

**Minutes from the prioritization meeting with the stakeholder working group**

Tbilisi

05 July 2024

The 3<sup>rd</sup> stakeholders working group meeting in hybrid format for the project on BUILDING UP INTEGRATED MONITORING AND EARLY WARNING FOREST FIRES DETECTION SYSTEM IN THE BORJOMI - KHARAGAULI NATIONAL PARK BY INNOVATIVE REMOTE SENSING TOOLS, IN GEORGIA was held on July 05, 2024 in the Radisson Blu Hotel in Tbilisi organized by N(N)LE International Business and Economic Development Center (IBEDC).

The 3<sup>rd</sup> meeting of the stakeholders working group is related to Activity 2.2: Organize an in - person prioritization meeting with the stakeholder working group to present the results of Activity 2.1 Benchmark existing integrated monitoring and early warning forest fires detection technologies to stakeholders working group. The objective of this meeting was to decide, in cooperation with the stakeholders, which technologies should be designed and deployed in Borjomi-Kharagauli National Park.

The National Agency of Protected Area, Beneficiary of the services, supported the organization of the 3<sup>rd</sup> SWG meeting by coordinating communication with relevant public authorities and the stakeholders.

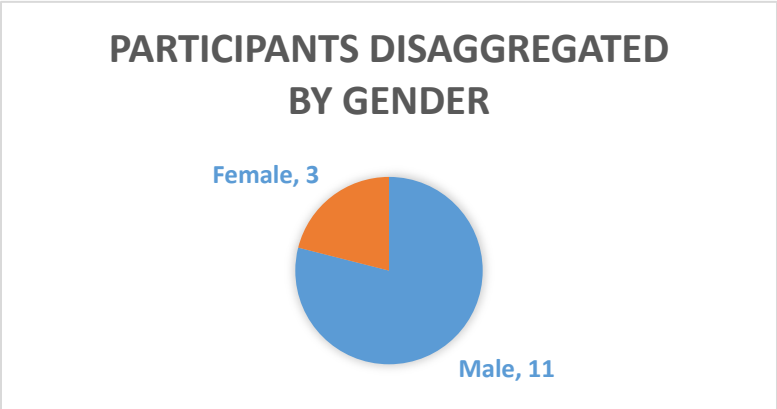
14 participants including IBEDC team and project stakeholders attended the meeting, as it follows (2 of them online base: Tekle Gurgenidze and Ioana Lazar):

| No. | Name of the representative | Gender M / F | Institution and position   |
|-----|----------------------------|--------------|--|
| 1.  | Toma Dekanoidze            | M            | Deputy of Head of Agency of Protected Area   |
| 2.  | Davit Kobakhidze           | M            | Head of division on biodiversity of Agency of Protected Area   |
| 3.  | Giorgi Maisuradze          | M            | Representative of Borjomi-Kharagauli National Park   |
| 4.  | Tekle Gurgenidze           | F            | Representative of Climate Change Department of Ministry of Agriculture and Environmental Protection – online participant |
| 5.  | Shota Tsiklauri            | M            | Representative of Biodiversity Department of Ministry of Agriculture and Environmental Protection                        |
| 6.  | Irakli Alugishvili         | M            | Representative from Ministry of Internal Affairs Emergency Management Service  |

|     |                      |   |  |
|-----|----------------------|---|--|
| 7.  | Giorgi Abramashvili  | M | Head of Borjomi-Kharagauli Division of Ministry of Internal Affairs-Emergency Management Service |
| 8.  | Levan Kubriashvili   |   | Representative from Ministry of Internal Affairs Emergency Management Service                    |
| 9.  | Nino Chkhobadze      | F | Head of Green Movement of Georgia/Friends of Earth   |
| 10. | Avtandil Mikaberidze | M | Representative of Agency of Protected Area   |
| 11. | Dimitri Labadze      | M | Representative of Business Sector  |
| 12. | David Tsiskaridze    | M | N(N)LE International Business and Economic Development Center(IBEDC) – Team Leader               |
| 13. | David Kurdgelaidze   | M | N(N)LE International Business and Economic Development Center(IBEDC)-IT Expert                   |
| 14. | Ioana Lazar          | F | N(N)LE International Business and Economic Development Center(IBEDC)-International Gender Expert |

It should be noted that some representatives couldn't come in this meeting, but instead of them came others: Giorgi Maisuradze attended instead of Levan Sabanidze from Borjomi-Kharagauli National Park. Irakli Alugishvili and Levan Kubriashvili attended instead of Mamuka Kemertelidze from Ministry of Internal Affairs Emergency Management Service. All of them were proposed and confirmed by the above mentioned relevant governmental institutions.

