



Evaluation Report of The Extra Budgetary Project

“Enhancing National Capacities for Development and Implementation of the Energy Efficiency Standards in Buildings in the UNECE Region”

Evaluator: Ms. Nelly Dolidze

Commissioned by: United Nations Economic Commission for Europe

August 20, 2019

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Acronyms

BEA	Building Efficiency Accelerator
CEN	European Committee for Standardization
CHLM	Committee on Housing and Land Management
CIS	Commonwealth of Independent States
CSE	Committee on Sustainable Energy
DAC	Development Assistance Committee
EA	Expected Accomplishment
EE	Energy Efficiency
EES	Energy Efficiency Standards
EESB	Energy Efficiency Standards in Buildings
EU	European Union
EXCOM	Executive Committee
GEEE	Group of Experts on Energy Efficiency
GEF	Global Environment Facility
GoD	Government of Denmark
ISO	International Organization for Standardization
ISU	Information Systems Unit
HLMU	Housing and Land Management Unit
JTF	Joint Task Force
LoE	Level of Effort
NGO	Non-governmental Organization
OECD	Organization for Economic Co-operation and Development
SA	Strategic Area
SDG	Sustainable Development Goal
SED	Sustainable Energy Division
ToC	Theory of Change
UDHR	Universal Declaration of Human Rights
UN	United Nations
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEG	United Nations Evaluation Group
UNEP	United Nations Environment Programme
URL	Uniform Resource Locator
WP	Working Party
WRI	World Resource Institute

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I. Summary

1. The evaluation of the project “Enhancing National Capacities for Development and Implementation of the Energy Efficiency Standards in Buildings in the UNECE Region” (hereinafter “the Project”) was carried out by an external evaluator in April-July 2019.

2. The Project was interlinked with another United Nations Economic Commission for Europe (UNECE) project in this area, namely “Energy Efficiency Standards in Buildings,” managed by the Housing and Land Management Unit (HLMU) of UNECE. Some activities of the Project were planned and conducted jointly by the Sustainable Energy Division (SED) and the HLMU within the framework of their relevant projects. The work in this area was complemented by the meetings of the Joint Task Force (JTF) on energy efficiency standards in buildings (EESB), which was created by the SED and the HLMU with the participation of the Working Party on Regulatory Cooperation and Standardization Policies (WP6).

3. Pursuant to the Terms of Reference (ToR) of the evaluation (Annex 1), the evaluation was conducted in accordance with the Development Assistance Committee’s (DAC) criteria for evaluating development projects and programs: relevance, effectiveness, efficiency, and impact. The evaluation covered the Project’s activities from June 2017 through March 2019.

4. The evaluation resulted in the following key findings and conclusions:

- The Project’s development was preceded with a series of intensive consultations and information-sharing among the relevant entities (UNECE and the member States);
- The Project was relevant to a great extent to the needs and priorities of the members States (and the target groups) and was designed and implemented to benefit them either through the direct participation of the relevant parties (primary stakeholders) or through the exchange and sharing of best practices and technical expertise among its member States;
- The Project greatly contributed to building the capacity of the participating parties in EESB with the adequate resources allocated;
- The Project’s achievement with regard to developing an online database was moderate due to the different levels of technical expertise (related to information technology) required during the design and implementation phase of this activity;
- The Project’s design lacked detailed result framework, which is a useful tool through which to convey the cause and effect linkages between the intermediate results and the long-term impact;
- The workshops organized within the framework of the Project did contribute greatly to the EAs set at the Project design phase. However, no evidence was found of either a large-scale multiplier effect or a practical impact of the Project’s interventions, which caused a certain disconnection between EAs and the Project’s impact, strategic goals, and relevant SDGs (outlined in the reconstructed logical framework of the Project and ToC);
- The Project demonstrated a moderate focus on gender mainstreaming and human-rights dimensions. It served as an information-sharing platform that provided equal opportunities (participation and information sharing) for both female and male experts in the area of EESB; and
- It applied a non-discriminatory and equal rights-based approach to benefit both female and male experts in the area of EESB, although, the presentations and mapping studies did not link EESB to relevant SDGs and the human rights agenda.

5. The table (Table 1) below demonstrated overall progress of the Project’s activities in achieving its results.

Table 1: The Project Outputs: Progress Reported

The Project Activity	Status
Activity 1.1 - Undertake the mapping of EESB in the UNECE region.	Achieved
Activity 2.1 - Establish an online database of experts on energy efficiency in buildings.	Partially achieved
Activity A 2.2 - Organize one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sector to validate the results of the mapping of EESB in the UNECE region.	Achieved
Activity A 3.1 - Undertake the mapping of existing technologies to enhance energy efficiency in buildings, undertake gap analysis and recommendations for their use in the region and an update of the database of experts.	Achieved
Activity A 3.2 - Organize one seminar /workshop to discuss and validate the results of the mapping of existing technologies to enhance energy efficiency in buildings.	Achieved
Activity A3.3 – Organize a stakeholder meeting with the chairs of the joint task force and energy efficiency experts to discuss the results of the Phase 1 of the Project and to plan the Phase II.	Achieved

Source: *The Project Reports, 2019, UNECE*

6. It is highly advisable to continue supporting the UNECE member States in the area of EESB through the following interventions:

- A) Continue building the capacity and expertise of member States in EESB in a way that would ensure multiplier effects and system changes on a large-scale. This could be done through delivering multilevel workshops and seminars which would incorporate: generic information-sharing on certain research topics (at the first level); and more advanced technical workshops on a selected topic (e.g. energy auditing, monitoring energy performance, model situations in a specific country context, etc.);
- B) Assist the UNECE member States in taking practical steps toward addressing EESB through introducing an interactive format of workshops and seminars, incorporating group work practices on specific cases/assignments, and encouraging the participants to assess their national situations and developing country roadmaps along with S.M.A.R.T. (Specific, Measurable, Attainable, Relevant, Time-bound) indicators and targets to improve EESB;
- C) Continue cooperation with other UN agencies to organize workshops and share their real-case experience in implementing projects on EESB in UNECE countries (e.g. the projects implemented by UNDP/GEF) which would serve as a practical guide for attendees;
- D) Develop the results framework for each planned new project, along with S.M.A.R.T. indicators and targets, to measure and monitor the intermediate results and long-term impact of the UNECE project in relation to the accomplishments of the member States;
- E) Introduce gender-responsive indicators and targets to measure and report the progress made regarding the gender mainstreaming agenda and continue to encourage active participation of female subject-matter experts in relevant activities;
- F) Raise the awareness of the member States on the human rights dimension of the energy-efficient buildings and particularly emphasize this correlation through presentations and analytical papers (a linkage to relevant SDGs could also be useful in this regard); and
- G) Secure resources to completely roll out the online database of experts and further advance it to the level of a self-sustainable knowledge hub which will allow experts not only to share information, but will also allow them to discuss ideas and opportunities and track the progress each country has made in relation to EESB, thereby, encouraging greater collaboration in the domain of energy efficiency. It is also

recommended to develop a detailed blueprint (workplan) which would, inter alia, outline the resources needed to maintain and advance the database.

II. Background

7. The current document presents the evaluation report of the project “Enhancing National Capacities for Development and Implementation of the Energy Efficiency Standards in Buildings in the UNECE Region”. The evaluation of the Project was commissioned by the United Nations Economic Commission for Europe (UNECE).

8. The Project was financed from the voluntary contribution of the Russian Federation which constituted USD 286,000, in total, and was implemented from July 2017 through March 2019¹. The targeted beneficiaries of the Project were all 56 member States of the UNECE, although a particular focus was put on the countries in South-Eastern and Eastern Europe, the Caucasus and Central Asia. The Project was designed within the UNECE’s mandate to support the member States to meet the SDGs and promote their economic prosperity through policy dialogue, development of regulations and norms, exchange and application of best practices, and technical cooperation for countries with economies in transition.

9. Overall, the Project aimed to improve energy efficiency in buildings and reduce global greenhouse gas emissions into the atmosphere in the UNECE region through best-practice guidance and standards. The main objectives (or expected accomplishments (EAs)) of the Project were as follows:

- Improve the knowledge of ECE member States about energy efficiency standards in buildings in the UNECE region;
- Enhance a network of experts from public and private sectors on energy efficiency standards for buildings in the ECE region; and
- Increase the understanding of ECE member States of existing and new technologies to achieve energy efficiency in buildings.

10. The Project incorporated the following six main activities:

- Activity 1.1 - Undertake the mapping of energy efficiency standards (EES) in buildings in the UNECE region;
- Activity 2.1 - Establish an online database of experts on energy efficiency in buildings;
- Activity A 2.2 - Organize one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sector to validate the results of the mapping of EES in buildings in the UNECE region;
- Activity A 3.1 - Undertake the mapping of existing technologies to enhance energy efficiency in buildings, undertake gap analysis and recommendations for their use in the region and an update of the database of experts;
- Activity A 3.2 - Organize one seminar /workshop to discuss and validate the results of the mapping existing technologies to enhance energy efficiency in buildings; and
- Activity A3.3 – Organize a stakeholder meeting with the chairs of the joint task force and energy efficiency experts to discuss the results of the Phase 1 of the Project and to plan the Phase II.

11. The Project was interconnected with another project entitled “Energy Efficiency Standards in Buildings,” funded by the Government of Denmark. The Project’s implementation involved a two-month level of effort (LoE) of D1 level staff, a three-month LoE of P4 staff, an eight-month LoE of P2 staff and a five-and-a-half-month LoE of four external consultants.

¹ The initial timeline of the project was from July 2018 through December 2018.

III. Purpose, Scope and Methodology of the Evaluation

12. The purpose of this external evaluation is to review the Project's implementation, to assess the extent to which its objectives were achieved and to determine the relevance, effectiveness, efficiency, and impact of the Project.

13. The evaluation assessed the achievements and limitations of the Project's activities and identified the lessons learnt from their implementation in order to maximize the transfer of knowledge for the development of similar projects in the future. More specifically, the objectives of this formative evaluation were as follows:

- (a) To assess the efficiency and effectiveness of the Project's design and methodology;
- (b) To assess the results achieved by the Project and its impact; and
- (c) To obtain recommendations on how gender mainstreaming aspects can be considered in future projects in the same subject-matter area.

14. The evaluation was focused on the Project's activities from July 2017 to March 2019, which covered all 56 member States of the UNECE with a particular focus attached to the countries of South-Eastern and Eastern Europe, the Caucasus, and Central Asia.

A. Methodology

15. The evaluation applied a mixed-method approach and used a range of data collection techniques such as key stakeholder interviews, online surveys, and structured document analysis (including financial and non-financial data analysis). Quantitative and qualitative analysis of information was conducted with particular attention given to cross-validation of data. The evaluation applied a participatory approach by including all relevant stakeholders during the evaluation process in order to achieve a high level of ownership of the evaluation outputs.

16. Overall, the evaluation consisted of three major phases: the inception phase; the fieldwork phase; and the reporting phase.

17. During the inception phase, the evaluator:

- (a) Reviewed relevant documentation and project papers/reports;
- (b) Carried out an inventory of project activities;
- (c) Defined a list of internal and external stakeholders and their corresponding roles;
- (d) Developed the logical framework of the evaluation, the Theory of Change (ToC), evaluation matrix and the data collection tools such as mini survey and interview protocols; and
- (e) Finalized the sampling and data gathering strategies.

18. During the fieldwork phase, the evaluator took necessary measures to ensure the adequate contacts and consultations with different internal and external stakeholders in a participatory manner. The evaluator disseminated an online survey among the primary beneficiaries of the Project and conducted in-person and phone interviews with key stakeholders. The evaluator used the most reliable and appropriate sources of information and triangulated (cross-validated) primary and secondary data, e.g. relevant studies or strategic papers produced by other United Nations (UN) agencies.

19. The evaluation complies with the UNECE Evaluation Policy and the revised 2016 United Nations Evaluation Group's (UNEG) Norms and Standards for Evaluation. The evaluator

made sure that the assessments were objective and balanced, that the findings were accurate and verifiable, and that the recommendations were realistic.

B. Key Evaluation Questions

20. The evaluation applied the criteria of relevance, efficiency, effectiveness, and impact introduced by the Organization for Economic Co-operation and Development (OECD). Gender aspects were addressed throughout the evaluation with an appropriate methodology and evaluation questions. The evaluation also heeded partnership and coordination praxis among the relevant stakeholders and assessed whether similar projects can be replicated in other contexts (in other countries). The evaluation provided answers to key questions listed below to ascertain whether the Project delivered the right things in the right way, and to identify key lessons in this regard.

