Capacity and Training Needs Assessment for Transparency in Climate Change MRV

Summary Information

Compiled for Project 00104295 “Strengthening institutional and technical Macedonian capacities to enhance transparency in the framework of the Paris Agreement” (CBIT Project) by Susan Legro, CTA, as a deliverable under Contract IC 45 / 2019.

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ABBREVIATIONS

ENGLISH	EXPLANATION
MRV	Monitoring, reporting, verification
CBIT	Capacity-building Initiative for Transparency
CTA	Chief Technical Advisor
TNA	Training Needs Assessment
UNFCCC	United Nations Framework Convention on Climate Change
RCESD	Research Center for Energy and Sustainable Development
VIA	Vulnerability, Impacts, and Adaptation
IVA	Impact, vulnerability, adaptation
IPCC	Intergovernmental Panel on Climate Change
PDD	Project Design Document
MEAs	Multilateral Environmental Agreements
MVP	Monitoring and Verification Platform
CDM	Clean development Mechanism
WHO	World Health Organizations
SEE	South Eastern Europe
NDCs	National Determined Contributions on Climate Change
BTR	Biennial Transparency Report
NIR	National Inventory Report
QA/QC	Quality Assurance / Quality Control
N	Number
NA/NR	Not available/No response
EU ETS	European Union Emission Trading System
MMR	Monitoring Mechanism Regulation
BURs	Biennial Update Reports
UNITAR	United Nations Institute for Training and Research
IISD	International Institute for Sustainable Development
CASTT	Climate Action and Support Transparency Training
GIR	Greenhouse Gas inventory & Research Center of Korea
ICAT	Initiative for Climate Action Transparency
DTU	Technical University of Denmark

Capacity and Training Needs Assessment

The purpose of this needs assessment was twofold: 1) to assess the current capacity needs related to meeting monitoring, reporting, and verification (MRV) requirements under Article 13 of the Paris Agreement; 2) to identify areas where training and capacity strengthening was needed and provide recommendations on its structure and content.

A typical training needs assessment is a four-step process, consisting of the following steps:

- Identify the goal that the training supports
- Determine the tasks that need to be performed in order to reach that goal
- Determine the training activities that will help employees learn to perform the tasks
- Determine the characteristics of the workplace and employees that can inform training more to make it more effective.[1]

This assessment focuses on **individual capacity**, as opposed to institutional and organizational capacity, which will be addressed by other activities under the UNDP-GEF CBIT project and activities funded by other donors, such as the European Union. As the recent EU-funded assessment states, "'Capacity'" is understood to refer to administrative capacity, meaning the capacity of the governmental institutions to implement the tasks of climate action. The capacity is defined by: *Adequate units; *Equipped with adequate resources of sufficient and qualified personnel; *Adequate equipment; and *Adequate financial means." (Gründing 2020: 11). This work complements that approach by focusing on the capacity of qualified personnel to do the specific tasks necessary for climate change MRV.

It should also be noted that while the term "training needs assessment" is used, individual capacity strengthening needs are broader than training, and while training is an important tool for capacity strengthening, there are other tools such as coaching and mentoring (or twinning, which mixes individual and organizational capacity strengthening).

Methodology for TNA

This assessment used the following steps:

1) A desk review of reports on capacity for climate change, including official reports to the UNFCCC and analytical reports compiled by donors.
2) A brief survey (provided in Annex 1) for climate change stakeholders that asked about information needs, skills, prior training experiences, and gaps and constraints. The survey consisted primarily of open-ended questions. The CBIT project management team received 26 responses to the survey. Survey respondents consisted of stakeholders in governmental organizations (N=17), international organizations (N=2), academia/research (N=3), NGOs (N=2), and other organizations (N=2). 69% of the survey respondents were women.

[1] Adapted from Vector Solutions 2020.

3) Analysis of the survey results cross-checking against the objectives for climate change MRV as stated in the CBIT project document and the tasks needed to achieve those objectives
4) Recommendations for capacity-strengthening activities that will help stakeholders learn to perform the tasks (draft training plan), including a brief list of resources for materials.

Baseline

During the formulation of the UNDP-GEF CBIT project, the project preparation team provided a baseline rating of two elements of capacity related to climate change MRV: the quality of MRV systems, and the institutional capacity for transparency activities. The baseline ratings were as following:

Rating	***Narrative Description of Rating***
5 (of 10)	Measurement systems are strong for a limited set of activities and periodically report on key GHG related indicators i.e. mainstreamed into the activity implementation; reporting is improved through few pathways but limited audience and formats; verification limited.
2 (of 4)	Designated transparency institution exists, but with limited staff and capacity to support and coordinate implementation of transparency activities under Article 13 of Paris Agreement. Institution lacks authority or mandate to coordinate transparency activities under Article 13.

