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# IMPACT EVALUATION OF THE MACEDONIA MUNICIPAL CLIMATE CHANGE STRATEGIES INTEGRATION PILOT: MUNICIPAL PILOT PROJECT MINI CASE STUDIES

March 24, 2015

This publication was produced for review by the United States Agency for International Development. It was prepared by Marija Nashokovska of Tetra Tech, Nils Junge of Development & Training Services, Inc. (dTS), Nancy Peek of dTS, and Rees Warne of dTS.

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Development & Training Services, Inc. (dTS) is an international development company that leads initiatives in social and economic development with a view to promoting equality, accountability, and sustainability. For information about dTS and its projects worldwide contact: Development & Training Services, Inc. (dTS), 4600 North Fairfax Drive, Suite 402, Arlington, VA 22203, USA.

Phone: +1 703-465-9388; Fax: +1 703-465-9344; Email: [info@onlinedts.com](mailto:info@onlinedts.com); Internet: [www.onlinedts.com](http://www.onlinedts.com).

Cover Photo: Pechevo Municipal Administration Building; Photo Credit: Ambrozija

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The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

## AUTHORS

Marija Nashokovska (Tetra Tech), Nils Junge (Development & Training Services, Inc. [dTS]), Nancy Peek (dTS), and Rees Warne (dTS)

# ACRONYMS

|            |  |
|------------|--|
| CSO        | Civil Society Organization   |
| CCI        | Center for Civic Initiatives   |
| dTS        | Development & Training Services, Inc.  |
| E3         | Bureau for Economic Growth, Education, and Environment   |
| EEP        | Energy Efficiency Program  |
| GA         | Green Agenda   |
| GCC M&E    | Global Climate Change Monitoring and Evaluation Project  |
| GCCO       | Global Climate Change Office (USAID)   |
| GEF        | Global Environment Facility  |
| GHG        | Greenhouse Gas   |
| LMG        | Local Monitoring Group   |
| MCCS       | Municipal Climate Change Strategies (USAID-funded adaptation pilot activity)                   |
| MKD        | Macedonian Denar (currency unit)   |
| MKM        | Milieukontakt Macedonia  |
| SDSM       | Social Democratic Union of Macedonia   |
| USAID      | United States Agency for International Development   |
| USD        | United States Dollar   |
| VMRO-DPMNE | Internal Macedonian Revolutionary Organization - Democratic Party of Macedonian National Unity |
| WG         | Working Group  |

# CONTENTS

- Acronyms..... i
- Contents ..... ii
- Tables..... iii
- Executive Summary..... 4
- 1 Mini Case Study Purpose and Evaluation Questions..... 1
  - 1.1 Mini Case Study Purpose..... 1
  - 1.2 Evaluation Questions..... 2
- 2 Project Background..... 3
  - 2.1 Pilot Context and Description..... 3
  - 2.2 MCCS Objectives and Intermediate Results..... 4
  - 2.3 Focus of Mini Case Studies: Green Agenda Process and Municipal Pilot Projects..... 4
- 3 Case Study Methods..... 8
  - 3.1 Research Design ..... 8
  - 3.2 Data Collection Methods..... 8
  - 3.3 Limitations ..... 10
- 4 Findings..... 11
  - 4.1 Pechevo Municipal Pilot Project: Municipal Energy Efficiency ..... 11
    - 4.1.1 Summary of Key Findings ..... 11
    - 4.1.2 Background and Green Agenda Implementation..... 11
    - 4.1.3 Findings by MCCS Impact Evaluation Question..... 15
  - 4.2 Krivogashtani Municipal Pilot Project: Municipal Energy Efficiency ..... 25
    - 4.2.1 Summary of Key Findings ..... 25
    - 4.2.2 Background and Green Agenda Implementation..... 26
    - 4.2.3 Findings by MCCS Impact Evaluation Question..... 30
- 5 Conclusions..... 39
- 6 Recommendations..... 41
- Appendices ..... 44
  - Appendix I: Mini Case Study Summary Plan ..... 45
  - Appendix II: Pechevo Municipal Pilot Project Concept Summary ..... 48
  - Appendix III: Krivogashtani Municipal Pilot Project Concept Summary..... 52
  - Appendix IV: Data Collection Instruments..... 55
  - Appendix V: Sources of Information..... 59
  - Appendix VI: Disclosure of Any Conflict of Interest..... 61

# TABLES

|  |    |
|--|----|
| Table 1: MCCA Evaluation Questions.....  | 2  |
| Table 2: Characteristics of Pechevo working group participants.....                        | 13 |
| Table 3: Estimated anticipated savings from Pechevo energy efficiency interventions .....  | 17 |
| Table 4: Selection criteria for participating in MCCA Integration Pilot.....               | 19 |
| Table 5. Characteristics of Krivogashtani working group participants.....                  | 28 |
| Table 6: Weights assigned to criteria for inclusion in the strategy, by working group..... | 29 |

# EXECUTIVE SUMMARY

## BACKGROUND AND PURPOSE

In 2012, USAID's Global Climate Change Office (GCCO) funded the USAID/Macedonia climate change integration pilot, Municipal Climate Change Strategies (MCCS). The MCCS integrates climate change concerns into a more traditional democracy and governance programming approach. The pilot employs an innovative participatory planning process – the Green Agenda (GA) – to develop municipal-level strategies and action plans that facilitate climate change adaptation and mitigation. As part of the larger MCCS pilot project, a series of small, individual municipal pilot projects (less than USD 100,000 in MCCS funding) are being implemented.

GCCO contracted Development & Training Services, Inc. (dTS), through the Global Climate Change Monitoring and Evaluation (GCC M&E) task order, to undertake an impact evaluation of the MCCS integration pilot. As part of the impact evaluation (for which dTS produced a baseline impact evaluation report),<sup>1</sup> this report presents mini case studies of the first two municipal pilot projects completed under MCCS.

The mini case studies are designed to provide a picture of GA participants' experience with the municipal pilot project prioritization and implementation process from the perspectives of selected evaluation questions. They also provide qualitative and contextual information that is an important part of the mixed methods impact evaluation design. The mini case studies help to illuminate explanatory factors for the final impact evaluation statistical analysis.

## THE GREEN AGENDA AND DEVELOPMENT OF MUNICIPAL PILOT PROJECTS

According to MCCS project documents, the Green Agenda is a participatory method for developing and implementing local sustainable development strategies and plans. Compared with other approaches that have similar aims, the GA method is unique in focusing on identifying and protecting local values rather than fixing problems. The GA process pays special attention to building the capacity of local stakeholders (particularly municipal government staff, CSOs, and citizens) with a view toward providing the local population with the tools to participate effectively in both the process of designing and the implementation of actions.<sup>2</sup>

At the start of the GA, community members identify the values of their community by focusing on things people are proud of. To prepare for GA work, MKM advertises an initial community stakeholder meeting. At that meeting, participants select priority values and local Working Groups (WGs) are formed. Each WG focuses on one of the values in detail. The WGs analyze the status of the values and come up with ideas for actions and projects related to the community values. Based on the information provided by the WGs, an agreed-upon municipal climate change strategy for protecting and supporting community values is adopted by the Municipal Council. MCCS then funds a municipal pilot project to carry out a priority action from the municipal climate change strategic plan.

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<sup>1</sup> Warne, Rees, Nancy Peek, Nils Junge, and Marija Nashokovska. 2015. *Impact Evaluation Baseline Report: Macedonia Municipal Climate Change Strategies Integration Pilot*. Arlington, Virginia, USA: Development & Training Services, Inc. (dTS).

<sup>2</sup> MKM MCCS Quarterly Report, April- June 2014 and Milleukontakt International website: [http://www.greenagenda.net/wp/?page\\_id=2](http://www.greenagenda.net/wp/?page_id=2)

## RESEARCH DESIGN

The mini case studies are qualitative examinations of the process of identifying and implementing municipal pilot projects through the lens of impact evaluation questions related to climate change actions and stakeholder engagement. Data collection consisted of key informant interviews, focus group discussions, and reviews of relevant documents. The stakeholders interviewed include municipal government staff, local CSO staff, participants in the GA process, and intended direct beneficiaries of the municipal pilot projects.

### KEY FINDINGS – PECHENO MUNICIPAL PILOT PROJECT

According to key informants interviewed in Pecheno Municipality, the Green Agenda process for selecting an appropriate municipal pilot project was followed as intended and considered useful for decision-making. The municipal pilot project that was selected (municipal energy efficiency in public buildings) appears to have produced some early benefits and cost savings. Municipal government staff reported lower electricity bills from the public lighting system as a result of installing energy efficient light bulbs in public street lights in September 2014; municipal government staff reported that their January 2015 electricity bill was 24% less than their January 2014 electricity bill.

Municipal representatives said that the municipal government had previously done work on addressing energy efficiency and climate change issues, but that the participatory GA process had been a useful activity leading to prioritizing the municipal pilot project that was implemented. The GA work and the funding provided by MCCS enabled the municipal government to take action more quickly. The Green Agenda was regarded as a helpful process for both citizens and the local government because it provided a more systematic and inclusive approach to defining priorities and actions.

Municipal government representatives said they are planning to invest savings from the municipal pilot project in other climate change-related projects, and have already done so for the construction of a new boiler building for the kindergarten. Key informants (including people who participated in GA working groups) said they believed that the MCCS and Green Agenda had an impact on people's awareness of climate change (more so on direct participants and beneficiaries and less on indirect beneficiaries), especially regarding the local effects of climate change and how these can be addressed. The municipal government of Pecheno is now working on other climate change-related projects (in line with activities planned in the municipal strategy on climate change designed through the GA) supported by other donors, including the Swiss Development Cooperation and the Global Environment Facility (GEF). Overall, key informants reported satisfaction with the levels of engagement and participation in the GA process and in the planning of the municipal pilot project. Collaboration among citizens and between citizens and the municipal government was said to be open and effective, regardless of people's background or political party.

### KEY FINDINGS – KRIVOGASHTANI MUNICIPAL PILOT PROJECT

The municipal pilot project in Krivogashtani was completed as planned in October 2014, with participation by citizens and the municipal government, and it was reported to have been well received by the municipal government. Using the GA process, a number of projects related to climate change mitigation and adaptation were identified and prioritized. The municipal pilot project selected was *increased energy efficiency at a school building*.

The municipal government's pilot project proposal indicated an expectation that this municipal pilot project would lead to an estimated 30% decrease in energy consumption by the school, significant cost savings, and

a decrease in greenhouse gas (GHG) emissions. Increased comfort during classes and the end of reliance on wood stoves were expected to yield positive health impacts for both children and school employees. Municipal representative key informants anticipated additional energy savings from replicating the intervention at other schools. The municipal government also plans to make use of the local GHG inventory that was developed as part of the MCCA to assess GHG emissions reductions. It should be noted that, at the time of this writing, it was not clear whether costs savings from the municipal pilot project have been realized.

Implementation of the GA process in Krivogashtani spurred new ideas for actions to address climate change and led to the development of proposals for funding by outside donors. For example, external funding has been secured to develop an improved irrigation system, which was identified as a priority action in the municipal climate change strategy developed during the GA process.

Key informants interviewed in Krivogashtani reported that the municipality has a strong history of engaging with citizens on the planning of municipal projects. That said, it appears that implementation of the Green Agenda has had a positive effect facilitating citizen participation in determining priorities. Based on information from key informants, municipal government, CSO, and citizen engagement in the GA process was generally strong and enthusiastic and the working groups collaborated well.

The municipal climate change strategy was welcomed by municipal government representatives as a useful document. The urgent action (a small action funded by MCCA during the early steps of the GA process) on energy efficiency measures at the municipal administration building apparently made an impact on the municipal government staff by demonstrating the benefits of energy efficient buildings. The GA process also seems to have had an effect on attitudes and awareness of climate change issues for those involved in the development of the municipal climate change strategy and selection of the municipal pilot project.

## CONCLUSIONS

Implementation of MCCA in the municipalities of Pechevo and Krivogashtani resulted in the successful selection, by a collaborative group of citizens and CSO and municipal government representatives, of municipal pilot projects characterized as climate change mitigation activities. The municipal pilot projects selected by the GA working groups in both municipalities focused on energy efficiency of public buildings. In both municipalities, municipal government staff spoke strongly of the economic benefits of the municipal pilot projects. The municipal government administration staff interviewed during the study reported that both municipalities had already begun investing the actual or anticipated energy cost savings from MCCA funding for the pilot projects into additional, similar energy efficiency/climate change mitigation activities.

The MCCA pilots in these two municipalities appear to have influenced the attitudes of the stakeholders involved (municipal government employees, local civil society representatives, and citizens) toward 1) engagement with each other and 2) engagement in addressing local climate change. Key informants reported high levels of engagement, cooperation, and collaboration with each other throughout the GA process. This was notable particularly between people from different political parties, which was considered a key division in the municipalities. The respective municipal administrations were said to collaborate openly and transparently with citizens.

More broadly, the findings suggest that the Green Agenda (GA) approach can be used as a politically-neutral catalyst to inspire action focused on climate change issues. With its emphasis on participation, local values, and delivery of concrete results, the GA approach was implemented with minimal obstacles and was accepted by participants as a legitimate process.

## RECOMMENDATIONS

The following recommendations are based on information from the documents reviewed and the responses of key informants in the two municipalities (Pechevo and Krivogashtani) that were the subjects of these mini case studies. Because there are differences among Macedonian municipalities, it is not expected that these two municipalities are representative of all the municipalities participating in the MCCS.

- Increase the diversity of citizen participation: A large percentage of the Working Group (WG) members were government employees. Because one of the objectives of the GA process is to improve local democratic processes, a case can be made that it would be beneficial to have a higher percentage of local citizens who are not public employees or CSO staff participating in and taking leadership roles in the WGs and the Local Monitoring Group (LMG). There are a variety of ways greater citizen participation can be accomplished. Options that might be considered include, 1) greater CSO outreach to citizens in the period before the WGs are established; 2) postponing establishment of the WGs until after the first meeting (to give more people the option of participating and to encourage local citizen participation); 3) establishing a minimum percentage of citizen membership (i.e., non-municipal staff/CSO members) in the WGs; and 4) developing strategies that can be used when citizen participation is low or when citizens drop out of WG participation part-way through the process.

Additionally, ways of increasing or supporting women's participation should be explored, including assuring that GA activities are timed to facilitate maximum participation by scheduling activities with reference to the agricultural seasons or other local activity calendars (see below). The MCCS staff are conscious of the importance of women's participation in municipal pilot projects and GA activities and have made substantial efforts to include a gender perspective in their work. Women comprised half of the WG participants in Pechevo, but representation is somewhat lower in Krivogashtani.

It would be useful to consider the optimum composition of the Local Monitoring Group. While, as one of the municipal government staff members said, it appeared to be better for Local Monitoring Groups to be made up of government staff (reasoning that they would be more committed to monitoring implementation of the municipal climate change strategy and to seeking project funding) the Local Monitoring Groups could also be viewed as civil society entities charged with monitoring and reporting on whether the municipal government is effectively implementing the municipal climate change strategy.

- Assess the prioritization of implementing adaptation vs. mitigation measures: Examine the dynamics of MCCS criteria for funding municipal pilot projects that tend to favor prioritizing mitigation measures over adaptation measures. Energy efficiency interventions are typically more easily implemented than adaptation interventions and they are also more easily scaled to available budgets. Should it be of interest to fund adaptation pilots as well, there may be ways to help WGs come up with adaptation pilot options that are of a scale that would meet the funding criteria.
- Include cost-benefit analysis in the selection process: The municipal pilot prioritization process could benefit from incorporating information on the social benefits to the broader community (as well as direct beneficiaries) of municipal pilot projects, in addition to effects related to climate change, budget savings, and economic impacts (bearing in mind that social and environmental benefits are difficult to quantify, and may depend heavily on assumptions).
- Reduce the potential for an appearance of bias: In both municipalities, the bulk of the funds went to enhancement of municipal buildings where a substantial percentage of the WG members worked. While

this is not necessarily problematic, and a strong case can be made that enhancement of schools and other municipal buildings in the municipal center is important and maximizes visibility of the climate change pilots, there is a risk that the process could be seen by some as being unduly influenced by people who are direct beneficiaries of the pilot projects.

- Clarify the municipal pilot project selection criteria early in the process: Consider providing more informative explanations of the municipal pilot project selection criteria (e.g., budget and time frame limits required by the MCCA) earlier in the process. This could save WGs from prioritizing actions that have little chance of being selected. That said, the act of prioritizing what the WG members believe is most important has value in and of itself.
- Assure that the timing of GA activities is appropriate to the local calendar: It may be worthwhile adjusting the timing of certain project activities to maximize the potential for citizen participation, particularly women's participation, as it was reported that during the agricultural season women have duties working in the field as well as at home and have very limited time available to engage in something like the GA.

# I MINI CASE STUDY PURPOSE AND EVALUATION QUESTIONS

## I.1 MINI CASE STUDY PURPOSE

USAID has initiated a concerted effort to identify, analyze, and address the issue of global climate change, which has profound implications for development. The goal of the USAID global climate change program is to enable partner countries to accelerate transition to climate-resilient, low-emission development. USAID leadership in this area includes attention to climate change adaptation, clean energy, sustainable landscapes, and integration of climate concerns into other sectors, such as forestry, agriculture, biodiversity, gender, and governance. GCCO seeks to apply USAID's *Evaluation Policy*<sup>3</sup> and the incipient global climate change evaluation agenda to distill practical lessons from its experience with climate change programming and to demonstrate accountability for achieving results.

Starting in fiscal year 2012, USAID's Global Climate Change Office (GCCO), part of the Bureau for Economic Growth, Education, and Environment, began funding integration pilot activities to emphasize and support the need for integration of climate change considerations into other top USAID priorities. Among these pilots was the USAID/Macedonia climate change integration pilot, Municipal Climate Change Strategies (MCCS), launched in 2012 with funding from GCCO, and implemented by Milieukontakt Macedonia (MKM). MCCS integrates climate change concerns into a more traditional democracy and governance programming approach. The pilot employs an innovative participatory planning process – the Green Agenda – to develop municipal-level strategies and action plans that facilitate climate change adaptation and mitigation.

GCCO contracted Development & Training Services, Inc. (dTS) through the Global Climate Change Monitoring and Evaluation (GCC M&E) task order under the Evaluation Services Indefinite Quantity Contract<sup>4</sup> to undertake an impact evaluation of the MCCS integration pilot. The MCCS integration pilot impact evaluation plan includes quantitative and qualitative research methods. This Mini Case Studies report complements the *Impact Evaluation Baseline Report: Macedonia Municipal Climate Change Strategies Integration Pilot* and incorporates relevant material and findings from the MCCS impact evaluation baseline.<sup>5</sup>

As part of the larger impact evaluation of the MCCS integration pilot, using a case study approach, this report covers the first two municipal pilot projects completed under MCCS. The municipal pilot projects are one of four components comprising the full set of MCCS activities including: 1) training for civil society organization (CSO) and municipality staff; 2) the Green Agenda (GA) participatory planning process, including small “urgent action” projects; 3) climate change public information campaigns; and 4) the municipal-level pilots which reflect community climate change priorities. The municipal pilot projects address

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<sup>3</sup> USAID Evaluation Policy: Learning from Experience. January 2011. <http://transition.usaid.gov/evaluation/USAIDEvaluationPolicy.pdf>

<sup>4</sup> USAID Contract Number AID-RAN-I-00-09-00015, Task Order Number AID-OAA-TO-12-00001

<sup>5</sup> Wame, Rees, Nancy Peek, Nils Junge, and Marija Nashokovska. 2015. *Impact Evaluation Baseline Report: Macedonia Municipal Climate Change Strategies Integration Pilot*. Arlington, Virginia, USA: Development & Training Services, Inc. (dTS).

a priority climate change-related issue in each municipality and are seen as a concrete manifestation and visible component of climate change-related actions taken under the MCCS project

The mini case studies are based on qualitative data collected midway through the overall period of performance of the MCCS pilot activity. They are designed to present a picture of the experience of Green Agenda participants with the municipal pilot project prioritization and implementation process. The mini case studies provide qualitative, contextual information that is an important part of the mixed methods impact evaluation design and that helps inform explanatory factors for the statistical analysis carried out for the final impact evaluation. The mini case studies are meant to contribute to the understanding of municipality-specific contexts and can inform the planning and implementation of MCCS' later rounds of municipal pilot projects.

## 1.2 EVALUATION QUESTIONS

The MCCS impact evaluation questions (see Table 1) were designed by USAID to reflect learning priorities. These questions form the basis of the overall impact evaluation design as well as of the design of the mini case studies.