Relevance

- Was the project relevant to the objective of UNECE to support member States in improving energy efficiency?
- To what extent did the Project respond to the priorities and needs of the beneficiary countries? How relevant was it to the target groups' needs and priorities?
- Was the project design and implementation appropriate for meeting the project's objective?
- Did the project apply gender and rights-based approaches in the design, implementation and results of the activities?
- Did UNECE advocated for gender equality in this area of work?

Effectiveness:

- Did the project achieve the results expected during the project design in terms of the planned activities, outcome, and impact?
- What value has UNECE's efforts added in this area of work?

Efficiency:

- Did the project achieve its objectives within the anticipated budget and allocation of resources?
- Were the activities implemented according to the planned timeframe?
- Were the activities implemented in the required sequence needed to ensure the greatest impact of the project?
- Were the resources sufficient to achieve the intended outcomes?
- How does the project compare with other similar efforts from other actors in the UN System (if any)?

Impact:

- How did project activities strengthen the capacity of the UNECE member States to develop and implement energy efficiency standards in buildings?
- To what extent are the outputs of the project relevant to the expected accomplishments for the member States?
- Did both women and men equally access the project benefits as intended?

C. Evaluation Limitations

21. The data-gathering and evaluation findings were affected by the following factors:
- The Project's direct beneficiaries (surveyed and interviewed) did not make any distinction between two interlinked projects on EESB implemented by the HLMU and the SDE: "Energy Efficiency Standards in Building" funded by the Government of Denmark and implemented by the HLMU; and "Enhancing National Capacities for Development and

Implementation of the Energy Efficiency Standards in Buildings in the UNECE Region” funded by the Government of the Russian Federation and implemented by the SEU. Therefore, it was impossible to measure the precise impact of the Project’s interventions on relevant member States. The impact criteria were assessed by determining the extent to which the event participants had since applied the knowledge received as a result of UNECE’s activities in EESB implemented in 2017-2019;

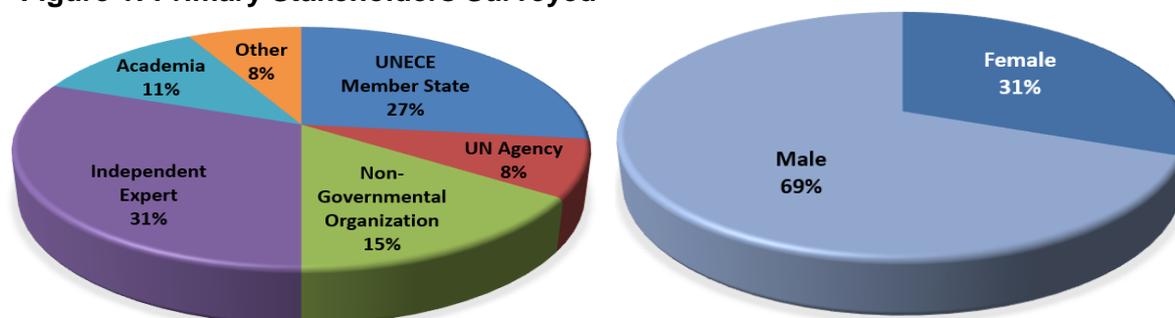
- In-person interviews were limited to the pool of the subject-matter experts identified by the SED; and
- There was no preliminary analysis or follow-up assessment conducted to analyze the accomplishments and the strategic action plans of the member States before and after the implementation of the Project’s activities. Therefore, it was impossible to measure the relevance of the Project’s output against the expected accomplishments of all 56 member States of the UNECE.

D. The Evaluation Audience and Key Stakeholders Surveyed

22. Primary users of the evaluation results will be the relevant staff of the SED and HLMU. Pursuant to the Terms of Reference (ToR)² of the UNECE, the Organization serves as a multilateral platform that facilitates economic integration and cooperation among its 56 member States, which represent a secondary audience of this evaluation (Annex 2).

23. In total, the evaluator reached out to 206 participants of the meetings of the JTF (some of them took part in several meetings of the JTF on EESB) and interviewed 10 subject-matter experts. The chart below (Figure 1) presents a breakdown of primary stakeholders (those partaking in the workshops organized under the auspices of five meetings of the JTF) surveyed in the course of the evaluation.

Figure 1: Primary Stakeholders Surveyed³



Source: Evaluation Dataset, 2019.

E. Structure of the Evaluation Report

24. The structure of the evaluation report is presented as follows:

² Terms of Reference and Rules of Procedure of the Economic Commission for Europe, Fifth revised edition, United Nations, New York and Geneva, 2009; https://www.unece.org/fileadmin/DAM/oes/mandate/Commission_Rev5_English.pdf.

³ The mini survey achieved about 14 percent response rate.

- (a) Evaluation findings related to the criterion of relevance: relevance to the UNECE objectives and needs of the member States, the Project's design and implementation arrangements, and gender mainstreaming;
- (b) Evaluation findings related to the criterion of effectiveness: assessment of achievements and value assessed by UNECE;
- (c) Evaluation findings related to the criterion of efficiency: accomplishments and implementation timeline, allocation of resources, and a snapshot of similar projects implemented by other UN agencies;
- (d) Evaluation findings related to the criterion of impact; and
- (e) Conclusions and recommendations.

IV. Evaluation Findings

25. This chapter presents an analysis of the Project's results through the prism of Development Assistance Committee's (DAC) criteria for evaluating development assistance programs. Specifically, these criteria are relevance, effectiveness, efficiency, and impact.

A. Relevance

Finding 1: The Project's development was preceded with a series of intensive consultations and information-sharing among the following relevant entities: the UNECE member states; the Committee on Sustainable Energy (CSE); the Committee on Housing and Land Management (CHLM); the WP6; and the Group of Experts on Energy Efficiency (GEEE). [linked to conclusions A, B and C]

Finding 2: The cooperation between the secretariats of the CHLM and the CSE was set to address the needs of the member states in the area of EESB. [linked to conclusions A, B and C]

Finding 3: There is no evidence of the Project's result framework developed along with the measurable indicators and targets. [linked to conclusion D]

Finding 4: The research components (mapping exercises) of the Project were implemented through the recruitment of external subject-matter experts with strong technical skills; the SED staff facilitated the work of external experts. [linked to conclusion E]

Finding 5: The Project was not focused on raising awareness about the importance of the gender-mainstreaming agenda in the energy efficiency subsector, although it did create a supportive environment and served as a platform for males and females to participate equally. [linked to conclusions F]

Finding 6: No evidence was found of the Project's outputs making any reference to the human rights dimension of the Project's activities, although a point was made about the social impact of energy-efficient buildings. [linked to conclusion F]

A.1 Relevance to the UNECE Objectives and Needs of the Member States

26. The UNECE is mandated to support its member States to achieve the UN's Sustainable Development Goals (SDGs). The main three strategic areas (SAs) of the UNECE contributed

to 11 of the 17 SDGs. The reconstructed Theory of Change (ToC) of the Project (Annex 3) revealed the primary and secondary contributions of the Project's activities to SDGs and the UNECE's SAs (Table 2). In terms of primary contribution, the Project covered SDG 7 (Affordable and Clean Energy)⁴ and SDG 11 (Sustainable Cities and Communities)⁵. The Project also indirectly contributed to SDG 3 (Good Health and Well-Being)⁶, SDGs 5 (Gender Equality)⁷, 9 (Industry, Innovation & Infrastructure)⁸, 13 (Climate Action)⁹, and 17 (Partnerships for the Goals)¹⁰.

Table 2: The Project's Contribution to SDGs

UNECE Strategic areas	UNECE coverage of SDGs	Project Coverage of SDGs
SA 2: Reducing environmental pressures and using resources more sustainably.	Goal 3: Good Health and Well Being	X
<i>Promotes women's economic empowerment and mainstreaming of gender equality in all its activities</i>	Goal 5: Gender Equality	X
SA 2: Reducing environmental pressures and using resources more sustainably.	Goal 6: Clean Water and Sanitation	
SA 1: Improving connectivity within the region. SA 2: Reducing environmental pressures and using resources more sustainably. SA 3: Contributing to creating more dynamic and resilient economies.	Goal 7: Affordable and Clean Energy	X
SA 1: Improving connectivity within the region. SA 3: Contributing to creating more dynamic and resilient economies.	Goal 8: Decent Work & Economic Growth	
SA 1: Improving connectivity within the region. SA 3: Contributing to creating more dynamic and resilient economies.	Goal 9: Industry, Innovation & Infrastructure	X
SA 1: Improving connectivity within the region. SA 3: Contributing to creating more dynamic and resilient economies.	Goal 11: Sustainable Cities and Communities	X
SA 2: Reducing environmental pressures and using resources more sustainably	Goal 12: Responsible Production & Consumption	
SA 1: Improving connectivity within the region; SA 2: Reducing environmental pressures and using resources more sustainably. SA 3: Contributing to creating more dynamic and resilient economies.	Goal 13: Climate Action	X

⁴ **Through the Target 7.3** By 2030, double the global rate of improvement in energy efficiency; and the **Target 7.A:** By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.

⁵ **Through the Target 11.6:** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management; and the **Target 11c:** Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.

⁶ **Through the Target 3.9:** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

⁷ **Through the Target 5.5:** Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

⁸ **Through the Target 9.4:** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

⁹ **Through the Target 13.2:** Integrate climate change measures into national policies, strategies and planning.

¹⁰ **Through the Target 17.7:** Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed; and through **Target 17.9:** Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation.

SA 2: Reducing environmental pressures and using resources more sustainably	Goal 15: Life on Land	
SA 1: Improving connectivity within the region. SA 2: Reducing environmental pressures and using resources more sustainably. SA 3: Contributing to creating more dynamic and resilient economies.	Goal 17: Partnership for the Goals	X

Source: <https://www.unece.org/info/about-unece/mission/unece-and-the-sdgs.html>.

27. The UNECE planning documents (Biennial Programme Plan and Priorities for the Period 2016-2017¹¹ and Biennial Programme Plan and Priorities for the Period 2017-2019¹²) clearly outline the main objective of the Organization in the sustainable energy domain “To improve access to affordable and clean energy for all and to help reduce greenhouse gas emissions and the carbon footprint of the energy sector in the region.”¹³ This objective is expected to be met through three main EAs of the Secretariat:

- (A) Improved policy dialogue and cooperation among all stakeholders on sustainable energy issues, in particular energy efficiency, cleaner electricity production from fossil fuels, renewable energy, coal mine methane, mineral resource classification, natural gas and energy security;
- (B) Increased awareness of the role of energy efficiency and renewable energy in achieving sustainable energy development; and
- (C) Strengthened implementation of ECE recommendations/guidelines, best practices and other normative instruments for sustainable energy development.

28. Pursuant to the mandate and objectives of the UNECE, stipulated in the “Terms of Reference and Rules of Procedure of the Economic Commission for Europe”¹⁴, the UNECE takes no action with respect to any country without the agreement of the relevant country’s government¹⁵. Thus, in 2013, the Executive Committee (EXCOM) approved the establishment of a Group of Experts on Energy Efficiency (GEEE)¹⁶ which was delegated, inter alia, to:

- (D) Help improve energy efficiency in the UNECE region;
- (E) Contribute to climate change mitigation efforts;
- (F) Share best practices, including strengthening institutional capacity in the field of energy efficiency; and
- (G) Strengthen regional cooperation in energy efficiency, with a view to reducing greenhouse gas emissions.

29. At its 1st session conducted in November 2014, the GEEE discussed and approved the workplan for 2014-2015, where the consideration was given to identifying work on energy efficiency standards ongoing in other organizations (e.g. the International Organization for Standardization (ISO), the European Committee for Standardization (CEN)) and developing cooperation proposals with international standardization organizations on the establishment of standards for energy efficiency.

30. The 24th session of the Committee on Sustainable Energy (CSE), held in November 2015, included a panel discussion on best practices for promoting energy efficiency, a report on the

¹¹ A/69/6/Rev.1.

¹² A/71/6/Rev.1.

¹³ Programme 17 (Economic Development in Europe), Subprogramme 5 (Sustainable Energy), page 396 of A/71/6/Rev.1; and page 371 of A/69/6/Rev.1.

¹⁴ https://www.unece.org/fileadmin/DAM/oes/mandate/Commission_Rev5_English.pdf.

¹⁵ Paragraph 1, page 2, Terms of Reference and Rules of Procedure of the Economic Commission for Europe, 5th Revised Edition, UN, 2019.