A recent EU-funded assessment (Gründing 2020) provides another view of institutional capacity. "Generally, most of the relevant institutions are given mandates for climate actions meaning that they have responsibilities and tasks. However, they lack the adequate specific structures and most of all, they lack the adequate resources in terms of sufficient and qualified staff…. Climate action requires scientific expertise to a high extent. It must be ensured that such scientific expertise is available to political and administrative decision-makers, be it within the institutions or outside the institutions with mechanisms existing that the outside expertise can be used as source. MANU, in particular through its RCESD, have the required scientific expertise; in the past, they have been engaged in the development of GHG inventories, development of mitigation assessment and modelling. This engagement, however, has mostly been project-based, with financial support from GEF and in the framework in the reporting to the UNFCCC. This points at the fact that financial means for in-house or external expertise were not sufficiently available in the past." (Gründing 2020: 31).

The EU report mentions training in the broader context of administrative capacity: "However, based on the responses on the questionnaires, it is notable that there are almost no finances available in the national budget allocated for building specific, climate change related capacities and qualifications of the staff. Main source of finances for qualifications building of this staff are donor programs and projects, mainly UN and EU and these qualification-building activities are mainly international trainings and events…." (Gründing 2020: 62)

Survey Findings

The following section summarizes key findings from responses to the questionnaire that was distributed to climate change stakeholders in North Macedonia.

When training is (and isn't) a solution

Question 7 of the survey asked individual stakeholders about barriers to carrying out climate change MRV activities. In some cases, these barriers could be addressed by strengthening individual capacity; in other cases, the problems required other solutions at the organizational level (e.g. number of staff, procedures) or the institutional level (e.g. gaps in legislation). The following table summarizes the problems identified by respondents and determines whether they indicate an issue that is related to individual capacity.

Table 1: Taxonomy of Responses to the question "What is the biggest problem you face (if any) when carrying out work related to climate change policies and measures?" (n = 20, no response = 6)

Response	***Individual Capacity Issue?***
Inability to accurately link environmental protection activities to climate change	Yes
(non)recognition and (non)connection of climate aspects with other policies	Yes
Data collection from stakeholders: municipalities, public enterprises and large consumers	In part
Collecting data	In part
Insufficient data on women and climate change	In part
Lack of human resources, capacities	In part
Lack of updated data on GHG emissions	Possibly
Lack of publicly available data, price of climate data, insufficient spatial resolution of publicly available data,	Possibly
Data collection is complex	Possibly
No such responsibilities	Possibly, but not identified by respondent
Challenges will arise	Possibly, but not identified by respondent
No law or by-law in the field of climate change	No
Open data sharing	No
Insufficient information specifically about the country, misinformation in the media, insufficient knowledge about climate change among citizens	No
Inertia of policy implementation institutions	No
Lack of financial resources and clear strategies	No
Limited training time, staff turnover	No
Insufficient coordination, lack of financial resources	No
No obstacles	No

As the table above indicates, a number of the barriers could not be addressed by training. Therefore, the analysis of these responses focuses on barriers that could be addressed at least partly by training.

The analysis also considered the *type of training* that would be most suitable to address individual-level barriers. Training content is generally divided into six different categories:

- Facts. (e.g. "What is the default emission factor for methane emissions from natural gas flaring?")
- Concepts (e.g. "Crop land, grassland, and forest land are all examples of land use categories")
- Processes (e.g. "How is a national inventory report compiled?")
- Procedures. (e.g. "How do I download data from the vehicle emissions registry?")
- Principles (e.g. "These are the guidelines to be applied when selecting the proper Tier for emissions estimates.")
- Troubleshooting (e.g. "What should I do if the total emissions for sectors are not appearing on the UNFCCC reporting forms?")

In survey responses where individual capacity was an issue, the table below describes the type of training content that might be necessary.

Table 2: Training needs based on responses to the question "What is the biggest problem you face (if any) when carrying out work related to climate change policies and measures?" (n = 20, no response = 6)

Response	***Type of Training Content***
Inability to accurately link environmental protection activities to climate change	Training: Concepts
(non)recognition and (non)connection of climate aspects with other policies	Training: Concepts
Data collection from stakeholders: municipalities, public enterprises and large consumers	Training: Processes, Procedures, Troubleshooting
Collecting data	Training: Processes, Procedures, Troubleshooting
Insufficient data on women and climate change	Concepts, Processes, Procedures
Lack of human resources, capacities	Not clear from response
Lack of updated data on GHG emissions	Possible training on concepts and procedures.
Lack of publicly available data, price of climate data, insufficient spatial resolution of publicly available data,	Possible training on procedures for downscaling data.
Data collection is complex	Not clear from response
No such responsibilities	Need for training on climate change mainstreaming concepts
Challenges will arise	Need for training on climate change mainstreaming concepts

Note that there are two instances where the self-reported barriers were not sufficiently specific and it would be necessary to follow up with the respondent for clarification. Finally, in the final two responses in the table, training on climate mainstreaming is recommended to ensure that stakeholders are aware of the relationship between their work and climate change.