TABLE 1: MCCS EVALUATION QUESTIONS

| Climate Change  |   |
|---|---|
| Did the MCCS pilot result in changes in stakeholders'...            | <ol style="list-style-type: none"> <li>1. awareness of climate change?</li> <li>2. awareness of local impacts of climate change?</li> <li>3. attitudes toward climate change?</li> <li>4. actions to improve adaptation to climate change?</li> <li>5. actions that decrease greenhouse gas (GHG) contributions towards climate change (mitigation)?</li> </ol> |
| Civic Activism  |   |
| Did the MCCS pilot result in changes in stakeholders'...            | <ol style="list-style-type: none"> <li>6. attitudes towards civic activism?</li> <li>7. levels of civic activism?</li> </ol>  |
| CSO, Municipal Government, and Citizens' engagement with each other |   |
| Did the MCCS pilot result in changes in stakeholders'...            | <ol style="list-style-type: none"> <li>8. attitudes toward engagement with each other?</li> <li>9. levels of engagement with each other?</li> </ol>   |
| Social Cohesion   |   |
| Did the MCCS pilot result in changes in stakeholders'...            | <ol style="list-style-type: none"> <li>10. attitudes toward social cohesion?</li> <li>11. levels of social cohesion?</li> </ol>   |

The case studies of the municipal pilot projects are integrated into the overall impact evaluation analysis by focusing on evaluation questions 4 and 5 (actions on climate change) and evaluation questions 8 and 9 (stakeholder engagement with each other). These questions cover the most important themes of the municipal pilot projects. Where relevant, the Pechevo and Krivogashtani case studies address other evaluation questions, although to a lesser degree. See Appendix IV for the semi-structured interview guides used for the key informant interviews.

# 2 PROJECT BACKGROUND

## 2.1 PILOT CONTEXT AND DESCRIPTION

As described in the MCCA pilot documents, Macedonia is a small, land-locked country in southeastern Europe that has an extremely variable climate. With approximately 19 percent of its population employed in agriculture, the country is vulnerable to climate change. Climate predictions point to increasing temperatures and declining levels of precipitation, conditions that “will stress an already hot, dry climate that is prone to extreme, weather-related events such as heat waves, drought, floods, and forest fires.”<sup>6</sup>

USAID defines its assistance relating to climate change adaptation as “helping countries and communities prepare for and adapt to climate change by building the resilience of people, places and livelihoods to climate change.” It defines its assistance relating to climate change mitigation as “helping countries slow or curb carbon emissions while promoting clean and sustainable economic development.”<sup>7</sup>

The MCCA pilot, implemented by Milieukontakt Macedonia (MKM), seeks to address the need to strengthen civil society and the need to raise awareness to, boost activism around, and bolster local adaptation to climate change as well as encourage the implementation of actions to mitigate greenhouse gas emissions. Using an innovative approach called the Green Agenda (GA) method, which has been previously implemented in seven municipalities in Macedonia and 40 municipalities in Eastern Europe, the MCCA activity aims to bring together three main stakeholder groups – civil society organizations (CSOs), citizens, and municipal authorities – to develop consensus-based strategies and action plans to address climate change mitigation and adaptation to its effects. The GA is a participatory process which works with stakeholders in each municipality to create local working groups who conduct their own analyses to develop strategic and action plans and ideas for local projects. In each municipality, MCCA is primarily implemented through a local CSO that has experience working on local environmental issues and engaging directly with the municipal government. The pilot activities include four components:

- Training for CSO and municipality staff
- Green Agenda process, including small “urgent action” projects implemented early in the process<sup>8</sup>
- Public climate change awareness raising campaigns
- Municipal-level pilots, which are substantive projects prioritized near the end of the Green Agenda process and which reflect community priorities

The MCCA pilot activities are being implemented in three phases, or rounds, across ten municipalities which are now at various stages of planning, implementing, and monitoring the results of municipal-level pilot projects. The first four municipalities to complete the GA process are included in Round 1; the second four

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<sup>6</sup> Milieukontakt Macedonia. “GCCCI project description – revised 09 18 (final).” September, 2012.

<sup>7</sup> USAID'S Climate Strategy webpage. Available at: <http://www.usaid.gov/climate/strategy>

<sup>8</sup> Urgent actions were designed to allow stakeholders to see immediate, tangible results and at the same time to encourage municipality participation. Urgent actions were implemented early in the Green Agenda process and had a small scope in terms of budget, timeframe, and citizen participation. The budget support limit for the urgent actions was USD 20,000, plus a minimum 20% contribution from the municipal government.

municipalities to complete the GA process are in Round II; Round III comprises the final two municipalities to implement the GA.<sup>9</sup>

USAID/Macedonia envisions that the coalescence of civil society and local government around the non-political issue of climate change at the local level will produce a significant and visible impact in the pilot municipalities. The MCCA project has several intersecting dimensions related to climate change adaptation and mitigation and democracy and governance; all are taken into consideration in the impact evaluation.

## 2.2 MCCA OBJECTIVES AND INTERMEDIATE RESULTS

The MCCA objective, “Municipal stakeholders better prepared to manage local climate change challenges,” has two intermediate results (IRs). The first (IR 1) is improved local democratic processes; the second (IR 2) is increased capacity to adapt to climate change

To achieve these two intermediate results, MCCA uses the Green Agenda method, which engages stakeholders in a participatory process designed to develop consensus-based strategies and action plans to address adaptation to climate change and mitigation of its effects. The Green Agenda aims to: 1) strengthen civil society, 2) raise awareness of climate change, 3) boost civic activism around climate change issues, and 4) bolster local resilience to climate change through adaptation and mitigation measures.

The two intermediate results each have four sub-IRs as follows:

- Intermediate Result 1: Improved democratic processes at the local level
  - Sub-IR 1.1: Increased civic activism
  - Sub IR 1.2: More responsive local governments
  - Sub IR 1.3: Increased cooperation among CSOs, citizens, and local governments
  - Sub IR 1.4: Increased CSO involvement in policy and oversight
- Intermediate Result 2: Increased capacity to adapt to climate change
  - Sub IR 2.1: Improved local policy environment for climate change
  - Sub IR 2.2: Reduced emissions of greenhouse gases by municipalities
  - Sub IR 2.3: Increased resilience of stakeholders to climate change
  - Sub IR 2.4: Increased citizen awareness of climate change

## 2.3 FOCUS OF MINI CASE STUDIES: GREEN AGENDA PROCESS AND MUNICIPAL PILOT PROJECTS

Using the Green Agenda method, MCCA brings together stakeholders – including citizens, CSOs, and municipal authorities – through working groups (WGs), to develop consensus-based strategies and action

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<sup>9</sup> Initially, the MCCA planned to operate in eight municipalities. Under an extension granted to MKM in FY14, the pilot was expanded to allow for two additional municipalities to participate in the MCCA. However, since these municipalities were added to the pilot after the completion of the baseline data collection (which took place in June-July 2013), the Round 3 municipalities are not included in the impact evaluation.

plans that address climate change mitigation and adaptation. The stages of the Green Agenda process are described below in Box 1.

A central outcome of the MCCA GA process is the creation and adoption of a municipal climate change strategy by each participating Municipal Council. The municipal climate change strategy is an official municipal government document describing action plans for municipal-level measures related to climate change mitigation and adaptation for the period 2014-2020. The MCCA-funded municipal pilot projects, which are the subject of the mini case studies, address priority measures from the municipal climate change action plans, and are an important product of the GA process.

To track implementation of the municipal climate change strategy, the MCCA facilitates the formation of a Local Monitoring Group (LMG) in each municipality. The LMG is an official body formally established by the Municipal Council. The responsibilities of the LMG include 1) monitoring the inclusion of activities from the municipal climate change strategy in the municipality's annual program; 2) assessing whether money is allocated to climate change activities in the municipal budget; 3) reporting to the Municipal Council twice a year on progress in implementation of planned climate change activities; 4) seeking additional funding for prioritized climate change activities; and 5) preparing project proposals for the activities in the municipal climate change strategy's action plan. The composition of an LMG varies by municipality.

## **Box 1. Green Agenda**

### **Principles and approach**

Green Agenda (GA) is a participatory method for developing and implementing local sustainable development strategies and plans. The method is unique, compared with other approaches that have similar aims (e.g., Local Environmental Action Plans (LEAP); Local Agenda 21; Community Forums), in three main aspects: 1) the process begins by identifying local values rather than problems; 2) participation is not limited to experts or certain stakeholder groups but is open to all; and 3) the process and its results are owned by the local population. The process pays special attention to building the capacity of local municipal governments, CSOs, and citizens to effectively take part in the process and implementation of municipal government actions.

### **The process**

At the beginning of GA work in the community, local stakeholders identify the values of their community by focusing on the things people are proud of instead of focusing on the problems. To compile an initial list of local values, a small survey of citizens is conducted. Examples of such community values are things associated with the cultural heritage (e.g., buildings, folk crafts), and environmental features like water resources (lakes, rivers, drinking water supply).

Local stakeholders are invited (through posters put up in shops, cafes, and other well-visited places or through local media, if local media outlets exist) to participate in the first stakeholder meeting where the GA process is explained. The initial list of local values from the survey is also presented, discussed, prioritized, and condensed to a list of four to five values.

After the selection of priority values, local Working Groups (WGs) are formed, made up of attendees of the first stakeholder meeting whom opt in to participate in the WGs. Each group is assigned one of the values to examine in detail. In addition to analyzing the status of the values, these groups are charged with coming up with ideas for actions and projects. Based on the WG findings, an agreed-upon strategy – in the case of the MCCA pilot, a municipal climate change strategy – for protecting and improving

community values is adopted by the Municipal Council. The MCCA then funds a municipal pilot project to carry out a priority action identified in the municipal climate change strategy.

The GA achieves its goals through a 5-stage process (subdivided into 17 steps):

*Stage One - Initiation and Preparation:* The GA implementer identifies existing strategies and documents to understand the policy and legal environment in which the Green Agenda will be implemented. This is needed to conduct a stakeholder analysis and to ensure that the GA does not develop in isolation.

*Stage Two - Preparation to Work in the Communities:* The GA method is explained; local values are identified and prioritized by stakeholders during initial public stakeholder meetings.

*Stage Three - Detailed Analysis of Key Issues in Working Groups:* GA Working Groups are developed in a series of workshops and the community is prepared to take part in strategy development meetings. WGs identify trends in community life and values; set minimum standards that describe the types of impacts that stakeholders are willing to accept in relation to community values; identify and describe existing problems; and seek opportunities to address the causes of problems.

*Stage Four - Synthesis and Planning:* WGs prioritize suggested actions and projects and begin developing strategic plans that will build local government's capacity to effectively respond to climate-related changes. After the Municipal Council adopts a strategic plan, and action plans are developed, each Municipal Council selects a body that will be responsible for monitoring the implementation of the municipal climate change strategy. This body, the Local Monitoring Group, monitors the strategy implementation process and is involved in the implementation of at least one strategic priority (i.e., municipal pilot project). To make these strategies and actions both relevant and sustainable, they are generated by stakeholders in conjunction with input from the GA implementers, municipal government authorities, and local environmental experts.

*Stage Five - Pilot Projects:* Design and implement small "urgent actions" (usually conducted after the Working Groups define priorities but before the municipal climate change strategy is completed), which are actions that allow stakeholders to see immediate, tangible results, thereby encouraging wide participation. In the case of MCCA, larger municipal pilot projects are also identified and carried out with co-financing from MCCA and the municipality.

*Source: The text in this box is adapted from MKM MCCA Quarterly Report, April- June 2014; and Milieukontakt International website: [http://www.greenagenda.net/wp/?page\\_id=2](http://www.greenagenda.net/wp/?page_id=2)*

Through the GA process, municipal pilot projects were chosen in the first four municipalities to complete the GA process (Round 1):

- Municipality of Pechevo: improving energy efficiency of public buildings
- Municipality of Krivogastani: improving thermal efficiency of public buildings
- Municipality of Bogdanci: improving municipal drinking water reservoirs
- Municipality of Tearce: the initial selected project (drip irrigation) was not approved by USAID; an alternate project is being planned

Like many climate change activities, MCCA is complex. It incorporates multiple objectives relating to democracy and governance on one hand and climate change adaptation and mitigation on the other; it is supported in different municipalities and regions by different MCCA CSO partners; it engages and affects three primary stakeholders; municipal-level government, CSOs, and citizens; it includes a wide range of interventions; it involves municipal pilot projects that differ in each municipality, according to priorities defined through GA interventions; and it covers diverse populations and conditions in the municipalities. The mini case studies serve as an important component of the impact evaluation in that they contribute to the understanding of municipality-specific Green Agenda processes and pilot projects.

# 3 CASE STUDY METHODS

## 3.1 RESEARCH DESIGN

The mini case studies are a qualitative examination of the process of identifying and implementing municipal pilot projects through the lens of impact evaluation questions 4 and 5 (actions on climate change) and evaluation questions 8 and 9 (stakeholder engagement with each other). Data collection consisted of stakeholder interviews with key informants, focus group discussions, and reviews of relevant documents. The stakeholders that were interviewed varied depending on the types of the pilot project activities planned, but included municipal government staff, local CSO staff, participants in the GA process and stakeholder meetings, and direct beneficiaries of the municipal pilot projects.

The case study research and data collection took place between December 2014 and February 2015. Two of the four Round 1 MCCA municipalities, Pechevo and Krivogashtani, began implementing their municipal pilot projects in June 2014 and completed them by October 2014. The other two Round 1 municipalities, Bogdanci and Tearce, had not completed their municipal pilot projects at the time the mini case studies were scheduled to be conducted. The municipality of Bogdanci initiated its pilot project in November 2014; the municipal pilot project in Tearce began implementation in February 2015. See Appendix I for the approved mini case studies plan.

## 3.2 DATA COLLECTION METHODS

Several data collection methods were used for the mini case studies, including key informant interviews and focus group discussions in each municipality along with document review and review of administrative data related to the municipal pilot projects. An interview guide was developed, with modified questions for each type of municipal pilot project stakeholder interviewed. (See Appendix IV for the Interview Guide with a complete list of interview questions.) In addition, interviews were conducted with MKM staff members. The interviews were carried out by the GCC M&E Local Evaluation Specialist between December 2014 and February 2015. The following key topics were covered in the interviews:

- Awareness of and attitudes toward climate change
- Actions addressing climate change mitigation and adaptation
- Municipal government climate change planning, priorities, and budgeting
- Participation of local stakeholders in the GA and municipal pilot project process
- Collaboration and engagement between stakeholders
- Perceptions of social cohesion related to the GA and municipal pilot project process

The key informants interviewed for the mini case studies were identified based on their role as stakeholders in developing the municipal climate change strategy and involvement in the selection of the municipal pilot project. They include municipal staff representatives, coordinators and participants of working groups, Local Monitoring Group members, the local CSO that led MCCA implementation in each municipality, and representatives of beneficiaries of the municipal pilot project. The nature of their roles is described below. The key informants were identified by the local partner CSOs, in consultation with the GCC M&E Local Evaluation Specialist. The criteria used to select key informants for interview were: 1) active participation in the GA process; 2) representation of different stakeholders; and 3) gender (for WG members).

In Pechevo, three key informant interviews and two focus group discussions were conducted (10 total key informants). In Krivogashtani, two joint (two-person) key informant interviews and two focus group discussions were conducted with 14 total key informants.

- **Local Coordinators** were the focal point during implementation of all MCCS activities at the local level. The Local Coordinators are staff from the CSOs (Ambrozija in Pechevo and the Center for Civic Initiatives in Krivogashtani) that worked with MKM and the municipal governments to implement MCCS. They coordinated the work of the WGs, organized local MCCS events, and acted as liaison between MKM and local stakeholders, particularly the municipal government. Local Coordinators have a good overview of all activities implemented as part of the GA process, the prioritization of potential interventions, and the selection and implementation of the municipal pilot projects. They are also knowledgeable about other ongoing climate change initiatives in their respective municipalities.
- **Working Group members** represented a variety of different stakeholder groups (including representatives from local businesses, educational institutions, civil society organizations, and the municipal government as well as retired persons and students) involved in the process of developing the climate change strategy for their municipality. They contributed their knowledge, experience, and background to the project. Discussions with WG members were important for understanding 1) their perspective on the municipal pilot project selection process in light of their interest in particular projects; 2) their opinion on the expected benefits to the community of the selected municipal pilot project; 3) citizens' reactions to the process of selecting a municipal pilot project; and 4) their ability to influence the selection process. It was also important to explore with them their level of knowledge and awareness concerning climate change and their understanding of mitigation and adaptation measures.
- **Working Group coordinators** guided the process of developing the municipal climate change strategy in each WG. They were considered important key informants because they had an overview of the process within their groups. They provided valuable information on group dynamics, content of group discussions, and participation of individual members. Changes in group attitudes toward climate change were discussed with these key informants, as well as their role in the selection of the municipal pilot project. They also provided information about communication among the WGs and communication with the Local Coordinator.
- **Local Monitoring Group members** were interviewed to obtain insight into their role in implementation of the municipal climate change strategy, as well as current and future interventions planned by the municipal government. The Local Monitoring Group is an official municipal body that was approved by the Municipal Council around the time the municipal climate change strategies were adopted.
- **Municipal government representatives** were interviewed as both implementers and beneficiaries of the municipal pilot projects. They provided information and data on the municipal pilot project implementation process, their own involvement in the selection process, and real or expected benefits following implementation. The municipal government representatives were queried on the importance of the official climate change strategy, developed in each municipality, for planning purposes and for budgeting funds for implementation of interventions. Their perspective on citizen responses to the implemented activities and municipal pilot projects was also sought.
- **Beneficiaries of the municipal pilot projects** were interviewed to obtain their views about changes that took place in their immediate environment with implementation of the municipal pilot project. They were also asked about the benefits to and reactions of other citizens.

Several meetings were held with MKM to obtain data and information and to get answers to follow-up questions. Websites of the municipalities, MKM, and local partners were also consulted. Relevant documents regarding municipal pilot project activities and the MCCC project were reviewed. A list of documents reviewed for the mini case studies can be found in Appendix V.

### 3.3 LIMITATIONS

These case studies reported here are purposefully designed as “mini” case studies. These mini case studies were not designed to thoroughly capture all information about the GA and municipal pilot projects in these municipalities or their results. They are meant to capture an overview of the implementation of the GA in the two municipalities that had completed their municipal pilot projects from the point of view of key evaluation questions so as to provide information relevant to the impact evaluation and an opportunity for mid-activity check-in on how the GA is playing out in a selection of locations.

It was originally planned that mini case studies would be done in all four of the Round 1 municipalities. However, at the time this research was carried out, only two of the municipal pilot projects had been completed. Note that since the municipalities of Pechevo and Krivogashtani, are both primarily ethnic Macedonian with few Albanian residents (85.9% Macedonian and 0% Albanian in Pechevo and 99.6% Macedonian and 0% Albanian in Krivogashtani) the case study team was unable to assess the effect of the MCCC GA activities on engagement and social cohesion across ethnic lines.

# 4 FINDINGS

## 4.1 PECHEVO MUNICIPAL PILOT PROJECT: MUNICIPAL ENERGY EFFICIENCY

### 4.1.1 SUMMARY OF KEY FINDINGS

In Pechevo Municipality, the municipal pilot project – *municipal energy efficiency in public buildings* – was completed as planned, according to the municipal climate change strategy, and was well received by the municipal government. Key informants reported that the Green Agenda (GA) process was used to select an appropriate municipal pilot project. Feedback on the GA process, which emphasized citizen participation combined with participation of representatives of the municipal government and CSOs, was considered useful for decision-making. The municipal pilot project that was selected (municipal energy efficiency in public buildings) appears to have produced some early benefits and savings. The municipal government reported lower electricity bills from the public lighting system as a result of installing energy efficient light bulbs in all public street lights in September 2014: staff reported that their January 2015 electricity bill was 24% less than their January 2014 bill.

Municipal representatives said that the municipal government had previously made efforts to address energy efficiency and climate change issues and that the participatory GA process had been a positive process for prioritizing a municipal pilot project. The GA and the funding from MCCS enabled the municipal government to move forward more quickly with its energy efficiency plans. The GA was considered a helpful process for both citizens and local government because it provided a systematic and inclusive approach to defining priorities and actions.

The MCCS municipal pilot project appears to have spurred other climate change actions. Pechevo's municipal government is now working on other climate change-related projects (in line with activities planned in the municipal strategy on climate change and its Energy Efficiency Program) supported by other donors, including the Swiss Development Cooperation and the Global Environmental Facility (GEF).

Almost all of the key informants who were interviewed said that the MCCS and Green Agenda had an impact on people's awareness of climate change, particularly regarding the local effects of climate change and how these can be addressed. It was noted that the impact was greater on participants and direct beneficiaries than on indirect beneficiaries.

Overall, key informants reported satisfaction with the levels of engagement and participation in the GA process and in the planning of the municipal pilot project. Collaboration between citizens and the municipal government was said to be open and encouraged, regardless of people's background or political party.

### 4.1.2 BACKGROUND AND GREEN AGENDA IMPLEMENTATION

#### 4.1.2.1 MUNICIPALITY CHARACTERISTICS

Pechevo Municipality, located in eastern Macedonia, was established in 1996. According to 2013 estimates from the State Statistical Office, the population is 5,051 and population density is 26.9 persons per square kilometer. The municipality consists of seven settlements, including the municipal center. The average age of respondents to the MCCS impact evaluation baseline survey was 42 years, with the highest percentage of

respondents coming from the 20-29 age bracket (27%).<sup>10</sup> Pechevo is a relatively ethnically homogenous municipality, with 86% of the population being ethnic Macedonians, 7% Roma, 6% ethnic Turks and the remainder being other minorities.<sup>11</sup>

The primary economic activities are agriculture, wood processing, textiles, and the production of fireproofed products. Some of the key informants representing civil society organizations and the municipal government in Pechevo had past experience with implementation of participatory processes and have been involved in cooperation on important local issues before participating in the GA.

