



JRC SCIENTIFIC INFORMATION SYSTEMS AND DATABASES REPORT

CoM SSA – Offline reporting tool for SEACAPs

Bertoldi, P.; Dallemand JF., Kona A., Palermo, V.,
Pinedo Pascua, I., Ribeiro Serrenho, T., Rivas
Calvete, S.

2020

This publication is a Scientific Information Systems and Databases report by the Joint Research Centre (JRC), the European Commission's science and knowledge service. It aims to provide evidence-based scientific support to the European policymaking process. The scientific output expressed does not imply a policy position of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of this publication. For information on the methodology and quality underlying the data used in this publication for which the source is neither Eurostat nor other Commission services, users should contact the referenced source. The designations employed and the presentation of material on the maps do not imply the expression of any opinion whatsoever on the part of the European Union concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Contact information

Name: Valentina Palermo

Address: European Commission, Joint Research Centre, Via Enrico Fermi 2749, 21027 Ispra (VA), Italy

Email: valentina.palermo@ec.europa.eu

Tel.: +39 0332785904

EU Science Hub

<https://ec.europa.eu/jrc>

JRC118743

PDF

ISBN 978-92-76-15706-9

doi: 10.2760/734189

Luxembourg: Publications Office of the European Union, 2020

© European Union, 2020



The reuse policy of the European Commission is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated. For any use or reproduction of photos or other material that is not owned by the EU, permission must be sought directly from the copyright holders.

All content © European Union, 2020

How to cite this report: Bertoldi, P., Dallemand, J., Kona, A., Palermo, V., Pinedo Pascua, I., Ribeiro Serrenho, T. and Rivas Calvete, S., CoM SSA-Offline reporting tool for SEACAPs, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-15706-9 (online), doi:10.2760/734189 (online), JRC118743.

Contents

Acknowledgements	2
Abstract	3
1 Introduction.....	4
2 CoM SSA Offline Reporting tool	5
2.1 Key Contents.....	5
2.1.1 Home tab.....	7
2.1.2 Mitigation.....	7
2.1.2.1 Baseline Emission Inventory (BEI) Tab.....	7
2.1.2.2 Mitigation Actions Tab	7
2.1.2.3 Mitigation Report Tab	7
2.1.3 Adaptation to climate change.....	7
2.1.3.1 Risk and Vulnerability Assessment (RVA) Tab.....	7
2.1.3.2 Adaptation Actions Tab	8
2.1.3.3 Adaptation Planning Process Tab.....	8
2.1.4 Access to Energy	8
2.1.4.1 Access to Energy Assessment (AEA) Tab.....	8
2.1.4.2 Access to Energy Actions Tab	8
2.1.5 Annexes	8
2.1.5.1 Annex1 - References & glossary	8
2.1.5.2 Annex 2 – Scoreboard	8
2.1.5.3 Annex3 – RVA Indicators	9
References	10
List of abbreviations and definitions	11
List of figures	12

Acknowledgements

The present reporting template has been developed by the Joint Research Centre after a consultation process among CoM SSA partners and Sub-Saharan local and regional authorities.

Authors

BERTOLDI Paolo
DALLEMAND Jean-Francois
KONA Albana
PALERMO Valentina
PINEDO PASCUA Irene
RIBEIRO SERRENHO Tiago
RIVAS CALVETE Silvia

Abstract

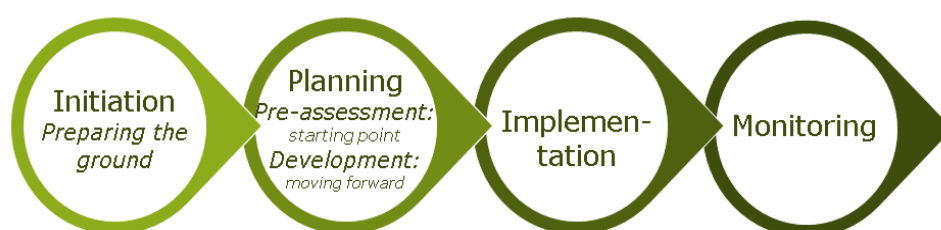
This offline Excel-based template constitutes one of the official reporting tools of the CoM SSA initiative. The template aims at guiding local governments (LG) on submitting the main contents of their Sustainable Energy Access and Climate Action Plan (SEACAP) (the Baseline Emission Inventory; the Risk and Vulnerability Assessment; the Access to Energy Assessment and the actions), allowing the SEACAP evaluation by JRC, or designed body. The template is designed to ease data compilation. This reporting template covers the first two phases of the SEACAP process: initiation and planning (pre-assessment and elaboration of the plan). Through this template LGs are supported and guided in reporting their data. The reporting template is fully compliant with GCOM Common Reporting framework, and include the Access to Energy pillar, making CoM SSA the first Regional Chapter of GCoM to have included this pillar.

