.

**Ghana**

***Water***

Ghana's Water Vision for 2025 has the main objective to "promote an efficient and effective management system and environmentally sound development of all water resources in Ghana" [14] P.16 1.2. According to GLAAS, the long-term vision of the government of Ghana is universal access to safe drinking water by 2025. [114] p.1 In the NDC, it's mentioned Ghana intends to integrate water resources management by strengthening equitable distribution and access to water for 20% of the population living in climate change risk communities.

This program of actions is supported by a national water policy which would cost 1,9 M$. [10] P.15 A financing plan is in place and used for most WASH areas, however, there are reported

difficulties in absorption of domestic commitments for drinking-water supply mainly due to a late release of funds. There is also an insufficiency of funds to meet MDG targets, especially for drinking water in rural areas. [114] p.4 & [110] p. 86

Indeed, according to the UN Water GLAAS report [110] indicates that Ghana does not have the sufficient financial or human resources to implement its WASH policy for rural areas.

For this reason, Ghana's objectives for addressing the above challenges are to promote private sector participation in investment and management of water supply as a means of mobilizing investment and improving overall efficient; and to encourage community ownership and local private sector participation [14] p.37-38 ('Policy objectives')

The PoA will lead to a greater level of adoption of these targets and objectives, and help fill the gap of this insufficient financial resources.

***Cookstoves***

The Ghana's NDC indicates as mitigation policy action: "to expand the adoption of market-based cleaner cooking solutions". It mentions the " scale up adoption of LPG use from 5.5% to 50% peri-urban and rural households up to 2030" and "the scale up access and adoption of 2 million efficient cook stoves up to 2030" [15] p.12 fist line of the table. The government of Ghana seeks to promote modern cooking technologies too, such as cooking gas. [16] p.25 l.1-2.

Even with these objectives of promoting "clean cookstoves", the mitigation action is unconditional and "there is a lack of cohesive national policy, strategy and coordination framework for the cookstoves sector exacerbated by inadequate regulation in the cooking sector". [16] P.45 'policy and gaps'

Concerning LPGs, the policy on subsidies integrates "lack of incentives to promote the cooking sector, such as import duties and taxes on technologies and regulation of raw material inputs (such as scrap metal)". [16] P.45 'policy and gaps'

Hence, as there aren't any obligations for households to use improved cookstoves or LPGs, there is no real guarantee that the objectives will be completed. The PoA will provide an enabling environment for these objectives to be achieved.

**Madagascar**

***Water***

The NDC mentions that the priorities actions before 2020 were to implement a national strategy for integrated water resources management and guidelines for Water sanitation hygiene [47]. There are specific plans implemented addressing the issues of reliability/continuity of urban water supply, other plans regarding improving and sustaining services are in development [115] p.2, however no mandatory policy, government law, or regulation to enable the clean accessibility for all yet exists.

A financing plan is in place and used for most WASH areas, though there is a reported insufficiency of funds/financial resources to meet water targets. [115] p.4 & [110] p. 86. In human resources for water sector too, the most important constraint identified is the lack of financial resources. [115] p.3
According to the UN Water GLAAS report [110] indicates that the country does not have the sufficient financial or human resources to implement its WASH policy for rural areas.
Thus, the PoA will lead to a greater level of adoption of an existing voluntary scheme and help fill the gap of this insufficient financial resources.

***Cookstoves***

Madagascar is the African country with the lowest use of clean cooking devices, with less than 1% of households using clean fuels and 1% of households using improved wood or charcoal stoves. [53] p.12 &p.36
According to the NDC of Madagascar from 2016 [51], the objective of the country is to disseminate improve cookstove (objective by 2030 : 50% of households adopting improved stoves). According to the report SEforALL from 2019 [53] p31, the government of Madagascar has a relatively robust clean cooking policy, guided by the country's Energy Policy, and has set several targets for clean cooking by 2030 : including an ambitious target for the adoption of ICS (70% by 2030).
[53] p.39 One of the principal challenge regarding to ICS penetration in Madagascar amongst others, is the limited capacity due to lack of financing. [53] p.39 That's why the government's targets will be hardly reachable and PoA will lead to a greater level of adoption of these objectives. Indeed, NGOs and international organizations already play an important role regarding to ICS. [53] p.33

Compared to most East African markets, the liquefied petroleum gas (LPG) market is relatively underdeveloped in Madagascar. Although the biogas market has benefited from donor support, domestic use remains limited. [53] p.12 According to the report SEforALL [53] p.34, there are currently no government incentives or programs to support the adoption of LPG as a clean cooking fuel. [53] p.33

Indeed there are no mandatory regulations in place for improved and clean cooking. The PoA will help in developing programs and develop the access to LPG and ICS.

