

Integrating Activities for Advanced Communities



D7.3 - Outreach film 3

Project No.871120– INTERACT

H2020-INFRAIA-2019-1

Start date of project: 2020/01/01
Due date of deliverable: 2022/12/31

Duration: 48 months
Actual Submission date: 2023/06/05

Lead partner for deliverable: USFD
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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the Consortium (including the Commission Services)	
CO	Confidential, only for members of the Consortium (including the Commission Services)	

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Publishable Executive Summary

The scientific awareness of the accelerating changes to the Arctic and what this means to the rest of the world is not matched by public awareness who have various perceptions based on limited access to scientific understanding. It is therefore essential to communicate science understanding of the rapidly changing Arctic and its global implications to the public in general and within education. To have maximum impact, within work package 7, we have worked with a world leading organization to create four short films visualizing four different yet critically important aspects of Arctic change. Deliverable D7.3 described in this report is a film entitled “Disappearing homes” showing two examples of impacts of climate change on northern communities from opposite sides of the Arctic (Canada and Siberia). In Canada, scientific research and Indigenous knowledge are working together to monitor the effects of permafrost thaw on coastal erosion at one village under threat. In Siberia, Indigenous Peoples are seeing a change in biodiversity and the species they depend on for food and a health practitioner the impact of changing to processed food. In the same area, a Nenets shows a resilient response by using green technology and a longer growing season to grow fruit and vegetables in the Arctic. The film is presented by Indigenous Peoples and international experts with the aid of video clips and graphic animations.

1. Introduction

The scientific awareness of the accelerating changes to the Arctic and what this means to the rest of the world is not matched by public awareness who have various perceptions based on limited access to scientific understanding. With often misconceived perceptions of climate change causes and impacts, actions to reduce human influences on the Arctic will be limited. It is therefore essential to communicate science understanding of the rapidly changing Arctic and its global implications to the public in general and within education. Films that graphically illustrate the Arctic, changes to the environment, impacts on people and the research carried out there are an extremely effective communication tool, particularly if shared on social media. To have maximum impact, films should be professionally developed and the communication with scientists should be accessible to a wide audience. We therefore, within work package 7, worked with a world leading organization to create four short films visualizing four different yet critically important aspects of Arctic change. Deliverables D7.1 – D7.4 are films produced by the BBC Natural History Unit (NHU) and INTERACT researchers, external experts and indigenous peoples. Deliverable D7.3 described in this report is a film entitled “Disappearing homes”.

2. Production of the film

The start of the process was to negotiate a sub-contract from Sheffield University (Partner 2) to the BBC NHU. The topic of the film was developed by work packages 7 and 1 and communicated to the BBC NHU. Extensive discussions among this production team resulted in the development of a story line that was continuously evolved as participants and various media became available. The INTERACT producers suggested appropriate researchers as well as relevant conferences such as INTERACT Consortium meetings where BBC NHU producers could interview INTERACT partners who could contribute to the film.

A mass of material was accumulated but over time, the story line was focused to a few main messages. These messages were described in interviews, video clips and animations and were accompanied by a carefully crafted script in time with the video sequences. Following this compilation, the whole film was narrated by partner 2 and sub-titles were added. Because the film was developed by the BBC NHU the whole process was highly professional with the same producers, sound engineer, sound recording laboratory as the “Planet Earth” series of films (Figure 1, 2).



Figure 1. The BBC NHU Production team in the sound studio in Bristol.



Figure 2. Recording of the narration (left, in Sir David Attenborough’s chair!).

3. Content of the film

According to the task the third film was to focus on the problems associated with thawing permafrost. However, as material was gathered for all four films, it became obvious that permafrost was a significant factor in each of the films. One particular aspect of permafrost thaw was its effect in coastal areas where erosions of coastlines threatened the existence of some villages. Film 3 therefore focused on disappearing homes. Although permafrost thaw is a major challenge to many communities, Indigenous Peoples are highly resilient and do not think of themselves as victims of climate change. This film basically has two components, one focusing on the problems facing Indigenous Peoples and the other showing resilience.

The film opens with a description by the mayor of Tuktoyaktuk of the problems facing this low-lying village on the Arctic Canadian coast. Massive erosion is threatening the deep harbor that the village depends on and access to part of the village that will soon be under water (Figure 3).