¹⁶ ECE/EX/2013/L.15, UNECE;

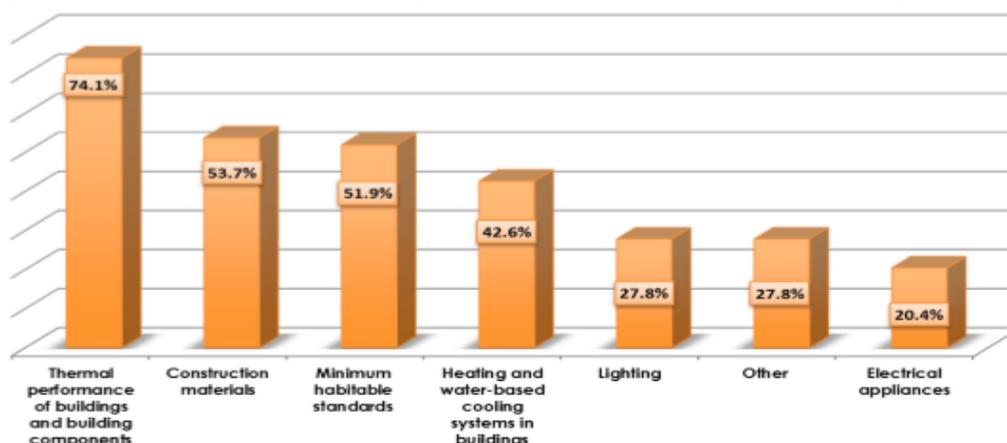
https://www.unece.org/fileadmin/DAM/energy/se/pdfs/geee/GEEE_Bureau/13.11.2018/Bureau_GEEE_2018_final.pdf.

implementation of the work plan for 2014–2015 and a proposed workplan for 2016-2017. The Committee extended the mandate of the GEEE and endorsed its workplan for 2016-2017. The GEEE also recommended the CSE to establish a JTF on energy efficiency standards in buildings (EESB) jointly with the UNECE Committee on Housing and Land Management (CHLM) and with the participation of the Working Party (WP) on Regulatory Cooperation and Standardization Policies (WP6), and other relevant stakeholders. The JTS on EESB was established in 2015 and consisted of the representatives of member States, the private sector, academia, non-governmental organizations (NGOs) and international organizations.

31. Furthermore, at its 75th session¹⁷, held in October 2014, the secretariat presented to the CHLM a proposal¹⁸ for a possible study on standards, including energy efficiency of buildings (including manufacturing of building materials) and energy performance requirements. The session was attended by over 160 participants, including representatives of: 41 UNECE member States; an observer country; non-governmental and intergovernmental organizations; academia; and the private sector. This proposal had been elaborated by the secretariat to support the implementation of the UNECE Action Plan for Energy-Efficient Housing¹⁹ and Strategy for Sustainable Housing and Land Management in the UNECE Region (2014-2020)²⁰.

32. In spring 2015, the CHLM and CSE developed and the survey was distributed among the member States to identify their specific interest in activities related to EESB and to clarify the potential focus of UNECE interventions. The survey recipients were invited to describe the situation in their countries, to identify the priority interventions in the domain of EESB, and to outline the role the UNECE could play to better assist the member States in improving building standards. The results of the survey shaped the priority areas for the UNECE in EESB domain (Figure 2).

Figure 2: Priority Areas in Energy Efficiency Standards in Buildings



Source: *Outcomes of the Survey on Building Standards and Building Regulations in the UNECE Region*, UNECE, 2015.

¹⁷ ECE/HBP/179, paragraph 40.

¹⁸ ECE/HBP/2014/4.

¹⁹ Action Plan for Energy-Efficient Housing in the UNECE Region (ECE/HBP/164) identifies four goals in policy area II, "Energy performance standards and technology integration": (1) energy performance requirements for homebuilding and existing housing; (2) low energy and low carbon technology; (3) spatial planning development control and district heating and cooling systems; (4) research, innovations and best practices.

²⁰ The Strategy for Sustainable Housing and Land Management in the UNECE Region (2014-2020) recognizes the importance of adopting energy-efficiency programmes in building management. Thus, one of the strategic objectives outlined in this document was "To reduce energy use in the housing sector as compared to 2012 and continue the downward trend " with a target of "By the year 2020, Policies and legal frameworks are in place to support and stimulate retrofitting of the existing residential housing stock in order to reduce its ecological footprint and make it more energy-efficient, making use of traditional knowledge and local building materials when possible"; <https://www.unece.org/fileadmin/DAM/hlm/documents/Publications/sust.hsng.strategy.pdf>.

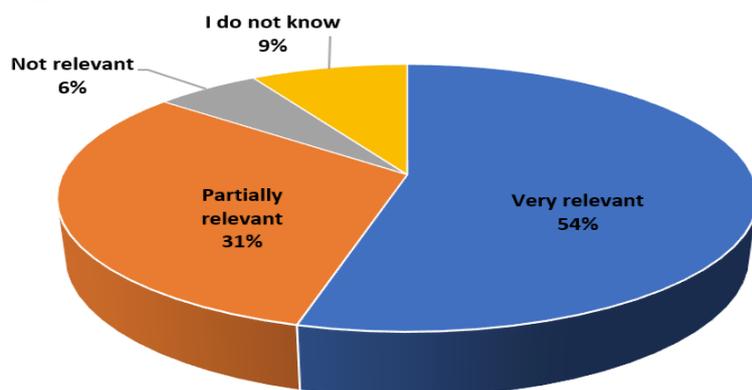
33. In April 2015, the CHLM and CSE jointly organized Expert Consultation on EESB agenda. The consultation was concluded with a goal to define further steps to better address the needs in EESB, and the role of two Committees (CHLM and CSE) and the GEEE in this regard.

34. The proposal on standard on EESB was endorsed at the 76th session of the CHLM²¹, carried out in December 2015, where the EESB was one of the main issues covered during the session. The secretariat presented conclusions and recommendations of the survey and the expert consultation, including the recommendation for the establishment of a JTF on EESB of the CHLM and the CSE (and the GEEE) with the participation of experts representing the WP6 and other relevant stakeholders.

35. The next year (2016), both committees established (with participation of the WP6) the JTF on EESB, which included representatives of government agencies, the GEEE, international organizations, and other relevant stakeholders (non-governmental organizations, private sector, independent experts, etc.). At its 25th session, conducted in September 2016, the CSE endorsed activities to develop standards related to energy efficiency in buildings.

36. The mini-survey (carried out in the course of the evaluation) completed by the direct beneficiaries (which constituted the target group of the Project) of the Project revealed that about 54 percent (19 out of 35) of respondents felt that the Project was highly relevant to the needs and priorities of their country or the region and 31 percent (11 out of 35) of them agreed that the Project was partially relevant (Figure 3). The stakeholders highlighted that in their countries of origin saving energy in buildings is a top government priority in the process of implementing association agreements with the EU, thus the support and information was highly relevant in terms of updating standards. They also mentioned that the results of the mapping exercises provided a comprehensive view of the issues of EESB, as well as outlining the approach to, and implementation of, existing international treaties and documents related to these issues.

Figure 3: Survey Response on the Relevance of the Project Activities



Source: Evaluation Survey Data, 2019.

37. Among the reasons for the Project being partially relevant, the stakeholders (surveyed in the course of the evaluation) pointed to the fact, due to the complex nature of this issue, continuous and detailed research needs to be done to collect comprehensive data on the energy performance of buildings. Another reason was that specific countries were not covered during the mapping exercise, thus creating a perception that the Project's outputs were less relevant for such countries. Some stakeholders mentioned that energy efficiency had not yet

²¹ ECE/HBP/184.

gained the necessary attention of their governments in some cases. On the contrary, in other cases the topics discussed were of a generic nature and were already well-known to the audience. It should also be noted that the speakers did not go into details on specific issues within certain countries.

38. It is noteworthy that the different research and policy papers highlight the importance of utilizing energy efficient buildings (through building new buildings or proper refurbishment of existing one) throughout the globe, including European countries. According to the European Commission (EC), the construction sector is one of the key enablers of the 2050 decarbonization goal for the European economy. This goal is linked to two important policy paper of the European Union (EU):

- The energy policy: 40 percent to 50 percent reduction of the building sector energy consumption is mandatory by 2050; and
- The climate policy: the building sector must target a reduction of CO₂ emissions by at least 80 percent²².

39. Furthermore, the strategic paper²³ issued by the EC outlines seven main strategic building blocks towards ensuring a net-zero greenhouse gas economy. One of these blocks states “Maximise the benefits from Energy Efficiency including zero emission buildings”. In its strategic paper, the EC highlighted that “much of the reduced energy demand will occur in buildings, in both the residential and services sectors, which today are responsible for 40 percent of energy consumption. Given that most of the housing stock of 2050 exists already today, this will require higher renovation rates, fuel switching with a large majority of homes that will be using renewable heating (electricity, district heating, renewable gas or solar thermal), diffusion of the most efficient products and appliances, smart building/appliances management systems, and improved materials for insulation.”

40. It is also noteworthy that the energy performance of buildings is a main topic of the Directive 2010/31/EU²⁴ of the European Parliament and of the European Council. It requires that all “*member states shall ensure that by 31 December 2020 all new buildings are nearly zero-energy.*” In addition, in 2007, the European Council highlighted the need to increase energy efficiency in the European Union (EU) and called for a rapid implementation of the priorities set in the Commission Communication entitled “Action plan for energy efficiency: realizing the potential.”

A.2 Project Design and Implementation

41. In 2017, the EXCOM approved two interconnected projects on EESB: “Energy Efficiency Standards in Buildings” (approved at the 91th meeting of EXCOM); and “Enhancing National Capacities for Development and Implementation of the Energy Efficiency Standards in Buildings in the UNECE Region” (approved at the 92th meeting of EXCOM). The activities and the EAs of both projects complemented each other (Annex 4), therefore the project “Enhancing National Capacities for Development and Implementation of the Energy Efficiency Standards in Buildings in the UNECE Region” was implemented by Sustainable Energy Division (SED) in conjunction with the project “Energy Efficiency Standards in Buildings”, which was funded by the Government of Denmark and managed by the UNECE Housing and Land Management Unit (HLMU).

²² Energy Efficient Buildings: Multi-annual roadmap for the contractual PPP under Horizon 2020; EC, 2013.

²³ On 28 November 2018, the EC presented its strategic long-term vision for a prosperous, modern, competitive and climate-neutral economy by 2050 “A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy”; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0773>.

²⁴ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:153:0013:0035:EN:PDF>.

42. Both the HLMU and the SED recruited external subject-matter experts/consultants to work on the assignments outlined in the relevant project documents. The scope of each assignment or activity, and their objectives and tangible and measurable outputs, were articulated in the Terms of Reference (ToR) issued for each assignment. The HLMU and SED coordinated their functions in managing the relevant activities. (Table 3). The workshops planned during the project design were delivered under the auspices of three meetings (2nd, 3rd and 4th meetings) of the JTF on EESB.

Table 3: The Project Work Coordination Matrix (Contextual)

Activity	Requesting Office	Output
Activity 1.1 - Undertake the mapping of EESB in the UNECE region.	HLMU ²⁵ SED	Final Report "Mapping of existing EESB in the UNECE region."
Activity 2.1 - Establish an online database of experts on energy efficiency in buildings.	SED	Concept of the database: technical opportunities, functionality and the structure of the database.
Activity A 2.2 - Organize one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sector to validate the results of the mapping of EESB in the UNECE region.	SED HLMU	Presentation on the topic "Validation of the results of the mapping of the energy efficiency standards in buildings" delivered under the auspices of the 2 nd meeting of the JTF on EESB.
Activity A 3.1 - Undertake the mapping of existing technologies to enhance energy efficiency in buildings, undertake gap analysis and recommendations for their use in the region and an update of the database of experts.	HLMU	Initial assessment of energy efficiency technologies in buildings in relation to the existing standards.
	SED	Study report on mapping of existing technologies to enhance energy efficiency in buildings, a gap analysis, and recommendations on the use of these technologies in the region.
Activity A 3.2 - Organize one seminar /workshop to discuss and validate the results of the mapping existing technologies to enhance energy efficiency in buildings.	SED HLMU	Presentation of the findings of the report on the mapping of existing technologies at the stakeholders workshop, delivered during the 3 rd meeting of the JTF on EES in Buildings.
Activity A3.3 – Organize a stakeholder meeting with the chairs of the joint task force and energy efficiency experts to discuss the results of the Phase 1 of the Project and to plan the Phase II.	SED HLMU	The workshop on energy efficiency in buildings – the 4 th meeting of the JTF - was held on 13 November 2018 in Kiev as part of the Ninth International Forum on Energy for Sustainable Development, delivered during the 4 th meeting of the JTF on EES in Buildings.