1 Introduction

Started in 2015, the Covenant of Mayors in Sub-Saharan Africa (CoM SSA) initiative supports Sub-Saharan cities in their fight against climate change and in their efforts in ensuring access to clean energy. CoM SSA is part of the Global Covenant of Mayors for Climate and Energy (GCoM) – the largest coalition of cities committed to local climate and energy action (about 9600 signatories worldwide out of which about 8000 in Europe).

Under the CoM SSA local authorities are invited to make a voluntary political commitment to implement climate and energy actions in their communities and agree on a long-term vision to tackle 3 pillars (Mitigation of emissions, Adaptation to climate change and Access to energy). In order to translate the political commitment into practical measures, signatories commit to producing and implementing a Sustainable Energy & Climate Action Plan (SEACAP). The following figure gives an overview of the key steps of the SEACAP process.

Figure 1. The SEACAP main phases



Signatories commit to preparing and implementing the plan and reporting on the status and their progresses, through the official reporting platforms.

The EC Joint Research Centre is providing technical support to the CoM SSA initiative and to DG DEVCO within the framework of an Administrative Arrangement. One of the key task of JRC in this initiative has been to provide all the technical documentation for the preparation and reporting of the SEACAPs. This includes three versions of the Technical Guidebook: Extended¹, Summary² and The Short starting guide³; and also the present off-line reporting template. All of them are fully compliant with GCOM Common Reporting framework⁴, and include the Access to Energy pillar, making CoM SSA the first Regional Chapter of GCoM to have included this pillar.

More info on the initiative: <http://comssa.org/> and <https://www.globalcovenantofmayors.org/>.

¹ "Guidebook: How to develop a Sustainable Energy Access and Climate Action Plan (SEACAP) in Sub-Saharan Africa" (Extended version, JRC 113786 - 2018)

² Summary of the "Guidebook: How to develop a Sustainable Energy Access and Climate Action Plan (SEACAP) in Sub Saharan Africa" (JRC113788 - doi:10.2760/483786 (online) – doi:10.2760/673001 (print) -2019); <https://ec.europa.eu/jrc/en/publication/summary-guidebook-how-develop-sustainable-energy-access-and-climate-action-plan-seacap-sub-saharan>

³ "How to develop a Sustainable Energy Access and Climate Action Plan (SEACAP) in Sub-Saharan Africa - Short starting guide" (JRC115962 - doi:10.2760/22842 - 2019).

⁴ <https://www.globalcovenantofmayors.org/our-initiatives/data4cities/common-global-reporting-framework/>

2 CoM SSA Offline Reporting tool

The CoM SSA reporting template in the three languages (English, French and Portuguese) zipped archive can be downloaded [here](#)

This offline reporting template has been developed for the CoM SSA signatories by the Joint Research Centre after a consultation process among CoM SSA partners and Sub-Saharan local and regional authorities. The template aims at guiding local governments (LG) on submitting the main contents of their Sustainable Energy Access and Climate Action Plan (SEACAP) (the Baseline Emission Inventory; the Risk and Vulnerability Assessment; the Access to Energy Assessment and the actions), allowing the SEACAP evaluation by JRC, or designed body. The development of an offline reporting tool has been requested for the peculiarity of network connections in the region. The offline reporting template is coherent with the Common Reporting Framework and the Guidebooks and, at this stage, is the only one including the Energy Access pillar. This offline Excel-based template constitutes one of the official reporting tools* of the CoM SSA initiative.⁵

In the following sections the main parts of the template are described. For more information on the contents and process of the SEACAPs refer to the JRC Guidebook publications (^{1,2,3}) and to other material (webinars, trainings, videos) available at <http://comssa.org/>.