The mayor has been in office since the 2013 local elections and belongs to the VMRO-DPMNE political party, which is the ruling party at the national level. The Pechevo Municipal Council consists of 11 council members: six from VMRO-DPMNE and its coalition partners; four from SDSM (Social Democratic Union of Macedonia - the opposition party); and one independent. Ten Municipal Council members are ethnic Macedonians and one is Turkish. Three council members are women. When asked in the MCCA impact evaluation baseline household survey, a majority of respondents in Pechevo said that they trust (53%) or fully trust (18%) their Municipal Administration (Municipal Council and Mayor), indicating that prior to the implementation of the MCCA, a large percentage of citizens in Pechevo appeared to trust their municipal government institutions.<sup>12</sup>

#### 4.1.2.2 MCCA IMPLEMENTATION PARTNER: "AMBROZIJA"

As a CSO, the Center for Herbs and Wild Berries, "Ambrozija," has been active in the field of rural development, environment, and youth activism since 2004. Ambrozija is based in and works mostly in Pechevo, but is also active across the East Planning Region<sup>13</sup> which includes 11 municipalities, representing 14% of the territory of the country. Pechevo is located on the border with Bulgaria, and Ambrozija has participated in the implementation of cross-border initiatives with Bulgaria (such as the EU program for cross-border cooperation). The organization has 35 active members, including experts with long-term experience in project implementation at the local, national, and international levels. Young people interested in contributing to the development of the community are also members of the organization.

Ambrozija is the local CSO partner leading MCCA implementation in Pechevo. An Ambrozija staff member served as the Local Coordinator for the Green Agenda. As noted above, Ambrozija coordinated MCCA activities at the local level, including the process of developing and writing the municipal climate change strategy, organizing local events, and guiding the implementation of the municipal pilot project. Ambrozija is also the liaison between MKM and the municipal government.

#### 4.1.2.3 GREEN AGENDA WORKING GROUPS

As part of the GA process, four WGs were established in Pechevo to develop the municipal climate change strategy. Each WG focused on a priority value that had been identified in the first stakeholder meeting. The

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<sup>10</sup> Wame, Rees, Nancy Peek, Nils Junge, and Marija Nashokovska. 2015. *Impact Evaluation Baseline Report: Macedonia Municipal Climate Change Strategies Integration Pilot*. Arlington, Virginia, USA: Development & Training Services, Inc. (dTS).

<sup>11</sup> Source: 2002 national census. Note that this is the most recent national census data because the 2011 national census was cancelled before completion and no results were released.

<sup>12</sup> Wame, Rees, Nancy Peek, Nils Junge, and Marija Nashokovska. 2015. *Impact Evaluation Baseline Report: Macedonia Municipal Climate Change Strategies Integration Pilot*. Arlington, Virginia, USA: Development & Training Services, Inc. (dTS).

<sup>13</sup> Planning regions were introduced in Macedonia in 2009 through a law adopted by the Macedonian Parliament. The country is divided into 8 planning regions for statistical, economic and administrative purposes. Planning regions can be considered a second administrative layer (the municipalities being the first one), though one without official government institutions. There is a Bureau for Regional Development, Centers for Region Development, and program for support of the planning regions.

priority values were: 1) water resources; 2) forests; 3) agriculture and rural development; and 4) energy efficiency.

As part of the process of mapping key stakeholders in the municipality, Ambrozija identified individuals as potential WG coordinators based on their knowledge, experience in facilitating groups, and interest in being engaged. Those who expressed an interest in being WG coordinators were presented as candidates at the first public stakeholder meeting and selection was made by the citizens who were present. WG members were also established at the first stakeholder meeting. Anyone interested in participating in the WGs who attended the first stakeholder meeting could sign up to join. There was a list for each WG, and people at the meeting wrote down their names on the list for the WG in which they wanted to participate. Twenty-nine of the participants of the WGs belonged to the Macedonian ethnic group, while one participant belonged to the Turkish ethnic group. See Table 2 for additional information on WG members.

TABLE 2: CHARACTERISTICS OF PECHEVO WORKING GROUP PARTICIPANTS

| Working Groups                    | Total Participants | Gender    |           | Participants by Stakeholder Group     |                |          |          | Education Level |            |
|-----------------------------------|--------------------|-----------|-----------|---------------------------------------|----------------|----------|----------|-----------------|------------|
|                                   |                    | Male      | Female    | Public Institutions/ Local Government | Private Sector | CSOs     | Citizens | High School     | University |
| Water Resources                   | 11                 | 6         | 5         | 5                                     | 3              | 1        | 2        | 6               | 5          |
| Forests                           | 6                  | 6         | 0         | 3                                     | 0              | 1        | 2        | 5               | 1          |
| Agriculture and Rural Development | 7                  | 2         | 5         | 5                                     | 0              | 0        | 2        | 0               | 7          |
| Energy Efficiency                 | 6                  | 0         | 6         | 3                                     | 0              | 1        | 2        | 1               | 5          |
| <b>Total</b>                      | <b>30</b>          | <b>14</b> | <b>16</b> | <b>16</b>                             | <b>3</b>       | <b>3</b> | <b>8</b> | <b>12</b>       | <b>18</b>  |

Members of the WGs were almost equally divided by gender (16 women and 14 men); however, three of the four WG coordinators were men. While two of the four WGs were gender balanced, a third WG had only women as members and the fourth had only men as members. Just over half of the WG members (16 of the 30 core participants) were government employees – some from the municipal government and others from other public institutions – and 11 of the participants were either local residents (including high school students and retirees) or members of CSOs (one from Ambrozija, two from other local CSOs). Because part of MCCC's aim is to increase engagement between the municipal government, CSOs, and citizens, it will be important to assess the proportion of different stakeholder groups in WGs in other MCCC municipalities.

A key informant from Ambrozija, the local CSO partner, reported that Ambrozija took gender balance into account when the WGs were established and was prepared to encourage and motivate more women to participate. Since many women joined the WGs on their own, it was considered unnecessary to use special measures to encourage their participation. However, only one of the four WG coordinators was a woman.

#### 4.1.2.4 PECHEVO MUNICIPAL CLIMATE CHANGE STRATEGY AND LOCAL MONITORING GROUP

The *Strategy on Climate Change in Pechevo Municipality 2020* is the official municipal government document (200+ pages) describing the municipal climate change strategy. It was developed over a four-month period from January to April 2014. The document was adopted by the Municipal Council on May 14, 2014. It envisions the financial contributions of key stakeholders including the municipal government, public utility enterprises,<sup>14</sup> the Ministry for Agriculture, Forestry and Water, the Center for Crisis Management, and non-governmental organizations.

The Pechevo municipal climate change strategy includes 80 projects or measures covering the local values identified in the GA process. The activities and measures included in the municipal climate change strategy were developed by members of the four WGs, the Local Coordinator (Ambrozija), and representatives from the municipal government, public utility enterprises, and the Ministry of Agriculture, Forestry and Water. Initially, each of the four WGs ranked their priority actions separately; then they went through a joint process with the municipal staff to define and rank all the priority actions.

Five criteria were used for assessing the inclusion of an activity in the Pechevo municipal climate change strategy: 1) technical feasibility; 2) urgency<sup>15</sup>; 3) effectiveness;<sup>16</sup> 4) economic efficiency; and 5) affordability. The criteria were given the following weights: 30% each for urgency and effectiveness, 20% for technical feasibility, and 10% each for economic efficiency and affordability.

Twelve of the actions identified in the municipal climate change strategy were included in Pechevo's annual municipal budget, which means that funding for these activities is considered reliable. The estimated cost of all activities envisioned in the municipal climate change strategy is MKD 100,205,142 (approximately USD 2,197,480),<sup>17</sup> most of which will need to be secured from sources other than the municipal budget, such as donors and funds from other government institutions. According to the municipal climate change strategy, more than 90% of the funds will be sought from donors.

The Local Monitoring Group (LMG) members, whose role is to track the implementation of the municipal climate change strategy, were nominated by municipal authorities and approved by the Pechevo Municipal Council around the same time as the municipal climate change strategy was adopted. The group composition was published in the official gazette of the municipality. The LMG includes three municipal government employees, three CSO members and one non-affiliated citizen. All of the WG coordinators are members of the LMG as well as the Local Coordinator. Four of the seven LMG members are women.

#### 4.1.2.5 COMPONENTS OF THE PECHEVO MUNICIPAL PILOT PROJECT

The municipal pilot project for improving energy efficiency of public buildings was comprised of four components:

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<sup>14</sup> The Public Utility Enterprise is a local public organization established by the municipality that provides public services to citizens, including water supply, waste collection, maintenance of streets, and maintenance of cemeteries. Larger municipalities normally have one entity for each service, but smaller municipalities usually have just one or two public utility enterprises that provide several services. In Pechevo, there are two public utility enterprises.

<sup>15</sup> Perceived urgency with which the problem or issue needs to be addressed.

<sup>16</sup> Effectiveness of the intervention in addressing the issue at hand (without other interventions being needed).

<sup>17</sup> USD-MKD exchange rate based on the June 16, 2014 rate of the Macedonian National Bank (USD 1 = MKD 45.6).

- i. Installation of thermostatic valves to regulate temperatures in five buildings: municipal administration building, a primary school, a kindergarten, the sports hall, and the House of Culture<sup>18</sup>
- ii. Replacement of the façades (adding external insulation) and replacement of doors and windows at two buildings: the municipal administration building and House of Culture<sup>19</sup>
- iii. Installation of a central heating system in the House of Culture
- iv. Replacement of 340 incandescent light bulbs in the public street lighting system with energy saving light bulbs

Implementation of the municipal pilot project began in June 2014 and was completed in October 2014. The proposed budget of the municipal pilot project was MKD 6,080,537 (USD 133,410). The final approved cost of the municipal pilot project was MKD 5,610,260 (USD 123,032).<sup>20</sup> Of this, USD 114,655 (93.2%) was funded by M CCS and USD 8,377 (6.8%) was funded by the municipal government. Responsibility for implementation was held jointly by MKM and the municipal government. See Appendix II for a summary of the Pechevo Municipal Pilot Project Concept document.

#### 4.1.3 FINDINGS BY M CCS IMPACT EVALUATION QUESTION

For the case study, the Pechevo municipal pilot project was assessed based on the evaluation questions outlined in Section 1.2. The findings regarding climate change mitigation/adaptation measures and stakeholders' engagement are organized according to these questions. Additional findings on awareness of local climate change (evaluation question 2), levels of social cohesion (evaluation question 11), and gender are also presented.

##### 4.1.3.1 CLIMATE CHANGE ACTIONS

*Evaluation Question 4: Did the M CCS integration pilot result in changes in stakeholders' actions to improve adaptation to climate change? AND Evaluation Question 5: Did the M CCS integration pilot result in changes in stakeholders' actions that decrease GHG contributions towards climate change (mitigation)?*

##### **Implementation of the municipal pilot project: alternate ideas, prioritization, and selection process**

According to key informants, the process which led to implementation of the *energy efficiency municipal pilot project* in Pechevo followed clear steps and guidelines established by the GA, the purpose of which was to ensure the decision-making process was inclusive and transparent to the community.

Each WG followed the steps described in the GA process for prioritizing potential projects or activities for mitigating or adapting to climate change. As part of Stage 5, WGs defined potential activities, examined opportunities to implement municipal pilot projects, and compiled a short list of possible actions. The groups received guidance on how to assess priorities for each WG topic and their potential to achieve visible and sustainable results. MKM provided criteria for assessing the potential pilot projects; they were related to sustainability, linkage to the local values identified through the GA, and other key parameters.

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<sup>18</sup> The House of Culture is the municipal institution responsible for organizing cultural events and promoting development of culture in the municipality. The main activities of the House of Culture are the organization of local, national, and international cultural events (e.g., festivals and concerts) and hosting the local amateur folklore society. The city library and cinema hall are located in the House of Culture, and premises have been given to local non-governmental organizations as a shared activity space. Several cafes are also located in the building. The building is centrally located, right on the main square.

<sup>19</sup> The replacement of doors and windows at the House of Culture was partial; all doors and windows were replaced at the municipal administration.

<sup>20</sup> The "proposed budget" reflects the amount requested by the local CSO and municipal government to implement the pilot project. The "actual cost" reflects what was approved for the project by MKM.

WG members ranked potential municipal pilot project priorities based on the five criteria (technical feasibility, urgency, effectiveness, economic efficiency, and affordability) set out in the draft municipal climate change strategy they had developed<sup>21</sup> (see Section 4.1.2.4). This activity produced a shortlist of potential pilot projects that were then assessed based on a second set of criteria specific to the MCCA-funded municipal pilot: 1) it had to be able to be completed within six months; 2) it had to encompass a complete activity from beginning to end; 3) it was not to be part of a larger, more complex activity; 4) the municipality must contribute 20% of the cost; and 5) the total funding requested from the USAID-supported MCCA activity could not exceed USD 100,000.<sup>22</sup>

Based on ranking of the potential pilot projects according to the first set of criteria, *construction of a sediment tank on the Piza River*, which flows through Pechevo, emerged as the top priority on the shortlist. Sedimentation build-up in the riverbed near the town of Pechevo had led to flooding in the past. The expectation was that construction of a tank would allow sand, stones, and mud to be collected and emptied at regular intervals, thus reducing the risk of flooding.<sup>23</sup> This had been a long-term problem in the municipality, and addressing it was seen as a priority. However, when the sediment tank project was assessed according to the second set of criteria (MCCA criteria for municipal pilot projects), it was found that the sediment tank construction would not be feasible under MCCA – it would require too much time for implementation, especially taking into consideration the number of local and national permits required. Furthermore, GA project funds would cover only a fraction of the total cost of constructing the sediment tank. Finally, there were concerns that the results might not be *visible* to citizens, and citizens therefore might not perceive that the GA process resulted in tangible benefits to the municipality and its citizens.

After the first priority pilot project was deemed infeasible, the second priority pilot project – *increasing the energy efficiency of public buildings and lighting* – was selected because it met all the criteria. As noted in Section 4.1.2.5, the components of the selected municipal pilot project included: installation of thermostatic valves in five buildings (to regulate temperatures); replacement of façades (adding thermal insulation to the outside walls) on two buildings (the municipal administration building and the House of Culture); installation of a central heating system in the House of Culture; and replacement of 340 light bulbs in the street lighting system with energy saving light bulbs.

In prioritizing this municipal pilot project, non-economic benefits to the community were also considered. For example, children in primary school and kindergarten were seen as key beneficiaries. Installing thermostatic valves to maintain constant temperatures was expected to help protect children's health by reducing their exposure to wood smoke<sup>24</sup> and cold (or overheated) rooms. Also, the people who work at the school, the House of Culture, and other municipal buildings were expected to be more productive and effective when working in offices with constant and comfortable temperatures.

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<sup>21</sup> At this point, the municipal climate change strategy had not yet been adopted; it was officially adopted by the Pechevo Municipal Council on May 14, 2014. Prior to this, the draft was used for guidance on selection of pilot projects.

<sup>22</sup> MCCA provided some flexibility around the total budget and municipal contribution figures, and the actual amounts spent by MCCA and the municipal government were different from this, as noted by the figures in Section 4.1.2.5.

<sup>23</sup> Municipal stakeholders attribute increased rainfall, with heavy storms in short periods, coupled with deforestation in the mountains, to increased risk of flooding and believe this is linked to climate change.

<sup>24</sup> According to the US Energy Department, "Wood-burning appliances and fireplaces may emit large quantities of air pollutants. Wood smoke contains hundreds of chemical compounds including nitrogen oxides, carbon monoxide, organic gases, and particulate matter, many of which have adverse health effects." US Energy Department, [energy.gov](http://energy.gov/energysaver/articles/wood-and-pellet-heating): <http://energy.gov/energysaver/articles/wood-and-pellet-heating>.

### Early energy efficiency and mitigation results

All of the components associated with the Pechevo municipal pilot project are designed for reduced energy use (and therefore GHG emissions), while resulting in cost savings and greater comfort. The expected energy savings for each intervention was calculated previously for the municipal Energy Efficiency Program (EEP).<sup>25</sup> For example, the interventions for the municipal administration building (installation of thermostatic valves to regulate heat and replacement of building façades to add external insulation) were expected to yield a yearly savings of 36,872 kilowatt hours (kWh), which is approximately a 38% decrease in annual energy use (see Table 3).

TABLE 3: ESTIMATED ANTICIPATED SAVINGS FROM PECHEVO ENERGY EFFICIENCY INTERVENTIONS

| Building/infrastructure targeted for intervention | Heating source | Actual consumption (kWh/year) | Consumption after intervention (kWh/year) | Savings (kWh/year) | Decrease in energy use |
|---|----------------|-------------------------------|---|--------------------|------------------------|
| Municipal building                                | wood           | 95,825                        | 58,953                                    | 36,872             | 38%                    |
| Primary school                                    | wood/oil       | 277,021                       | 249,521                                   | 27,500             | 10%                    |
| Kindergarten                                      | oil            | 80,000                        | 75,154                                    | 4,846              | 6%                     |
| Sport Hall  | wood           | 143,733                       | 135,853                                   | 7,880              | 5%                     |
| House of Culture                                  | wood           | 114,990                       | 77,690                                    | 37,300             | 32%                    |
| Public lighting system                            | -              | 179,410                       | 91,736                                    | 87,674             | 49%                    |
| <b>Total</b>                                      |                | <b>890,979</b>                | <b>688,907</b>                            | <b>202,072</b>     | <b>23%</b>             |

Source: Data from the Pechevo municipal pilot project proposal

The information collected for the Pechevo case study suggests that implementation of the energy efficiency pilot has produced positive results – at least in terms of costs savings. Key informants said that the new façades and insulation in public buildings have contributed to heat-loss reduction (as well as reduced wasteful overheating<sup>26</sup>), warmer premises, and lower electricity bills. Additional energy savings are expected due to the replacement of traditional light bulbs on the streets with energy efficient light bulbs; 100% of street lighting now uses energy efficient light bulbs.

According to municipal government representatives, energy consumption in the municipal buildings (this year compared with last year) has fallen and the electricity bills for public lighting are lower. For example, in January 2014, the electricity bill for public lighting was MKD 211,388 (USD 4,638); in January 2015, the electricity bill for public lighting was MKD 160,262 (USD 3,516). The difference is a savings of MKD 51,126 (USD 1,122) on the cost of public lighting for the month of January (24% reduction).

A basic assumption for this municipal pilot project is that the ultimate effect of lower energy use will be lower GHG emissions. MCCA supports municipalities to develop and maintain GHG inventories and calculate

<sup>25</sup> The data for expected energy savings were taken from the municipal Energy Efficiency Program (EEP), which is an official document of Pechevo Municipality adopted by the Municipal Council on March 3, 2014. The EEP and allocation of funds from municipal budgets became a requirement in 2012 under a new Macedonian law. This program is not related to MCCA. In Pechevo, the development of the municipal climate change strategy and the adoption of EEP just happened to take place at approximately the same time.

<sup>26</sup> Before thermostatic valves were installed, there was no mechanism to regulate the temperature in the offices of the buildings. Sometimes it would be too cold, and sometimes it would be too warm, so people would open windows and heating was wasted. Now, the temperature can be regulated, so people have less need to open windows.

changes in GHG emissions. The Pechevo municipal pilot project proposal included a target of emissions reduction of 129.52 metric tons of CO<sub>2</sub> equivalent annually from the full municipal pilot project intervention.

It should be noted that electricity in Macedonia is generated or obtained from a variety of sources: coal-powered plants, hydropower, wind power, and imports. Hydropower, which is a renewable energy source, accounts for approximately 15% of known generation,<sup>27</sup> while the source of imported electricity is unknown. Since it is connected to the national power grid, the mix of energy sources used to provide Pechevo with electricity cannot be exactly determined. To accurately estimate the impact on GHG emissions of installing energy efficient light bulbs, the contribution of hydropower to electricity production would need to be known. (The larger the share of hydropower used to generate electricity, the lower the GHG impact; the more fossil fuels used to generate electricity, the higher the impact). In the case of street lighting, the reduction in kWh (the municipal government estimated 87,674 kWh less would be consumed on an annual basis) may not be substantial in terms of the GHG impact, but if it is assumed that most of the generation comes from fossil fuels, there will be some impact. That said, it may be expected that the most substantive reductions in GHGs come from reducing the amount of wood or oil used to heat the public buildings that received energy efficiency improvements.<sup>28</sup>

According to a key informant from the municipal government, the savings from the municipal pilot project interventions funded by MCCS will be used for additional interventions prioritized in the Pechevo municipal climate change strategy (as is required by the MCCS funding agreement), thereby contributing to further local actions on climate change mitigation and adaptation. This has already been initiated through the cost share for a GEF-funded project to install a new boiler in the kindergarten. The municipal government representative noted that *"With the implementation of the pilot project, our financial position was improved because we now have the financial resources available to reinvest in other energy efficient activities. As beneficiaries of the project, we are finally warm in our offices, yet our electricity bills are significantly lower."*

When taking into account the people working in the buildings that received energy efficiency improvements, it was noted that there were more female (79) than male (40) beneficiaries to the project. The ratio of females to males is largely because school and kindergarten employees in Pechevo (and in Macedonia as a whole) are predominantly women. There are about as many girls as boys among the school children benefiting from the improved stability of the temperature in the classrooms.