Tabel no.1 – Participants disaggregated by gender



The scope of the meeting was to deliver a presentation of the Benchmark report on existing integrated monitoring and early warning forest fires detection technologies to stakeholders working group. The Power Point presentation as delivered by Mr David Tsiskaridze and Davit Kurdgelaidze is attached to the

report. The presentation introduced the three scenarios: Smoke and flame detection technology based on the video cameras and management system; sensing technology and airborne-drone technology with an estimation of the costs of implementation and maintenance of each system. Afterwards it was open discussion between the project team and stakeholders.

Most questions were related to the working process of the proposed technologies and about advantages and disadvantages of the proposed 3 scenarios. Respectively, IT expert Davit Kurdgelaidze has provided clarifications and described each technology with its positive and negative side. Stakeholders expressed a particular interest for video flame and smoke technology

due to its practicality and its capability to be adapted to the local reality of Borjomi-Kharagauli National Park.

### **1. Video cameras:**

- Does system work at night or when it is fog? - At night, at close range and if it is illuminated, smoke detection will be possible. Detection at a long distance is impossible. Fog - if the camera is wrapped in fog, then detection is impossible, such technology does not exist today.
- At what distance can fire/smoke be detected? - It depends on how the particular area's patrol modes are configured, and what zoom the camera works on a specific area. The existing pilot system detected smoke at a distance of 17 kilometers.
- From two selected points, Abastumani Observatory and Zekar Pass, how many hectares of forest are under monitoring:
  - Abastumani observatory camera - 4970.8 hectares;
  - Zekar Pass Chamber - 3050. Hectares
- How is smoke/fire detection performed? - The video camera automatically transmits the video image to the central system? A central system, with the help of an artificial intelligence function, processes in real-time the video image and performs smoke/fire detection and sends a signal to the operator.
- Will the result of smoke/fire detection be saved? - Yes, the detection log will be saved in the central system? There is an archive of such actions in the system.

### **2. Sensors:**

- at what distance does the sensor detect a smoke? - Depends on air movement. In general, one sensor works within a radius of 30 meters.
- How does one get feedback from the sensor? - For the functioning of the sensor, it is necessary to build a LoRaWan network, install the appropriate hardware, connect to the Internet network and connect to the central system. After building the network, the sensor has the ability to automatically send a message to the central system in case of smoke detection.

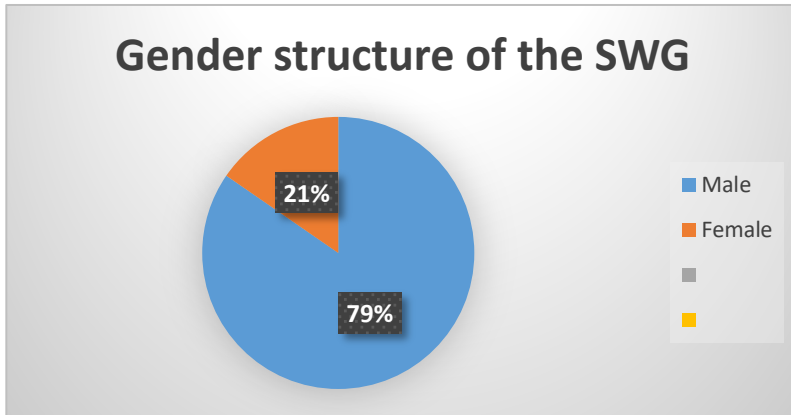
### **3. Drones:**

- Is it possible to carry out automatic monitoring of the territory with a drone? - Yes, it is possible, the drones should have the functionality of the autopilot and it should be possible to configure the flight route.

As a result, stakeholders working group have made final decision and selected the “smoke and flame detection technology based on the video cameras and management system”.

The structure of the stakeholders' working group (SWG) disaggregated by gender is the following:

Table no. 2 – Gender structure of SWG



Taking into account the fact that most representatives of public bodies that are stakeholders of the project are men, a distinct attention will be given to involve in all local activities more young people and women from the local communities that are actual direct beneficiaries of the project.

Annex 1-Attendance sheet of the 3<sup>rd</sup> SWG meeting

Annex 2– PowerPoint presentation used during the 3<sup>rd</sup> SWG meeting;

Photos of the event





Team leader  
David Tsiskaridze