***Both***

Given the precarious economic situation of Madagascar, the implementation of the INDC is conditioned by the availability of external financial support, especially through the financial mechanisms under the UNFCCC but also through other multilateral and bilateral sources.
The effective implementation of Madagascar's contributions requires the reinforcement of

the national capacities (technical, institutional, mobilization and absorption of funding) and transfer of technology and research from developed countries, as well as the contributions of countries and other stakeholders that are actively involved in the fight against climate change. l.16 p.9 [51]

**Mozambique**

***Water***

Mozambique implicitly recognizes the human right to water and sanitation in the following legal documents: 'National Constitution, article 11 – Objectives of the State; article 40 – Right to life; article 42 – Ordinary fundamental rights'; and 'Water Law 16/1991, article 26 – under this article, water supply is the primary priority over other uses'. [116] p.1 There are specific plans implemented addressing the issues of reliability/continuity of urban and rural water supplies and ensuring that drinking-water quality meets national standards. [116] p.2. However, even if a financing plan is in place and used for some WASH decisions, there are reported insufficiencies of funds to meet water targets. [116] p.4 & [110] p. 86
The most important constraints regarding human resources identified are the lack of financial resources too and recruitment practices. [116] p.3. , [110]
So, the PoA will lead to a greater level of enforcement of the existing policies and targets for accessing water.

***Cookstoves***

According to the BEST report (2012), the government of Mozambique and its partners have been promoting ICS for a while. [57]. Moreover, according to the NDC of Mozambique (2018), the country is participating in a Second Phase of the Technology Needs Assessment Project (TNA) which is covering, as one of the sectors, the sector of energy and waste. This process was supposed to result in a Technological Action Plan identifying the needs, including the financial and capacity building needs in those sectors.
This exercise was concluded by the end of 2017 but there is still no mention of improved cookstoves in the Mozambique NDC. [54] l.6 p.10 Indeed, according to the BEST report (2012), the government didn't take any initiatives to scale up operations in water sector and there is no regulation on ICS standards and labelling that exists [57].
The PoA will help enable to uptake of cooking sector's targets.

***Both***

The vision of the Mozambique's NCCAMS is quite ambitious, has been demonstrated during the implementation of the NCCAMS's first action plan, and the need for financial and technical support and capacity building continues to be necessary. l.5 p.6, [54].

**Tanzania**

***Water***

In 2006, the National Rural Water Supply and Sanitation Program (NRWSSP) was adopted, for the period 2006-2025 to meet the SDG targets and beyond. The target was to reach the access to safe drinking water to 90% and the access to sanitation to 95% in 2025. [60] In 2013, the United Republic of Tanzania recognized the human right to water and sanitation in its constitution. Additionally, policy and plans for sanitation, drinking water and hygiene have been costed and are being partially implemented. [118] p.1

A financing plan is in place and used for most WASH areas, however, there are reported difficulties in absorption of donor commitments. There is also an insufficiency of funds to meet MDG targets. [118] p.4 The identifies INDCs will also be implemented upon availability of adequate and predictable financial and technological support from the international community. [118] p.2

Thus, the PoA will lead to a greater level of enforcement of this existing mandatory regulation of accessing water too.

***Cookstoves***

The NDC of Tanzania mentions as one of the intended contributions the expansion of use of natural gas for power production, cooking, […]. However, there is no targets regarding the distribution/promotion of efficient or clean cookstoves. [119] p.7

Tanzania is preparing its second NDC (draft made in 2019). It's indicated in the document of preparation of this NDC that there will be Low Emission Development Strategies (LEDS) and Nationally Appropriate Mitigation Actions (NAMAs) in the transport and energy sectors. However, no specific indications of mitigation measures concerning the cookstove are yet announced. [62] p.2 So, the PoA will help Tanzania achieving objectives in the cookstoves sector if they intend to have targets/policies in its NDC; or will help developing new ones.

**Democratic Republic of Congo**

***Water***

The NDC raised that one of the needs concerns access to strengthening the drinking water supply. The DRC has an objective to have 100% basic services available by 2030 in rural areas, and have not yet developed an implementation plan [110] Therefore, there is no agreed financing plan yet. Although, there aren't any sufficient financial resources to meet national objectives in rural areas for drinking water.[117] p.5 This said, the PoA will help achieving the country's objectives in drinking water supply.

***Cookstove***

The government has the objective to support production and commercialization of improved cookstoves, to raise awareness of the population in DRC for the use of improved cookstoves and to develop a favorable legal and tax framework for improved cookstoves according to the

UNDP report 'Sustainable Energy for all towards the 2030 horizon' (UNDP 2013 - 'Program to improve energy efficiency through the diffusion of improved stoves'). There is no mandatory framework in place for achievement of cookstove targets. The PoA will help enable to uptake of these targets.

**Liberia**

***Water***

The country has no targets regarding the accessibility of clean water. According to "the National system to support drinking water, sanitation and hygiene: Global status report 2019" [110], the country is deemed to have insufficient financial resources to implement any actions related to water accessibility. In support of the Government of Liberia's WASH Sector Strategic Plan, USAID is investing in comprehensive WASH programming to help Liberia achieve its water and sanitation goals (subject to the availability of funds).Therefore, the PoA will lead to a greater level of adoption of a scheme to be put in place and help fill the gap of this insufficient.

***Cookstoves***

As planned mitigation actions, the Liberia's NDC from 2018 mentions the production and distribution of "280,543 energy saving cook stoves that use fuel wood and 308,004 energy saving cookstoves that use charcoal by 2030" [17] p.12.

According to the NDC, Liberia "is committed to do more to further cut down on its GHG emissions provided the international community supports Liberia with the appropriate means of implementation" [17] p.3 'Fairness and ambition'. To fully implement Liberia's INDC mitigation and adaptation interventions, there is a need for adequate, predictable, and sustainable financial, technological, and capacity support and mechanisms provided by various sources. So Liberia intends to mobilize funds from the private sector, bilateral and multilateral sources and all other sources, mechanisms and instruments". [17] p.3 'Means of implementation'. Thus, it's indicated in the NDC that Liberia will count on the help of international community to achieve its goal.