The knowledge gained from participating in the GA process has reportedly motivated WG members to undertake energy efficiency improvements in their own homes, and led them to promote energy efficiency ideas to relatives, friends, and neighbors. One municipal government key informant reported that he has changed both the windows in his home and the façade and that he has talked with other people in the municipality, encouraging them to improve the energy efficiency of their homes.

#### **Influence on municipal government administration and climate change planning/actions**

Key informants were asked to assess any effects that participating in the GA process and implementing the energy efficiency pilot may have had on how the municipal government planned to prioritize and address climate change issues in the community.

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<sup>27</sup> UNIDO, (2013), "World Small Hydropower Development Report 2013: The Former Yugoslav Republic of Macedonia." Available at: [http://www.smallhydroworld.org/fileadmin/user\\_upload/pdf/Europe\\_Southern/WSHPDR\\_2013\\_FYROM.pdf](http://www.smallhydroworld.org/fileadmin/user_upload/pdf/Europe_Southern/WSHPDR_2013_FYROM.pdf).

<sup>28</sup> Calculating changes in GHG emissions is beyond the scope of the mini cases studies; at the time this research was conducted, there was insufficient information available (such as from long-term changes in electricity bill and changes in heating fuel use vis a vis outdoor temperatures) to allow for accurate calculations of incurred GHG impacts.

The municipal government had planned to make some energy efficiency investments, such as replacing light bulbs, before the introduction of the GA process.<sup>29</sup> For instance, a municipal staff person said that the municipal government had already replaced 100 street lights with energy efficient bulbs, but that the municipal pilot funds allowed them to replace a further 340. Some of the people interviewed said they thought that the municipal government’s energy efficiency investments would have been much smaller and taken longer to implement without MCCS financial support. One civil society key informant said that, although the municipal government already had implemented some energy efficiency initiatives before the start of the GA, less would have been achieved in the same timeframe without the support and cost sharing from USAID.

It should be noted that Pechevo Municipality (and all municipalities interested in participating in MCCS) had to submit an application that was assessed based on six selection criteria (see Table 4 below). Four of the six selection criteria (ii-v) related to a municipality’s demonstration of interest in addressing environmental issues or working in a participatory manner with civil society.

TABLE 4: SELECTION CRITERIA FOR PARTICIPATING IN MCCS INTEGRATION PILOT

|      |   |
|------|---|
| i.   | Be located in a climate change-vulnerable region or was impacted by climate change in the past and have some experience in implementation of participatory processes (such as Local Agenda 21, Long-range Energy Alternatives Planning system, Local Economic Development planning, etc.) |
| ii.  | Be open and willing to cooperate with the civil sector and local businesses and ready to invest in protection of the environment and promotion of sustainable development   |
| iii. | Have demonstrated willingness to actively participate in the project activities (by participating in the application with the CSO)  |
| iv.  | Have willingness to earmark funds for implementation of municipal-level pilots  |
| v.   | Be located outside of major urban centers   |

With this in mind, it is worth noting that WG coordinators reported that, while the prioritized energy efficiency measures funded through MCCS would likely have been implemented by the municipality if it had had its own funds, without the support of the GA process, citizen participation would probably not have been part of the decision-making process and the investments would have been much smaller. WG coordinators also noted that, without going through the GA process it is not clear whether this project would have been prioritized, although they said that the municipal government is accustomed to consulting with civil society. (Pechevo participated in the Swiss-funded Community Forum Program 2012-2014, which promoted participatory planning and civic action.) A municipal government key informant said that the municipality was committed to addressing climate change even before the introduction of the GA process, and that the GA helped them define priorities and be more structured and organized in addressing climate change issues.

#### Other municipal government climate change mitigation and adaptation actions

One of the intentions of adopting the municipal climate change strategy and demonstrating action through a municipal pilot project was to motivate and encourage municipalities to implement further climate change-

<sup>29</sup> The Energy Efficiency Program (EEP) and allocation of funds from the municipal budgets is a requirement by law since 2012. Thus, most of the energy efficiency interventions are already part of the current or previous program for energy efficiency. Under that law, it is a responsibility of the municipality to invest in all public buildings it owns or operates to make them energy efficient.

related actions. The following findings are related to other climate change-related activities (on-going or planned) that the municipality is pursuing.

A representative from the municipal government said that the municipality has the responsibility of reinvesting the savings realized from the energy efficiency pilot in new initiatives to address climate change. Although the municipality has limited financial resources to undertake climate change activities, it is aware of funding sources through the European Union and elsewhere that can be used for that purpose.

At present, Ambrozija, in partnership with the municipal government and the kindergarten, is implementing a small renewable energy project supported by the GEF. The project involves installation of a new boiler for the kindergarten – along with constructing a building for the boiler – that will allow use of renewable energy such as pellet fuel. Pellet fuel is an efficient, low cost energy source. The small pellets are made from biomass that, when burned, produces organic waste (ash).<sup>30</sup> GEF support emerged as a possibility during implementation of the GA process, and the GEF representative in Macedonia participated in promoting the municipal pilot project within the community. The municipal government and the kindergarten are contributing USD 16,000 to the budget for the project, which, according to a municipal government representative, includes savings generated from the municipal pilot project.<sup>31</sup>

The municipality is also exploring opportunities for securing funds from the European Union Instrument for Pre-Accession to construct the *sediment tank on the Pisa River*, which was the first priority pilot project identified in the municipal climate change strategy. The Local Monitoring Group is working with a Peace Corps volunteer, hosted by the municipal government, to prepare the application for the project.

#### 4.1.3.2 Stakeholder Engagement

##### *Evaluation Question 8: Did the MCCS integration pilot result in changes in stakeholders' attitudes towards engagement with each other?*

Informants from the convening CSO, the working groups and the municipal government all said their experiences with GA were positive. They also said that both the municipal government and citizens of Pechevo had positive previous experiences with engagement with each other, and informants from each of these groups said that they thought that the GA had advantages over previous types of citizen engagement that had been conducted in Pechevo. Many of the informants noted that engagement across political party lines was strong. While it is not possible to determine through this mini case study snapshot whether CSOs, municipal government, and citizens' attitudes towards engagement with each other definitely improved, this section provides information on how the process was conducted and what key informants said about it.

##### **Public and municipal government enthusiasm for the Green Agenda process**

All of the key informants interviewed who participated in the GA process praised the approach. One noted that the GA process was also seen in a positive light and accepted by people who were not active participants. WG coordinators who were interviewed said that it was important that the GA process focused on values rather than solely focusing on problems.

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<sup>30</sup> With respect to lower emissions, while the advantage of pellet fuel compared with competing fuels depends to a degree on the conditions under which the fuel is used. The US Government notes that "pellet stoves are the cleanest solid fuel residential heating appliance." United States Energy Department, at [energy.gov](http://energy.gov/energysaver/articles/wood-and-pellet-heating): <http://energy.gov/energysaver/articles/wood-and-pellet-heating>.

<sup>31</sup> The exact amount of the contribution from savings was requested, but not provided. However, a municipal government representative emphasized that through the budget savings made possible by the MCCS interventions, the Municipality was now in a position to contribute to funding for other energy efficiency interventions, such as the one with GEF.

The GA process includes an educational component for municipal residents as well as for those directly involved in the GA process, which is not typical of other programs. The GA uses a series of steps to focus the attention of WG members on the process of selecting a municipal pilot project that meets clearly defined criteria. The GA process repeatedly asks WGs to consider why a value is important, what positive results will come from implementing a municipal pilot project, and who will benefit from the project. The WG members and WG coordinators interviewed reported that they came out of the GA process confident in their decisions, which were made using objective mechanisms for assessing local priorities. They also said they had gained new knowledge by being participants in the process.

Civil society WG members who were interviewed reported that the selection process for the municipal pilot project was conducted with transparency, and they expressed satisfaction with their role in assessing and selecting the municipal pilot project. The WG members noted that the WG coordinators communicated well with the municipal administration and with members of their own WG. They said that decisions within the WGs were made by consensus and were based on objective criteria and reported that the dynamics of the WGs created a social environment that was conducive to listening to the opinions of others, analyzing values, and ranking the pilot projects for the municipal climate change strategy.



The Pechevo Municipal House of Culture received energy efficiency renovations, including a new façade, as part of the MCCS municipal pilot project.

Photo credit: Ambrozija

WG coordinators who were interviewed said that an important aspect of the success of the process was that WG members brought technical expertise and relevant knowledge to the process of selecting a priority pilot project, and they were happy to share their skills and knowledge with the other members of the WG.

It was also mentioned that the different backgrounds of the Local Monitoring Group members (three were from the municipal government, three from civil society organizations, and one was an unaffiliated resident of Pechevo) was helpful in engaging the support of the necessary institutions in developing the pilot project. Members from the municipal administration had easy access to decision-makers in the local government and a

continuous flow of information, which was said to be helpful in obtaining support when needed. Members from civil society had a track record of collaboration with local institutions such as the school and kindergarten on previous projects implemented by local CSOs. The established trust and communication during these previous activities assisted in achieving support and collaboration for the implementation of the MCCS municipal pilot project.

Informants said that the WG members and municipal staff had benefited from acquiring new knowledge, sharing experiences, doing something important for the community, and contributing to the development of a municipal climate change strategy. The mayor participated personally in some of the WGs. An informant from the municipal government characterized WG members as "very enthusiastic and ambitious." One key informant said *"I was positively surprised that the whole Green Agenda process was taken seriously by the citizens and the municipality. They were convinced they were doing something for themselves, and were really committed."*

### **Green Agenda compared with other participatory civic processes in Pechevo**

While this is not the first time that community members have had the opportunity to participate in priority-setting with the municipal government, the experience with the GA process appears to have been particularly good. The municipal government participated in the Swiss-funded Community Forum Program (2012-2014). Regarding this program, one key informant said that, while the Community Forum program provided an opportunity for citizens to be involved in making a decision on which of a set of predetermined possible small projects to implement, the GA gave citizens the opportunity to define local priorities and potential pilot projects, prior to the selection process. A member of the Local Monitoring Group said, *"The whole process of the Green Agenda was very interesting for us because we started from a different point from what we are used to: 'What is the value of the things that we have and how we can protect them?' instead of 'What are our problems and how we can solve them?'"*

### **Public and municipal government enthusiasm for the municipal pilot project**

Interviewees reported that most people in Pechevo were supportive of the energy efficiency pilot project that was selected. However, in most interviews, informants noted that not all residents of Pechevo agreed that the municipal pilot project chosen was the highest priority; some residents criticized the choice, saying that other municipal problems (for instance street repairs or flood control), should have been given higher priority.

One informant reported that citizens who had become aware of climate change through the course of the MCCS implementation in the municipality had more positive views on the selection of an energy efficiency pilot project. A WG coordinator said that people generally accepted the process through which the decision was made. The coordinator attributed that acceptance in part to GA's optimistic focus, which contrasted with other processes that tended to focus on problems. Another informant noted that an important aspect of the GA and MCCS was that citizens wanted to find out what was going on, whether or not they viewed the selected energy efficiency pilot project as a priority. The pilot project triggered interest in the citizens and got them asking questions.

A municipal government key informant pointed out that the municipal government staff were both implementers of and beneficiaries to the energy efficiency pilot. Because of the improvements to the municipal buildings, the municipal government was not only saving money, the municipal staff were warmer at work than in previous winters.

### ***Evaluation Question 9: Did the MCCS integration pilot result in changes in stakeholders' levels of engagement with each other?***

#### **Stakeholder engagement in the GA process and municipal pilot project planning and implementation**

WGs are an important part of the GA process. As discussed in Section 4.1.2.3, the early GA activities in Pechevo resulted in the formation of four WGs focused on priority values, one each for water resources, forests, agriculture and rural development, and energy efficiency. While active participation in the WGs varied, there were about 30 core members (see Table 2, Section 4.1.2.3 for the characteristics of the core members of these WGs).

Active membership in the WGs appears to have fluctuated. A key informant who was a WG coordinator noted that those who were active throughout the process "really gave their best" to support the development of a high quality strategic plan. Another said, *"There was a need for many meetings, but citizens were interested, and we had 25-30 people that were always present."* Another pointed out that the continuity of WG members' participation for the duration of the process was important.

A key informant reported that the energy efficiency WG stopped functioning before the municipal climate change strategy was completed in May 2014. It had problems with members not showing up to meetings. The Local Coordinator noted that membership of this group fell, with fewer and fewer attending meetings over time. Although she and the WG coordinator made efforts to motivate members, these did not succeed. It was mentioned that the timing of the working groups meetings and the agricultural and other activities that the members were involved in may have made continuing with meetings difficult, but it was not clear whether that was the cause of the group ceasing to function. However, the work they had started was used to define priorities for the municipal climate change strategy, and an energy efficiency pilot project was ultimately chosen to be funded through M CCS.

In addition to the Green Agenda WGs, M CCS provided a variety of ways for people in Pechevo to get engaged and involved in climate change issues, including

- A public meeting to launch M CCS in Pechevo, which was attended by 68 people (of which 11 were members of the Municipal Council or municipal administration employees).
- Various training sessions (a total of 13 on different topics, some for different audiences)
- A 15-day period for public comments on the draft Pechevo municipal climate change strategy before it was adopted by the Municipal Council
- Access to technical documents about the selected municipal pilot project on the municipal website; information was available to all citizens, not just GA participants
- Informal discussions between members of the Municipal Council and GA participants
- Events promoting the municipal climate change strategy, the municipal pilot project, and the earlier “urgent action” (installation of a filter in the water purification station in Pechevo) implemented through M CCS<sup>32</sup>

WG coordinators noted that communication and collaboration with the municipal government was open, continuous, and carried out at a high level, that the municipal government established effective partnerships with local CSOs, and that the on-going consultation process on technical documentation was useful. Other informants noted that Local Coordinator played a critical role in leading the process, in sharing information with the WGs, MKM, and the municipal government, and in keeping the process on track. A WG member noted that the GA motivated many citizens to participate and that decision-making through the GA process included more citizens than did other engagement methods.

Not all municipal pilot project beneficiary institutions were involved in the selection process. While municipal administration staff (3 employees from the kindergarten and 2 employees from the school) participated as members of the WGs, a staff person at the House of Culture who was interviewed said they had not been consulted, even though their building was a beneficiary. However, they did contribute to the

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<sup>32</sup> Pechevo Municipality's application for the “urgent action” included a justification of the link between the water filtration system and climate change based on the following: In November 2011, a large forest fire occurred in the Pechevo municipality region near the river Pisa, the water supply source for 5,000 residents of the town and four other villages. The dry conditions that led to the fire were attributed to climate change. Forty percent of the area around the river basin was fire damaged (including 100 hectares of pine and beech woods and over 50 hectares of pastures), leading to drastic changes in the vegetation and micro-climate around the river basin, directly affecting erosion and the quality of the water. The affected area no longer supports vegetation that previously absorbed rainfall - the soil, no longer protected, creates risks of flooding. Furthermore, soil erosion has led to pollution of the drinking water. The justification also mentioned recent findings of chemical pollution in the water. Therefore, it was deemed necessary to install a purification filter.

municipal pilot project financing of the interventions implemented at their building. Representatives of other beneficiaries were fully engaged in the selection process as members of the WGs.

### **Influence on municipal government's engagement with citizens**

While it is not clear whether implementation of the GA will affect the way the Pechevo municipal government engages with citizens in the future, a municipal government key informant praised the MCCA and the GA process. A municipal government representative said that collaboration between the municipal government and the implementing organizations (CSO and MKM) was both frequent and at a very high level, stressing that people in Pechevo can contact the municipal government at any time. This key informant also noted that, while local CSOs frequently lead the implementation of activities, the municipal government is open to providing both in-kind and financial support. Participants in an interview of WG members said that the municipal government is accustomed to consulting civil society, but that the GA process facilitated a particularly high level of collaboration.

A municipal government representative noted that the municipal government had made a commitment to address climate change even before participating in the GA process, but said that the GA helped them to define priorities and be more structured and organized in addressing climate change issues in the municipality. This key informant also noted that the establishment of the Local Monitoring Group, which is made up of members from stakeholders from CSOs, the municipal government, and the citizenry and reports to the Municipal Council twice a year, is an excellent mechanism for consultation, for support for implementation of the activities planned in the municipal climate change strategy, and for identification of potential funds for implementing those activities.

#### 4.1.3.3 OTHER RELEVANT EVALUATION QUESTIONS

While the focus of the mini case studies and key-informant interviews was to address the evaluation questions related to climate change actions and stakeholder engagement, the interviews provided information leading to findings related to impact evaluation questions on climate change awareness and social cohesion.

#### *Evaluation Question 2: Did the MCCA integration pilot result in changes in stakeholders' awareness of local impacts of climate change?*

Almost all key informants interviewed for this mini case study said that MCCA and the GA increased Pechevo residents' understanding or awareness of climate change. In all interviews with key informants who had participated in the GA, informants said that their own knowledge and awareness about local impacts of climate change had increased. Some said that, while many people in Pechevo knew something about climate change before MCCA activities began, they were not aware that it was happening in their own community.<sup>33</sup> One informant said that the level of awareness about climate change in the municipality had definitely changed, saying that because of the municipal pilot project and promotional events around it 1) people are aware that the street lights have been changed to more energy efficient light bulbs and 2) they know why this was done.

Other informants noted that an important aspect of the GA was that, in addition to educating them about climate change, it provided people with the opportunity to realize they can do something about it in their communities. Informants also pointed out that people who were actively involved in the GA influenced the

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<sup>33</sup> Note that in the impact evaluation's baseline household survey conducted in June 2013, 60% of respondents in Pechevo said they thought that climate change is happening now and 80% said they thought that they or their family would be affected. Very few respondents in Pechevo were able to give concrete examples of what could be done about climate change.

thinking of those around them. Members of the WGs who were interviewed noted that people exposed to the municipal pilot project are now more aware of energy efficiency and what they can do about it.

### *Evaluation Question 11: Did the MCCA integration pilot result in changes in stakeholders' levels of social cohesion?*

While it is not possible in the context of this case study to determine whether the MCCA resulted in an overall change in levels of social cohesion in Pechevo, key informants consistently stated that people of different backgrounds and different political parties worked well together through the GA process. One informant described the working atmosphere as “excellent.” When key informants talked about issues of social cohesion, they were referring to affiliation with political parties.<sup>34</sup> A local source noted that political polarization in Macedonia is a major issue, especially at the local level. In small communities such as Pechevo, it is reportedly even more evident.

Several informants noted that participants with different political and professional backgrounds worked well together and kept their focus on the aims of the WGs, despite differing political views. One said that this was particularly important given that Pechevo is small enough that it is well known who supports which political party. These responses are particularly noteworthy because, in the baseline household survey, just 33% of the respondents in Pechevo “somewhat” or “strongly” agreed with the statement “People from opposing political parties in my municipality work well together on local issues that impact us all.”

In each interview and focus group, informants stated that political confrontations did not arise around the GA process, and attributed this noteworthy phenomenon to the fact that the discussions revolved around issues, values, or natural resources that cannot be attached to a political party (at not least in Macedonia). For example, an informant said that the river ‘belongs to all,’ and it is difficult to say that the political party in power has a vested interest to do something specific with it. On the contrary, it was pointed out that if a street is rehabilitated, complaints will always arise that this particular street is being repaired because supporters of the party on power live on that street.

With regard to the municipal pilot project interventions, key informants saw them as benefiting all citizens. The interventions were not identified with the ruling party in the municipal government. For instance, the House of Culture occupies a central position in Pechevo on the main square; it is a place where citizens meet and where social and cultural events are organized. The fact that the municipal pilot project was supported by a foreign donor was also said to decrease perceptions that the party in power was doing something for its own members and supporters.

## **4.2 KRIVOGASHTANI MUNICIPAL PILOT PROJECT: MUNICIPAL ENERGY EFFICIENCY**

### **4.2.1 SUMMARY OF KEY FINDINGS**

In Krivogashtani Municipality, the municipal pilot project – *increased energy efficiency at a school building* – was completed as planned by October 2014. It was implemented in accordance with the municipal climate change strategy and was reportedly well received. The project was developed using the MCCA’s Green Agenda (GA) methodology, which emphasizes citizen participation combined with participation of

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<sup>34</sup> It is worth noting here again that Pechevo is 86% ethnic Macedonian, 7% Roma, 6% Turk, and 1% other. Of the 30 WG participants, 29 were Macedonian and one as Turk. Similarly, 10 Municipal Council members are ethnic Macedonians and one is Turkish. Overall, half of the WG members were women (though one WG was all men and the WG that was made up of all women ceased to function).

representatives of the municipal government and CSOs. Implementation of the GA process resulted in the prioritization of a number of projects related to climate change mitigation and adaptation, with eventual selection of the mutually agreed-upon municipal pilot project.

At the time of its design, the municipal pilot project was expected to lead to an estimated 30% decrease in energy consumption by the school (largely through increased efficiencies from replacing the use of wood stoves for heating with a central wood pellet-fueled boiler),<sup>35</sup> significant cost savings,<sup>36</sup> and a decrease in GHG emissions. Increased comfort and the end of reliance on woodstoves was also expected to have positive health impacts for school employees and children. Municipal government staff reported that they anticipate realizing additional energy savings from replicating the intervention at other schools; the replication process is on-going at one school and is planned for others. The case study team was told that financing for the interventions at other schools is expected to come from the municipal budget and to be made possible by the savings resulting from the pilot project intervention. Note that, at the time of this writing, it was not clear whether monetary savings were being realized.