Implications for training: Stakeholder needs are varied. It is important to communicate that some of these needs are best addressed at other levels and cannot be resolved through individual

capacity strengthening or training. In cases where training and other capacity strengthening are suitable, it will be important to acknowledge the different types of content that will be needed to address self-assessed problems.

Self-assessed training needs: inventories and adaptation

Self-identified training needs were assessed using responses to the question "Please list the areas where you feel your staff or experts whose work you oversee will require training for Article 13 reporting." Respondents could list more than one answer.

Table 3: Summary of Responses to the Question "Please list the areas where you feel your staff or experts whose work you oversee will require training for Article 13 reporting." (N=21)

Training Area	***Frequency***
Vulnerability analysis, impacts, and/or adaptation to climate change	14
Calculation of Greenhouse Emissions	5
Topics related to mitigation	3
Training on institutional and organizational aspects of CC action	2
"All areas" / "everything"	2
No needs	2
"Monitoring and using the latest tools"	1
No response	5

Summary: The majority of responses focused on two topical areas.

- Respondents identified *vulnerability, impacts, and adaptation* as the topics where the most training was needed. This is understandable, as 1) guidance on GHG emissions estimates is more extensive, including reporting methodologies and formats; and 2) the modalities, procedures, and guidelines for reporting on adaptation in the form of the Adaptation Communication are still under development yet will need to be applied by the end of 2024.
- Of the 14 respondents listing some element of VIA as a need, six responded "vulnerability analysis and adaptation to climate change," while two responded "adaptation to climate change." Ten of the 14 responses did not mention a specific sector. The four responses that did mention a specific sector listed the water sector (2), agricultural/land (1), and transport, construction, and infrastructure (1)
- Training on *GHG calculations* was the second most frequent choice. This is also not surprising, as additional training is needed for emissions calculations when countries move from IPCC default numbers to higher tier estimates that require the development of emission factors and/or sampling. Only one response specified the sector for training (agriculture).
- Training related to mitigation issues was mentioned by three respondents, including "Training…to contribute to climate change prevention" and "assessment of energy transition opportunities."

- Institutional and organizational aspects of climate change where training was seen as necessary included national legislation related to climate change (1) and systematization of jobs and training in accordance with CC legislation (1).

An additional question on the survey asked about the 2-3 highest priorities among the training needs stated in this question,[2] but it did not provide useful information, as most respondents did not list more than two training needs.

Implications for Training: There is relatively high demand for two training topics: IVA and GHG emissions calculations. For each of these topics, there are respondents who could benefit from training on concepts, processes, and procedure; in addition, there is a sub-set that would benefit from quite specific sectoral training.

Training Experiences: Varied but Positive

Several questions on the survey asked about stakeholder experiences with training to date. For example, Question 9 was an open-ended query: "What other kinds of training have your staff or experts whose work you oversee participated in over the past 2-3 years? (Note: this does not have to be related to climate change.)". All but one respondent had attended training or had staff attend training (response rate: 100%). Trainings included in-country workshops, working groups, international workshops, and study visits. Training topics included the following categories:

- *Topical trainings* related to air pollution, energy and climate: Examples included MVP for recording municipal energy efficiency programs, a study visit to develop accounts for air emissions and physical energy flows, preparation of energy controls for buildings, Planning of energy management systems in industry (informational training), and Communication and Climate Change Campaigns, the #ZeroEmissionKrakow workshop, various trainings related to health, air pollution; impact of climate change on agriculture, adaptation of agriculture to climate change; application of satellite products for drought assessment keeping records and collecting data on waste management; water resources management.
- Training on *climate finance and climate finance readiness*. Examples included training for PDD preparation for CDM projects and climate finance workshops (Green Fund).
- Training on *implementation of multilateral environmental agreements* (MEAs) and programs. Examples included Implementation of the Aarhus Convention, Natura 2000, How to achieve Strong Integrated Energy and Climate Plans, Yes for Paris Agreement, biodiversity commitments under the Paris Agreement, laws in the field of environment, and the EU legal framework on climate change.
- *Broader civil service training*: Examples included Project / program evaluation; project implementation, finance, and application of legal regulations; gender equality, non-discrimination and equal opportunities; crisis communication; use of social media; "competencies of the institution;" and "Trainings organized by other ministries," and

[2] Question 7: "Of these areas, which 2-3 are the most important for the work of your organization?"

trainings for trainers for implementation of national economic program. EU-related training, e.g. Fair Transition to the EU, was also mentioned.
- *Other topical trainings:* Examples included the Future Cities in Southeast Europe regional workshop and Tourist Destination Management Training, Seminar on the implementation of the System of Environmental Accounts, Environmental Monitoring and Evaluation Working Group; working group for preparing a report on the state of the environment and climate change.