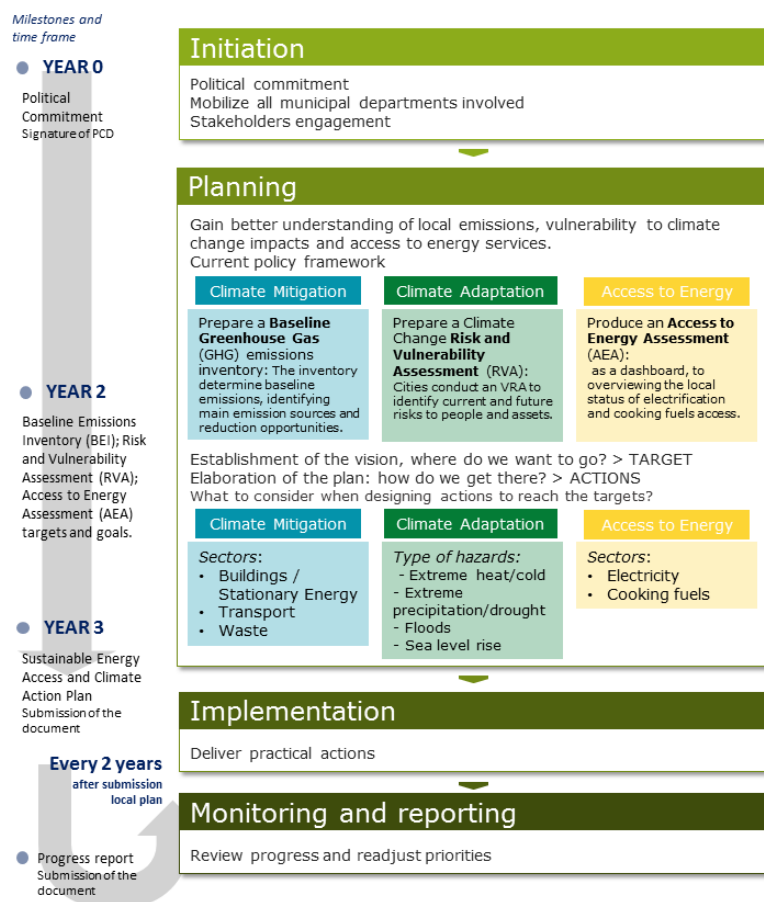
2.1 Key Contents

This reporting template covers the first two phases of the SEACAP process: initiation and planning (pre-assessment and elaboration of the plan). Through this template LGs are supported and guided in reporting their data. This excel template is organised in a total number of 12 tabs: a home tab for a general overview of LGs characteristics and SEACAP initiation process; two tabs for each pillar of the initiative, 6 in total, (Mitigation, Adaptation to Climate Change, Access to sustainable Energy), out of which one relates to the assessment (BEI, RVA, AEA) and one to the actions; three tabs for the three annexes. The tab Mitigation Report shows the key results regarding the mitigation pillar, while the Adaptation planning process tab gives an overview of the status of the adaptation planning of the LG. As reported in the "timeline and template structure" table, LGs have to first fill in the tab for the assessments (BEI, RVA and AEA) and then report the actions included in their SEACAP, planned to advance in their carbon emission reduction, resilience and access to energy targets. The timeline for completing these tasks is reported in the table *Timeline and template structure* and in **Figure 2** and **Figure 3** below. Pop-up windows give necessary definitions and clarifications about the fields.

LGs can choose to report in the sectors that are relevant for their situations and can report the data available to them (making also the use of notation keys). The mandatory fields are identified by a colour code, explained in the *Home* Tab.

⁵ Note that the officially GCoM recognised reporting platforms are MyCovenant, this offline reporting template and CDP/ICLEI.

Figure 2. The SEACAP process: milestones, timeframe and main phases.



Source: JRC own elaboration (Error! Bookmark not defined.)

Figure 3. Timeline and template structure

Template structure		Minimum reporting requirements	
		Within 2 years	Within 3 years
Home		*	
Mitigation	Baseline Emissions Inventory (BEI)	*	
Mitigation	Actions		*
Adaptation	Risk and Vulnerability Assessment (RVA)	*	
Adaptation	Actions		*
Energy Access	Access to Energy Assessment (AEA)	*	
Energy Access	Actions		*
Annexes			

2.1.1 Home tab

The “Home” tab contains the information of the LG that is reporting and its key commitments for the three pillars: Mitigation, Adaptation to climate change and Energy Access. The tab provides a summary of what reported through the full template. Stakeholder engagement in the process shall be reported in the table included in this tab.

2.1.2 Mitigation

The mitigation pillar is addressed through three tabs: the first tab refers to the assessment of CO₂, the Baseline Emission Inventory (BEI). By developing a Baseline Emission Inventory a local authority is measuring its GHG emission level in a base year, according to a common methodological approach. The second tab refers to actions. Local authorities should identify and prioritize the mitigation actions in the required and/or most effective sectors according to the outcomes of the BEI. Finally the third tab consists in a summary of what reported in the previous two tabs.