Moreover, the distribution and use of improved biomass cookstoves is planned and not enforced by any government law, policy or regulation. Hence there is no obligation for households to use improved cookstoves. Therefore, the PoA will help enable to voluntary targets to be achieved via international climate finance.

**Sierra Leone**

***Water***

The NDC mentions setting/developing water and quality standards and ensure regular assessments and monitoring through control programs. [99] p.6 However, there is neither specific target nor policy to improve the water supply and accessibility. Moreover, according to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", [110] the country is deemed to have insufficient financial resources, then the PoA will lead to a greater level of adoption of an existing voluntary scheme to help fill the gap of this insufficient.

***Cookstove***

The NDC of Sierra Leone indicates as a present GHG emission contribution the expansion of clean energy utilization like biomass stoves (e.g. solar, mini-hydroelectric power, LPG, biomass stoves etc.). [99] p.6 Moreover, UNDP further describes the capacities to translate the plans and strategies defined in the National Energy Plan and National Energy Strategy into pragmatic and business solutions as weak (UNDP). [100] However, the plan does not mention any quantitative targets in terms of cookstove distribution which means there is no legal obligation of the distribution of cookstove. Then, the PoA will help enable their expansion.

***Both***

The NDC mentioned the realization of the bold ambitions and actions identified in the Sierra Leone INDC will require substantial financial resources, investment, technology development and transfer, and capacity-building to fully realize her intended contribution. To succeed in this ambitious intention, Sierra Leone will need to access both public and private sources [99] p.10

**Senegal**

***Water***

According to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", the objective is to give access to clean water to 90% of the population by 2021, but the country is deemed to have insufficient financial and human resources for these targets. [110] Therefore, the PoA will help enforce the existing regulation, to help fill the gap of the insufficient resources.

***Cookstoves***

According to the document 'Energy policy of the Republic of Senegal' (2018) [20] p.29, improved stoves, make a weak penetration in poor and rural households because of the high upfront prices and the lack of organization and financing mechanisms to make them affordable to all. It also mentions that access to LPG by poor has remained low because of various barriers such as financial capacities to purchase LPG devices and lack of distribution outlets at

decentralized level to meet the demand of the scattered habitat in rural areas. Thus, several initiatives were launched but their impacts have remained weak [20] p.29.
The government wants to provide sustainable supply for all households (urban and rural) with cooking energy but no specific targets for the promotion/dissemination of improved cookstoves are mentioned so there is no obligation of cookstove distribution.
Hence, the PoA will help enable to distribute them.

**Nigeria**

***Water***

The NDC of Nigeria mentions that one of a mitigation actions is to provide basic infrastructure, like potable water, puts a strain on government at all levels. The strategy for fresh water resource are to initiate a national program to integrate water resource management at the watershed level, intensify program to survey water quality and quantity for both ground and surface water and implement program to sustainably extend and improve water supply and water management infrastructure. [29] p.16 4.2.7. According to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", the country intends to give access to clean water to 80% by 2030. [110] Funding for the sub-sector is weak, and significant household contribution is needed [30][110] Therefore, the PoA will lead to a greater level of adoption of an existing voluntary scheme to help fill the gap of these insufficient resources.

***Cookstoves***

In the NDC from 2017, it is mentions that the use of fuel wood and charcoal for fuel is a major source of degradation of Nigeria's forests. So, it indicates that efficient cookstoves are one way to reduce fuel demand, and alternative heating sources such as LPG could be provided. To what extent the use of LPG – a fossil fuel – delivers a genuine climate benefit, compared to wood-based charcoal, needs to be considered. [32] p.13 paragraph 3. And according to the national renewable energy and energy efficiency policy (2015), encouraging the production and use of improved and more-efficient cooking stoves is a key strategy [33] p.27, 3.1.3, l.14. In the NDC from 2017, there is no mention of any particular policy and evokes that further work is needed in this regard. [32] p.13 paragraph 3. Same in the national renewable energy and energy efficiency policy in which no quantitative targets are mentioned. [33] p.27, 3.1.3, l.14. Indeed, there is no legal obligation to provide improved cookstove so the PoA will help enable to this accessibility.

***Both***

Nigeria indicates it can make a significant additional contribution, but with the international support in the form of finance and investment, technology and capacity building. [32] p.9 3.4

**Kenya**

***Water***

One of the priorities actions of the NDC is the mainstream of climate change adaptation in the water sector by implementing the National Water Master Plan (2014). [34] P 5, l.8. In line with the National Water Policy 1999 and targets of the Kenya Vision 2030, the specific objectives of water resources development and management in the NWMP 2030 are to ensure that improved water and sanitation are available and accessible to 78% by 2022 [110], and to all by 2030 and the domestic and industrial water supply is ensured for 10-year probable drought and irrigation water supply for 5-year probable drought. [35] P.13, l.2 & l.8. However, according to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", the country is deemed to have insufficient financial resources for these targets, then the PoA will help the uptake and enforcement of the existing mandates on water.