Summary: While stakeholder organizations have extensive experience with training (one respondent stated "around 40 workshops"), it has been varied in nature, format, and content. The fit with the technical level of the stakeholders also seemed appropriate: e.g., respondents did not mention general, introductory trainings on climate change. Additional information on the assessed quality of training received to date is provided in the "Specific Stakeholder Feedback on Training" section below.

Implications for training: There is a receptive environment for training in various forms, and intermediate- to advanced-level training is likely to be well-received.

Stakeholders can be training resources

In addition to reporting on training received, stakeholders were asked to describe training they had provided. Question 10 read "Are there examples where your staff or experts whose work you supervise have provided training to other experts or organizations? Please describe them." Of the 26 stakeholders, 21 stated that their organizations provided training,[3] and the majority of those respondents listed examples. Respondents were able to provide multiple examples.

- *Training related to climate change*: inventory and climate change mitigation; trainings for agro-ecological and agroclimatic models of relevant institutions; easy, affordable and easily applicable adaptive measures in agriculture to climate change
- *Environmental training:* waste management, sustainable use of natural resources, etc.; "the waste management sector occasionally, through chambers of commerce, conducts trainings for legal entities on how to keep records and how to report in accordance with the law on waste management and other laws of the waste sector;" workshops for redesign of the service for waste management; Natura 2000; ecosystem services; trainings in Moldova related to the development of environmental indicators
- *Training in other sectors:* Health (workshops by doctors, professors and other professionals, and a higher-level forum with WHO), gender (gender concept in current policies); training in project finance and business development; "Events where I present the data available in my institution and which can help in compiling reports, reviews, certain calculations of indicators needed to create policies, etc."
- *Training for municipalities:* Trainings for municipalities; trainings given to the staff in other public institutions, municipalities; trainings for the municipalities on topics in the

[3] NR=4. Of those who responded to the question, only one response stated that the corresponding organization did not provide training.

field of environment; regular trainings for the employees in the City of Skopje, for example: workshop for building the capacities of the City of Skopje, Workshop with citizens for the project "Cities of the Future of SEE", Training for digital tools for the employees of the Skopje City Inspectorate, etc.

- *Functional civil service training:* Trainings in the field of human resource management and development of functional analysis

Summary: There is broad experience across a range of climate change stakeholders in training and presenting on information related to environment and climate change, including at the international level.

Implications for training: This will allow for activities that involve training of trainers or continued in-country training, with the possibility of trainer of trainers for the regional or international level as well.

Goals and Corresponding Tasks

The survey findings on self-reported training needs were then compared with broader objectives, including the UNDP-GEF CBIT project objectives and the requirements for climate change MRV under the Paris Agreement, and the types of individual capacity that would be needed to achieve them.

CBIT Project Goals

The UNDP-GEF CBIT project contains several indicators that set targets for establishing a continuous climate change MRV system (or platform). First, the project established targets for improvement on two measures that were described in the "Baseline" section above to capture the quality of MRV systems and the institutional capacity to implement them.

Target	***Narrative Description of Rating***
7 (of 10)	**Measurement regarding GHG is broadly done** (with widely acceptable methodologies), need for more sophisticated analyses to improve policy; **Reporting is periodic with improvements in transparency**; **verification is done through more sophisticated methods even if partially**;
3 (of 4)	Designated transparency institution has an organizational unit with **standing staff with some capacity to coordinate and implement transparency activities** under Article 13 of the Paris Agreement. Institution has authority or mandate to coordinate transparency activities under Article 13. Activities are not integrated into national planning or budgeting activities.

These targets have several implications for individual stakeholders. In order to achieve a score of 7, relevant individuals must have the skills to conduct and oversee measurement and reporting and to verify data that are collected and reported.

Implications for Training: These targets imply that staff that are hired under the CBIT project may require training on coordinating and implementing transparency activities (which will involve reporting on inventories, adaptation, support received, progress towards nationally-determined contributions, or NDCs, etc.).

The CBIT project also has specific targets for training materials and programs, including the following:

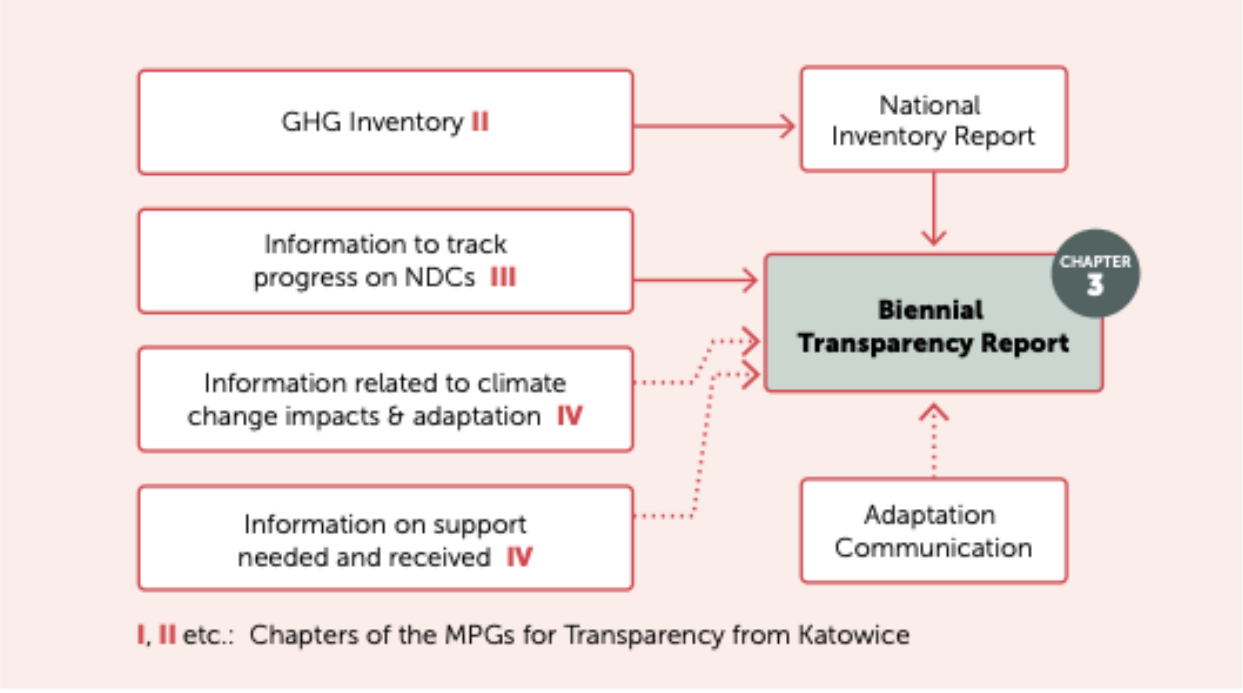
- 8 toolkits on MRV are available to stakeholders
- At least 3 sector-specific trainings on gender issues have been developed and delivered for sectoral ministries
- Employees working in at least 3 government agencies report using the toolkits in their work
- 4 agencies regularly reporting data to the national MRV platform
- 2 tools for gender-sensitive measuring and reporting

Implications for Training: Employees will need training on how to use the toolkits that are developed under the project. They may also need training on how to report data to the national MRV platform and how to use tools on gender-sensitive measuring and reporting.

Goals related to the Paris Agreement

The goals for countries under the Article 13 of the Paris Agreement also provide an opportunity to identify implied training needs. A key country target under the Paris Agreement will be to establish an enhanced transparency framework for continuous climate change MRV. The Biennial Transparency Report (BTR), which must be submitted by December 31, 2024, contains several components, which are described in the following figure.

Figure 1: Elements of the BTR



Source: Dal Maso and Canu 2019: 24

In turn, these components consist of many different elements. As Dal Maso and Canu (2019) describe, "The outline of the BTR and NIR, together with the common reporting tables to be used for the NIR, as well as the common reporting tables for the electronic reporting of the information necessary to track progress made in implementing and achieving NDCs, financial, technology development and transfer and capacity-building support provided and mobilized (developed countries) and support needed and received (developing countries) will be made available…." (Dal Maso and Canu 2019: 25)

These goals will require certain skills that can be described as follows:

- Knowledge of what is required and decisions on system design and program management
- The ability to collect, clean, and analyze activity data, financial information, and other qualitative and quantitative data (in the case of the adaptation communication and NDC tracking).
- The ability to use the national MRV system (or interlinked systems) and understand issues of access, hierarchy, reporting, visualization, and QA/QC.
- The ability to update the MRV system to reflect reporting formats as they evolve.
- The ability to use the system as it evolves.

Implications for Training: As this list indicates, meeting these needs will require technical training on the procedures and troubleshooting so that IT specialists on the particular system (or systems); process training so that decision-makers and other stakeholders can understand how the system works in a general way; specific procedural training for sectoral experts and other stakeholders (e.g. municipal employees) on the various system elements related to data collection, entry, analysis, QA/QC, and reporting.

Alignment of self-reported training needs with program goals

On the whole, the *self-assessed needs for training aligned well with key elements of reporting goals*, namely the skills that are needed to prepare national inventory reports and adaptation communications and, to a certain extent, to track progress against NDCs.

There was *one gap in self-assessed needs*: stakeholders did not identify a need for training on the proposed MRV platform, although the system will require existing and new employees at stakeholder institutions and other entities providing data to understand the overall process and master new skills.

This analysis found *no examples of mismatched needs*; i.e., stakeholders did not identify training needs that would not contribute to the achievement of climate change MRV objectives.

Implications for Training: There is a need for two kinds of training: 1) Training related to skills for climate change MRV (identified by both the self-assessment and the review of national goals); and 2) Training related to the MRV system that will be introduced and then expanded over time.

Specific Stakeholder Feedback on Training

As part of the final steps of the training assessment procedure (i.e. finding training to fit needs and determining employee and workplace characteristics), this assessment looked at self-reported preferences and barriers / constraints to training and capacity strengthening from the stakeholder survey.