2.1.2.1 Baseline Emission Inventory (BEI) Tab

LGs shall report which of the two available methodological approaches they have selected: Activity based, according to IPCC approach and Life Cycle Analysis (LCA).

Table 2 allows for the reporting of *Activity data*; *Emission Sources* and *GHG Emissions*. The table is organised in sectors, subsectors and sub categories for reporting GHG emissions in tCO₂-eq. The Energy generation and emission credits are dealt with in tables 3 and 4.

2.1.2.2 Mitigation Actions Tab

The first section of the tab refers to the SEACAP, the targets and potential methodological notes that LG wants to share on the action planning process.

The actions can be described per sectors and sub sectors, indications on area of intervention, responsible body, timeframe of implementation and costs are key information for a successful planning. For the actions it is also important to indicate if these are also affecting the other pillars (adaptation to climate change and energy access in this case).

2.1.2.3 Mitigation Report Tab

The *Mitigation Report Tab* shows the key results of the Baseline Emission Inventory and the estimated greenhouse gas emissions reduction per sector. It is a summary of what filled in the previous tabs and allows LGs to monitor and check their planned strategy and actions.

2.1.3 Adaptation to climate change

The adaptation to climate change pillar is addressed through three tabs: the first tab refers to the assessment risks and vulnerabilities (RVA), the second tab to the *Adaptation actions* and the third tab to the *adaptation planning process*. A RVA determines the nature and extent of a risk by analysing potential hazards and assessing the vulnerability that could pose a potential threat or harm to people, property, livelihoods and the environment on which they depend. In the CoM initiative, the RVA is framed in a qualitative way. The RVA enables local authorities to identify their exposure to current and future climate hazards, their vulnerabilities, and understand the main city specificities that contribute to aggravating the consequences of a climate hazard. Actions reported in the *Adaptation actions* tab should be suitable to the local context, depending also on the local needs and the national situation.

2.1.3.1 Risk and Vulnerability Assessment (RVA) Tab

The first table refers to the RVAs developed and the studies already in place related to risks and adaptation.

The second table summarises the risks, hazards and vulnerabilities of the LG. The table is aligned with the IPCC Risk framework. For the key climate hazards that could potentially affect the LG, it should be indicated the probability and the impact in the current situation and in the future. Vulnerable sectors and groups and adaptive capacity are to be included as well. The use of indicators is highly recommended. Annex 3 contains the indicators for vulnerability and adaptive capacity. LGs may use some illustrative indicators reported in the annex, but they can add as many new indicators as they need that may suit the local conditions.

2.1.3.2 Adaptation Actions Tab

The first section of the tab refers to the SEACAP, the targets and potential methodological notes that LG wants to share on the action planning process.

The table allows reporting the actions planned for adaptation by LGs. The climate hazard targeted with the implementation of the action is a strategic field. Responsible body, timeframe of implementation and costs are key information for a successful planning. For the actions it is also important to indicate if these are also affecting the other pillars (mitigation and energy access in this case).

2.1.3.3 Adaptation Planning Process Tab

The *Adaptation Planning Process* Tab describes the progress in the adaptation planning process undertaken by LGs. The progresses are qualitative based and are organised in the table according to the main steps of the adaptation process, from the commitment to the monitoring phase. Comments and further information can complement the qualitative drop-down menu.

2.1.4 Access to Energy

The pillar is aligned with the Sustainable Development Goal n.7: Ensure access to affordable, reliable, sustainable and modern energy for all.

In the framework of the CoM SSA initiative the fields to be considered to assess the energy access in Sub-Saharan Africa are: clean cooking and electricity.

2.1.4.1 Access to Energy Assessment (AEA) Tab

The AEA helps to build an overview of the current condition of Local Authorities with regard to Energy Access. The Access to Energy Assessment (AEA) is framed as a dashboard of multiple indicators. For electricity, 10 indicators have been developed. There is an overall indicator and then 9 indicators which are individually related to one of the three key attributes of energy access (sustainable, secure and affordable). For clean cooking, 9 indicators have been developed. There is one overall indicator and then 8 indicators which are individually related to one of the three key attributes of energy access (sustainable, secure and affordable). To lead the AEA, the local authority has to select and evaluate at least one indicator per each category, along with the general one in both sectors. Values of the indicators and the year for baseline and target are key information. Table A and B can be used to further disaggregate the data regarding SU5 and SU6 in the electricity sector.

2.1.4.2 Access to Energy Actions Tab

The first section of the tab refers to the SEACAP, the targets and potential methodological notes that LG wants to share on the action planning process.