Source: *The Project Reports, 2019, UNECE.*

A.3 Gender Mainstreaming and Human Rights Dimension

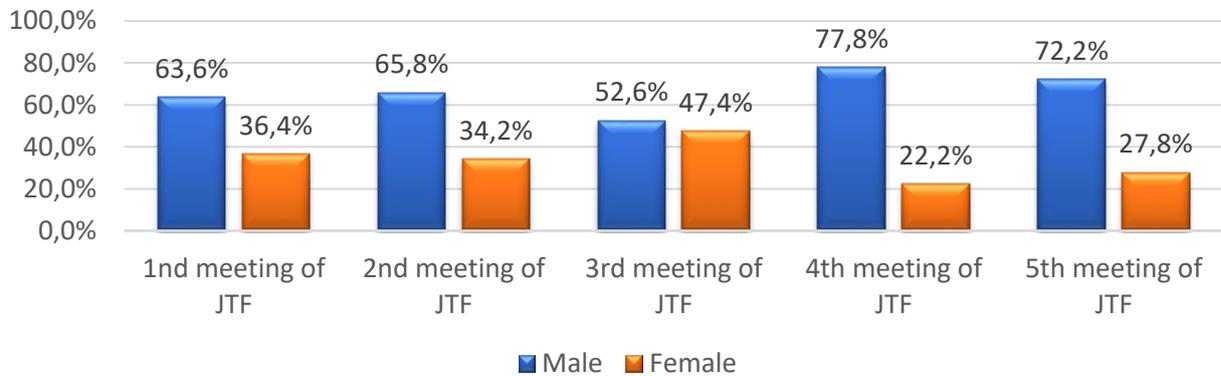
43. The UNECE, like other UN agencies, aligns its work with the 2030 Agenda for Sustainable Development. In order to support the implementation of SDG 5 on Gender Equality, the UNECE developed two important documents: the Gender Parity Strategy (2017), and the UNECE Policy on Gender Equality and the Empowerment of Women (2015). The former covers all work areas of UNECE, including the SED. With regard to the SED workstream, the aforementioned policy highlights two major directions:

²⁵ The HLMU was responsible for administering the activity.

- (a) Promoting and raising awareness of the importance of taking into account gender perspectives in different activities and events under the Committee on Sustainable Energy and Groups of Experts, as appropriate; and
- (b) Creating a supportive environment for expert participation, policies, regulations, innovative development and knowledge-based economies in the area of sustainable energy tailored to the needs of both women and men.

44. There is no evidence of the Project either raising awareness of the importance of considering gender perspectives (which was not among the primary objectives of the Project either) in its activities or applying any criteria to encourage female participation. The rate of female participation varied per workshop (the meeting of the JTF on EESB). The Project reported having about 47 percent female participation at the 2nd JTF on EESB (Figure 4). On the contrary, the female-male ratio at the 4th and 5th meetings of the JTF on EESB was 7:21 and 7:18 respectively.

Figure 4: Participation Statistics: Sex-desegregated Data²⁶



Source: *The Project Reports, 2019, UNECE.*

45. The participants were often nominated by the relevant agencies of the member States from a sector (energy) and sub-sector (energy-efficiency) where women are generally underrepresented (Table 4). In terms of achieving gender parity in project-related recruitment areas, three out of four consultants were female experts hired by the SED. The Project team kept track of the number of female participants of the workshops organized within the framework of the Project and conducted under the auspices of the meetings of JTF on EESB.

Table 4: Women’s Workforce Participation by Industry (% Share)

Industry group	Senior roles		Mid-level roles		Junior roles		Line roles		Staff roles			
	CEOs	Board members	Current	2020	Current	2020	Current	2020	Current	2020		
Industries Overall	9%	28%	15%	25%	24%	33%	33%	36%	30%	34%	35%	39%
Basic and Infrastructure	2	35	9	17	13	21	22	29	14	23	20	27
Consumer	10	21	16	24	26	33	33	37	31	34	37	41
Energy	0	32	11	20	19	27	24	27	19	25	22	30
Financial Services & Investors	9	19	20	30	33	40	43	43	35	39	42	43
Healthcare	6	—	15	28	31	44	39	46	44	49	41	48
Information and Communication Technology	5	19	11	20	21	29	32	34	23	32	33	38
Media, Entertainment and Information	13	22	25	33	25	32	35	36	38	43	47	46
Mobility	9	17	13	21	21	30	28	33	25	31	34	36
Professional Services	9	23	22	34	33	40	39	43	44	44	44	46

Source: *The Industry Gender Gap Women and Work in the Fourth Industrial Revolution, The World Economic Forum, 2016.*

²⁶ Including UN and UNECE representatives.

46. Furthermore, pursuant to Article 25 of the Universal Declaration of Human Rights (UDHR)²⁷: (“Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control”). It is important to mention that the reports produced within the Project address environmental and economic benefits of energy-efficient buildings as well as their social impact, such as the insurance of comfort and modern living conditions and improving the health of inhabitants. However, no examples were found of the Project outputs making reference to the human rights dimension of its activities.

B. Effectiveness

Finding 7: The Project completely achieved five out of six outputs, with the remaining one being achieved partially. [linked to conclusions G]

Finding 8: The UNECE facilitated cross-country and cross-regional networking and knowledge transfer in the area of EESB. [linked to conclusions G]

47. The Project was designed around three key EAs and six activities. The reconstructed logical framework of the Project is presented under Annex 5. Five out of six activities were completely accomplished by the end of March 2019.

48. Activity 2.1 (an online database of experts in EESB) was only partially accomplished due to technical delays. More specifically, the external consultant was hired with a generic goal of developing the database, but online database development incorporates some conceptual (technical and functional requirement analysis), and technical (database programming and web site creation) parts. The consultant explored technical opportunities and defined the functionalities and structure of the database and communication the requirements to with the Information Systems Unit (ISU) of UNECE which took over the technical part of database development. This work was still ongoing by the end of March 2019. In July 2019, the ISU released the Uniform Resource Locator (URL) to be used for the online database. According to the feedback from the SED, additional financial resources are needed to make the database fully functional. There was no evidence of ISU’s being engaged in the planning stage of this activity.

49. The table below (Table 5) outlines the achievements per activity.

Table 5: The Project’s Achievements

The Project Activity	Output	Status
Activity 1.1 - Undertake the mapping of energy efficiency standards (EES) in buildings in the UNECE region.	Final report prepared (in English and Russian) on mapping of existing EESB in the UNECE region ²⁸ .	Achieved
Activity 2.1 - Establish an online database of experts on energy efficiency in buildings.	The database concept prepared and presented; the programming part is still ongoing.	Partially achieved

²⁷ Amilistine document in humanr righth dimension proclaimed by the UN General Assembly in Paris in 1948 ([General Assembly resolution 217 A](https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf)) as a common standard of achievements for all peoples and all nations. https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf.

²⁸

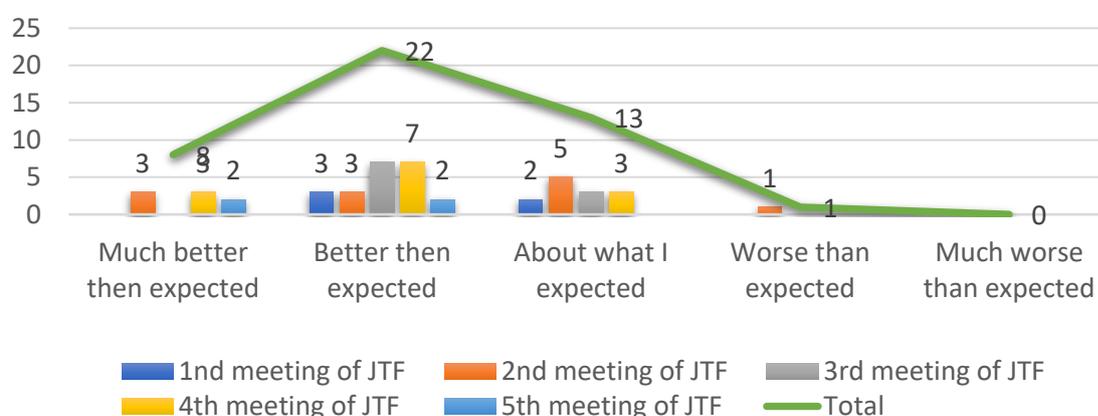
https://www.unece.org/fileadmin/DAM/energy/se/pdfs/eneff/publ/Mapping_of_EE_Standards_in_Buildings_09.08.2018/Info_doc_4_EE_standards_mapping.pdf.

Activity A 2.2 - Organize one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sector to validate the results of the mapping of EES in buildings in the UNECE region.	Workshop delivered under the auspices of the 2 nd meeting of the JTF on EESB.	Achieved
Activity A 3.1 - Undertake the mapping of existing technologies to enhance energy efficiency in buildings, undertake gap analysis and recommendations for their use in the region and an update of the database of experts.	Study report prepared on mapping of existing technologies to enhance energy efficiency in buildings ²⁹ .	Achieved
Activity A 3.2 - Organize one seminar /workshop to discuss and validate the results of the mapping of existing technologies to enhance energy efficiency in buildings.	Workshop delivered under the auspices of the 3 rd meeting of the JTF on EESB.	Achieved
Activity A3.3 – Organize a stakeholder meeting with the chairs of the joint task force and energy efficiency experts to discuss the results of the Phase 1 of the Project and to plan the Phase II.	Meeting/workshop delivered under the auspices of the JTF, held on 13 November 2018 in Kiev, Ukraine.	Achieved

Source: *The Project Reports, 2019, UNECE.*

50. Five respondents of the mini-survey (carried out in the course of the evaluation) reported having attended all five meetings of the JTF on EESB. Twelve out of 26 respondents reported having attended the 2nd meeting of the JTF. The 3rd and 4th meetings of the JTF on EESB were attended by 10 and 13 respondents respectively and only five out of 26 confirmed attending three meetings of the JTF (four of them attended 2nd, 4th and 5th meeting of the JTF and one took part in 3rd, 4th and 5th meeting of the JTF). In total 50 percent of responses (22 out of 44) pointed out that the meetings of the JTF they attended had been “better than expected” and about 29 percent (13 out of 44) reported that the meetings had been “about what was expected” (Figure 5).

Figure 5: Survey Respondents’ Feedback on the Meetings of the JTF



Source: *Evaluation Survey Data, 2019.*

51. With regard to the UNECE’s efforts in the area of EESB, the stakeholders highlighted the unique and global experience, as well as the information-sharing and networking opportunities that the organization provided to beneficiaries. More specifically, the participants highly valued: the results of the study of the mapping of existing technologies and the presentation of the best practices in the region; networking with an expert community through seminars and the JTF meetings; and being given an opportunity to share their experience (and discuss problems), and to access information on specific country/region cases and some practical information on implementing the principles of energy efficiency. The stakeholders also highlighted that EESB is a complex and multifaceted topic and the framework applied during the 1st mapping exercise (“Mapping of Energy Efficiency Standards in Buildings in the UNECE

²⁹ https://www.unece.org/fileadmin/DAM/energy/se/pdfs/geee/study/Final_Master_file_-_March_11_final_submission.pdf.

Region”) might not always ensure accurate construal of an existing situation.

C. Efficiency

Finding 9: By the end of March 2019, the budget absorption rate constituted 99.3 percent (excluding the budget allocated for the Project’s evaluation). The financial data showed reasonable deviation between planned and actual expenses. [linked to conclusions G and H]

Finding 10: Four out of six activities were implemented within the scheduled timeframe. One activity was implemented with a three-month delay (caused by a participatory process, and the second activity was postponed due to software coding and internal procedural delays. [linked to conclusion E]

Finding 11: The mini-survey results and the feedback of key informants confirmed that the sequencing of activities was generally appropriate. [linked to conclusion E]

Finding 12: The UNECE’s intervention, in comparison with similar projects implemented by other UN agencies, had broader geographic coverage (cross-regional and cross-country) and was mainly focused on theoretical knowledge-sharing, whilst the projects implemented by UNDP/GEF and UNEP/GEF were driven by providing technical assistance with practical implications in the selected countries. [linked to conclusion G]

C.1 Project Accomplishments and Timeline

52. The initial implementation timeline of the Project covered the period of June 2017 through December 2018. However, the Project was extended to March 2019. Despite the extension, the initial budget of the Project remained unchanged. One of the reasons for extending the implementation period was the delayed finalizing of the study on the mapping of existing technologies to enhance energy efficiency in buildings (Activity 3.1). The study report was submitted on 11 March 2019. Another reason was linked to the additional work required to create an online database of experts (Activity 2.1). The latter was still ongoing at the time of the evaluation (Table 6).