Training elements: Stakeholder Preferences

On the whole, stakeholders who completed the questionnaire were satisfied or very satisfied with trainings that they had attended. Asked to rate previous trainings on a scale from one to five with five being the highest rating, the average score was 4.1 out of 5 (mode = 5; n=26). Only two scores were lower than 3, and one appears to have been a classification error (the respondent marked "1" but noted that there was "no basis for assessment." These are relatively high scores.

The survey then asked why respondents gave the rating that they did. More than one answer per respondent was possible (N=21, NA/NR = 5).

Responses could be grouped roughly into the following two categories:

- *Design and organization of training.* Comments in this category included "Obtaining information from experts," "Covered all issues that were vague, understandable language and terminology, powerful visualization," "learned and applied lessons," "New information and new good practices in accordance with global changes and standards of EU," "Organization," "working in groups composed of several relevant institutions," "opportunity to participate with their own data and views," "Short and small in number," "attended by people working on specific issues and thus their knowledge in the field is continuously supplemented," and "quality."
- *"Fit" of training content with organizational needs.* Comments in this category included "Trainings for which there is already an established need in the organization," "further application of training practices and knowledge," "Necessity of general knowledge of EU policies," "The material that was the subject of processing," and "suitability." This also included training that produced organization results, which was noted in comments such as "increased the technical capacity" and "The work of the employees in the institution has been improved." Finally, one respondent noted the "need to adapt [training] to the existing conditions in the country."

Finally, two other comments touched on the need for post-training support for individuals and for organizations. As one respondent noted, "Sufficient knowledge is gained through training, but for them to be applied in practice - continuous work in the field is required." Another noted that "No matter how much and what will be transferred as knowledge and skills, it is not possible to use it further due to non-financing of activities, lack of investment in equipment and products, lack of access to national data. Knowledge remains individual, unimplemented and lost over time."

Implications for Training: Fortunately, the high training ratings and feedback indicate that "training fatigue" does not seem to be a serious problem. The explanations for the ratings also

indicate that high-quality training that is well matched to organizational needs is likely to be viewed positively. Finally, the comments on post-training problems indicate the need to maintain a consistent operating environment and to consider training and capacity strengthening that goes beyond a single workshop.

Training Elements: Stakeholder Concerns

Finally, the questionnaire asked respondents to anticipate potential problems with a training or training program. Specifically, Question 8 of the survey asked "What problems do you foresee in training staff or experts (e.g. limited time for training, staff turnover, etc.)? The responses (N = 21, no response = 5) can be summarized as follows:[4]

- Limited time for training (N = 11)
- Staff turnover (N=5) or lack of staff (N=2)
- Suitability or sustainability of training (N=2)
- Other concerns (N=5)
- Not expecting problems (N=2)

"Other concerns" included larger issues such as "no proper education;" technical concerns such as "mismatch of ideologies" and "Lack of calibrated and validated models for our conditions, due to non-financing in scientific research and non-transparency of the climatic data which is necessary for calibration;" and organizational issues such as languages and organizational aspects of gatherings that are inconsistent with climate change goals (e.g. using plastic or non-biodegradable materials and the generation of other waste).

Implications for Training: Any trainings developed should be highly-sensitive to the time demands on participants. Shorter trainings over multiple meetings could be considered, as could "onboard" technical training for new employees before they are overwhelmed with work responsibilities. Twinning or mentoring arrangements might also address time concerns by provided support only when needed and utilization concerns by providing employees with an opportunity to maintain what they have learned.

Training sessions should also consider levels of staff turnover, and they should be offered periodically over the 4-year project period rather than only once. Training of trainers may also help to increase individual capacity at organizations, allowing organizations to provide some technical training for their new staff using existing employees; however, ToT training should not rely on a single employee at a given institution. Finally, the logistical arrangements for trainings should take sustainability into account.

Recommendations

In addition to the recommendations provided throughout the report, capacity strengthening efforts may want to take the following points into consideration.

[4] Note: more than one response was allowed from the respondents.

Recommendations for Capacity Strengthening

As mentioned, training is only one tool for capacity strengthening. In addition to training, the CBIT project should consider the following means of capacity strengthening: 1) targeted briefings; 2) institutional twinning; 2) a study tour with follow-on communication; and 3) mentoring.