***Cookstoves***

Kenya's national energy policy (National Energy Policy, 2018) mentions as one of the policies/strategies to promote alternative sources of energy and technologies such as LPG, biogas and solar as substitutes for biomass, [37] p.32, line 8. and to support and promote conversion of cook stoves to uptake modern and clean fuels in households and institutions. [37] p.77, 20. It indicates the need to move consumers from the consumption of kerosene to efficient renewable energy solutions like LPG or natural gas and electricity too. [37] p.72, 3. The prioritized mitigation actions are the development and distribution of 4 million improved biomass stoves by 2022, and the development and distribution of 1 million clean energy (LPG, biogas and ethanol) stoves by 2022 [37] p.73, table 6.2. The Kenya's NDC integrates their will of clean energy technologies to reduce overreliance on wood fuels in the timeframe for implementation up to 2030. It's indicated in the Kenya's National Climate Change Action Plan 2018-2022 too that one of the priority areas will be the promotion of the transition to clean cooking with alternative clean fuels such as LPG in urban areas and clean biomass (charcoal and wood) cookstoves; and alternatives in rural areas. [38] p.3 'Energy and transport'.
As per the National Climate Change Action Plan, the distribution and use of improved biomass cookstoves is not enforced by any government law, policy or regulation, hence there is no obligation for households to use improved cookstoves, and the distribution of 4 million improved biomass stoves is only an objective hardly reachable, so not guaranteed. [38]

Kenya mentioned it does not rule out the use of international market-based mechanisms in line with agreed accounting rules" [34] p.3 Kenya's contribution will be implemented with both domestic and international support. It is estimated that over USD 40 billion is required for mitigation and adaptation actions across sectors up to 2030. Thus, Kenya will require international support in form of finance, investment, technology development and transfer,

and capacity-building to fully realize her intended contribution." [34] p.7. Then, the PoA will help enable to uptake of these targets.

**BOTH**

Kenya seeks to undertake an ambitious mitigation contribution towards the 2015 Agreement and is subject to international support in the form of finance, investment, technology development and transfer, and capacity building. [34] 2.1 "Mitigation" NDC Support Program in Kenya will be implemented jointly with the USAID-supported Low Emissions and Climate Resilient Development (LECRD) project with the overall goal to support the implementation of Kenya's NDC. Existing strategic partnerships among various ministries, departments and agencies working with the UNDP and other stakeholders will be enhanced. At the global level, the Program is engaged in a range of strategic partnerships including the, the IKI NDC Support Cluster, and the NDC Partnership. [36] 'Partner initiatives'.

**Rwanda**

***Water***

The NDC mentions a national water security through water conservation practices, water storage and efficient water use. However, there is no specific target in terms of percentage of people who will get access to clean water by 2030. [39] p.4, table ES-1 & p.56 table 6.2. and according to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", the country is deemed to have insufficient financial resources to implement any actions on water supply [110]. Indeed, UNICEF's WASH program supports the Government of Rwanda to ensure that more households and communities use safe and sustainable water and sanitation services [40]. Therefore, the PoA will lead to a greater level of adoption of targets to help provide safe access to water.

***Cookstoves***

The NDC of Rwanda mentions that increasing the use of sustainable biomass and charcoal is a key priority for Rwanda's energy policy. [39] p.15, l.9 It indicates the estimated GHG mitigation potential in 2030 from mitigation measures is 13%, regarding to the cookstove sector. [39] p. 32, figure 5.4.

The NDC also refers to the target of increase the diffusion of improved cook stoves and reach 100% of all households in needs 2030, however, this is arguably hardly reachable due to financial, technological and other barriers. These are targets which are not enforced by any law so there is no obligation to distribute Improve cookstoves. In this case, the PoA will help enable to uptake of these targets.

**Burkina Faso**

***Water***

The adaptation measures of water sector is one of the priorities in the NDC (from 2015). They focus on the development of masters plans for water management and the construction of water reservoirs such as modern wells, high-flow boreholes, dams, ponds, stream diversion.

The objectives of Rural water supply are to expand the management reform of rural water supply systems to all regions; to rapidly increase the human, financial, and material resources made available to communes and regional departments to enable them to undertake the new responsibilities entrusted to them as part of the decentralization process; and to reinforce the competencies water users' associations and the private sector. [64] p.3 'Rural water supply'. According to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", [120] the country had the objective to provide clean water to 76% of the population by 2020.

However, local governments responsible for water and sanitation services do not have the funding or skills to reach this target [66][120].This means that the PoA will help enforce the existing regulation, to help fill the gap of this insufficiency.

***Cookstoves***

The NDC mentions that the government will, as one of the adaptation actions, produce and distribute 540,000 improved cookstoves, at least 50% in urban and semi-urban areas. [67] p.16 However, the distribution and use of improved biomass cookstoves is not enforced by any government law, policy or regulation, hence there is no obligation for households to use improved cookstoves.

Therefore, though a government objective has been defined to foster the use of improved cookstoves, it is not guaranteed whether this objective will be achieved in reality and if so, to what extent. [67]. Nonetheless, the PoA will help enable to uptake of these targets.