Table 6: The Project’s Activity Timeline (Planned vs. Completed)

#	Activity	Started	Planned to be completed	Actually Completed
A1.1	Undertake the mapping of EESB in the UNECE region.	March 2018 ³⁰	June 2018	
A2.1	Establish an online database of experts on energy efficiency in buildings.	October 2018	November 2018 (extended till end of December 2019)	Ongoing
A2.2	Organize one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sectors to validate the results of the mapping of EESB in the UNECE region.	14-15 May 2018		
A3.1	Undertake the mapping of existing technologies to enhance energy efficiency in buildings, undertake gap	July 2018	December 2018	March 2019

³⁰ Pursuant to the ToR and the service contract No 2500143541 signed.

	analysis and recommendations for their use in the region and an update of the database of experts.		
A3.2	Organize one seminar /workshop to discuss and validate the results of the mapping of existing technologies to enhance energy efficiency in buildings.	3 October 2018	
A3.3	Organize a stakeholder meeting with the chairs of the JTF and energy efficiency experts to discuss the results of the Phase 1 of the Project and to plan the Phase II.	13 November 2018	

Source: *The Project Reports, 2019, UNECE.*

53. Activities 2.1, 3.2 and 3.3 were conducted as scheduled under the auspices of the meetings of the JTF on EESB. The 1st mapping exercise (A1.1: Mapping of EESB in the UNECE region) was conducted in March-June 2018. The activity was preceded by the 1st meeting of the JTF on EESB which took place on 30-31 October 2017. During the meeting, the attendees were given an opportunity to discuss the preliminary approaches in the mapping of existing standards and technologies for energy efficiency in the UNECE region.

54. The 2nd mapping exercise (A 3.1) was conducted by two external consultants who delivered the presentation on the results of the study during the 3rd meeting of the JTF on EESB organized on 3rd October 2018 in Geneva, Switzerland and attended by 38 representatives of the following ECE countries: Albania, Armenia, Belarus, Canada, Georgia, Germany, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Russian Federation, Serbia, Slovakia, Tajikistan, Turkmenistan, Ukraine, United States, and Uzbekistan.

55. The ToR and the contract for Activity 2.1 (Establishing an online database of experts on energy efficiency in buildings) outlined three workstreams of consultancy work to be carried out within a month:

- (A) Creation of an online database of experts on energy efficiency in buildings in the UNECE region;
- (B) Supporting preparations for the 4th meeting of the JTF on EESB, which would include liaising with the host country (Ukraine), speakers, panelists and other participants of the meeting, translating meeting materials, and providing information support to participants; and
- (C) Communicating with member States, national focal points, and other stakeholders to obtain pertinent information.

56. There is no evidence of the database blueprint³¹ being prepared. According to the feedback received, there had been some delays affecting this assignment. First and foremost, there was no detailed understanding of the specifics of creating a database, but rather a generic idea. The consultant hired within the framework of the Activity 2.1³² explored the technical opportunity of creating an online database (repository) of experts, gathered information about the functionalities and the structure of the database, and developed, and secured approval of a project brief from the ISU of the UNECE, which was requested to take over the technical/programming part of the database. Overall, the implementation of this activity was greatly affected by a slow pace of internal procedures related to digital projects. As a result, the online database was not launched, and this activity was not completed in March 2019.

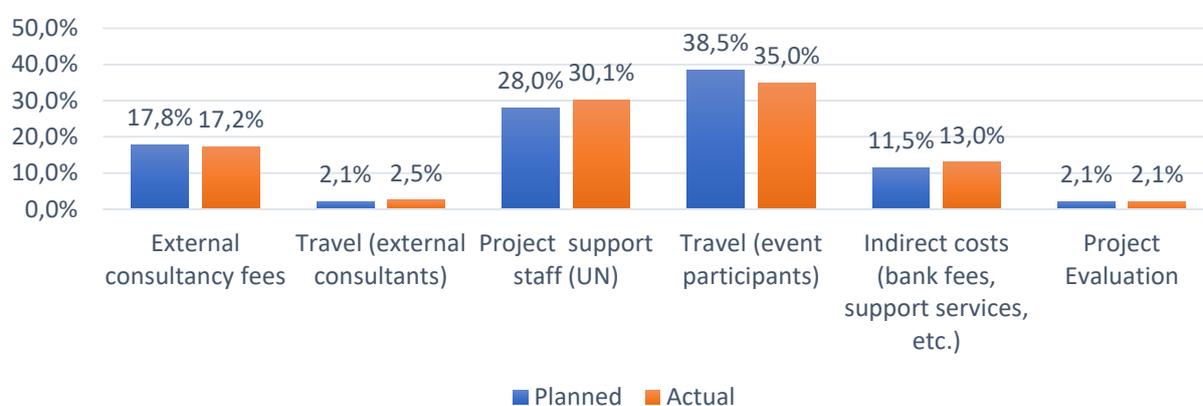
³¹ A detailed plan for developing and maintaining an online database (required for any IT and digital project); It outlines the database goal and database development stages (e.g. requirement analysis, database structure, programming, data uploads and updating, etc.), human, financial and technical resources needed for its development, and for ensuring its maintenance, unloading and updating as well as the prerequisites of its sustainability.

³² The consultancy was extended (no-cost extension) until 22nd December 2019.

57. The Project/activity timeline was structured to ensure logical flow and completion of each activity. The draft version of the mapping studies produced within the framework of the Project were shared among key subject matter-experts for their comments and were concluded after the received feedback had been taken into account. Furthermore, the results of the mapping studies were presented at the meetings of the JTF³³. Activity 2.1 was the only “outlier” which started by the end of the Project and was still ongoing by the time the stakeholders were discussing the results of Phase 1 (Activity A 3.3.). The respondents of an online mini survey, conducted among the participants of the meetings of the JTF, confirmed that they had found the presentations on the relevant mapping studies (after the study was conducted) useful.

58. The Project’s budget (USD 286,000) covered, inter alia, the remuneration fees for support staff and international consultants along with travel costs for the consultants and the attendees of five meetings of the JTF. The cost per unit allocated (monthly fees for the support staff and international consultants, cost per participant, etc.) was within the standard range used for all UNECE projects. The analysis of the relevant financial data showed slight, yet reasonable deviation between planned and actual expenses (Figure 6).

Figure 6: The Project’s Budget (USD) Planned Vs. Actual



Source: Informal Document No. 2017/36 and the Project’s Financial Report, UNECE 2019.

59. By the end of March 2019, the budget utilization rate of the Project was 99.3 percent (excluding the budget allocated for the Project evaluation).

C.2 Comparison with Similar Projects of other UN Agencies

60. The United Nations Development Program (UNDP) is another UN agency actively supporting the UN Member States in the area of EESB. Thus, in 2012-2018, the UNDP and the Global Environment Facility (GEF) implemented the project “Belarus: Improving Energy Efficiency in Residential Buildings.” In 2006-2015 and 2010-2015, they implemented similar projects in Uzbekistan (“Promoting Energy Efficiency in Public Buildings in Uzbekistan”) and Kazakhstan (“Energy-Efficient Design and Construction of Residential Buildings”) respectively.

61. Whilst the UNECE projects had regional coverage, the UNDP/GEF34 projects focused on specific country cases. Moreover, they utilized a different methodology in addressing energy efficiency issues in residential buildings. The UNECE projects mainly targeted improving the

³³ The results of Mapping of Energy Efficiency Standards in Buildings in the UNECE Region were presented at the 2nd Meeting of the JTF on EESB; The results of Mapping the Technologies to Enhance Energy Efficiency in Buildings were presented at the 3rd Meeting of the JTF on EESB (see table 9 of the evaluation report).

³⁴Over the last decade, the UNDP implemented over 15 projects on energy efficiency in buildings in the Europe and the region of the Commonwealth of Independent States (CIS).

knowledge of, and increasing understanding of ECE member States in this area as well as enhancing the network of experts. In the meantime, the UNDP/GEF projects incorporated practical steps to change legal and regulatory environments thereby improving energy efficiency in the building sector of a specific country³⁵, the implementation of demonstration projects for energy-efficient buildings, integration of results into standard practice in the public construction sector, etc. (Table 7).

Table 7: Comparison of UN projects on EESB

UN Agency	Project	Geographic coverage	Key Outcomes
UNECE	Enhancing National Capacities for Development and Implementation of the Energy Efficiency Standards in Buildings in the UNECE Region.	(A) European Union (EU) Member States prior to 2004 (EU15) ³⁶ , Norway, and Switzerland; (B) EU enlargement - the 13 countries that joined the EU after 2004 (EU13); ³⁷	- Improve knowledge of ECE member States on EESB. - Increase understanding of ECE member states about the existing and new technologies to advance EESB. - Enhance network of experts from public and private sectors on EESB.
	Energy Efficiency Standards in Buildings.	(C) Eastern Europe, the Caucasus, Central Asia, and the Russian Federation; ³⁸ (D) North America ³⁹ ;and (E) South-Eastern Europe ⁴⁰ .	- Improve knowledge of ECE member States on EESB.
UNDP/GEF	Belarus: Improving Energy Efficiency in Residential.	The Republic of Belarus	- Strengthen legal and regulatory framework and mechanisms to enforce legislation improving the energy efficiency of the building sector. - Enhance the capacity of Belarusian specialists. - Implementation of demonstration projects for energy efficient buildings. - Document, disseminate and institutionalize the Project's results
	Promoting Energy Efficiency in Public Buildings in Uzbekistan.	The Republic of Uzbekistan	- Revise EE building codes. - Conduct energy audits. - Establish energy management system in public buildings. - Train architects in monitoring energy performance. - Piloting advanced experience in design, retrofitting, construction and maintenance of public buildings. - Integrate project results into standard practice in public construction sector

³⁵ E.g. through: developing a methodology for building energy performance monitoring in line with applicable international standards, conducting energy audits, reviewing and conducting cost-efficiency analysis of different technical options to improve building EE, strengthening legal and regulatory framework, elaborating elaboration of practical procedures for the establishment of a mandatory system of EE certification of buildings, developing quality standards and a system of EE certification for the construction materials, equipment and accessories, etc.

³⁶ Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom.

³⁷ Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

³⁸ Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

³⁹ Canada and the United States.

⁴⁰ Albania, Bosnia and Herzegovina, Montenegro, Serbia, and the former Yugoslav Republic of Macedonia.

	Energy-Efficient Design and Construction of Residential Buildings.	The Republic of Kazakhstan	<ul style="list-style-type: none"> - Improve enforcement and implement mandatory building energy codes and rating system. - Expand markets for energy-efficient products. - Promote energy-efficient building design and technology. - Implement demonstration projects on energy-efficient buildings.
UNEP/GEF/WRI	Scaling up the SE4ALL Building Efficiency Accelerator (BEA).	Global	<ul style="list-style-type: none"> - Expand partnership to transform local efficiency markets. - Build capacities of cities to engage in energy efficient actions. - Establish place-based market transformation partnerships for policy and project implementation.

Source: UNDP/UNEP/GEF Data, 2019.

62. Another relevant example here is the project “Scaling up the SE4ALL Building Efficiency Accelerator (BEA)”⁴¹, which was launched in 2015 by the United Nations Environment Program (UNEP) and GEF jointly with the World Resource Institute (WRI). The project had a global geographic coverage and considered supporting global and local partnerships of the private sector, NGOs and local governments to transform local energy efficiency markets. The practical steps, inter alia, incorporated:

- (a) Helping selected cities to define their commitment and goals related to building efficiency through technical assistance, decision support tools, peer exchange, and other technical resources;
- (b) Supporting the assessment and development of city goals;
- (c) Assisting city partners with action planning, identifying and implementing programs; and
- (d) Engaging with a core group of six cities to prepare for implementation of building efficiency policies and projects, etc.