- *Targeted briefings:* Due to staff turnover and political changes, it may be necessary to brief mid-level or high-level government officials on the importance of climate change MRV and the relevance to their portfolios. Rather than an official training, the project (and eventually the MRV office at MOEPP) can provide a short, personalized presentation along with a briefing book for in-coming government officials on an as-needed basis. Building in time and staff support for this activity in a pro-active way may help with workload.
- *Institutional twinning:* Twinning can be used for fairly specific work (e.g. sectoral work for GHG inventories or land use change research), or it can be broader and involve several peer institutions in a partner country as part of a larger exchange framework. Counterpart institutes should similar commitments to those that North Macedonia currently has or anticipates having under the EU accession process. Therefore, countries in newer EU member states may have the most relevant experience related to multiple MRV commitments (EU ETS, other EU, and UNFCCC).
- *Professional networks:* Networks can be useful for time-sensitive questions and do not require as much of a time commitment as a training program. They are also an efficient way of addressing questions as they arise.
- *A study tour with follow-on communication*: The study tour could be conducted as an initial event under a twinning arrangement or as a stand-alone event with a specified series of meetings and follow-up consultations. The same advice for study tour destinations applies as with the institutional twinning: countries with multiple climate MRV commitments will have the most relevant information to share.
- *Mentoring:* The project could also consider identifying an acting or recently-retired senior manager in the MRV field who could provide guidance and share experience with the new MRV office at MOEPP. Regularly-scheduled virtual meetings could be used to provide specific feedback.

Training Recommendations

In addition to recommendations made in the course of the report, there are a few additional recommendations:

- The project should consider the potential impact of the COVID-19 pandemic on international travel. Where possible, virtual meetings can be considered for the types of capacity strengthening that are listed above and for training, some of which is designed to be provided on-line.

- To save time and resources, training developers should consider modifying existing training modules (e.g. UNFCCC training) to the North Macedonia country context, while acknowledging that very specific needs, such as training on the MRV platform, will need to be developed for the intended audience.
- The training plan should complement other initiatives to increase awareness and education on climate change matters.
- Training materials should be made available on the national climate change website (klimatskipromeni.mk).
- The project should consider establishing a centralized “hub” for project-related training and learning activities at an existing institution so that services can be provided during and after the project is implemented.
- The CBIT project should consult the target training audience to ensure that training or learning activities are provided in languages in which the participants feel comfortable working.
- Training sessions should be tailored to those focusing slightly, partially, and wholly on climate change issues.

Draft Training Plan

The following plan covers the suggested timing, target group, content, goal and provider of various training and capacity strengthening measures under the CBIT project. It is not meant to be a definitive list, but rather to initiate a discussion on how to allocate training resource and incorporate training and capacity strengthening into the project's annual work programs. Note that the project implementation period is 30 months, and "Year 3" refers to the final six months of the project.

Timing	*Goal*	*Type of Capacity Strengthening*	*Content*	*Target Group(s)*	*Provider / Resources*
Year 1	Familiarize sectoral ministries with the relationship between climate change and their focal area.	1-3 trainings	Climate change facts and concepts (training module)	Ministry focal points	Project team / Existing resources on sectoral linkages in climate change
Year 1	Provide new government officials with information about how climate change relates to their focal areas.	Briefings as needed	Climate change facts and concepts (briefing book)	New government officials	Project team / depends on the official
Year 1	Increase understanding of sectoral ministries regarding gender-sectoral connections and how they are influenced by climate change	3 trainings	Concepts	Ministry focal points and other employees for 3 ministries	Project team / Existing resources on sectoral linkages in climate change / materials in NM related to gender
Year 1	Exchange experience in managing a continuous MRV system for EU and UNFCCC reporting	1 institutional twinning arrangement, initiated by a study tour if possible	Concepts, Processes, Procedures	Ministry officials and other experts involved in national reporting to the UNFCCC	To be determined: Possibly a new EU member state with a dual UNFCCC-MMR reporting program

Year 1	Communicate skills related to estimating impacts, conducting vulnerability analysis, and reporting on climate change adaptation (IVA)	institutional twinning and training	Procedures and Troubleshooting (IVA reporting)	Climate change experts contributing IVA work under NDCs or BURs	External expert / customized existing resources
Year 2	Ensure that individual experts working on IVA have the skills needed to report on climate change adaptation	institutional twinning and training	Procedures and Troubleshooting (for specific sub-sectors)	Climate change experts contributing IVA work under NDCs or BURs	External expert / customized existing resources
Year 2	Provide new government officials with information about how climate change relates to their focal areas.	Briefings as needed	Climate change facts and concepts (briefing book)	New government officials	Project team
Year 2	Train at least 4 government agencies on reporting to the national MRV platform	Training	Procedures and Troubleshooting (activity data management, tasks related to the MRV platform, and QA/QC issues)	Government employees who oversee data collection in sectors covered by the platform	MRV Platform Specialist (either project team, govt. partner, or external consultant)
Year 2	Familiarize climate change stakeholders across sectors with the new MRV platform	Training	Concepts	Climate transparency working group	MRV Platform Specialist (either project team, govt. partner, or external consultant)