Implementation of the GA process in Krivogashtani spurred new ideas for actions to address climate change and has led to the development of other climate change-related project proposals. Funding has been secured from an external donor to develop an improved irrigation system, which was identified as a priority action in the Krivogashtani municipal climate change strategy.

Key informants interviewed in Krivogashtani reported that the municipal government had been accustomed to engaging with citizens but that the GA approach appeared to have a positive effect on citizen participation in determining municipal priorities. Informants said that stakeholder engagement in the GA process – through attendance at meetings, participation in discussions, and sharing views and opinions on the local values discussed – was generally strong and enthusiastic (with WG coordinators and municipal representatives rating it most strongly) and that the WG members collaborated well.

The municipal climate change strategy developed by the WGs was welcomed by the municipal government as a useful document. The “urgent action” initiated early on in the GA process involved implementing energy efficiency measures at the municipal administration building. These actions had an immediate and substantial impact on the municipal staff by demonstrating the benefits of energy efficient buildings.

The GA process appears to have had an effect on the WG members’ and WG coordinators’ awareness of local climate change. Interviews with key informants suggested the project had a strong effect on knowledge about and attitudes toward climate change, as well as on willingness to engage in actions on climate change issues.

#### 4.2.2 BACKGROUND AND GREEN AGENDA IMPLEMENTATION

Krivogashtani Municipality, located in the Pelagonija plain,<sup>37</sup> was established in 1997. According to 2013 estimates from the State Statistical Office, the population is 5,701, and population density is 66 persons per square kilometer. The people live in the municipal center and in 12 settlements. It is a rural region, and agriculture is the main economic activity. The average age of the MCCA impact evaluation baseline survey

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<sup>35</sup> The Municipality did not provide the case study team with calculations of the actual savings.

<sup>36</sup> The Municipality reports that although it is now spending more money to heat the school, a much larger area is heated (hallways, kindergarten) compared to before the project. This is because the new boiler that uses pellets for heating also requires electricity. Therefore, while the heating is more efficient and cost effective, this has not translated into budget savings.

<sup>37</sup> Pelagonija is the largest plain/basin with fertile agricultural land in Macedonia.

respondents in Krivogashtani was 45, and the most common age range of respondents was 40-49 years (28%).<sup>38</sup> According to the 2002 census 99% of the population is ethnic Macedonian.

Krivogashtani was selected as one of the eight municipalities to participate in the MCCS based on its application to MCCS, which included reference to its vulnerability to the impacts of climate change, in part related to the high dependence on agricultural activities. The local CSO partner and municipal government already had a strong record of cooperation and collaboration on community development programs and citizen involvement in decision-making.

As in Pechevo, the mayor of Krivogashtani was elected in the 2013 local elections and belongs to the VMRO-DPMNE party, which is the national ruling party. The Krivogashtani Municipal Council is made up of 11 council members: six from VMRO-DPMNE and its coalition partners; three from SDSM (the opposition party); and two independent council members. All council members are ethnic Macedonian, and three are women. According to the findings from the MCCS impact evaluation baseline household survey, a majority of survey respondents feel they can trust their Municipal Administration, with 76% reporting they “trust” or “fully trust” the Municipal Council and Mayor.<sup>39</sup>

#### 4.2.2.1 MCCS IMPLEMENTATION PARTNER: “CENTER FOR CIVIC INITIATIVES”

The CSO Center for Civic Initiatives (CCI) is the local CSO partner leading MCCS implementation in Krivogashtani. CCI was established in the city of Prilep in 1997 (which is near Krivogashtani but located in another municipality). CCI is active in the Pelagonija region, especially in the municipalities of Prilep, Krivogashtani, Dolneni, and Mogila, and they have experience in cross-border cooperation in Albania. CCI implements programs to facilitate capacity building of CSOs and CSO networks; CCI helps them improve their visibility, organizational and institutional management, and access to donors. CCI's staff of eight has experience in implementing training events for different target groups, including civil servants, mayors, and CSOs as well as experience in introducing new policies for rural development and the environment.

A CCI staff member served as the Local Coordinator for the Green Agenda. CCI coordinates MCCS activities at the local level, including 1) developing and writing the municipal climate change strategy; 2) organizing local events; and 3) guiding the implementation of the municipal pilot project. CCI is the liaison between MKM and the municipal government.

#### 4.2.2.2 GREEN AGENDA WORKING GROUPS

As part of the Green Agenda process, three Working Groups were set up at the beginning of the GA. Each WG focused on a priority value that had been identified in the first stakeholder meeting. The priority values were 1) water and water resources, 2) local agricultural products, and 3) local infrastructure.

According to the Local Coordinator, before the GA process began, CCI met with representatives from the neighborhood communities in each village to promote the upcoming activities and motivate local citizens to participate. The meeting to launch the GA in Krivogashtani was attended by 120 people. Working Groups were established at a subsequent stakeholder meeting: 66 people were present, and 26 choose to join WGs. Everyone was welcome to participate and join the WGs. Key informants described the process itself as open and transparent. Table 5 lays out demographic characteristics of WG participants.

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<sup>38</sup> Warne, Rees, Nancy Peek, Nils Junge, and Marija Nashokovska. 2015. *Impact Evaluation Baseline Report: Macedonia Municipal Climate Change Strategies Integration Pilot*. Arlington, Virginia, USA: Development & Training Services, Inc. (dTS).

<sup>39</sup> *ibid.*

TABLE 5. CHARACTERISTICS OF KRIVOGASHTANI WORKING GROUP PARTICIPANTS

| Working Group               | Total     | Gender    |          | Participants by stakeholder group     |                |          |           | Education level <sup>40</sup> |            |
|-----------------------------|-----------|-----------|----------|---------------------------------------|----------------|----------|-----------|-------------------------------|------------|
|                             |           | Male      | Female   | Public Institutions/ Local Government | Private Sector | CSOs     | Citizens  | High School                   | University |
| Water and Water Resources   | 14        | 9         | 5        | 6                                     | 1              | 1        | 6         | 1                             | 10         |
| Local Agricultural Products | 5         | 2         | 3        | 2                                     | 0              | 1        | 2         | 1                             | 4          |
| Local Infrastructure        | 7         | 6         | 1        | 3                                     | 1              | 0        | 3         | 6                             | 1          |
| <b>Total</b>                | <b>26</b> | <b>17</b> | <b>9</b> | <b>11</b>                             | <b>2</b>       | <b>2</b> | <b>11</b> | <b>8</b>                      | <b>15</b>  |

None of the key informants in Krivogashtani addressed specific encouragement of women's participation in the preparation of the municipal climate change strategy or the municipal pilot project. Overall, there were more men than women involved in the GA activities. Of a total of 26 WG members, 17 were men and 9 were women. All three WG coordinators were men.<sup>41</sup>

It was noted that, of the nine WG members who were women, eight had university degrees and thus were not representative of the average woman living in Krivogashtani.<sup>42</sup> Among the 17 male WG members, five had a university degree, and the education status of three was unknown.

#### 4.2.2.3 KRIVOGASHTANI MUNICIPAL CLIMATE CHANGE STRATEGY AND LOCAL MONITORING GROUP

At the beginning of the process to develop a municipal climate change strategy, the WG members identified and analyzed 27 local values,<sup>43</sup> and grouped them according to thematic areas, resulting in the three topical WGs. Potential projects and measures were developed and then assessed according to five predefined criteria: 1) technical feasibility; 2) urgency;<sup>44</sup> 3) effectiveness;<sup>45</sup> 4) economic efficiency; and 5) affordability. The weight given to each of the criteria was determined by the individual WGs, resulting in differing weights for criteria by WG (see Table 6 below).

<sup>40</sup> Information on education level is missing for three WG members.

<sup>41</sup> The predominantly rural and agricultural context of Krivogashtani Municipality may partially explain the relatively low participation of women in the GA activities (compared with Pechevo). In addition to working in the fields, women are responsible for the household chores – cooking, cleaning, feeding livestock – and taking care of the children.

<sup>42</sup> According to the 2002 national census, 61 of 5,045 citizens in Krivogashtani (1.2%) had a university degree.

<sup>43</sup> The most important values, as identified by Krivogashtani citizens (based on votes in a small survey), were fertile agricultural land (most fertile region of Macedonia); pepper; Prilep tobacco; regional animal market; and a filter station for waste water. Twenty-two other values were identified and received fewer votes.

<sup>44</sup> Perceived urgency with which the problem or issue needs to be addressed.

<sup>45</sup> Effectiveness of the intervention in addressing the issue at hand (without other interventions being needed).

TABLE 6: WEIGHTS ASSIGNED TO CRITERIA FOR INCLUSION IN THE STRATEGY, BY WORKING GROUP

| Working Group               | Technical Feasibility | Urgency | Effectiveness | Economic Efficiency | Affordability |
|-----------------------------|-----------------------|---------|---------------|---------------------|---------------|
| Water and water resources   | 30%                   | 30%     | 20%           | 10%                 | 10%           |
| Local agricultural products | 20%                   | 20%     | 30%           | 15%                 | 15%           |
| Local infrastructure        | 20%                   | 25%     | 20%           | 25%                 | 10%           |

Source: Strategy on Climate Change in Krivogashtani Municipality 2020

Six people (three WG coordinators and three representatives from CCI) used information and data received from the WGs to develop the municipal climate change strategy. Other municipal government documents were consulted during the preparation of the climate change strategy, including the *Development Program for Water Supply* and the *Energy Efficiency Program 2013-2015*.<sup>46</sup> (Preparation of these latter documents by the municipality was not related to MCCA.)

At end of the process, a total of 19 proposed projects/measures were included in the municipal climate change strategy. Each project consisted of several activities, all of which were assigned an estimated budget. The total estimated budget for all projects was MKD 556,799,889 (USD 12,216,471),<sup>47</sup> which far exceeded the municipal government budget. The municipal climate change strategy did not include information on other potential funding sources for implementation of projects, but it was understood that other sources would be sought.

According to key informants, the resulting municipal climate change strategy was well received. Prior to adoption of the municipal climate change strategy, a stakeholder meeting and public hearing was held, after which citizens had 15 days in which to submit comments. After final revisions, the document was submitted to the Municipal Council and was adopted on May 23, 2014.

An integral part of the municipal climate change strategy (as well as the MCCA pilot) was the development of a local inventory of greenhouse gas (GHG) emissions.<sup>48</sup> The municipal GHG inventory provides data needed by the municipal government to make decisions about prioritizing mitigation interventions and to assess the effectiveness of GHG reduction measures. It was expected to assist the municipality in managing risks, addressing inefficiencies of implemented measures, and educating stakeholders about climate change mitigation and the municipal pilot project. The inventory for Krivogashtani revealed that the largest share of GHG emissions come from energy use (i.e., utilization of electricity and fuel - 79.4%). Agricultural practices contribute 13.2% and waste disposal contributes 7.4%.

Around the time of the adoption of the climate change strategy by the Council, the Local Monitoring Group (LMG) members were nominated by the municipal government and also approved by the Krivogashtani

<sup>46</sup> As noted for Pechevo, a 2012 law requires that each municipality develop a municipal Energy Efficiency Program (EEP) and allocate funds in its budget to implement the EEP.

<sup>47</sup> USD-MKD exchange rate based on the June 16, 2014 rate of the Macedonian National Bank (USD 1 = MKD 45.6).

<sup>48</sup> According to the municipal climate change strategy, training on GHG inventories was given to the municipal and local CSO representatives. The knowledge was then transferred to the WG responsible for the data collection related to local inventory of GHG. Data were collected through a questionnaire included in the manual for the WG, which includes guidelines for the type of data to be collected. In addition, official requests were submitted to the municipal government and businesses, a survey of citizens was taken, and information on the private sector from existing national databases was incorporated. For the preparation of the inventory, a tool in MS Excel was created with predefined emission factors for each type of activity in the municipality. Calculations were made by the MCCA climate change expert, based on the collected data, and compiled in a report on GHG emissions within the municipality.

Municipal Council. The group composition was published in the official gazette of the municipality. The LMG is responsible for monitoring and supporting the implementation of the municipal climate change strategy. The LMG has five members, all of whom are associated with the municipal government: two are municipal employees, one is an elected member of the Municipal Council, and two are working as volunteers<sup>49</sup> in the municipality administration. All of three of the WG Coordinators are members of the LMG. No women are members of the LMG.

#### 4.2.2.4 *COMPONENTS OF KRIVOGASHTANI MUNICIPAL PILOT PROJECT*

The municipal pilot project for energy efficiency, protection, maintenance, and improvement of the conditions of the public buildings was composed of four components, all targeting the municipal center school building:

- i. Partial replacement of the school roof (part of the roof was replaced in the previous renovation of the building in 2007) to better insulate the building
- ii. Construction of an energy efficient façade on the school building<sup>50</sup>
- iii. Replacement of windows in the school sports hall
- iv. Installation of a central heating system in the school that uses pellet fuel for the boiler, instead of wood<sup>51</sup>

The implementation of the municipal pilot project began in June 2014. The proposed budget for the municipal pilot project was MKD 5,210,000 (USD 114,310). The actual cost of the municipal pilot project was MKD 6,128,418 (USD 134,460).<sup>52</sup> The contribution of M CCS was USD 99,849 (75%), while the municipality provided USD 34,611 (25%). Responsibility for implementation (e.g., holding tenders, selecting contractors, monitoring implementation, etc.) was held jointly by MKM and the municipality. See Appendix III for a summary of the Krivogasthani Municipal Pilot Project Concept document.

### 4.2.3 FINDINGS BY M CCS IMPACT EVALUATION QUESTION

For the mini case study, the Krivogasthani municipal pilot project was assessed based on the key evaluation questions outlined above in Section 1.2. The findings regarding climate change mitigation/adaptation actions and stakeholders' engagement with each other are organized according to these questions. Additional findings on awareness of local climate change (evaluation question 2), social cohesion (evaluation question 11), and gender are also presented.

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<sup>49</sup> While not considered full-time employees of the municipality, they are officially engaged with the municipality based on the Law on Volunteering, which requires a contract to be signed between the public institution and the individual if they are volunteering more than 40 hours per month. The volunteers receive a small allowance to cover travel and food expenses.

<sup>50</sup> The new façade is made of 8 cm of styrofoam glued on the outside walls of the school building, with a thin layer of plaster applied.

<sup>51</sup> As was noted in the Pechevo case, pellet fuel is a relatively efficient, low cost energy source made from biomass that, when burned, produces organic waste. While the advantage of pellet fuel GHG emissions compared with other fuels depends to a degree on the conditions under which the fuel is used, pellet stoves have been rated as "the cleanest solid fuel residential heating appliance." United States Energy Department, at [energy.gov](http://energy.gov/energysaver/articles/wood-and-pellet-heating): <http://energy.gov/energysaver/articles/wood-and-pellet-heating>

<sup>52</sup> The "proposed budget" reflects the amount requested by the local CSO and municipality to implement the pilot project. The "actual cost" reflects what was approved for the project by M CCS.

#### 4.2.3.1 CLIMATE CHANGE ACTIONS

*Evaluation Question 4: Did the MCCS integration pilot result in changes in stakeholders' actions to improve adaptation to climate change? AND Evaluation Question 5: Did the MCCS integration pilot result in changes in stakeholders' actions that decrease GHG contributions towards climate change (mitigation)?*

##### **Implementation of the municipal pilot project: alternate ideas, prioritization, and selection**

Stakeholders reported that the process which led to implementation of the Krivogashtani municipal pilot project on *increased energy efficiency at a school building pilot project* followed clear steps and guidelines established by the GA.

Following establishment of the three WGs at the beginning of the GA process, each WG, guided by the WG coordinators, identified and analyzed potential interventions according to the five criteria defined in the municipal climate change strategy – technical feasibility, urgency, effectiveness, economic efficiency, and affordability. The potential pilot projects were then ranked, first individually and then as a group. For example, the WG responsible for *local infrastructure issues* identified five interventions, to which each member applied a score. The individual scores were then compiled by the WG coordinator (in the presence of all the WG members) and ranked again. The three highest priority projects, one from each of the WGs, were then considered to be potential municipal pilot projects; in Krivogashtani, these were 1) improved irrigation system, 2) new sources of drinking water, and 3) energy efficiency of public buildings.

Once the top priorities were identified for each WG, all three groups met together and applied additional criteria (provided by MKM) related to timeframe and budget.<sup>53</sup> Other potential project outcomes taken into consideration included economic impacts, savings, and beneficiary groups. According to the Local Coordinator, improving the irrigation system was a top priority in the municipality. Individual farmers use gas-powered irrigation pumps, and during the summer thousands of the pumps operate on a daily basis. The irrigation project, as well as the drinking water project, were ultimately rejected because they were considered too complex, too expensive, and too lengthy for implementation as an MCCS municipal pilot project. The *energy efficiency in public buildings* project emerged as the top priority.<sup>54</sup> Further analysis – incorporating other potential impacts and beneficiaries – led all three WGs to accept the proposal for the energy efficiency improvements to be implemented at the 'Manchu Matak' Krivogashtani primary school.<sup>55</sup>

There was an impression among some key informants that the urgent action implemented early in the process (energy efficiency interventions on the municipal building) generated very positive results, and the reactions of municipal employees (who also belonged to the WGs) motivated WG members to prioritize another energy-efficient building, assuming it would produce similar results. This interest in duplicating the initial pilot project can be seen from both a positive and negative perspective. On the positive side, according to WG members and representatives from the school and kindergarten the school now “looks great” and everyone is happy that the corridors are finally warm and there are no drafts. On the negative

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<sup>53</sup> Implementation must take less than six months; it should represent a complete intervention with visible results; and it should be implemented within a specified budget (a maximum of USD 100,000 from MCCS with 20% cost sharing by the municipality).

<sup>54</sup> Although the irrigation project was not feasible as a municipal pilot project intervention due to its complexity, the idea continued to be pursued separately, and is now being readied for implementation (see discussion below in the section “Other municipal government climate change adaptation and mitigation actions”).

<sup>55</sup> There are seven public buildings in Krivogashtani. The municipal administration building was the subject of an urgent action energy efficiency intervention at the beginning of the MCCS project. The school was deemed the most appropriate site for the municipal pilot.

side, implementing the same intervention again could have impeded giving serious consideration to other types of potential interventions.

### Early energy efficiency and mitigation results

The proposal for the municipal pilot project estimated that total energy consumption at the school would decrease by 30% following the pilot project interventions.<sup>56</sup> Municipal government representatives interviewed stated that the school building's annual heating expenses are expected to fall by 50%.



Krivogashtani Primary School received energy efficiency upgrades, including a new energy efficient façade.

Photo credit: Marija Nashokovska

Prior to installation of the central heating system as part of the municipal pilot project, the school used wood-burning stoves in all the classrooms, which required large quantities of wood for fuel (halls, bathrooms, and other areas were not heated). With the change to use of pellet fuel and a central heating system, municipal representatives interviewed said that energy consumption at the school has fallen. Furthermore, a municipal government key informant reported that significantly less ash waste is produced with the new heating system. A further benefit of the municipal pilot project, according to municipal representatives, is that now only one school employee is required to maintain the heating system instead of five employees (four of whom can

now spend their time on other tasks requiring their attention). Previously, these employees had to arrive very early at school during cold weather to light the wood fires in the stoves in each classroom. Municipal representatives described this as an added economic benefit of the municipal pilot project investment.

The case study team was told that financing for the interventions at other schools is expected to come from the municipal budget and to be made possible by the savings resulting from the municipal pilot project intervention. Note that, at the time of this writing, it was not clear whether budget savings from the results of the municipal pilot project were being realized. The information provided by the municipal government indicates that it is now spending *more money* to heat the school. This is due to two factors: 1) a larger area is being heated, including hallways, bathrooms, and the kindergarten, compared to before the pilot project and 2) the new boiler also requires electricity, which was not previously a heating cost. Therefore, while the heating is more efficient and cost effective, this has not seemed to translate into budget savings.

Municipal staff who were interviewed said that the municipal government plans to make use of the local GHG inventory that was developed as part of MCCS to assess GHG emissions reductions.

The changes to the school building are visible to all Krivogashtani residents and key informants said that they have generated considerable interest on the part of people in Krivogashtani. Members of the WGs reported that they had become better informed about the benefits of the energy efficiency intervention and said they felt motivated to undertake energy efficiency measures on their own houses, although none had done so yet. Key informants interviewed reported that some residents had changed the façades and windows/doors

<sup>56</sup> According to the Krivogashtani EEP 2013-2015, the school's energy consumption in 2012 was 25,338 kWh.

on their houses as energy efficiency measures, but there was no evidence that the municipal pilot project motivated them to undertake these changes.

Municipal representatives who were interviewed said they believed that employees in the municipal administration were more aware of the benefits of energy efficiency measures because they benefitted directly from the urgent action (replacement of the municipal building's roof, windows, and doors) implemented early in the project. Municipal representatives noted that in previous winters they did not use the offices on the north side of the building because "it was freezing inside." This winter all the offices are being used.