**Uganda**

***Water***

NDC of Uganda will work on improving water efficiency and ensuring water supply to key economic sectors, especially domestic use. The NDC mentions the establishment of an Integrated Water Resources Management system, provision for a safe water chain and sanitation facilities to limit outbreaks of water-borne diseases. [68] p6

The objective of the policy of 1999 [70] was to manage, and develop the water, resources of Uganda, in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs with the full participation of all stakeholders and establish a Water Action Plan. [70] P.8

According to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", the country had the target to provide clean water to 79% of the

population by 2020.Water access is a human right water in Uganda, which makes the objectives mandatory. [121]
However, the policy has not enabled to give water access to 100 % of the population as still 22 million of people lack access to safe water [71]. This is explained by a gap in financing such actions and a lack of human resources needed. [110], as confirmed by the GLAAS survey. This demonstrates that the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation to help fill the gap of this insufficient.

***Cookstoves***
The NDC of Uganda refers as one of the mitigation ambitions, to build on existing Clean Development Mechanism (CDM) projects and Programmes of Activities pipeline, such as Bujagali Hydropower Project and Improved Cook Stove for East Africa. It promotes and wider uptakes of energy efficient cooking stoves or induction cookers. [68] p.8-9
However, there is no mention in regard to any target related to the distribution/promotion of efficient cookstoves and the NDC mentions that the implementation of the mitigation measure is contingent upon receipt of sufficient international support, provided in the form of finance, technology and capacity building. [68] p.9, Hence there is no Obligation to distribute such cookstoves. The PoA will then help enable to uptake of the implementation of CDM projects and programs.

**Ethiopia**
***Water***
The NDC (2017) mentions the intention to provide water by diverting stream, digging wells, enhancing water harvesting techniques and irrigation systems, thereby making available dependable watering points in all rural woredas (districts). [73] P.5
According to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", [110] the country had the objective to provide access to clean water to 80% by 2020. Nevertheless, there is a gap in financing and capacity barriers to achieve this target, as explained by the GLAAS 2019 report, whereby only between 50 and 75% of resources are provided [110]. Indeed, the policy mentions to promote external support agencies and the private sector in sustainable sanitation programs. It intends to develop a framework for Community-Government-Private sector-External Support Agencies Partnership as well as the involvement of Government at different levels and NGOs, in the provision of support for bulk water storage and transfer schemes and other relevant structures [74] (for example, WaterAid Ethiopia are already working with the Ministry of Health to coordinate an emergency response) [75]. Then, the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation to help fill the gap of this insufficient.

***Cookstoves***

According to the Ethiopia's NDC from 2017, one of the priority initiatives under the CRGE (Climate Resilient Green Economy Strategy issued by the Federal Democratic Republic of Ethiopia in 2011) is the use of more efficient stoves, amounting to an emissions reduction rate of 50 MtCO2e per year by 2030. However no quantitative targets or legislations are indicated. [76] p.8 which means that the use of efficient stoves is not mandatory.

On the other hand, according to the 'Financing Climate Futures' (2019) [77] slide 11, the clean cooking policy of Ethiopia focuses on improved biomass cookstove technology with the goal of having distributed an additional 11.45 million improved cookstoves during the 2016-2020 period. However, the 'Financing Climate Futures' (2019) [77] slide 11 also mentions many barriers for such cookstove programs in Ethiopia, such as the high dependence on public subsidies and incentives to decrease the cost as well as the lack of availability of cookstoves.

Thus, the full implementation of Ethiopia's INDC requires predictable, sustainable and reliable support in the form of finance, capacity building and technology transfer [76] p.9 Ethiopia also welcomes the continued support of bilateral and multilateral development partners, as well as the engagement of the private sector in achieving its ambitious goals set under the EINDC. In this context, Ethiopia has already put in place a national fund, the Climate Resilient Green Economy Facility (CRGE Facility), as a mechanism to mobilize finance from various sources, and drive investments to build resilience and for green growth. [76] p.13. Hence, the PoA will help enable to uptake of these targets as it provides climate financing and investments needed to achieve these ambitious targets and to overcome various barriers.

**Zambia**

***Water***

The adaptation measures mentioned in the NDC concern enhanced investment in water capture, storage and transfer, the implementation of water technologies for savings, recycling, irrigation and sustainable management to improve health impacts from clean water, easy access and sanitation. [79] p 8- 10

According to "the National system to support drinking water, sanitation and hygiene: Global status report 2019", [110] the country has the objective to provide water to 100% of the population by 2030. Nevertheless, the targets are not enforced by any laws and there is a lack of financial resource and capacity barriers as laid out in the report [110]. Thus, the PoA will lead to a greater level of adoption of an existing voluntary scheme.

***Cookstove***

The NDC of Republic of Zambia mentions the involvement of improved biomass cooking stoves as part of the Zambia's Programs Contribution to its National Mitigation Goal. And

also includes the involvement of the use of ethanol and LPG stoves, and switch to electric stoves. [84] p. 3

The National Energy Policy (2007) [85] p. 6 evokes the Improved biomass stove as an opportunity but does not mention any national targets for the implementation of improved cookstoves either. In the revision of the National Energy Policy of 1994 (revised in 2007), the government is promoting alternative energy sources such as gel fuel, biofuels and LPG, and encouraging its use as substitute to charcoal, but doesn't mention any national targets neither. [85] p.10. Despite the objectives of the NDC, the government does mention any specific objectives in regard to improved cookstoves, just as the National Energy Policy (2019). [84] p. 3. There is no legal obligation concerning the distribution of improved cookstoves nor obligation for households to use them, which means that the PoA will help enable to voluntary targets to be achieved via international climate finance.