Year 2	Give data providers the skills that they need to collect activity data	Training	Concepts, principles, procedures, troubleshooting	Training of ministry trainers (to be followed by employees in municipalities and large enterprises in Year 3)	Project team and/or external consultant
Year 2	Provide IT personnel with the necessary knowledge of the MRV platform to administer it and to expand it.	Training	Procedures and Troubleshooting (system architecture)		MRV Platform Specialist (either project team, govt. partner, or external consultant)
Year 2	Expand gender-sensitive measuring and reporting	Training	Procedures (collecting and analyzing gender-sensitive data)	Sectoral ministries and other institutions reporting on climate change	National or International Gender specialist / existing materials and tools developed by the CBIT project
Year 2	Fine-tune the MRV platform and establish a reporting calendar for dual Energy Community (MMR) and UNFCCC reporting	Twinning	Experience sharing	New Climate MRV Office in MOEPP	Institutional counterparts
Year 3	Provide new government officials with information about how climate change relates to their focal areas.	Briefings as needed	Climate change facts and concepts (briefing book)	New government officials	Project team

Year 3	Give data providers the skills that they need to collect activity data	Training	Concepts, principles, procedures, troubleshooting	Employees in municipalities and large enterprises	Government trainers / Documentation from the MRV platform
Year 3	Provide climate change stakeholders with the information they need to prepare the adaptation communication under the upcoming BTR	Training	Concepts, principles, procedures, troubleshooting		National or international expert / UNFCCC guidance materials (to be determined) adapted to national circumstances.

Note that this training plan is complementary to the recommended time schedule for actions from the EU-funded study on capacity needs (see the figure below):

Figure 2: Training Recommendations from the Assessment of Administrative Capacity Needs for Climate Action (see Row 4)

Time schedule for actions

Actions	Short-term (years 1-2)	Medium-term (years 3-5)	Long-term (years 5-10)
Internal (re-)organisation			
Establish climate action units through new systematization	revision of systematization acts		
Staffing	employment of minimum number of staff	consolidate staffing filling of vacancies new staff	consolidate staffing filling of vacancies new staff
Coordination mechanisms as needed within institution	establishment of mechanisms and start work		
Training of staff	training of existing staff and new staff as needed, basic training in climate change issues	training in general and specific matters	training in general and specific matters
Equipment purchase	equipment as needed for existing and new staff	equipment as needed	equipment as needed
Scientific advisory body for institution	establishment, rules of functioning start work	regular meetings and advice	regular meetings and advice

List of Training Resources

The following list is an introductory list only. It is not meant to be exhaustive, and inclusion on this list does not imply any kind of endorsement of the materials or services offered by any of the organizations included. It is expected that this list will be expanded over time.

International Organizations

UNFCCC (UNFCCC-GIR-CASTT)
UNDP (gender and climate training modules)
UNDP-UNEP Global Support Programme (Experts and Informational Resources)
UNITAR (Climate Change Learning and Women's Leadership)

Not-for-Profit or Private Sector Consultants

GHG Institute Courses (inventories)
IISD (adaptation)

Aether (MRV systems and databases)
Stockholm Environment Institute (Integrated Climate and Development Planning, energy forecasting, WeAdapt)

Donors

ICAT (Information systems for climate action and support)
GIZ Information Matters program
Other bilateral initiatives

Sources Consulted

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Gecevska, Valentina (2020). Current status of the research, development, innovation and technology transfer related to climate change in the Republic of North Macedonia: Rapid Assessment Report. Skopje.

Gündling, Lothar, et al. (2020). Report on Institutional Analysis and Assessment of Administrative Capacity Needs for Climate Action (DRAFT). Prepared under EuropeAid/139221/IH/SER/MK (Preparation of Long term strategy and Law on climate action).

Appendix 1

Capacity/Training Needs Assessment

Background Questions

1. Name of Stakeholder
2. Work title
3. Organization

Questions Related to MRV Capacity

4. How many people in your organization work *directly* on climate change-related issues? Of that, how many work only on climate change-related issues?

5. How many people would you estimate work *indirectly* on climate-related issues (e.g. providing data for GHG inventories, overseeing programs with climate adaptation benefits, etc.)

6. Does your organization collect data and information related to climate change?
   If yes:
   a. What kind of data and information does your organization collect (if any) related to climate change?
   b. With which organizations do you share climate-related data and information?
   c. In what format?

7. What is the *biggest problem* you face (if any) when carrying out work related to climate change policies and measures?

8. [For line ministries] What kinds of climate-related data and information would be *most helpful* to you in preparing plans, policies and strategies?

Training Questions

9. Please list the areas where you feel your staff or experts whose work you oversee will require training for Article 13 reporting. Examples could include GHG emissions accounting or vulnerability assessments.

10. Of these areas, which 2-3 are the most important for the work of your organization?

11. What problems do you foresee in training staff or experts (e.g. limited time for training, staff turnover, etc.)?

12. What other kinds of training have your staff or experts whose work you oversee participated in over the past 2-3 years? (Note: this does not have to be related to climate change.) How would you rate the usefulness of this training? What is the basis for your rating?

13. Are there examples where your staff or experts whose work you supervise have provided training to other experts or organizations? Please describe them.

Thank you for your feedback.