Some key informants said that as a result of participating in the GA they now recognized the importance of clean riverbeds and irrigation channels, which could reduce the flooding that happened early in 2015. Some said that they have been talking with other people from Krivogashtani's villages, telling them that the river and irrigation channels should not be used as dumpsites (a common problem).

On a side note, other benefits were remarked upon. The selection of the energy efficiency project was embraced by school personnel because it resulted in an improvement of their working conditions. Classrooms are no longer full of smoke from the use of wet wood fuel, nor is there a draft from the chimney and windows. They no longer have concerns regarding poorly heated classrooms and the effects on teaching and learning. Teachers and students not only appreciate the new heating system, but are pleased by the school's new appearance (previously a somewhat worn looking building with a faded yellow exterior) with its dark grey and purple outside walls noticeable from afar.

#### **Influence on municipal government administration and climate change planning/actions**

Key informants were asked to assess the influence of the GA and municipal pilot implementation process on how the municipality plans to address local climate change issues in the future. Overall, a variety of key informants said that, thus far, the MCCS has had some positive influences on the way the municipality approaches climate change issues.

The Local Coordinator noted that the municipal administration was motivated by the results of the urgent action implemented early in the GA process, which replaced the windows, doors, and roof of the municipal building. One key informant noted that a positive element in the process was building awareness in the municipal government of the potential for energy efficiency in municipal buildings, (e.g. if the roof of the municipal building had not been modified and insulated, energy efficiency would not have been achieved). Interviewees felt that the urgent action and municipal pilot project successfully demonstrated to the municipal government that energy efficiency measures can generate multiple benefits.

A municipal government representative noted that, because of the GA activities, the municipal government had started planning the implementation of projects that no one thought would get done, such as the irrigation system project. Although improving the irrigation system was beyond the scope of the municipal pilot project, the GA process prompted the municipal government to begin taking action.

According to municipal administration representatives, the local strategy on climate change is a "wonderful document" that can be used in different sectors of the municipal administration's work, such as local economic development and promotion of agricultural products. A municipal government representative reported that there is wide application of the municipal climate change strategy; the same key informant said that he "opens the municipal climate change strategy [document] every day" to consult the data and information. A Working Group member said that, "*The GA and the pilot project influenced the thinking process*

of the municipal administration. In developing projects nowadays the administration takes into consideration what was learned about climate change and what might be the effects of the planned activities on climate change.”

#### **Other Municipal government climate change adaptation and mitigation actions**

According to a municipal government representative and several WG members, budget savings realized from the reduced electricity and heating costs resulting from the energy efficiency intervention on the school building will be used to fund interventions at other school buildings in the municipality. WG members expressed enthusiasm at the possibility of spreading the benefits of energy efficiency and an improved learning environment for children throughout Krivogashtani Municipality. In fact, key informants reported that a project has begun at a school in the village of Bela Crkva, where an energy efficient façade is being installed.<sup>57</sup>

An irrigation system project was identified previously in the municipal climate change strategy as a priority activity in the municipality. It could not be implemented as a MCCA municipal pilot project because of the large estimated budget of MKD 30,842,500 (USD 676,700). However, the municipal government has since secured the funds from the Central Government of Macedonia. Currently, 300 hectares are included in the project, and the irrigation system is expected to be completed in two years. To accommodate management of the new system, the government is making legislative changes to allow small public utility enterprises to manage irrigation systems; this had not been possible until now. The drip irrigation project will improve farmers' productivity while at the same time contributing to GHG reductions by reducing reliance on gasoline-powered engines for pumping water to the fields.

The municipal authorities have also explored the possibility of procuring pellet fuel from local sawmills. This could potentially contribute to the local economy while utilizing a large portion of the waste generated from wood processing. There are three sawmills in the municipality that process wood, primarily for construction. During the production process, the organic waste that is generated typically goes unused. It was suggested that the sawmills could produce fuel pellets from the wood waste. The municipal government would benefit from buying the low-cost pellets for heating buildings, and the sawmills would benefit from the additional revenue stream from the sale of fuel pellets. Furthermore, the fuel pellet production activities at the sawmills would provide employment opportunities for local residents. Municipal representatives have talked to the sawmill owners to see if they would be interested in investing in pellet production, and opportunities have been identified for obtaining grants from the European Union to fund the investment.

To pursue further measures from the Energy Efficiency Program, the municipal government has budgeted MKD 2,880,000 (USD 63,189) in 2015 to replace incandescent light bulbs with energy efficient ones. The municipal government is currently negotiating the procurement of energy efficient light bulbs for the public street lighting system.

#### **4.2.3.2 STAKEHOLDER ENGAGEMENT**

##### ***Evaluation Question 8: Did the MCCA integration pilot result in changes in stakeholders' attitudes towards engagement with each other?***

Key informants from the Krivogashtani municipal government and from a CSO reported that there was already substantive positive experience with municipal government/citizen engagement and that the municipal government had a relatively strong record of encouraging citizen participation. A key informant from the municipal government said “Whenever the municipality involves the citizens in the process of selecting

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<sup>57</sup> The Municipality did not provide the case study team with a budget for this project, so it is not known if actual savings from the municipal pilot are being re-invested in this project.

*potential projects for implementation, we receive fewer negative comments.*" A key informant from a CSO said, "Citizens of Krivogashtani were already infected with citizens' engagement at the time when the Green Agenda started, which triggered large participation in the working groups." These statements, along with others made during interviews, indicate that attitudes towards engagement were already positive enough on the part of those who actually did participate that a substantive increase would be difficult to identify through the mechanism of a mini-case study. This question will be further explored through the endline research.

It is worthy of note that Krivogashtani was (partially concurrently) participating in the Swiss-funded Community Forum program (2013-2014). Responses from key informants indicated that they particularly appreciated the positive, value-based approach used by the GA.

### Public and municipal government enthusiasm for the Green Agenda and the municipal pilot project

WG members reported that at the beginning of the process almost all of them were skeptical of the GA approach and what it could achieve. As one reported, "We knew before about identifying problems and that was okay. But values? Why would someone work to protect or promote values?" However, key informants felt the results from both the urgent action and the municipal pilot project helped citizens recognize the benefits of the approach, and WG members said that participants were proud of their contributions to the development and implementation of GA activities.

According to the Local Coordinator, WG members demonstrated strong commitment to the GA process, and a core group of motivated young people was established. About one-quarter of WG members, including all the WG coordinators, were under 28 years of age. From the local school, teachers who taught biology and environmental issues joined the working groups and provided creative input.

The WG coordinators were said to be very supportive and good at providing guidance to WG members, especially during the process of ranking potential intervention activities and creating a joint list of priorities. Members of the WGs said it was important that they were able to work first within their own WG, prioritizing potential interventions, and then share their views and decisions with the other WGs. They said this gave them ample opportunity to implement the knowledge received at the beginning of the GA. They said that the process gave them the information, data, and space for discussion they needed to engage in the process of selecting the municipal pilot project.

### **Evaluation Question 9: Did the MCCA integration pilot result in changes in stakeholders' levels of engagement with each other?**

#### **Stakeholder engagement in the GA process and municipal pilot project planning and implementation**

Krivogashtani key informants reported that participants actively contributed to the discussions, sharing their knowledge and opinions. CCI provided introductory presentations before each meeting in order to assist the members and coordinators in shaping the discussions. All three WGs had opportunities to ask clarifying



A new boiler room was constructed at the primary school as part of the Krivogashtani energy efficiency municipal pilot project.

Photo credit: Manija Nashokovska

questions, or provide additional information on the topic discussed before they started with the work in their group.

The input from the older participants, usually retirees, was considered particularly valuable during WG discussions relating to priorities. Younger participants valued the opportunity to learn about how the municipality has changed over the years, such as rivers in the municipality having dried up,<sup>58</sup> the change in rainfall patterns, and previous actions taken to clean the river beds. Younger WG members reported how interesting it was to learn about “how things were done 30 years ago.”

According to WG members, the atmosphere during the meetings stimulated their thinking. For example, they reported that it was interesting to learn new things at the beginning of every meeting, especially to learn about climate change and how individuals can contribute. Some of the WG members had more expertise than others (e.g., in biology, environmental issues, hydro-civil engineering) and proved to be helpful in providing additional information on the topics under discussion. Six employees of the school actively participated in the WG activities throughout the process. According to WG members, the teachers were particularly valuable members, a resource for additional information about the topics under discussion, such as plants and natural weather phenomena. One WG member noted that, “the success of the Green Agenda depends largely on participation of citizens; more citizens participating means more discussions and more ideas of how to address the issues related to climate change.”



Entrance to the Krivogashtani Primary School, which underwent energy efficiency renovations as part of a MCCS municipal pilot project.

Photo credit: Marija Nashokovska

A challenge for the coordinators of the WGs was organizing the GA meetings in the middle of the agricultural season; Steps 2 through 6 of the Green Agenda took place between June and September, the busiest time for those engaged in agriculture. At this time of year, people spend much of their time outside in the fields, so arranging meetings was difficult. According to the WG coordinators and some WG members, WGs demonstrated flexibility in scheduling meetings to accommodate everyone. However, WG members recommended scheduling this type of participatory program outside of the agricultural season, noting that then “participation and discussions would be more valuable.”

Coordinators of the working groups collaborated with each other frequently to share what was done in their groups, what needed to be prepared for the next meeting, and the timing of upcoming religious holidays. Members of the working groups expressed their satisfaction with the organization of the meetings.

In addition to the Green Agenda WGs, MCCS planned and implemented a number of events in Krivogashtani encouraging involvement in climate change issues, including:

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<sup>58</sup> Krivogashtani key informants reported that in earlier years, when it snowed heavily in the mountains, the rivers held water for longer periods during the year. They said that nowadays rivers only bring water in the springtime (during snow melt) and during intense rainfalls, such as occurred in February 2015 causing severe flooding in the municipality.

- A public first stakeholder meeting in Krivogashtani with participation of 66 people (in the list of participants there is no information about the affiliation of attendees)
- Various training sessions
- A 15-day period for public comments on the draft Krivogashtani municipal climate change strategy before it was adopted by the Municipal Council
- Public hearing on the municipal climate change strategy
- Broadcasting of documentary educational films about climate change
- Events promoting the municipal climate change strategy, the municipal pilot project, and the earlier “urgent action” (replacement of the windows and doors of the municipal building with energy efficient ones)

It should be noted that in Krivogashtani, the Community Forum program, supported by the Swiss Development Corporation and led by CCI, was being implemented during the same time period as MCCA. A key informant summarized the Community Forum approach as “asking people what the needs of the community are and what financial resources should be spent on.” Contrasting the GA approach with Community Forum, the informant said that “*in the Community Forums program the question is ‘what is bad, so we can improve it,’ and in the GA the question is ‘what is good, so we can protect it.’*” The municipal government and CCI reportedly took care not to involve the same people in the GA process who were the most active in the Community Forums to avoid confusing the processes and ideas between the two different approaches. In order to avoid confusion, even the physical locations where the Community Forums and GA events were held were different.

#### **Influence on municipal government’s engagement with citizens**

Many key informants praised the MCCA and the GA for providing ways to engage citizens in the decision-making process. This attitude is supported by the Local Coordinator’s observation that the Municipal administration was “completely open and accessible” for any needs that came up during preparation of the municipal climate change strategy and implementation of the municipal pilot project.

The collaboration established with the WGs continued with the work of the Local Monitoring Group, which was appointed by the municipal government. This group’s role is to monitor the implementation of the annual action plan, to remind the municipal government of its responsibilities concerning climate change, and to actively seek potential funding for implementation of the projects included in the municipal climate change strategy. The LMG consists of five people (two municipal government employees, a member of the Municipal Council, and two volunteers working in the municipal government). No civil society representatives are included in the group. When queried about the reason for this, municipal government respondents said it was better if all members of the LMG are from the municipal government since, in their opinion, they would be more committed to monitoring the climate change strategy implementation and to seeking project funding. The LMG held regular meetings and consultations in 2014.

#### 4.2.3.3 OTHER RELEVANT EVALUATION QUESTIONS

While the focus of the mini case studies and key informant interviews was addressing the evaluation questions related to climate change actions and stakeholder engagement, interviews revealed other relevant findings regarding the evaluation questions on awareness of local climate change impacts and social cohesion.

*Evaluation Question 2: Did the M CCS integration pilot result in changes in stakeholders' awareness of local impacts of climate change?*

A key informant from a CSO reported that at the beginning of the Green Agenda process, people were not very aware of climate change issues. They did not recognize climate change as a phenomenon that had any influence over their lives; instead, they saw it as natural events that were occurring elsewhere in the world. However, as the Green Agenda process unfolded, WG members began noticing and commenting on various local changes, e.g., "there used to be a river there but now it is gone," or "it used to rain more frequently."

A CSO informant said that the GA process encouraged people to think differently about local climate change issues. Ideas generating included introducing more frequent public transport in the municipality to reduce GHG emissions from private vehicles. This person also said that, prior to implementation of the Green Agenda, the municipal government and citizens were not aware of the *potential savings* to be had from making the school building energy efficient; nor were they aware of *potential health impacts* for school children of an action like installation of central heating in the school (rather than having wood-burning stoves in the classrooms). They also thought that, if the GA approach had not been used, the municipal government would probably have prioritized repairing several streets in the municipality, as they did in the Swiss Development Corporation supported-Community Forum program. It should be noted that another informant said that some residents of Krivogashtani said that they would have preferred to have streets repaired, but this person also thought that people who understood climate change better were more likely to support the selected municipal pilot project. Others said that not only had the direct WG participants' level of understanding of climate change improved dramatically, but that people around them were also starting to get more interested in climate change, displaying a more analytical attitude about the weather, and expressing interest in making energy efficiency improvements to their homes.

*Evaluation Question 11: Did the M CCS integration pilot result in changes in stakeholders' levels of social cohesion?*

While it is not possible in the context of this case study to determine whether M CCS activities have thus far resulted in a measurable change in levels of social cohesion in Krivogashtani, key informants from the municipal government, CSOs, and working groups all reported that the people in the WGs worked well together. The municipal government informants reported that members of the WGs collaborated without any tensions, pointing out that, while the municipality is not ethnically diverse, political differences did not come up during the GA work. They pointed out that beneficiaries of the municipal pilot project belong to different [political] groups and that in this case many of the beneficiaries were children, both factors which would reduce tensions. A Working Group member said that social cohesion between people was extremely good despite their political views – especially important since, in such a small community, it is well known who supports which political party.

# 5 CONCLUSIONS

*Evaluation Question 4: Did the MCCA pilot result in changes in stakeholders' actions to improve adaptation to climate change? AND Evaluation Question 5: Did the MCCA pilot result in changes in stakeholders' actions that decrease GHG contributions towards climate change (mitigation)?*

Implementation of the Municipal Climate Change Strategies integration pilot in two municipalities in Macedonia (Pechevo and Krivogashtani) resulted in the successful selection, by a mixed group of citizens and CSO and municipal government representatives, of municipal pilot projects characterized as climate change mitigation activities. The municipal pilot projects selected by the WGs both focused on energy efficiency of public buildings. The municipal government administration staff interviewed for the study reported that the municipal government had already begun investing the actual or anticipated cost savings from the pilot projects into other similar energy efficiency/climate change mitigation activities, some of which were identified through the GA process. In both municipalities, municipal staff reported that they had previously done some work on planning for increased energy efficiency (as required by recent legislation). These staff made it clear that the funds from MCCA allowed the municipal government to implement energy efficiency actions sooner than they would have without the funding. In terms of individual-level actions, there are anecdotal indications of increased awareness of local climate change issues<sup>59</sup> leading to individual-level mitigating actions. As an example, some households added external insulation (façades) to their own homes.

The findings suggest the Green Agenda approach can be contextually tailored for use as a politically-neutral catalyst to encourage action focused on climate change issues. With its emphasis on participation, local values, and delivering concrete results, the GA approach was implemented with minimal obstacles and was accepted by participants as a legitimate process.

Selection of mitigation vs. adaptation pilots: In both municipalities, the MCCA requirements affected the selection of the municipal pilot project. Members of the Working Groups in both municipalities initially prioritized an adaptation action – reducing flooding [adaptation] in Pechevo and improving irrigation [adaptation and mitigation benefits] in Krivogashtani. In both cases, the initially prioritized actions were not funded as MCCA municipal pilot projects because the scale of the proposed actions was too large in terms of time and cost. In both municipalities, the municipal pilot project that was ultimately implemented was on energy efficiency of municipal buildings. In both municipalities, the municipal pilot project was also an action that was already in the municipality's Energy Efficiency Program, one of a suite of possible actions that, in compliance with the 2012 law that required the design of municipal EEPs, the municipal government was going to invest in at some point. It is not fully clear to what extent MCCA facilitated prioritization of a pilot that was thought to have the greatest value to the citizenry of the municipality versus to what extent it provided funding for the municipal government to implement an important activity that was already on its agenda due to work required through the Energy Efficiency Program.

Concurrent economic and climate change benefits: In both municipalities, municipal government staff spoke strongly of the economic benefits of the municipal pilot projects (though it was not completely clear that costs in Krivogashtani had been reduced). It is possible that in some instances, the staff were referring to the savings to the municipal budget created by having MCCA fund some of the energy efficiency improvement

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<sup>59</sup> Although the mini case studies were not designed to address evaluation questions 1–3, stakeholders involved in the GA process and the municipal pilot project selection process reported that their awareness of climate change impacts increased.

that they are required by law to accomplish. In both cases, an assessment of actual change in GHG emissions had not yet been conducted, but was planned to be done in the future. In Krivogashtani, a few of the informants indicated that there had been a demonstration effect, saying that, because of their GA experience, they had already made some energy efficiency improvements in their own homes. What these findings (based on self-reporting) also underline is that economic incentives seem to play a key role in changes in attitudes and behavior. If climate change adaptation and mitigation measures imposed a cost burden, the behavioral response might well be different. Nonetheless, the findings show that climate change mitigation actions at the individual level can be associated with direct economic benefits, even without the aid of investment subsidies.

Ancillary effects of the energy efficiency activities: The municipal pilot projects delivered a number of tangible benefits beyond the climate change mitigation of energy efficiency and use of pellets as a lower-emission fuel. These included: 1) better and more-consistently heated buildings (benefitting municipal/school employees, and children); 2) reduced time spent to heat the buildings in Krivogashtani (benefitting school employees); and 3) reduced heating and electricity costs (benefitting municipal budgets).

*Evaluation Question 8: Did the MCCS pilot result in changes in stakeholders' attitudes toward engagement with each other? AND Evaluation Question 9: Did the MCCS pilot result in changes in stakeholders' levels of engagement with each other?*

The MCCS pilots implemented in the two municipalities appear to have influenced the attitudes of the stakeholders involved both on collaboration and on greater engagement in climate change issues. Key informants reported high overall levels of engagement, cooperation, and collaboration with each other (i.e., between citizens and the municipal government, between civil society and the municipal government, and between civil society organizations and citizens). This pattern was noted especially among people who belong to different political parties, which was regarded as a key division in the municipalities. Municipal administrators were said to collaborate openly and transparently with citizens, and people of different ages and backgrounds were engaged in working together on climate change mitigation and adaptation issues. However, WG members were predominantly municipal staff and CSO members, and women were underrepresented in the Green Agenda process, especially in leadership and oversight positions (WG coordinators, Local Monitoring Group), especially in Krivogashtani. It is unclear the extent to which these conclusions can be generalized to other citizens in the municipalities, those who were not involved in the GA process or the implementation of the municipal pilot project. However, WG coordinators, municipal representatives, and WG members who were interviewed reported that the municipal pilot projects were visible to the broader community and were well-received.

# 6 RECOMMENDATIONS

The following recommendations are based on information from the documents reviewed and the responses of key informants in the two municipalities (Pechevo and Krivogashtani) that were the subjects of these mini case studies. Because there are differences among Macedonian municipalities, it is not expected that these two municipalities are representative of all of the municipalities participating in MCCA and the GA. Case studies of other municipalities participating in the MCCA and the GA will provide richer information from a broader spectrum of experiences.

- Increase the diversity of citizen participation: In Pechevo, the majority (53 percent) of WG participants were government employees. In Krivogashtani, 42 percent of WG members worked for the government. Overall, local citizens who did not work for the government or a CSO were in the minority among WG participants. Because one of the objectives of the GA process is to improve local democratic processes, a case can be made that it would be beneficial to have a higher percentage of local citizens who are not public employees or CSO staff participating in and taking leadership roles in the WGs and the Local Monitoring Group. Greater citizen participation would facilitate achieving MCCA objectives; it could 1) expand the potential for citizen activism; 2) increase citizen interest in engagement in the process of municipal decision-making; 3) increase government interest in being responsive to citizens; 4) increase citizen buy-in on decisions; and 5) provide more opportunities for positive interactions among groups that do not usually work together. Greater citizen participation could also inspire, and be tied into, broader efforts to expand individual-level actions on climate change mitigation and adaptation.

There are a variety of ways greater citizen participation can be accomplished. Options that might be considered include, 1) greater CSO outreach to citizens in the period before the WGs are established; 2) postponing establishment of the WGs until after the first meeting or having people join the WGs over a set period of time rather than only at the first GA meeting (to give more people the option of participating and to encourage local participation); 3) establishing a minimum percentage of citizen membership (i.e., non-municipal government staff/CSO members) in the WGs; and 4) developing strategies that can be used when citizen participation is low or when citizens drop out of WG participation part way through the process. It should also be assured that GA activities are timed to facilitate maximum citizen participation, such as scheduling activities with reference to the agricultural seasons or other local activity calendars (see below).