**Malawi**

***Water***

Malawi has a target to provide 100% basic services to rural areas by 2030 [110]. Water resources is one of the NDC priorities Malawi. The government is implementing construction of multipurpose dams, implementation of water harvesting technologies, capacity building in integrated water resources management (IWRM), catchment management and water supply development for domestic and livestock use. The adaptation for this sector is to support the revision of water related policies and strategies (Inc. water-SWAP) and enhance public awareness about water, sanitation and hygiene practices; and enhance health surveillance. However the country does not have sufficient financial or human resources to implement the plans as reported by GLAAS 2019 to enforce or uptake these targets [110]. International finance mechanisms like carbon credits will enable the uptake of these targets, such as the PoA.

***Cookstoves***

In 2013 following the presidential initiative for improved cookstoves, the national government-led Improved Cookstove Task Force was formed and assigned the following broad functions: to develop a National Cookstove Adoption Strategy and strengthen Government's capacity to implement it, to establish support for the production and commercialization of energy saving stoves whilst promoting research and innovations that will drive improved cookstove adoption and usage, and to scale-up current cookstove and carbon credit activities. The newly formed Ministry of Environment and Climate Change Management supports the initiative to promote energy efficient biomass appliances like cookstoves to reduce the quantity of solid biomass required for preparing a meal. [25] l.19 from "Energy situation" - 2020.

The Malawi mentions in its NDC from 2017, as planned mitigation actions to 'Distribute energy saving cook stoves to 400 000 households' unconditionally.
In contrary, they express their will to increase the number of households adopting energy saving stoves (clean and improved) to 2,000,000 by 2030, but capacity requirements, technology requirements and finance requirements will be needed. [26] l.13-14 p.8 & [27] l.1 "Policy Framework, Laws and regulations". The timeframe for implementations is from 2015 to 2040. [26] l.1 p.12. There are no mandatory laws requiring households to use cookstoves. The PoA would provide international climate finance to uptake these targets, nonetheless.

**Zimbabwe**

***Water***

Zimbabwe has a target to provide limited drinking water services to 85% of the rural population by 2030. However, no implementation plans have been created for rural drinking water [110] In 2011 the country had a target to have 100% drinking water in rural areas by 2015, but had not reached the target, as evident in there are 74% with access to water [122]. Indeed, the country does not have sufficient financial or human resources to implement the plans as reported by GLAAS 2019 to enforce or uptake these targets [110]. Therefore, International finance mechanisms like carbon credits will enable the uptake of these targets, such as the PoA.

***Cookstoves***

Zimbabwe has indicated in their Energy Policy on the importance for the "government to establish an institutional and funding framework for developing and implementing strategies to deal with the wood fuel crisis" [122]. Zimbabwe government previous improved cookstove programmes successes have been few and far between [124]. There are no indications concerning the position of Zimbabwe on the implementation of improved cookstoves in the future [43].
However, Zimbabwe 's Government is promoting the use of liquefied petroleum gas (LPG) as the substitute for or alternative to grid electricity. Nonetheless, there is currently no mandatory law in place obliging households to use improved or LPG stoves. The PoA will nonetheless help enable to uptake of these targets.

***Both***

It is indicated that conditional actions will be implemented subject to availability of affordable international financial support, investment, ability to leverage on the government resources, technology development and transfer and capacity development as well as continued improvement in their national circumstances and creation of enabling environment. The various funding, technology and capacity mechanisms related to the Convention such as the Green Climate Fund (GCF), Climate Technology Centre and Network

(CTCN), Adaptation Fund, Global Environmental Facility (GEF) and continued investment by developmental partners in the national climate change discourse will be critical. [43],Point 9, 1st paragraph.

**Namibia**

***Water***

According to GLAAS [110], Namibia has the target to give access to clean water to 100% of the population by 2022. It is also mentioned in the NDC of Namibia as goals and targets to implement soil and water conservation policies and practices. [44] p.14 One of the major adaptation actions under way is the improvement of rural water supply, the rationalization of the use of water resources for different economic sectors, the recycling of Windhoek's wastewater into potable water, and the artificial recharge of aquifers – 'banking water'. [44] p.15 However, the country does not have sufficient financial or human resources to implement the plans as reported by GLAAS 2019 to enforce or uptake these targets [110]. International finance mechanisms like carbon credits will enable the uptake of these targets, such as the PoA.

***Cookstoves***

Namibia's development is guided by its long-term National Policy Framework, Vision 2030, which transcribes into National Development Plans for 5 years periods. The country is currently in its fifth NDP that privileges sustainability within the economic development agenda and aims at a low carbon economy [44], l.5, p.5. There are no specifications concerning the energy ambitions of Namibia in terms of cookstoves for either improved or clean stoves [125] and therefore are no mandatory laws requiring households to use cookstoves. Then, the PoA would provide international climate finance to uptake these targets.

***Both***

Namibia will need the support of the international community to overcome existing barriers, for the appropriation of technologies for both mitigation and adaptation, a sustained capacity building program in the prioritized areas, technical support and funding to the tune of some 33 billion US$ [44], l.9, p.7 (from 2015). International support will be required to top up on the country's efforts and initiatives to meet the differential between the unconditional and conditional targets fixed in the INDC. [44], l.6, p.6.