D. Impact

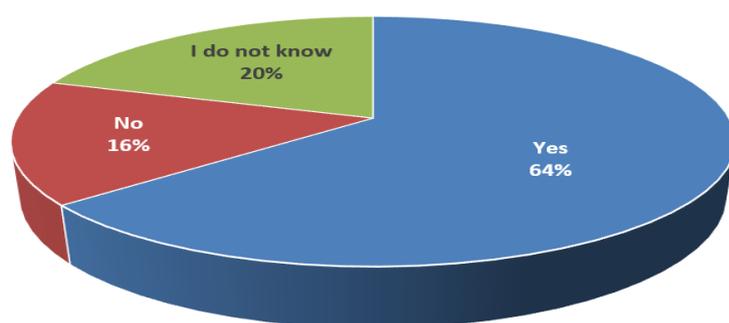
Finding 13: The vast majority (over 64 percent) of respondents confirmed that they had shared knowledge received through trainings and seminars organized at local level. No detailed information was available on the accomplishments of the 56 members states in EESB before and after the implementation of the Project’s activities. [linked to conclusion G]

Finding 14: The Project results (the study papers and the workshop materials) were published online and equally accessible for all interested parties, regardless of gender. [linked to conclusions E and F]

63. About 64 percent of mini survey respondents confirmed that they applied the knowledge, had received as a result of UNECE interventions (Figure 6) though follow up trainings conducted at local levels and information-sharing on the results of the mapping studies. It is noteworthy that only three female respondents confirmed applying the knowledge received. Furthermore, it is important to mention that the respondents (interview and surveyed) did not make any distinction between two projects on EESB implemented by the HLMU and the SED and referred to overall contribution of UNECE in the area of EESB.

⁴¹ <https://www.thegef.org/project/scaling-se4all-building-efficiency-accelerator-bea>.

Figure 7: Survey Respondents Applied the Knowledge Received (%)



Source: Evaluation Survey Data, 2019.

64. The respondents highly recommended continuing the support of meetings of the JTF on EESB and regional seminars to increase visibility and expertise on energy efficiency issues in buildings, including information on good practices in nearly zero-energy buildings. The respondents strongly supported the idea of launching an online database of experts (as was planned within the framework of the Project) and turning it into a knowledge hub to share information, discuss ideas and opportunities and to encourage greater collaboration.

65. The respondents also pointed to the fact that the UNECE's interventions were mainly theory-focused and there was a need to develop activities which would have more practical and tangible implications for the member States, such as: helping them to develop a country roadmap for achieving EESB with defined and time-bound target indicators (e.g. selected best cases of EESB could be shared as targets to be achieved and roadmaps could be developed for specific countries which could be followed up with specific projects on improving EESB in individual countries); reshaping the format of the seminars and workshops, making it more interactive (including practical cases to be addressed by separate groups of workshop participants) and addressing the market side of EESB; forming a group of experts⁴² to provide guidance and help to implement energy-efficiency projects in the selected countries; and sharing practical cases and challenging associated with these specific cases.

66. The Project results (study papers, presentations and the documents of relevant meetings of the JTF on EESB) are published online and are freely accessible to all interested parties. The list of online publications is presented in the table below (Table 8).

Table 8: Relevant Materials on EESB Published and Accessible Online

#	Publication	Language
1.	Compendium of best practices on standards and technologies for energy efficiency in buildings in the UNECE region ⁴³ .	English & Russian
2.	Workshop on Validation of Results of Mapping of Energy Efficiency Standards in Buildings in the UNECE Region- 2 nd Meeting of the Joint Task Force on Energy Efficiency Standards in Buildings (relevant papers & presentations):	
	Presentation: Validation of Results of Mapping of Energy Efficiency Standards in Buildings in the UNECE Region	English
	Draft Study on Mapping of Existing Energy Efficiency Standards in Buildings in the UNECE Region	English

⁴² Potentially selected among the members of GEEE or UNECE database of experts.

⁴³ https://www.unece.org/fileadmin/DAM/energy/se/pdfs/geee/study/Compendium_of_best_practices_final_2103_DC.pdf;
https://www.unece.org/fileadmin/DAM/energy/se/pdfs/geee/study/Compendium_of_best_practices_final_2103_DC_RUS28.04.pdf.

3.	Workshop on the results of mapping the technologies to enhance energy efficiency in buildings – 3 rd Meeting of the Joint Task Force on Energy Efficiency Standards in Buildings (relevant papers & presentations):	
	Presentation: Mapping of Existing Technologies to Enhance Energy Efficiency in Buildings in the UNECE Region ⁴⁴	English
	Mapping of Existing Technologies to Enhance Energy Efficiency in Buildings in the UNECE Region ⁴⁵	English & Russian
4.	Fourth Meeting of the Joint Task Force on Energy Efficiency Standards in Buildings (relevant papers & presentations):	
	Presentations: Online Database of Experts on Energy Efficiency in Buildings in the UNECE region ⁴⁶ ; Mapping of Existing Technologies to Enhance Energy Efficiency in Buildings in the UNECE Region ⁴⁷ .	English

Source: UNECE Data, 2019.

⁴⁴

http://www.unece.org/fileadmin/DAM/hlm/Meetings/2018/10_03_Geneva/1_Mapping_of_existing_tecnologies_PPT_Template_KD_and_AD.pdf

⁴⁵

https://www.unece.org/fileadmin/DAM/energy/se/pdfs/eneff/publ/Mapping_of_EE_Standards_in_Buildings_09.08.2018/Info_doc_4_EE_standards_mapping.pdf

⁴⁶

http://www.unece.org/fileadmin/DAM/energy/se/pp/eneff/9th_Forum_Kiev_Nov.18/13_Novembe_2018/EE_Buildings/06_Nadejda_Khamrakulova.pdf

⁴⁷

www.unece.org/fileadmin/DAM/energy/se/pp/eneff/9th_Forum_Kiev_Nov.18/13_Novembe_2018/EE_Buildings/03_Kankana_Dubey_Andrey_Dodonov.pdf

V. Conclusions and Recommendations

67. The evaluation reached the following conclusions:

- (A) The project was relevant to a great extent to all of the following three EAs of the Secretariat in the areas of sustainable energy: (a) improved policy dialogue and cooperation among all stakeholders on sustainable energy issues, in particular energy efficiency, cleaner electricity production from fossil fuels, renewable energy, coal mine methane, mineral resource classification, natural gas and energy security; (b) increased awareness of the role of energy efficiency and renewable energy in achieving sustainable energy development; and (c) strengthened the implementation of UNECE recommendations/guidelines, best practices and other normative instruments for sustainable energy development;
- (B) The project was designed and implemented to benefit (directly and indirectly) UNECE member States either through the direct participation of the relevant parties (primary stakeholders) or through the exchange and sharing of best practices and technical expertise among its member States;
- (C) The Project was relevant to a great extent to the needs and priorities of UNECE member States (and the target groups) in improving EESB and meaningfully contributed to the expansion of knowledge on, and raised the profile of, EESB through research (mapping exercises) and making relevant information available on a publicly accessible platform (the UNECE website);
- (D) The Project's design lacked a detailed result framework, which is an important tool through which to convey the cause-and-effect linkages between the intermediate results and the long-term impact of the Project's interventions;
- (E) The Project's design and implementation greatly contributed to building the capacity of the participating parties in EESB with the adequate human resources allocated. The Project's achievement with regard to developing an online database was moderate due to the different levels of technical expertise (related to information technology) required during the design and implementation phase of this activity;
- (F) The Project demonstrated a moderate focus on gender mainstreaming and human - rights dimensions. It applied a non-discriminatory and equal rights-based approach to benefit both female and male experts in the area of EESB, although, the presentations and mapping studies did not link EESB to relevant SDGs and the human rights agenda;
- (G) The workshops organized within the framework of the Project did contribute greatly to the EAs set at the Project design phase. However, no evidence was found of either a large-scale multiplier effect or a practical impact of the Project's interventions, which caused a certain disconnection between EAs and the Project's impact, strategic goals, and relevant SDGs (outlined in the reconstructed logical framework of the Project and ToC); and
- (H) The financial and human resources allocated to the Project's activities as well as the sequence of the activities were adequate and sufficient for the achievement of the Project's results.

68. Based on the evaluation's findings, it is highly recommended to continue to support the member States in improving the EESB through addressing the following workstreams:

- A) Continue building the capacity and expertise of member States in EESB in a way that would ensure multiplier effects and system changes on a large-scale. This could be done through delivering multilevel workshops and seminars which would incorporate: generic information-sharing on certain research topics (at the first level); and more advanced technical workshops on a selected topic (e.g. energy auditing, monitoring energy performance, model situations in a specific country context, etc.);

- B) Assist the UNECE member States in taking practical steps toward addressing EESB through introducing an interactive format of workshops and seminars, incorporating group work practices on specific cases/assignments, and encouraging the participants to assess their national situations and developing country roadmaps along with S.M.A.R.T. (Specific, Measurable, Attainable, Relevant, Time-bound) indicators and targets to improve EESB;
- C) Continue cooperation with other UN agencies to organize workshops and share their real-case experience in implementing projects on EESB in UNECE countries (e.g. the projects implemented by UNDP/GEF) which would serve as a practical guide for attendees;
- D) Develop the results framework for each planned new project, along with S.M.A.R.T. indicators and targets, to measure and monitor the intermediate results and long-term impact of the UNECE project in relation to the accomplishments of the member States;
- E) Introduce gender-responsive indicators and targets to measure and report the progress made regarding the gender mainstreaming agenda and continue to encourage active participation of female subject-matter experts in relevant activities;
- F) Raise the awareness of the member States on the human rights dimension of the energy-efficient buildings and particularly emphasize this correlation through presentations and analytical papers (a linkage to relevant SDGs could also be useful in this regard); and
- G) Secure resources to completely roll out the online database of experts and further, advance it to the level of a self-sustainable knowledge hub which will allow experts not only to share information, but will also allow them to discuss ideas and opportunities and track the progress each country has made in relation to EESB, thereby, encouraging greater collaboration in the domain of energy efficiency. It is also recommended to develop a detailed blueprint (workplan) which would, inter alia, outline the resources needed to maintain and advance the database.

Annexes

Annex 1	ToR of the Evaluation
Annex 2	UNECE Geographic Coverage
Annex 3	Reconstructed Theory of Change
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Annex 1: ToR of the Evaluation

TERMS OF REFERENCE FOR EVALUATION OF EXTRA-BUDGETARY PROJECT

E282 “Enhancing national capacities for development and implementation of the energy efficiency standards in buildings in the UNECE region”

I. Purpose

The purpose of this evaluation is to review the implementation and assess the extent to which the objectives of the completed project “Enhancing national capacities for development and implementation of the energy efficiency standards in buildings in the UNECE region” (hereinafter “Project”) were achieved, and thereby the relevance, effectiveness, efficiency, and impact of the Project.

II. Scope

The evaluation will cover the entire period of the project, from July 2017 to March 2019, with no exclusions. The geographical scope of the project includes UNECE member States with particular focus on countries from South-Eastern and Eastern Europe, the Caucasus and Central Asia. The universally recognized values and principles of human rights and gender equality need to be integrated at all stages of an evaluation, in compliance with the United Nations Evaluation Group’s revised gender-related norms and standards.

III. Background

The overall objective of the project was to enhance national capacities for development and implementation of the energy efficiency standards in buildings in the UNECE region. The project aimed to improve energy efficiency in buildings and reduce global greenhouse gas emissions into the atmosphere in the UNECE region through sharing of best-practice guidance and standards. Standards are an effective instrument for addressing energy efficiency in buildings and to support the achievement of the targets set by several international initiatives such as energy-related Sustainable Development Goals, the Sustainable Energy for All (SE4All) initiative of the United Nations Secretary General, and the Geneva UN Charter on Sustainable Housing. The number of national and international standards related to energy efficiency in buildings is continuously increasing. This generates confusion among policy makers, organizations, businesses and consumers concerning which standards in energy efficiency have the highest impact and are most relevant for their country. Therefore, the role of UNECE is to overcome this confusion and enhance the knowledge of stakeholders on existing energy efficiency standards in buildings through the project activities.

At its 75th session, the Committee on Housing and Land Management (CHLM) endorsed a broad proposal to develop standards related to energy efficiency in buildings (ECE/HBP/2014/4). At its 76th session in December 2015, the CHLM endorsed a project as an activity supporting implementation of the ECE Action Plan for Energy-Efficient Housing (ECE/HBP/164), the Strategy for Sustainable Housing and Land Management in the ECE region for the period 2014-2020 (ECE/HBP/2012/3). At its 25th session in September 2016, the CSE endorsed the activities to develop standards related to energy efficiency in buildings (ECE/ENERGY/107/57).