Additionally, ways of increasing or supporting women's participation should be explored. MCCA staff are conscious of the importance of women's participation in municipal pilot projects and GA activities, and they have made substantial efforts to include a gender perspective in their work. Women comprised half of the WG participants in Pechevo but their representation was somewhat lower in Krivogashtani. Men were the majority among WG coordinators and members of Local Monitoring Groups. In Pechevo, the WG that was made up entirely of women ceased functioning part way through the process. It was noted that in both of the municipalities, a large majority of residents are Macedonian; it may be that greater support for women's participation would be particularly important for women in other ethnic groups (for instance, it might be particularly important for women municipalities that have a larger proportion of Albanian residents).

It would be useful to consider the optimum composition of the Local Monitoring Group. While, as one of the municipal government staff members said, it appeared to be better for Local Monitoring Groups to be made up of government staff (reasoning that they would be more committed to monitoring implementation of the municipal climate change strategy and to seeking project funding) the Local Monitoring Groups could also be viewed as civil society entities charged with monitoring and reporting on whether the municipal government is effectively implementing the municipal climate change strategy.

- Assess the prioritization of implementing adaptation vs. mitigation measures: While it is noted that the MCCA Round I municipality of Bogdanci is implementing an adaptation-focused municipal pilot project (improving drinking water reservoirs), it may be important to assess the dynamics of whether the MCCA criteria for funding municipal pilot projects inadvertently tends to favor prioritizing mitigation measures over adaptation measures. Energy efficiency interventions can be easily implemented and relatively easily scaled to the available budget. Should it be of interest to further facilitate funding of adaptation pilots, there may be ways to help WGs come up with adaptation pilot options that are of a scale that would meet the funding criteria.
- Include cost-benefit analysis in the selection process: While some key informants reported that additional social criteria were used in the preparation and ranking of the pilot project proposals, the process may benefit from some type of cost-benefit analysis that takes into account various ancillary costs and effects. The municipal pilot prioritization process could benefit from incorporating information on the social benefits to the broader community (in addition to direct beneficiaries) of municipal pilot projects, in addition to effects related to climate change, budget savings, and economic impacts (bearing in mind that social and environmental benefits are difficult to quantify, and may depend heavily on assumptions).
- Reduce the potential for an appearance of bias: In both municipalities, the bulk of the funds went to enhancement of municipal buildings where a substantive percentage of the WGs members worked. In Pechevo, more than half of the WG members were government employees (including teachers), and all of the buildings that received enhancements were municipal buildings (including the school). In Krivogashtani, 23% of the WG members were teachers at the school that received the upgrades. While this is not necessarily problematic, and while a strong case can be made that enhancement of schools and other municipal buildings in the municipal center is important and maximizes visibility of the climate change pilots, there is a risk that the process could be seen by some as being unduly influenced by people who are direct beneficiaries of the pilot projects.
- Clarify the municipal pilot project selection criteria early in the process: Consider providing more informative explanations of the municipal pilot project selection criteria (e.g., budget and time frame limits required by MCCA) earlier in the process. This could save WGs from prioritizing actions that have little chance of being selected, as was done in both Pechevo and Krivogashtani. That said, the act of prioritizing what the WG members believe is most important has value in and of itself. This is illustrated by Krivogashtani having secured alternate funding for the action that was originally prioritized (but was rejected due to cost and timing). Pechevo is pursuing alternate funding options to implement the initially prioritized sediment tank for the Pisa River.
- Assure that the timing of GA activities is appropriate to the local calendar: Several key informants in Krivogashtani reported that the WGs demonstrated flexibility in organizing meetings to accommodate participants. However, key informants who were members of WGs in Krivogashtani also noted that it is important to schedule this type of participatory program outside of the agricultural season, when citizens are more likely to be available so that “participation and discussions would be more valuable.” It may be

worthwhile adjusting the expected timing of certain pilot project activities to maximize the potential for citizen participation, particularly women's participation, as it was reported that during the agricultural season women have duties working in the field as well as at home and have very limited time available to engage in something like the GA process.

# APPENDICES

Appendix I: Mini Case Study Summary Plan

Appendix II: Pechevo Municipal Pilot Project Concept Summary

Appendix III: Krivogashtani Municipal Pilot Project Concept Summary

Appendix IV: Data Collection Instruments

Appendix V: Sources of Information

Appendix VI: Disclosure of Any Conflict of Interest

## APPENDIX I: MINI CASE STUDY SUMMARY PLAN

### Memorandum

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**To:** Rebecca Nicodemus, Global Climate Change Specialist, Office of Global Climate Change, USAID  
**Cc:** Katherine Faulhaber, Monitoring and Evaluation Advisor, Office of Global Climate Change, USAID  
Kathryn Stratos, Division Chief, Office of Global Climate Change, USAID  
**From:** Rees Warne, Senior Evaluator, and Nancy Peek, M&E Specialist, Global Climate Change  
Monitoring and Evaluation Project, Development and Training Services (dTS) and Nils Junge and  
Marija Nashokovska, Evaluation Specialist Consultants  
**Date:** *January 15, 2015*  
**Subject:** Impact Evaluation Plan: Macedonia Municipal Climate Change Strategies; Mini Case Studies  
Summary Plan

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#### *Purpose*

As part of the impact evaluation plan, a series of “mini-case studies” of the municipal pilot projects will examine the process of identifying and implementing the pilot projects. The case studies are designed to help respond to the evaluation questions related to climate change actions and stakeholder engagement with each other.

#### *Context*

The culmination of the Green Agenda process is the planning and implementation of municipal pilot projects that address a climate change-related issue in each municipality. An outcome of the Green Agenda process is the creation and adoption of municipal climate change strategies by the Municipal Councils. These strategies are official municipal documents and contain action plans in which municipal-level measures related to climate change adaptation and mitigation are identified for the period from 2014 to 2020. The municipal pilot projects are related to the action plan measures for climate change adaptation or mitigation.

#### *Phase One pilot projects*

The Phase One municipal pilot projects are listed below.

1. Pechevo: improving energy efficiency of public buildings
2. Krivogashtani: improving thermal efficiency of public buildings
3. Bogdanci: improving municipal drinking water reservoirs
4. Tearce: the initial selected project (drip irrigation) was not approved; an alternate project is being planned

At this point in time the case studies for the pilot projects in Pechevo and Krivogashtani will be conducted since the implementation is completed. Conducting the case studies near the completion of the pilot implementation will ensure that stakeholders are better able to recall and respond to questions related to the Green Agenda process. The Bogdanci and Tearce projects are still in the planning or implementation phases. Those case studies will be conducted at a later date after the projects are completed.

### *Key questions/topics*

The case studies of the municipal pilot projects will link to the impact evaluation analysis by mainly addressing the four evaluation questions below. Below each evaluation question are illustrative questions that may be explored with different local stakeholder groups in individual or group interviews.

Evaluation question 3: Did the MCCA pilot result in changes in stakeholders' actions to improve adaptation to climate change?

AND

Evaluation question 4: Did the MCCA pilot result in changes in stakeholders' actions that decrease GHG contributions towards climate change (mitigation)?

- Is this the same project the municipal government would have chosen if it had the funds but didn't have the Green Agenda? (if not, what other type of project might they have done?)
- How did the Green Agenda/citizen participation affect the way the municipal government thought about prioritizing climate change actions?
- What were the alternate ideas, and how and why was this pilot chosen from among them?

Evaluation question 8: Did the MCCA pilot result in changes in stakeholders' attitudes towards engagement with each other?

- How much public (or municipal government) enthusiasm is there for this project? For the Green Agenda?
- How have stakeholders' relationships changed during and after the implementation of the pilot project – if at all?

Evaluation question 9: Did the MCCA pilot result in changes in stakeholders' levels of engagement with each other?

- What was the level of participation of the local stakeholders (municipal government, CSOs, citizens, beneficiary institutions) in planning and implementation of the pilot project?
- How has going through the Green Agenda affected the way the municipal government plans to conduct business in the future?
- Does the municipal government plan to budget funds/staff resources for Green Agenda-type engagement with CSOs/the public in the future?
- Does the municipal government plan to budget funds for another climate change pilot project in the future? (if so, what might it be?)

### *Mini-case study draft outline (7-10 pages per case study)*

- Introduction
- Description
- Methods
- Findings by evaluation question
  - preparation (Green Agenda)
  - prioritization and selection process
  - implementation
- Conclusions
  - implications for final IE
  - implications for MCCA pilot

### *Work plan*

The Local Evaluation Specialist will lead the design of and data collection for the mini-case studies and the International Evaluation Specialist will provide support and co-write the report. The data collection will consist of key informant interviews and reviews of relevant documents. The stakeholders to be interviewed will vary depending on the nature of the pilots' activities, but will likely include MKM staff, municipal government staff, local CSO staff, participants in the GA process and stakeholder meetings, and intended direct beneficiaries of the pilot projects.

| Activities  | Dates           |
|---|-----------------|
| Planning, document review, meetings with MKM, interview guide preparation | Dec 10 – Jan 28 |
| Conduct interviews and prepare report                                     | Jan 20 – Feb 19 |
| Draft report sent to USAID  | Feb 20          |
| Comments from USAID   | March 6         |
| Finalize report   | March 20        |

## APPENDIX II: PECHEVO MUNICIPAL PILOT PROJECT CONCEPT SUMMARY

This appendix includes a summary of the application form (summarized and translated from Macedonian by the GCC M&E Local Evaluation Specialist) that was prepared by the municipality and Ambrozija for the implementation of the MCCS municipal pilot project. The concept proposal was submitted to MKM for approval of the municipal pilot project implementation.

### I.1. Summary of the Project

|  |  |
|--|--|
| Pilot Project Title:   | Energy Efficient Municipality of Pechevo   |
| Time frame for implementation:   | 4 months   |
| Budget request:  | MKD 4,476,944 (approximately USD 80,950)   |
| Pilot project goals:   | Reduction of CO <sub>2</sub> emissions; decrease of expenses for energy consumption in the municipality  |
| Expected results   | Reduction of CO <sub>2</sub> emissions in the air; replacement of fossil fuels with biomass as energy-generating product; optimal utilization of thermal energy – minimum losses; replacement of traditional bulb lights with energy efficient bulb lights in the system of public lighting  |
| Main activities  | <ol style="list-style-type: none"> <li>1. Municipal Building: <ul style="list-style-type: none"> <li>- thermal isolation of outside walls, roof, replacement of doors and windows</li> <li>- installation of thermostatic valves</li> </ul> </li> <li>2. Primary School 'Vancho Kitanov' <ul style="list-style-type: none"> <li>- installation of thermostatic valves</li> </ul> </li> <li>3. Kindergarten 7<sup>th</sup> September <ul style="list-style-type: none"> <li>- installation of thermostatic valves</li> </ul> </li> <li>4. Sport Hall 'Jane Sandanski' <ul style="list-style-type: none"> <li>- installation of thermostatic valves</li> </ul> </li> <li>5. House of Culture <ul style="list-style-type: none"> <li>- thermal isolation of the outside walls; partial replacement of windows</li> <li>- construction of unit for central heating</li> <li>- procurement and installation of heating system with pellets</li> </ul> </li> <li>6. Replacement of traditional bulb lights with energy efficient bulb lights in the system of public lighting</li> </ol> |
| Indicators for measuring the influence of the pilot project in the community | <p>Reduced emission of CO<sub>2</sub> measured in metric tons CO<sub>2</sub> equivalent</p> <p>5 institutions with increased capacities for handling climate change</p> <p>1 100 citizens have direct benefits from the project activities and their awareness about climate change is increased</p>   |

### I.2. Relevance of the Pilot Project

#### - Relevance regarding climate change

The Municipality of Pechevo Energy Efficiency Pilot Project was selected as a climate change priority effort by the working groups. In past years, numerous measures have been implemented in increase the energy efficiency of the municipality. This project's activities will build and expand upon past efforts, increasing the energy efficiency of public buildings and the public lighting system. The project will reduce carbon dioxide

emissions and increase energy and financial savings through the internal regulation of municipal building heating systems, the construction of energy efficient façades (municipal building and House of Culture), and through the replacement of municipal street lamps with energy efficient bulbs.

Four of the projects' five buildings are located within a 50 meter radius of each other: municipal administration building, primary school, kindergarten, and the sports hall. The House of Culture is located elsewhere. The buildings currently used the following heating systems: the kindergarten uses oil; the primary school uses a combination of oil and wood; the municipal administration building and the sports hall use wood; and the House of Culture uses wood and electricity.

The pilot will pursue three activities to increase the energy efficiency of the municipal buildings. One is the installation of thermostatic valves to regulate temperatures in the five buildings. This will increase efficiency, reduce energy consumption, and lower costs, by avoiding overheating and energy loss. Further energy savings and carbon dioxide emissions reductions will be achieved by installing a central heating system in the House of Culture and through the weatherization of two buildings (replacing the façades (adding external insulation) and replacing doors and windows): the municipal administration building and House of Culture.

The municipal public lighting system consists of 476 lights or lamps. A year ago, 136 lights were replaced with energy efficient ones. The energy consumption for a year was reduced by 6,859 kw/h. Building on this success, the pilot will replace the remaining 340 incandescent light bulbs with energy saving bulbs.

*- Definition of target groups and beneficiaries*

Target groups include municipal employees, students, and other users of the municipal properties as well as visitors. There will be an estimated 1,200 beneficiaries (55-municipal building; 447-primary school; 118-kindergarten; 300-sport hall; 100-house of culture). The ultimate beneficiaries of the project results are citizens that visit these buildings more regularly as well as other citizens and tourists. Representatives of the target groups initiated this idea, which was prioritized with the support of the WGs that worked on the development of the municipal strategies.

*- Additional elements important for the project*

The implementation of the project will serve as an excellent example for pursuing energy efficiency public buildings and public lighting projects. This successful example can be replicated or scaled-up in the future in other places and be utilized as positive pilot project. Financial savings resulting from this project will be used for implementation of other measures from the municipal strategy on climate change.

### 1.3. Pilot Project Description

The main goal of the project to reduce carbon dioxide emissions and decrease energy consumption in the municipality. All citizens in the municipality will indirectly benefit from the energy savings through improved services, but also improved quality of life.

Key stakeholders in this project are: Pechevo Municipality because the public buildings are the responsibility of the municipal government and users of all buildings included in the project.

#### I.4. Indicators

| ( 1 )  | ( 2 )  | ( 3 )   | ( 4 )   | ( 5 )   |
|--|--|---|---|---|
| Will pilot project influence the indicator? (Yes/No)                                       | Indicator  | Definition  | Unit of measure   | Target  |
| <b>Goal</b>  |  |   |   |   |
| Better prepared municipal members to handle local challenges in the area of climate change |  |   |   |   |
| Yes  | Number of participants with increased capacity for adaptation regarding climate change as a result of the pilot project                              | Capacity for adaptation is capability to adapt to climate change, to control potential risks, to accept opportunities or to handle consequences. The support to increase the capacity for adaptation should be focused on a short term, but also to take into consideration for medium and long term benefits.          | Number of participants as defined in the project (for example: individuals, decision-makers or organizations) | 5 institutions                                  |
| <b>IR1</b>   |  |   |   |   |
| Improved local democratic processes  |  |   |   |   |
| Yes  | Percent of citizens that have trust in the local government  | Trust is defined as complete trust and trust to a certain degree  | Percent   |   |
| Yes  | Number of activities for collaboration between citizens, CSOs and local governments  | Joint efforts (initiative and preparation) of citizens and CSOs in the area of climate change. Joint measures for implementation (work-construction)  | Number  |   |
| Yes  | Number of activities from CSOs for inclusion in the policies and monitoring of climate change  | Participation of CSOs in the processes for formulation of local policies and monitoring of the implementation of the policies through participation in working groups, expert discussions, round tables, committees   | Number/disaggregated according to policies and measures for monitoring  |   |
| <b>IR2</b>   |  |   |   |   |
| Increased capacity for adaptation to climate changes                                       |  |   |   |   |
| Yes  | Volume of reduced or isolated emissions of greenhouse gasses, measured in metric tons CO <sub>2</sub> equivalent, as a result from the pilot project | Volume of reduced or isolated emissions of greenhouse gasses, measured in metric tons CO <sub>2</sub> equivalent, as a result from the pilot project in the area of climate change, management with natural resources, agriculture, biodiversity, energy, industry, construction, transport and other relevant sectors. | CO <sub>2</sub> equivalent metric tons (annually)   | Savings of 129.52 tons CO <sub>2</sub> annually |

|     |   |  |                                |      |
|-----|---|--|--------------------------------|------|
| Yes | Number of institutions with improved capacity to handle the issues in the area of climate change as a result of the pilot project | Institutions with improved capacity will be more capable to manage, coordinate, analyze , consult or to make decisions related to adaptation, clean energy and sustainable environment | Number of institutions         | 5    |
| Yes | Number of topics on the agenda of the Municipal Council related to climate change   | Number of topics on the agenda that discuss the measures undertaken by the Municipal Council related to climate change   | Number                         | 2    |
| Yes | Number of citizens with increased awareness about climate change  | Increased awareness is defined as a change in the awareness compared before and after the pilot project  | Number/disaggregated by gender | 1100 |

#### 1.5. Sustainability of the project

With the implementation of the planned activities there will be savings of financial resources and reduced expenses for regular maintenance of the buildings. There will also be decreased expenses for public lighting, which is the most important indicator for the sustainability. Pechevo Municipality and other public institutions will be responsible for regular maintenance of the buildings.

#### 1.6. Budget

Contribution of the municipality to the project:

MKD 1,603,593 – (approximately USD 29,093) or 26.37%

Total budget: MKD 6,080,537 (USD 110,315)

## APPENDIX III: KRIVOGASHTANI MUNICIPAL PILOT PROJECT CONCEPT SUMMARY

This appendix includes a summary of the application form (summarized and translated from Macedonian by the GCC M&E Local Evaluation Specialist) that was prepared by the municipal government and the Center for Civic Initiatives for the implementation of the MCCS municipal pilot project. The concept proposal was submitted to MKM for approval of the municipal pilot project implementation.

### 1.2. Summary of the Project

|  |   |
|--|---|
| Pilot Project Title:   | Energy Efficient Adaptation of Public Buildings   |
| Time frame for implementation:   | 2.5 months  |
| Budget request:  | MKD 5,210,000 (approximately USD 94,000)  |
| Pilot project goals:   | Energy efficient adaptation, protection, maintenance and improvement of the conditions of the public buildings  |
| Expected results   | Improvement of energy efficiency of public buildings, saving energy, saving on heating expenses for public buildings, reduction of CO <sub>2</sub> emissions  |
| Main activities  | Construction of energy efficient façade on the building of primary school 'Manchu Matak' in Krivogashtani, installation of heating system, partially replacement of roof covers and replacement of windows in the school sport hall |
| Indicators for measuring the influence of the pilot project in the community | Decreased consumption of electricity for heating and cooling for 30%<br>Reduced emission of CO <sub>2</sub> due to elimination of the wood as source for heating  |

### 1.2. Relevance of the Pilot Project

#### - *Relevance regarding climate change*

The project pursues mitigation of the effects of climate change by constructing an energy efficient façade of the school building, partial replacement of the roof covers (the rest of the roof covers has been replaced during the last renovation of the building), replacement of the windows in the school sport hall, and expected reduction of greenhouse gasses emissions with the installation of a new boiler heating system that uses pellets in the school building.

#### - *Definition of target groups and beneficiaries*

Target groups are students and employees in the primary school in Krivogashtani. The wider community will indirectly benefit because of the reduced consumption of energy that will result in lower energy bills (which are paid with tax payers' money) as well as reduced emissions of CO<sub>2</sub> in the atmosphere.

#### - *Additional elements important for the project*

With the installation of a heating system in the school building and the use of pellets as fuel for heating there is an opportunity for the municipality to procure pellet fuel from local sawmills. During the wood production process, the organic waste that is generated typically goes unused. The sawmills could produce fuel pellets from the wood waste, which the municipality can buy from them.

### I.3. Pilot Project Description

The pilot plans implement energy efficiency measures in the municipal main school building, including: 1) to construct energy efficient façade with 8 cm styrofoam; 2) partial replacement of the school roof (part of the roof was replaced in the previous renovation of the building in 2007) to better insulate the building; 3) installation of a central heating system that uses pellet fuel for the boiler (will heat 1,300 square meters including the kindergarten); and 4) removing the wood windows from the sport hall and installing new energy efficient windows.

Key stakeholders and beneficiaries in the project are students, employees in the school, and parents of students in the school. In a consultation process with the employees and parents the envisioned activities for the pilot project are considered a priority.