**Cameroun**

***Water***

The country had the intention to provide clean water to 75% of population. The Program 20 of the NDC includes the development of water industries and the Program 13 includes strengthening and securing access to water and sanitation services. [86] p.12 The priorities

actions are to develop technical capacities (particularly for the construction of small piped systems) by mobilizing the private sector, accelerate the transfer of contracting authority responsibilities to the communes and increase staffing levels within the Ministry of Energy and Water (MINÉE) (support to stakeholders, programmatic approach).. Despite the building blocks required for the institutional framework of the sector being in place, there is still no operational programmatic approach. The fact that the sector still does not have appropriate budget planning tools is cause for concern. Whilst there has been a national MTEF (Medium-Term Expenditure Framework) in place since 2006, there is neither an MTEF nor a performance budget at ministerial or sector level. [87] P.3 & p.14 & p.16 et [88]
Since the beginning of 2016, GWP Cameroon has been supporting UNICEF Cameroon and the Ministry of Water Resources and Energy (MINEE) in the process of conceptualizing the National Water Policy elaboration process in Cameroon. [89]. Therefore, the PoA will lead to a greater level of adoption of an existing policies in place to help fill the gap of insufficient resources .

***Cookstove***

Cameroon's objectives are to decrease the GHG. To achieve its goal, Cameroun will do mitigations measures concerning energy, such as reducing the unsustainable consumption of firewood e.g. through sustainable wood energy management; clean energy; improved stoves, and the promotion of methanisation and/or butanisation in rural areas. l.16 p.5 [90]
Moreover, capacity building in several areas are planned for the Government of Cameroon, particularly in the dissemination and use of improved cookstoves and stoves. l.52 p. 14 [90].
It is also integrated in the means implemented by Cameroon, the development of partnerships between companies and research centers on the development of low-carbon solutions concerning technology transfer and R&D. [90]. However, there is no specific objective regarding the quantity of stoves to be distributed and there is no legal obligation for government to distribute those stoves or for households to use them. Therefore, the PoA will help enable to uptake of these targets.

**Eritrea**

***Water***

The NDC of 2018 mentions that Eritrea has already planned to undertake effective and efficient water resources assessment mechanisms through an action plan to enable an equity, efficiency and environmentally sustainable management of the water resources. [94] p.4 &p.24& p.50&p. 63
The planned adaptation goals for 2030 are to increase from 75% to 100% safe drinking water. [93] p13-21-22

However, the country strategy for IWRM recognizes that this target cannot be reached without partners as at present, water resource isn't managed properly. Indeed, the absence of enacted water policy and law, unclear entitlement and responsibilities of users and water suppliers, unclear regulatory norms and inadequate powers of enforcement for effective use of water resource has become the main problems. [94] p.4 &p.24& p.50&p. 63. Moreover, according to GLAAS, the country does not have sufficient financial or human resources to implement the plans to enforce or uptake these targets [110].
International finance mechanisms like carbon credits will enable the uptake of these targets, such as the PoA.

***Cookstove***
In the NDC of Eritrea, climate change mitigation actions focus mainly on five sectors, including the sector of energy. Eritrea's Conditional GHG mitigation options proposed in the sector of energy is to integrate in the country "Efficient wood stoves", and to replace wood stoves by LPG stoves. [93] p.16 l.15&l.16 of the table sheet.
As adaptation strategy, the government of Eritrea has already taken concrete measures to introduce energy saving cooking stoves for rural households which have an efficiency about 26% compared to the traditional ones around 10%. This calls for further research and development to improve its efficiency. [93] p.21 l.4 It's also indicated in the NDC as measure options for reduction the dissemination of 60,000 Efficient wood stoves (at the condition that the investment needed is collected). [93] p.30. However, the distribution of this cookstoves is not enforced by any laws or regulation and those targets are not mandatory, and households have no obligation to use them. The PoA will help enable to uptake of these targets, nonetheless.

***Both***
The government of Eritrea underlined in the NDC that they are committed to reduce the CO2 emissions from fossil fuels by 4.2% in 2020, 6.2% by 2025 and 12.0% by 2030 compared to the projected Business As Usual of the reference year of 2010; and that if additional support was availed, it can further be reduced by 12.6% in 2020, 24.9% by 2025 and 38.5 by the year 2030. Thus, the government indicates that execution of Eritrea's NDCs requires sustainable and reliable supports. The NDC presents capacity building, technology transfer, financial support and partnership with regional and international agencies involved in climate change as concrete measures and steps that need to be taken in the implementation of the projects and programs. Such supports include finance, human and institutional capacity building, and technology transfer. Technology transfers in this sense include skills, knowledge, expertise, know-how, equipment, machinery and tools needed to successfully implement the planned set of activities. [93] p.7; p.18 ; p.23, 5.1.2

**Sudan**

***Water***

The NDC in Sudan (2017) intends to integrate Management of the water resources to meet the current and future challenges/needs, which is one of the priorities in regard to technology for adaptation. [95] p14. The objectives are to establish and rehabilitate hand pumps, construct water-networks in rural areas for provisions of drinking-water and achieve water security in order to discourage communities' migration from vulnerable areas. The NDC also integrate advance research related to climate change impacts on water sector and introduce micro-credit fund to support implementation of small water harvesting projects. Even within the water sector, there are poor linkages between federal and state water corporations and the roles are not clearly defined. This might prevent the government from reaching its targets. Hence, UNICEF collaborates with government, civil society organizations and development partners in its relentless pursuit to accelerate access to basic water, sanitation, and hygiene services in Sudan. [96]. GLASS [110] reported that the country intends to provide clean water to 50% of the rural population by 2021 but it stipulates that there is a gap in financing activities. This means that the PoA will lead to a greater level of adoption of the existing targets.