The table allows reporting the actions planned for increase the access to energy by LGs. When reporting the actions, it is necessary to identify the sector to which the action is referring, the indicator (out of the 19 used in the AEA) and its value, which allows identifying the progresses gained by the action itself. Responsible body, timeframe of implementation, vulnerable groups and costs are key information for a successful planning. For the actions it is also important to indicate if these are also affecting the other pillars (mitigation and adaptation to climate change in this case).

2.1.5 Annexes

2.1.5.1 Annex1 - References & glossary

Annex 1 provides references and web links for the development of the present reporting template, a glossary, and reference tables for the emission factors and the currencies by country.

2.1.5.2 Annex 2 – Scoreboard

Annex 2 contains a scoreboard checklist regarding the whole process of the SEACAP. It gives the LGs the opportunity to self-check their status in the process and understand where there is the need for further efforts.

2.1.5.3 Annex3 - RVA Indicators

Annex 3 includes a list of indicators related to vulnerability and adaptive capacity to be used in the *RVA* and *Adaptation Actions* tabs.

References

Tracking SDG7: The Energy Progress Report 2018. Available at: <http://trackingsdg7.esmap.org/>

Bertoldi P. (editor), 2018. Guidebook 'How to develop a Sustainable Energy and Climate Action Plan (SECAP) – Part 1 – Part 2 – Part 3 Publications Office of the European Union, Luxembourg, 2018, JRC112986.

Global Covenant of Mayors, Common Reporting Framework available at: <https://www.globalcovenantofmayors.org/our-initiatives/data4cities/>

Kern & Alber (2009). Governing Climate Change in Cities: Modes of Urban Climate Governance in Multi-Level . The international conference on Competitive Cities and Climate Change, Milan, Italy, 9 - 10 October, 2009. - Paris : OECD - p. 171 - 196.

Palermo V., Kona A., Pinedo Pascua, I. Rivas S., Hernandez Y., Barbosa P., Bertoldi P., Vettters N., Dallemand J.F., Scarlat, N and Taylor N., *Summary of the guidebook: "How to develop a Sustainable Energy Access and Climate Action Plan (SEACAP) in Sub-Saharan Africa"*, EUR 29761 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-04092-7, doi:10.2760/673001, JRC113788

Palermo V., Kona A., Pinedo Pascua, I. Rivas S., Hernandez Y., Barbosa P., Bertoldi P., Vettters N., Dallemand J.F., Scarlat, N and Taylor N. Guidebook: How to develop a Sustainable Energy Access and Climate Action Plan (SEACAP) in Sub-Saharan Africa. European Commission, Ispra, 2018, JRC113786

Palermo V., Kona A., Pinedo Pascua I., Rivas S., Hernandez Y., Barbosa P., Bertoldi P., Vettters N., Dallemand J.F., Scarlat N., Taylor N., *How to develop a Sustainable Energy Access and Climate Action Plan (SEACAP) in Sub-Saharan Africa - Short starting guide*, EUR 29774 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-08552-2, doi:10.2760/22842, JRC115962"

List of abbreviations and definitions

AEA	Assessment of Energy Access
BEI	Baseline Emission Inventory
CO ₂	Carbon dioxide
CO ₂ -eq	CO ₂ -equivalents
CoM	Covenant of Mayors for Energy and Climate
EC	European Commission
EF	Emission Factor
EU	European Union
GCoM	Global Covenant of Mayors
GHG	Greenhouse gas (only refers to N ₂ O, CH ₄ , CO ₂ in this report, if no explicit list)
IPCC	Intergovernmental Panel on Climate Change
JRC	Joint Research Centre of the European Commission
LG	Local Government
LCA	Life Cycle Assessment
RVA	Climate Change Risk and Vulnerability Assessment
SDG	Sustainable Development Goal
SEACAP	Sustainable Energy Access and Climate Action Plan

List of figures

Figure 1. The SEACAP main phases	4
Figure 2. The SEACAP process: milestones, timeframe and main phases.	6
Figure 3. Timeline and template structure.....	6

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696, or
- by electronic mail via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications from EU Bookshop at: <https://publications.europa.eu/en/publications>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

The European Commission's science and knowledge service

Joint Research Centre

JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.



EU Science Hub

ec.europa.eu/jrc



@EU_ScienceHub



EU Science Hub - Joint Research Centre



EU Science, Research and Innovation



EU Science Hub



Publications Office
of the European Union

doi10.2760/734189

ISBN 978-92-76-15706-9