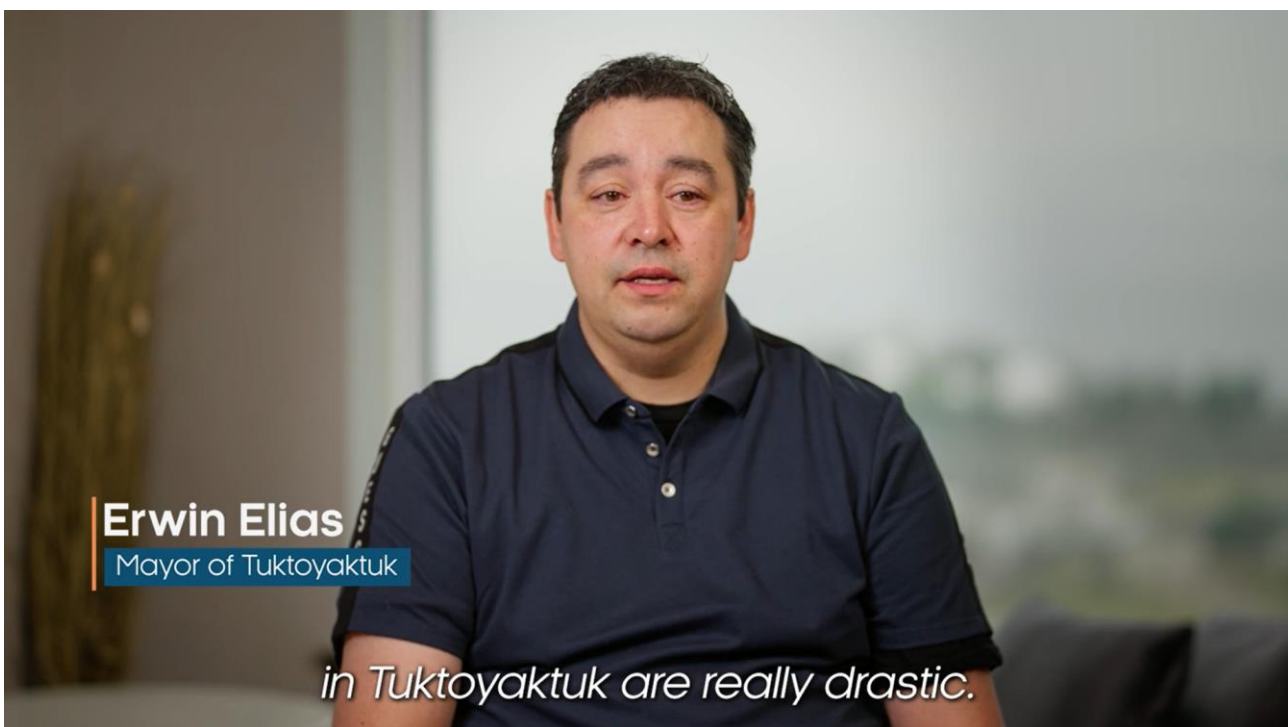


Figure 3. Erwin Elias describing the challenges of coastal erosion through permafrost thaw.

Solving the challenges is a joint effort between scientists and the Indigenous inhabitants of the village. Dr Dustin Whalen from Natural Resources Canada emphasizes this joint approach and describes some of the technical adaptation measures required to prevent further coastal erosion (Figure 4). He also describes how the local inhabitants are involved in the scientific measurements. Deva-Lynn Pokiak (Tuktoyaktuk community liaison officer and Indigenous Person) describes how she and her community use equipment introduced by the researchers to monitor her environment. She comments that through inter-generational Indigenous knowledge, she understands her landscape but welcomes the training to read the scientific monitoring equipment (Figure 5).



Figure 4. Dustin Whalen describes some of the technical adaptation measures to reduce the impacts of thawing coastal permafrost.



Figure 5. Deva-Lynn Pokiak (Tuktoyaktuk community liaison officer) is doing community-based monitoring while being an Indigenous knowledge holder.

Thawing permafrost is only one of the climate change driven challenges for Arctic Peoples. Changes in biodiversity have impacts as local peoples depend heavily on plants and animals in their environment. Valentina Vello belongs to a community in the Yamalo - Nenets region of northern Siberia. She belongs to a group that depends on fishing in the rivers north of Nadym. She tells us that the fish stocks are changing. There are more fish species that are not tasty now and there are fewer large fish (Figure 6). Dr Andrey Lobanov from Moscow, is a medic that has been looking after health of Arctic Indigenous Peoples for many years. He is concerned about how people are changing to processed food rather than their traditional diet. He explains how traditional foods improve the health of the people whose health he monitors (Figure 7).



Figure 6. Valentina Vello from northern Siberia shares her knowledge on changing fish stocks.



Figure 7. Dr Andrey Lobanov has monitored the health of Indigenous Peoples in the Arctic for many years and understands the benefits of traditional foods.

In response to climate change, traditional foods have become more difficult to use. To take advantage of longer growing seasons and to reduce reliance on imported processed food, Mikhail Okotetto (Chairman of the Union of communities of Indigenous Peoples of the North) from the Yamal peninsula has used soil from eroding river banks and plastic greenhouses to produce fruit and vegetables that are normally imported from the south and are far from fresh when they arrive. He is a great innovator and believes in green technology, using solar power for soil heating cables and an electric boat (Figure 8).



Figure 8. Mikhail Okotetto (Chairman of the Union of communities of Indigenous Peoples of the North) in Siberia shows resilience to climate change and innovation by using the longer growing seasons and green technology to grow fruit and vegetables.

4. Planned distribution of the film

The premiere of the films is planned for the Arctic Circle meeting in Reykjavik, Iceland in October 2023. This is the major Arctic venue that brings together politicians, diplomats, Royalties, business representatives, Indigenous Peoples and scientists. We have applied for a session for a “movie night” to showcase the films and to reach major stakeholders. Following the premiere, the films will be made publicly and freely available on Youtube and will be linked through INTERACT’s web site, Facebook and Instagram accounts as well as the INTERACT twitter account. It is also intended that these films are used for education at school level through the network of schools in over 60 countries operated by partner 17 (IGF-PAS) and at university levels through the University of the Arctic that consists of over 200 universities. The films are produced in English with optional English subtitles which will allow non-English speaking countries to translate the storyline. Because the BBC NHU provided films in different formats for all possible purposes it is our imagination that limits the further distribution of the films but we will explore additional opportunities.