***Cookstove***

The sector of energy is part of Sudan's Intended mitigation contributions, but there is no information concerning improved cooking stoves or LPG stoves. [95] p.4-p.5. Therefore, the PoA will enable to implement and distribute such stoves in rural areas.

***Both***

The international support required to implement the intended contribution in terms of finance, technology and capacity building, over a cycle of contributions of 5-10 years, amount to a total of 12.88 USD billions, of which 1.2 billion USD$ for adaptation and 11.68 billion for mitigation. This amount is required to be met from all possible and accessible international climate finance sources. [95] p.16

**Congo Republic**

***Water***

GLAAS [110] indicates that the country had the intention to provide 95% of clean water by 2020 in all rural areas. However, the same source indicates that the country does not have the financial and human resource to reach this goal, as evidenced by only 46% of the rural population having access to basic water services in rural areas. The PoA will help enforce existing regulation, to help fill the gap of this insufficiency.

***Cookstoves***

From a conditional low-carbon perspective of the Congo Republic, the NDC (2017) proposed to generalize the use of improved stoves (20% in 2025 and 50% in 2035). l.27 p.7 [102] It is also planned to extend the use of improved charcoal-burning stoves, as well as the production of improved grindstones by the charcoal makers should make it possible to significantly reduce energy consumption. l.11 p.10 [102] However, no legislations or specific targets are mentioned for improved cooking stoves or LPG. Therefore, the PoA will help enable to implement these improved stoves.

***Both***

The country's self-financing could only reach 20%, or €1.03 billion, (or CFAF 656 billion). So, the international community would be called upon to provide 5.14 billion euros for the period 2015-2025 for its NDC contribution. l.5 p.14 [102]

**Guinea**

***Water***

Guinea indicates in its NDC (2016) its ambition to preserve and enhance its water resources. Its commitment is to preserve the quality and quantity of water resources. P.5 l.9 [103]. The GLASS report does not mention any target for the following years. [110].

The GEF funds several projects to combat climate change in Guinea; it is assisted by UNDP. For example, there is a project to conserve the ecosystems of the Mano River Union and to manage international water resources that is co-funded by the GEF. It is also hoped that this support will be continued and enhanced. P.14 'International donors' [103] Therefore, the PoA will lead to a greater level of adoption of any targets and schemes to help fill the gap of this insufficient.

***Cookstoves***

The NDC mentions past activities in regard to dissemination of improved cookstoves since 1985, and that 'another program aims to develop efficient wood-fired stoves for rural areas'. The Integrated Programme of Access to Modern Energy Services (PRONIASE) planned to disseminate 10,000 improved wood- and charcoal-fired stoves and 2000 improved charcoal production kilns in 2015. It is indicated too in the NDC as objective, the organization of local industrial supply chains to enable the introduction of at least one million improved stoves. P.11 [103]

However, no targets for the dissemination of improved cookstoves for the future are indicated in the NDC which means that the PoA will enable to provide such improved cookstove through rural areas.

***Both***

It is underlined that as an LDC, Guinea needs strong support from the Green Fund particularly for programmes relating to food security and energy efficiency. P.15 l.9 [103] Especially, the Republic of Guinea is particularly short of resources to meet the investment needs of its national budget. Increased resort to private finance could, in this connection, help to step up fulfilment of the commitments. P.15 'Private funding' [103]

**South Africa**

***Both water and cookstoves***

According to the NDC of South Africa, the energy and water sectors will be covered into the National Development Plan Vision 2030. However, no targets for the dissemination of improved cookstoves for the future or for the water sector are indicated in the NDC [105]. No objective are target in the GLAAS document neither. [110]

Therefore, The PoA would provide international climate finance to provide both clean water and improved cookstove in rural areas.

**VVB opinion and recommendation (if applicable):**

……

*Use the space below to describe how the deviation complies with the requirements, and accuracy, completeness, conservativeness, as applicable is ensured. Please include all relevant information in support of the request.*

### 3.3 | Impact of the deviation:

*Use the space below to describe the impact of the deviation on project design, safeguarding principles assessment, SDG assessment, emissions reductions, monitoring frequency, data quality, potential risk or any other relevant aspect of the project. Please substantiate the impact assessment with relevant and verifiable data/information.*

*The deviation will not impact project design, safeguarding principles, SDGs assessment, ERs, monitoring frequency, data quality or any other potential risk, as this is a deviation ex-ante of project implementation.*
*Each VPA submitted for design certification within the PoA will be in compliance with the relevant Gold Standard eligibility criteria. The PoA will abide by the Programme of Activity requirements v 1.2, save for the deviation from Section 17 on multi-country PoAs of which this deviation concerns.*

**VVB opinion (if applicable):**

……

### 3.4 | Documents:

*List of documents provided*

**EcoAct PoA Deviation Request [excel]**

**EcoAct Deviation Request PoA Sources [Word]**