The budget of the project “Enhancing national capacities for development and implementation of the energy efficiency standards in buildings in the UNECE region” is USD 286,000 and was financed from the voluntary contribution of the Russian Federation. Human resources involved in project implementation included: 2 months of D1 (regular budget), 3 months of P4 (regular budget), 8 months of P2 (project budget), 5.5 months of 4 consultants in total (project budget).

The following activities were carried out in the framework of the project:

- Mapping of energy efficiency standards in buildings in the UNECE region;
- Establishment of an online database of experts on energy efficiency in buildings;

- Organization of one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sector to validate the results of the mapping;
- Mapping of existing technologies to enhance energy efficiency in buildings, including gap analysis and recommendations for their use in the region;
- Organization of one seminar /workshop discussing and validating the results of the mapping.

IV. Issues

The evaluation should review the following aspects of the project implementation and results:

1) Relevance:

- Was the project relevant to the objective of UNECE to support member States in improving energy efficiency (with reference to the mandates mentioned in III above)?
- To what extent did the Project respond to the priorities and needs of the beneficiary countries? How relevant was it to the target groups' needs and priorities?
- Was the project design and implementation appropriate for meeting the project's objective?
- Did the project apply gender and rights-based approaches in the design, implementation and results of the activities?
- Did UNECE advocated for gender equality in this area of work?

2) Effectiveness:

- Did the project achieve the results expected during the project design in terms of the planned activities, outcome, and impact?
- What value has UNECE's efforts added in this area of work?

3) Efficiency: a measure of how well inputs (funds, staff, time, etc.) are converted into outputs.

- Did the project achieve its objectives within the anticipated budget and allocation of resources?
- Were the activities implemented according to the planned timeframe?
- Were the activities implemented in the required sequence needed to ensure the greatest impact of the project?
- Were the resources sufficient to achieve the intended outcomes?
- How does the project compare with other similar efforts from other actors in the UN System (if any)?

4) Impact

- How did project activities strengthen the capacity of the UNECE member States to develop and implement energy efficiency standards in buildings?
- To what extent are the outputs of the project relevant to the expected accomplishments for the member States?
- Did both women and men equally access the project benefits as intended?

V. Methodology

The methodology for the evaluation will include the following:

1. Desk study of project materials: all relevant project documents, including project descriptions, reports, publications, etc. and other information will be provided to the evaluator.
2. Interview with key stakeholders (via telephone and skype) including: Group of Experts on Energy Efficiency, Joint Task Force on Energy Efficiency Standards in Buildings (list of contacts to be provided).
3. An electronic survey of internal and external stakeholders..

UNECE will provide all documentation, support and guidance to the evaluation consultant as needed throughout the timeline of the evaluation. The consultant shall be provided with the UNECE Evaluation Policy, evaluation report templates and checklists as guidance for the requirements for evaluation reports in UNECE.

The evaluation report of maximum 15-20 pages will summarize the findings, conclusions and recommendations of the evaluation. An executive summary (max. 2 pages) will summarize the methodology of the evaluation, key findings, conclusions and recommendations.

VI. Evaluation Schedule

- A. Selection of the evaluation consultant – March 2019
- B. Preliminary Research – 3 days - April 2019
- C. Data Collection – 14 days – April 2019
- D. Data Analysis – 10 days – May 2019
- E. Draft Report (including timing for review) – 14 days – May-June 2019
- F. Final Report – 14 days – June 2019

VII. Resources

The resources available for this evaluation are 2% of the total budget of the project which is 6,000 USD. This amount will be paid to a hired external evaluation consultant identified through the UNECE evaluation roster upon satisfactory delivery of work on 14 June 2019.

The consultant will be managed by the UNECE project manager - P5 staff member – Oleg Dzioubinski – who will provide support by ensuring the provision of all necessary documentation needed for the desk review, guide the evaluator on the appropriate recipients for the questionnaire and for follow up interviews, and ensure that the necessary communications with these recipients are introduced by the secretariat.

The UNECE Programme Management Unit will provide guidance as needed on the methodology for the evaluation, and for quality assurance of the draft report.

VIII. Intended Use/Next Steps

The evaluation will comply with the UNECE Evaluation Policy, UNEG Norms and Standards, including due consideration of the gender aspects of the project's design and implementation. The results will be used in the planning and design of future sustainable energy capacity building projects in the UNECE region.

IX. Criteria for Evaluators

Evaluators should have:

- An advanced university degree or equivalent background in relevant disciplines
- Specialized training in areas such as evaluation, project management, social statistics, advanced statistical research and analysis.
- Demonstrated relevant professional experience in design, management and conduct of evaluation processes with multiple stakeholders, survey design and implementation, and project planning, monitoring and management.
- Good knowledge of and experience in energy-related capacity building projects, preferably with a specific knowledge of energy efficiency issues.
- Demonstrated methodological knowledge of evaluations, including quantitative and qualitative data collection and analysis for end-of-cycle project evaluations.
- Fluent in written and spoken English. Knowledge of Russian is desirable.

Evaluators should declare any conflict of interest to UNECE before embarking on an evaluation project, and at any point where such conflict occurs.

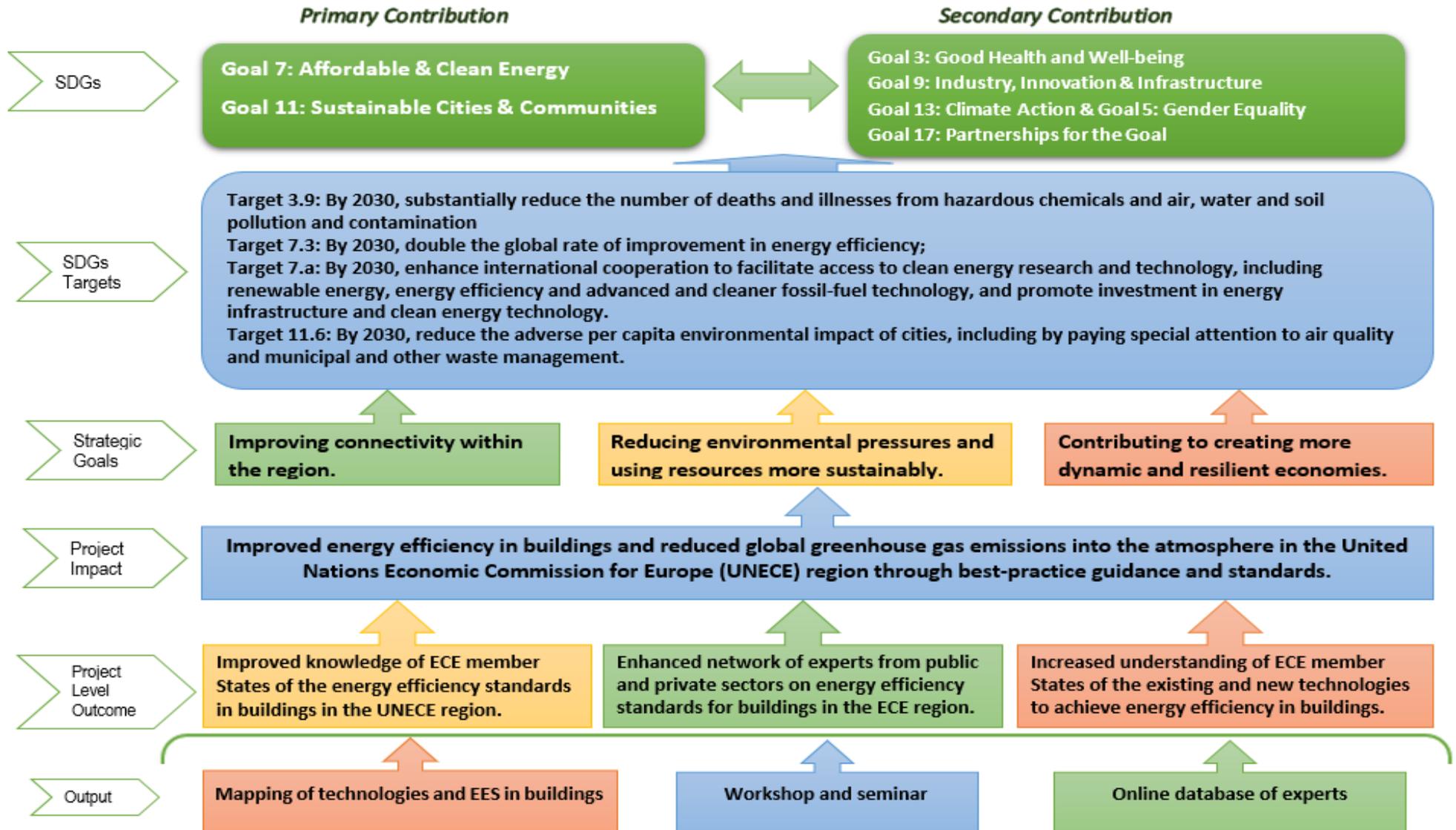
Annex 2: UNECE Geographic Coverage⁴⁸



Source: <https://www.unece.org/oes/nutshell/ecemap.html>

⁴⁸ The UNECE Member States are colored in dark grey.

Annex 3: Reconstructed Theory of Change



Annex 4: Interconnected Extrabudgetary Projects on EES in Buildings

Expected Accomplishments	Energy Efficiency Standards in Buildings	Enhancing national capacities for development and implementation of the energy efficiency standards in buildings in the UNECE region
EA1. Improved knowledge of ECE member States of the energy efficiency standards in buildings in the UNECE region.	Activity A1.1 - Undertake mapping of energy efficiency standards and technologies in buildings in the UNECE region.	Activity 1.1 - Undertake the mapping of energy efficiency standards (EES) in buildings in the UNECE region.
	Activity A1.2 - Establishment of a joint task force of experts for energy efficiency in buildings.	
	Activity A1.3 - Development of best practices for existing standards and technologies.	
	Activity A1.4 - Organizing one meeting of the joint task force of experts for energy efficiency in building.	
EA2. Enhanced network of experts from public and private sectors on energy efficiency standards for buildings in the ECE region.		Activity 2.1 - Establish an online database of experts on energy efficiency in buildings.
		Activity A 2.2 - Organize one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sector to validate the results of the mapping of EES in buildings in the UNECE region.
EA3. Increased understanding of ECE member States of the existing and new technologies to achieve energy efficiency in buildings.		Activity A 3.1 - Undertake the mapping of existing technologies to enhance energy efficiency in buildings, undertake gap analysis and recommendations for their use in the region and an update of the database of experts.
		Activity A 3.2 - Organize one seminar /workshop to discuss and validate the results of the mapping existing technologies to enhance energy efficiency in buildings.
		Activity A3.3 – Organize a stakeholder meeting with the chairs of the joint task force and energy efficiency experts to discuss the results of the Phase 1 of the Project and to plan the Phase II.