### I.4. Indicators

| (1)  | (2)   | (3)  | (4)   | (5)    |
|--|---|--|---|--------|
| Will pilot project influence the indicator? (Yes/No) | Indicator   | Definition   | Unit of measure   | Target |
| Goal   | Better prepared municipal members to handle local challenges in the area of climate change                              |  |   |        |
|  | Number of participants with increased capacity for adaptation regarding climate change as a result of the pilot project | Capacity for adaptation is capability to adapt to climate change, to control potential risks, to accept opportunities or to handle consequences. The support to increase the capacity for adaptation should be focused on a short term, but also to take into consideration for medium and long term benefits. | Number of participants as defined in the project (for example: individuals, decision-makers or organizations) |        |
| IR1  | Improved local democratic processes   |  |   |        |
|  | Percent of citizens that have trust in the local government   | Trust is defined as complete trust and trust to a certain degree   | Percent<br><b>75%</b>   |        |
|  | Number of activities for collaboration between citizens, CSOs and local governments                                     | Joint efforts (initiative and preparation) of citizens and CSOs in the area of climate change. Joint measures for implementation (work-construction)   | Number<br><b>1</b>  |        |
| Yes  | Number of activities from CSOs for inclusion in the policies and monitoring of climate change                           | Participation of CSOs in the processes for formulation of local policies and monitoring of the implementation of the policies through participation in working groups, expert discussions, round tables, committees  | Number/disaggregated according to policies and measures for monitoring<br><b>1</b>                            |        |
| IR2  | Increased capacity for adaptation to climate changes  |  |   |        |

|     |  |   |   |  |
|-----|--|---|---|--|
| Yes | Volume of reduced or isolated emissions of greenhouse gasses, measured in metric tons CO <sub>2</sub> equivalent, as a result from the pilot project | Volume of reduced or isolated emissions of greenhouse gasses, measured in metric tons CO <sub>2</sub> equivalent, as a result from the pilot project in the area of climate change, management with natural resources, agriculture, biodiversity, energy, industry, construction, transport and other relevant sectors. | CO <sub>2</sub> equivalent metric tons (annually) |  |
| Yes | Number of institutions with improved capacity to handle the issues in the area of climate change as a result of the pilot project                    | Institutions with improved capacity will be more capable to manage, coordinate, analyze, consult or to make decisions related to adaptation, clean energy and sustainable environment   | Number of institutions                            |  |
|     | Number of topics on the agenda of the Municipal Council related to climate change  | Number of topics on the agenda that discuss the measures undertaken by the Municipal Council related to climate change  | Number  |  |
| Yes | Number of citizens with increased awareness about climate change   | Increased awareness is defined as a change in the awareness compared before and after the pilot project   | Number/disaggregated by gender                    |  |

#### I.5. Sustainability of the project

- Buildings are located in a zone that allows for construction and no natural resources are located nearby that might be affected by the project
- The project will have positive impact on the environment due to reduction of energy consumption and reduction of greenhouse gas emissions
- No need for construction approval
- The installation of a heating system that uses pellets for fuel could provide opportunities for local economic development; local sawmills expressed interest to produce pellets from wood waste that would be bought by the municipality.

#### I.6. Budget

Participation of the municipality in the project:

MKD 700,000 – financial sources (approximately USD 12,657)

MKD 360,000 – work force and utilization of tools and vehicles (removing the roof cover and transport, installation of the heating system, painting) (approximately USD 6,500)

Maximum budget that can be covered by USAID is USD 100,000 with a 20% contribution from the Municipality.

## APPENDIX IV: DATA COLLECTION INSTRUMENTS

### Key-Informant Interview Guide

Municipality: Pechevo Krivogashtani

|   |                |
|---|----------------|
| Name and Surname:   |                |
| Affiliation:  |                |
| Position:   |                |
| Gender:   | Male<br>Female |
| Education Level: (primary, secondary, university, postgraduate) |                |
| Age:  |                |
| Ethnic Group:   |                |
| Phone number:   |                |

| General Context Questions   |
|---|
| 1. Are you familiar with climate change activities implemented in your municipality? [If YES] Can you summarize the activities? |
| 2. How did you become involved in the activities related to the municipal strategy?   |
| 3. What was your role in the implementation of the activities, if any?  |
| 4. Were you engaged in pilot project activities? Are you aware of them?   |

| Stakeholder Groups                                 | Questions  |
|--|--|
| <b>Introductory Questions about Climate Change</b> |  |
| For all groups of interviewees                     | <ul style="list-style-type: none"> <li>• Were you aware that the selected pilot project is related to climate change? What is the level of public/municipal government interest in Green Agenda approach and activities?</li> <li>• How much concern was there about climate change before the Green Agenda project launched?</li> <li>• Was there a public information campaign in the municipality concerning climate change? Did it mention the project?</li> <li>• How much public (or municipal government) interest is/was, there for this pilot project, specifically?</li> <li>• Did you receive any training/information on climate change as it related to the pilot project?</li> </ul> |
| <b>Actions Addressing Climate Change</b>           |  |
| For all groups of interviewees                     | <ul style="list-style-type: none"> <li>• Are you aware that your Municipal Council adopted a strategy to address climate change in your municipality in the upcoming years?</li> <li>• Has the Strategy been publicized or promoted among citizens?</li> <li>• Have you participated in the development of the Strategy? How useful was the process, in your opinion?</li> <li>• Can you tell us what the priorities defined in the Strategy are?</li> <li>• Are you aware of any other actions undertaken in the municipality that are part of the municipal strategy?</li> </ul>   |

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Do you know if this particular project is part of the Strategy?</li> <li>• Are you aware of other groups that were involved in the pilot project?</li> <li>• In your opinion, what motivated the municipal government to work on this pilot project?</li> <li>• In your opinion, was this the priority issue related to climate change to be addressed in your municipality?</li> <li>• Did (most) municipal residents support this pilot project?</li> <li>• Do you know who funded the project? How did you hear this? Was it shared publicly?</li> <li>• Were funds spent from the municipal budget for it?</li> </ul>  |
| <b>Participation of Local Stakeholders in the Pilot Project</b>  |   |
| <p>Municipal representatives/ Local Implementer Representative (person(s) responsible</p> <p>NOTE: Inform the interviewee that all the questions are related to the pilot project!</p> | <ul style="list-style-type: none"> <li>• How did Green Agenda/citizen participation affect the way the municipality thought about prioritizing climate change actions?</li> <li>• How did you select this particular pilot project? Who was involved in the selection? Were the alternative ideas, and if so, how was this pilot chosen from among them? In your opinion, was this the priority issue related to climate change to be addressed in your municipality?</li> <li>• Is this the same project the municipality would have chosen if it had the funds but didn't have the Green Agenda? [if NOT] What other type of project might they have done?</li> <li>• How was this pilot related to or different from projects that the Municipality implemented as part of the Law on Energy requirement?</li> <li>• What were the main factors that led to choosing this particular pilot? a) money was available from USAID? b) the pilot budget was the same as the money available from USAID? c) this was something the Municipality had been wanting to do for a while and the USAID money made it possible? d) this was something the Municipality had never considered, but an outpouring of public interest in prioritizing this project led the Municipality to accept it? (reluctantly? enthusiastically?)</li> <li>• Can you briefly describe the process of choosing the pilot for implementation?</li> <li>• Did the municipal government share in the cost of implementing the pilot project? What was the motivation for (not) doing so?</li> <li>• How does the selected project reflect the priorities addressed in the municipal climate strategy?</li> <li>• Did you implement any activities to attract participation of local stakeholders in the project?</li> <li>• What was the level of participation of local stakeholders (CSOs, citizens, beneficiary institutions) in the pilot project? How did you involve the beneficiaries in the project? Can you describe your relationship/interactions with the beneficiaries?</li> <li>• Please describe your collaboration with the local CSO/municipal representatives related to the project? What went well, what was challenging?</li> </ul> |

|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>• Any communication with CSOs and citizens during or after implementation? Please describe.</li> <li>• Did your relationship with the other stakeholders change during and after the implementation of the project – if at all?</li> <li>• Has going through the Green Agenda process been useful to the Municipality? If so, how?</li> <li>• Does the municipal government have funds/staff resources budgeted for the future maintenance needs of the pilot project?</li> <li>• Does the municipal government plan to budget funds/staff resources for Green Agenda-type engagement (related to climate change or another local issue) with CSO/the public in the future?</li> <li>• Does the municipal government plan to budget funds for another pilot project (climate change related or related to another local issue) in the future? (if so, what might it be?)</li> </ul>   |
| <p>Coordinators of WG/Participants in WG/Local Monitoring Groups</p> | <ul style="list-style-type: none"> <li>• Please describe the level of your participation in the project?</li> <li>• Can you briefly explain your role in selecting and implementing the project in your municipality? How did you select this particular project? Who was involved in the selection? What were any alternative ideas, and how was this pilot chosen from among them?</li> <li>• How does the selected project reflect the priorities addressed in the municipal climate strategy?</li> <li>• Do you believe the Green Agenda/citizen participation affected the way the Municipality thought about prioritizing climate change actions? If so, how?</li> <li>• What were the main factors that led to choosing this particular pilot? a) money was available from USAID? b) the pilot budget was the same as the money available from USAID? c) this was something the Municipality had been wanting to do for a while and the USAID money made it possible? d) this was something the Municipality had never considered, but an outpouring of public interest in prioritizing this project led the Municipality to accept it? (reluctantly? enthusiastically?)</li> <li>• Is this the same project the Municipality would have chosen if it had the funds but didn't have the Green Agenda? [if NOT] What other type of project might they have done?</li> <li>• Please describe your relationship with the other stakeholders (Municipality for instance) related to the project?</li> <li>• Did the Municipality actively seek CSO and citizen input/participation in the pilot project decision-making and implementation process?</li> <li>• In your opinion, which stakeholder showed (the most) leadership in the implementation of the project?</li> <li>• According to you, were any stakeholders left out in the process of selecting the project, who could have made a positive contribution?</li> </ul> |
| <p>Beneficiary Representatives of the Pilot Project</p>              | <ul style="list-style-type: none"> <li>• When were you informed about the selection of the pilot project?</li> <li>• What was your role in the selection/implementation of the pilot project?</li> </ul>   |

|   |  |
|---|--|
|   | <ul style="list-style-type: none"> <li>• Were you approached by other local stakeholders to engage in the implementation? If so, by whom?</li> <li>• Did you ask other stakeholders to engage in the project? Members of the public, for instance?</li> <li>• Were you motivated to actively contribute in the implementation of the pilot project? If so, please give your reasons?</li> <li>• Was there any volunteer engagement by the people in the project?</li> </ul>  |
| <b>Awareness, attitudes about climate change</b>  |  |
| For all groups of interviewees  | <ul style="list-style-type: none"> <li>• Were there any learning events organized in your municipality related to climate change as part of the pilot project? Can you name some of them and the topics?</li> <li>• How would you assess your level of awareness about addressing climate change at the local level through the implementation of the pilot project?</li> <li>• Did the pilot project change your awareness of CC? If so, how?</li> <li>• Can you say that now you have a better understanding of how to help your local community to adapt and/or reduce their risks from climate change?</li> <li>• Did your attitude toward climate change as a result of your experience engaging in the pilot project?</li> <li>• In your opinion, what is the most important problem or issue around climate change that should be addressed in your municipality at the present?</li> </ul> |
| <b>Collaboration with decision-makers on different levels on issues related to climate change</b> |  |
| For all groups of interviewees  | <ul style="list-style-type: none"> <li>• Are you aware about the municipal strategies and pilot projects in the other three municipalities?</li> <li>• Have you been in communication with other relevant institutions concerned with the actions undertaken in the municipality such as the pilot project?</li> </ul>   |
| <b>Social Cohesion</b>  |  |
| For all groups of interviewees  | <ul style="list-style-type: none"> <li>• Can you tell us a little bit about collaboration between community members in the decision-making process and implementation of the pilot project? Were all groups from the municipality represented in the working/strategy groups?</li> <li>• Do different groups (political, ethnic or other) seem to have different priorities related to climate change issues?</li> <li>• Do different groups (political, ethnic or other) seem to get along well and work well together on the pilot project?</li> <li>• Have you noticed any differences between different groups related to the pilot project? What differences? Why do you think things were different?</li> </ul>  |

## APPENDIX V: SOURCES OF INFORMATION

### List of people interviewed

In Pechevo, the ten stakeholders interviewed include:

- Two representatives from Ambrozija (partner CSO)
- One representative from an non-MCCS affiliated CSO
- Two municipal representatives
- One beneficiary institution representative
- Four citizen GA participants

In Krivogashtani, the fourteen stakeholders interviewed include:

- Two representatives from Center for Civic Initiatives (partner CSO)
- Seven municipal representatives
- Four beneficiary institution representatives
- One citizen GA participant

### List of reviewed documents and sources

#### **MCCS documents:**

Milieukontakt Macedonia. "MCCS Quarterly Report April – June 2014." July 31, 2014.

Milieukontakt Macedonia. "MCCS Annual Quarterly Report July – September 2014." October 25, 2014.

Krivogashtani Pilot Project Concept (application to MKM/USAID)

Pechevo Pilot Project Concept (application to MKM/USAID)

Pechevo Urgent Action Concept Note (application to MKM/USAID)

#### **Municipal documents:**

Krivogashtani Municipal Council. *Strategy on Climate Change in Krivogashtani Municipality 2020*. May 2014.

Pechevo Municipal Council. *Strategy on Climate Change in Pechevo Municipality 2020*. May 2014.

Official Gazette of Krivogashtani Municipality No. 7 Year XVIII

Official Gazette of Pechevo Municipality No. 2 Year 2014

#### **Other sources:**

UNIDO. 2013. "World Small Hydropower Development Report 2013: The Former Yugoslav Republic of Macedonia." Available at:  
[http://www.smallhydropowerworld.org/fileadmin/user\\_upload/pdf/Europe\\_Southern/WSHPDR\\_2013\\_FYROM.pdf](http://www.smallhydropowerworld.org/fileadmin/user_upload/pdf/Europe_Southern/WSHPDR_2013_FYROM.pdf)

DeutscheWelle. "National election divides Macedonia." June 20, 2014. Available: <http://www.dw.de/national-election-divides-macedonia/a-17564167>

Warne, Rees, Nancy Peek, Nils Junge, and Marija Nashokovska. 2015. *Impact Evaluation Baseline Report: Macedonia Municipal Climate Change Strategies Integration Pilot*. Arlington, Virginia, USA: Development & Training Services, Inc. (dTS).

**Websites:**

USAID website: <http://www.usaid.gov/climate/strategy>

Website of the Pechevo Municipality: [www.pehcevo.gov.mk](http://www.pehcevo.gov.mk)

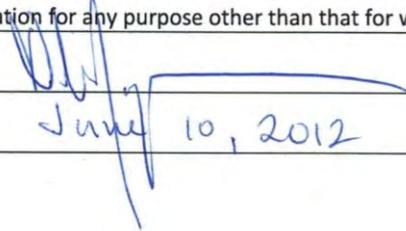
Website of the Krivogashtani municipality: [www.krivogastani.gov.mk](http://www.krivogastani.gov.mk)

Website of Milieukontakt Macedonia: [www.mkm.mk](http://www.mkm.mk)

## APPENDIX VI: DISCLOSURE OF ANY CONFLICT OF INTEREST

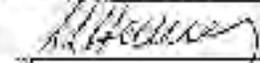
|   |   |
|---|---|
| <b>Name</b>   | Nils Junge  |
| <b>Title</b>  | Evaluation Methods Specialist - Consultant  |
| <b>Organization</b>   | Development & Training Services, Inc.   |
| <b>Evaluation Position?</b>   | <input checked="" type="checkbox"/> Team Leader <input type="checkbox"/> Team member                        |
| <b>Evaluation Award Number (contract or other instrument)</b>   | AID-RAN-I-00-09-00015, AID-OAA-TO-12-00001  |
| <b>USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)</b>   | GCC Integration Pilot Incorporating <b>Green Agenda</b> into Macedonian Municipal Climate Change Strategies |
| <b>I have real or potential conflicts of interest to disclose.</b>  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |
| <p><b>If yes answered above, I disclose the following facts:</b></p> <p><i>Real or potential conflicts of interest may include, but are not limited to:</i></p> <ol style="list-style-type: none"> <li>1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.</li> <li>2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.</li> <li>3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.</li> <li>4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.</li> <li>5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.</li> <li>6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.</li> </ol> |   |

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

|                  |   |
|------------------|---|
| <b>Signature</b> |  |
| <b>Date</b>      | June 10, 2012   |

|  |  |
|--|--|
| Name   | Marija Nashokovska   |
| Title  | Local Evaluation Specialist  |
| Organization   | Development & Training Services, Inc.  |
| Evaluation Position?   | <input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member |
| Evaluation Award Number (contract or other instrument)   | AID-RAN-I-00-09-0015, AID-OAA-TO-12-00001  |
| USAID Project(s) Evaluated (include project name(s), implementer name(s) and award number(s), if applicable)   | Macedonia Municipal Climate Change Strategies (MCCS) Project                         |
| I have real or potential conflicts of interest to disclose.  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  |
| <p>If yes answered above, I disclose the following facts:</p> <p>1. Name of person(s) subject of interest and nature of relationship.</p> <p>2. Description of nature, role as an employee of the USAID handling and managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.</p> <p>3. Specific interest that is direct or is significant through indirect, in the implementation or completion of future projects or being performed or to the outcome of the evaluation.</p> <p>4. Current or previous direct or significant contact with the organization with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.</p> <p>5. Current or previous work experience or working arrangement with the USAID regarding our managing the evaluation or implementation of project(s) whose project(s) are being evaluated.</p> <p>6. Current or previous work experience with an organization that may be seen as an indirect competitor with the implementing organization(s) whose project(s) are being evaluated.</p> <p>7. Personal or family, immediate family, spouse, organization, or objectives of the evaluation award and organization(s) being evaluated that could be seen as a conflict.</p> |  |

I certify that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change; If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature: 

Date: December 7, 2012

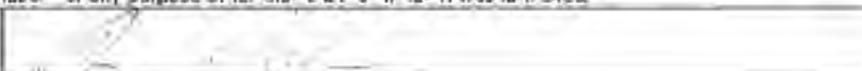
|   |  |
|---|--|
| <b>Name</b>   | Nancy Peck   |
| <b>Title</b>  | Research Associate   |
| <b>Organization</b>   | Development and Training Services, Inc.  |
| <b>Evaluation Position?</b>   | <input type="checkbox"/> Team leader <input checked="" type="checkbox"/> Team member |
| <b>Evaluation Award Number (contract or other instrument)</b>   | <b>AID-OAA-TO-12-00001</b>   |
| <b>USAID Project(s) Evaluated (include project name(s), implementer name(s) and award number(s), if applicable)</b>   | USAID/Macedonia Municipal Climate Change Strategies pilot, Milieukontakt, Macedonia  |
| <b>I have real or potential conflicts of interest to disclose.</b>  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                  |
| <b>If yes answered above, I disclose the following facts:</b><br><i>(Real or potential conflicts of interest may include, but are not limited to:)</i>  |  |
| 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization (if whose project(s) are being evaluated).             |  |
| 2. Financial interest (direct, or indirect through another, in the implementing organization (if whose project(s) are being evaluated) or in the outcome of the evaluation.                           |  |
| 3. Direct or previous substantial, significant, direct or indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. |  |
| 4. Current or previous work, support, or other working relationship with the USAID operating unit managing the evaluation or the implementing organization (if whose project(s) are being evaluated). |  |
| 5. Current or previous work experience with an organization that may be seen as a primary competitor with the implementing organization (if whose project(s) are being evaluated).                    |  |
| 6. The presence of personal or financial, group, organizational, or political interests of the particular project(s) or organization being evaluated that could bias the evaluation.                  |  |

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

|                  |                   |
|------------------|-------------------|
| <b>Signature</b> | <i>Nancy Peck</i> |
| <b>Date</b>      | 10/1/2012         |

|   |  |
|---|--|
| <b>Name</b>   | Rees Wama  |
| <b>Title</b>  | Fed Evaluation Leader  |
| <b>Organization</b>   | Development and Training Services, Inc. (dTS)  |
| <b>Evaluation Position?</b>   | <input checked="" type="checkbox"/> Team Leader <input type="checkbox"/> Team member |
| <b>Evaluation Award Number (contract or other instrument)</b>   | USAID Contract No(s): AID-RAN-H00-09-00015; AID-UAA-10-12-00001                      |
| <b>USAID Project(s) Evaluated (include project no./name(s), inclusion center name(s) and award number(s), if applicable)</b>  | Macedonia: Municipal Climate Change Strategies: Miliukontakt Macedonia               |
| <b>I have real or potential conflicts of interest to disclose.</b>  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  |
| <b>If yes answered above, I disclose the following facts:</b><br><i>Real or potential conflicts of interest include but are not limited to:</i>   |  |
| 1. Close family members who are employees of the USAID organization and/or are the principal investigators of the project or the organizational award project are being evaluated.                              |  |
| 2. Financial interest that is direct and significant that of interest in the implementing organization(s) whose projects are being evaluated or the interests of the evaluating organization(s) in the project. |  |
| 3. Current or previous direct or indirect financial interest (ownership) being evaluated, or any financial interest in the project or project activities.   |  |
| 4. Current or previous employment in the implementing organization(s) whose projects are being evaluated.   |  |
| 5. Current or previous employment in an organization that may be seen as an industry competitor with the implementing organization(s) whose projects are being evaluated.                                       |  |
| 6. Personal relationships (family members, students, employees, or others) of the particular project being evaluated or any other project being evaluated.  |  |

I certify (1) that I have completed this disclosure form fully and, to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

|                  |  |
|------------------|--|
| <b>Signature</b> |  |
| <b>Date</b>      | 2/22/2011  |