Source: UNECE Informal Documents No 2017/22 and No 2017/36, 2017

Annex 5: Reconstructed Logframe of the Project

Activities	Output	Outcome /Expected Accomplishment (EA)	Project Impact
Activity 1.1: Undertake the mapping of energy efficiency standards (EES) in buildings in the UNECE region.	The mapping report produced: Study on Mapping Energy Efficiency Standards and Technologies in Buildings in the UNECE Region”.	EA 1: Improved knowledge of ECE member States of the energy efficiency standards in buildings in the UNECE region.	Improved energy efficiency in buildings and reduced global greenhouse gas emissions into the atmosphere in the UNECE region through the best-practice guidance and standards.
Activity 2.1: Establishing an online database of experts on energy efficiency in buildings.	A fully functional database of experts on energy efficiency in buildings is in process of development.	EA 2: Increased understanding of ECE member States of the existing and new technologies to achieve energy efficiency in buildings.	
Activity 2.2: Organize one workshop for stakeholders from Eastern Europe, the Caucasus and Central Asia from energy and housing sector to validate the results of the mapping of energy efficiency standards (EES) in buildings in the UNECE region.	The workshop organized within the framework of the 1 st meeting of the JTF on EES in buildings.		
Activity 3.1: Undertake mapping of existing technologies to enhance energy efficiency in buildings, gap analysis and recommendations for their use in the region.	The workshop organized within the framework of the 3 rd meeting of the JTF on EES in buildings.		
Activity 3.2: Organize one seminar /workshop discuss and validate the results of the mapping.	The Study report produced: “Mapping of Existing Technologies to Enhance Energy Efficiency in Buildings in the UNECE Region”.	EA 3: Enhanced network of experts from public and private sectors on energy efficiency standards for buildings in the ECE region	
Activity 3.3: Organize a stakeholder meeting with the chairs of the joint task force and energy efficiency experts to discuss the results of the Phase 1 of the Project and to plan the Phase II.	The workshop organized within the framework of the 4th meeting of the JTF		

Annex 6: The List of Stakeholders Interviewed

#	Name	Title	Organization
1.	Mr. Oleg Dzioubinski	Regional Adviser, Sustainable Energy Division, Project Manager	UNECE
2.	Mrs. Gulnara Roll	Head, Housing and Land Management Unit	UNECE
3.	Mr. Vahram Jalalyan	Project Manager	UNDP Armenia
4.	Mr. Aleksandar Dukovski	Chair	UNECE Group of Experts on Energy Efficiency
5.	Mrs. Anna Piwowska	Former staff member/Project Coordinator	UNECE
6.	Mr. Burkhard Schulze Darup	Co-Chair	Joint Task Force on Energy Efficiency Standards in Buildings
7.	Mrs. Nadejda Khamrakulova	External Consultant	UNECE
8.	Mr. Vitaly Bekker	External Consultant (under EESB project managed by HLMU)	UNECE
9.	Mr. Andrey Dodonov	External Consultant (Mapping of Technologies)	UNECE
10.	Mrs. Kankana Dubey	External Consultant (Mapping of Technologies)	UNECE

Annex 7: Evaluation Framework

Key Evaluation Question	Data source	Data gathering methodology
Relevance		
Was the project relevant to the objective of UNECE to support member States in improving energy efficiency?	UNECE reports, UNECE staff and key experts.	In-person interviews; Desk research
To what extent did the Project respond to the priorities and needs of the beneficiary countries? How relevant was it to the target groups' needs and priorities?	UNECE reports, Project beneficiaries, UNECE staff and key experts.	Mini survey; In-person interviews; Desk research
Was the project design and implementation appropriate for meeting the project's objective?	UNECE reports, UNECE staff and key experts.	In-person interviews; Desk research
Did the project apply gender and rights-based approaches in the design, implementation and results of the activities?	UNECE reports, UNECE staff	In-person interviews; Desk research
Did UNECE advocated for gender equality in this area of work?	UNECE reports, UNECE staff and key experts.	In-person interviews; Desk research
Effectiveness		
Did the project achieve the results expected during the project design in terms of the planned activities, outcome, and impact?	UNECE reports, UNECE staff	In-person interviews; Desk research
What value has UNECE's efforts added in this area of work?	UNECE reports, Project beneficiaries, UNECE staff and key experts.	Mini survey; In-person interviews; Desk research
Efficiency		
Did the project achieve its objectives within the anticipated budget and allocation of resources?	UNECE reports, UNECE staff	In-person interviews; Desk research
Were the activities implemented according to the planned timeframe?	UNECE reports, UNECE staff	In-person interviews; Desk research
Were the activities implemented in the required sequence needed to ensure the greatest impact of the project?	UNECE reports, UNECE staff and key experts.	In-person interviews; Desk research
Were the resources sufficient to achieve the intended outcomes?	UNECE reports, UNECE staff	In-person interviews; Desk research
How does the project compare with other similar efforts from other actors in the UN System (if any)?	UN reports	Desk research

Impact		
How did project activities strengthen the capacity of the UNECE member States to develop and implement energy efficiency standards in buildings?	UNECE reports, Project beneficiaries, UNECE staff and key experts.	Mini survey; In-person interviews; Desk research
To what extent are the outputs of the project relevant to the expected accomplishments for the member States?	UNECE reports, Project beneficiaries, UNECE staff and key experts.	Mini survey; In-person interviews; Desk research
Did both women and men equally access the project benefits as intended?	UNECE reports, Project beneficiaries, UNECE staff and key experts.	Mini survey; In-person interviews; Desk research

Annex 8: Data Gathering Tools

The Interview Protocol: The Project Team and Key Experts

#	Respondent and Organization	Answers
1.	Respondent's Name	
2.	Respondent's Title/Position	
3.	Organization	
4.	Contact details (email/phone)	
5.	Meeting date	

Questions:

1. How was the initiator of the Project? Was the Project design participatory? Who did part in it?
2. How well, did the Project respond to the priorities and needs of the member states? And why? How relevant was it to the target groups' needs and priorities?
3. Have Project's objectives remained relevant over the period of implementation? If not, to what extent are current objectives of the project still valid? Was the project design and implementation appropriate for meeting the project's objective?
4. Please specify if the project's design (*financial allocations, project management, M&E arrangements*) was appropriate for achieving the project's objectives?
5. What were three key achievements of the Project ? and why?
6. What was the least beneficial part of the Project that needs to be improved?
7. To what extent did the project address the gender mainstreaming agenda? What was the reason of gender disbalance among the training participants?
8. Were there any changes in the activities, actual against planned? Were there any activities implemented with delays and why?
9. To what extent have the project's objectives been achieved in both quantitative and qualitative terms?
10. Was there any budgetary change: actual against planned?
11. Please clarify if the financial resources were sufficient to achieve the project results?
12. Were there any significant delays in procurement?
13. Were the activities implemented in the required sequence needed to ensure the greatest impact of the project?
14. Please clarify if there were any challenges and obstacles (internal/managerial) to achieving the expected and planned results?
15. Please state if (and how) the project increased cooperation between different UNECE Divisions or beneficiaries working on EESB?
16. What was value added by the UNECE?
17. What is your recommendation with regard to any follow up activity or potential projects in EESB?

Mini-Survey

Consent and Confidentiality Statement

The UNECE cordially invites you to participate in the independent evaluation of the project “**Enhancing national capacities for development and implementation of the energy efficiency standards (EES) in buildings in the UNECE region**” (the UNECE Project) conducted in 2017-2019.

With this regard, we are sending you the online questionnaire to fill in.

The information received through this questionnaire will be treated confidentially with no reference to the names of the respondents.

Completing the survey will only take 10 minutes of your time. This survey will be available from July 4, 2019, until July 12, 2019. For any question about this survey, please do not hesitate to contact <name last name> (email).

The UNECE would like to thank you in advance for your support and input.

1. Where do you work (please check the one that applies)

- Government (UNECE Body) - UNECE Member State
- Government (UNECE Body) - Non UNECE Member State
- UN Agency
- Non-Governmental Organization
- Independent Expert
- Academia
- Other (please specify):

2. Country (Please specify):

3. Gender:

4. Was the project relevant to the needs and priorities of your country or region?

- Very relevant
- Partially relevant
- Not Relevant
- I do not know

5. Please select the activities you took part in within the framework of the UNECE project “Enhancing national capacities for development and implementation of the energy efficiency standards in buildings in the UNECE region” in 2017-2019?

Checkbox	Activity
<input type="checkbox"/>	5th Meeting of the UNECE Joint Task Force/JTF on EES in buildings; conducted in Armenia (March 2019).

<input type="checkbox"/>	4th Meeting of the JTF on EES in buildings - Workshop on EES in buildings; conducted in Kiev, Ukraine (November 2018).
<input type="checkbox"/>	3rd Meeting of the JTF on EES in buildings - Workshop on the results of mapping the technologies; conducted in Geneva, Switzerland (October 2018).
<input type="checkbox"/>	2nd Meeting of the JTF on EES in buildings - Workshop on Validation of Results of Mapping of EES in Buildings; conducted in Armenia (May 2018).
<input type="checkbox"/>	1st meeting of the JTF on EES in buildings; Geneva, Switzerland (October 2017).
<input type="checkbox"/>	Training Seminar on high-performance EES in buildings in the UNECE Region conducted in St. Petersburg, Russian Federation (September 2018).
<input type="checkbox"/>	Energy efficiency in buildings: framework guidelines; conducted in Astana, Kazakhstan (June 2017).

6. How well did the event (or events) meet your expectations?

- Much better than expected
- Better than expected
- About what I expected
- Worse than expected
- Much worse than expected

Please specify your answer...

7. What did you like most and least about the UNECE project activities (JTF meetings, seminars or mapping exercise)?

8. Were there any the positive/negative effects of the UNECE Project activities?

- Yes
- No
- I do not know

Please specify your answer:

9. Did you apply the knowledge and skills you got within the framework of the UNECE Project?

- Yes
- No
- I do not know

Please specify your answer:

10. What would you recommend as a potential follow up activity?

The Interview Protocol: Online Database Application Developer/ Consultant

#	Respondent and Organization	Answers
1.	Respondent's Name	
2.	Respondent's Title/Position	
3.	Organization	
4.	Contact details (email/phone)	
5.	Interview date	

Questions:

1. Who was your major counterpart from the UNECE?
2. Was there any preliminary needs assessment/technical and functional requirements' analysis done?
3. Who are the potential users of the application?
4. Were the functionalities of an online database developed as planned? When do you expect it to be fully functional and accessible?
5. Are there any risks anticipated with regard to the technical maintenance and troubleshooting of the online database in the future?
6. How the content of an online will be maintained in the future?
7. Who will be the database application owner from the UNECE side?
8. Were there any delays with procurement process? if yes, why?

VI. References

1. Workplan of the Group of Experts on Energy Efficiency for 2014-2015, UNECE, 2014;
http://www.unece.org/fileadmin/DAM/energy/se/pdfs/geee/GEEE_Bureau/Work_Plan_GEEE_2016-17.pdf;
2. Workplan of the Group of Experts on Energy Efficiency for 2016-2017, UNECE, 2015;
http://www.unece.org/fileadmin/DAM/energy/se/pdfs/geee/GEEE_Bureau/Work_Plan_GEEE_2016-17.pdf;
3. Terms of Reference and Rules of Procedure of the Economic Commission for Europe, 5th Revised Edition, UN, 2019;
https://www.unece.org/fileadmin/DAM/oes/mandate/Commission_Rev5_English.pdf;
4. 75th session of the Committee on Housing and Land Management, UNECE, ECE/HBP/2014/4;
http://www.unece.org/fileadmin/DAM/hlm/documents/2014/ECE_HBP_2014_4.en.pdf;
5. 76th session of the CHLM, UNECE, ECE/HBP/184;
https://www.unece.org/fileadmin/DAM/hlm/documents/2015/ECE_HBP_184.en.pdf
6. Outcomes of the Survey on Building Standards and Building Regulations in the UNECE Region, UNECE, 2015;
https://www.unece.org/fileadmin/DAM/hlm/documents/Publications/Building_standards_survey_outcomes.pdf;
7. Strategy for Sustainable Housing and Land Management in the ECE Region for the period 2014 to 2020, CHLM, UNECE, 2013;
<https://www.unece.org/fileadmin/DAM/hlm/documents/Publications/sust.hsng.strategy.pdf>;
8. Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings, 2010, <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:153:0013:0035:EN:PDF>;
9. Extrabudgetary project “Energy Efficiency Standards in Buildings”, Executive Committee, 95th meeting Geneva, 24 March 2017, ECE/ENERGY/107/57;
10. Extrabudgetary project “Enhancing national capacities for development and implementation of the energy efficiency standards in buildings in the UNECE region”, Executive Committee, 92nd meeting Geneva, 23 June 2017;
11. UNECE Policy for Gender Equality and the Empowerment of Women: Supporting the SDGs implementation in the UNECE region (2016-2020),
http://www.unece.org/fileadmin/DAM/Gender/publications_and_papers/UNECE_Policy_on_GEEW_Final.pdf;

12. Gender Parity Strategy, UNECE, 2017,
http://www.unece.org/fileadmin/DAM/Gender/publications_and_papers/UNECE_Gender_Parity_Strategy.pdf;
13. The Industry Gender Gap Women and Work in the Fourth Industrial Revolution, The World Economic Forum, 2016,
http://www3.weforum.org/docs/WEF_FOJ_Executive_Summary_GenderGap.pdf
14. Proposed Strategic Framework for the Period 2016-2017, UNECE;
15. Annual implementation report (2018), UNECE;
16. Contracts: PO 2500143541 contract, PO 2500162383 contract, PO 2500165824 contract, PO2500158707contract, UNECE;
17. A Clean Planet for All: A European Strategic Long-term Vision for a Prosperous, Modern, Competitive and Climate Neutral Economy, European Commission, 2018;
18. Energy Efficient Buildings: Multi-annual roadmap for the contractual PPP under Horizon 2020, European Commission, 2013;
19. Biennial Programme Plan and Priorities for the Period 2016-2017, A/69/6/Rev.1*, UNECE, 2015;
20. Biennial Programme Plan and Priorities for the Period 2018-2019, A/71/6/Rev.1, UNECE, 2017.