



Sustainable Development  
Working Group



ARCTIC COUNCIL

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**SUSTAINABLE DEVELOPMENT WORKING GROUP**

**PROJECT PROPOSAL**

**DIGITALIZATION OF THE LINGUISTIC AND CULTURAL HERITAGE OF  
THE INDIGENOUS PEOPLES OF THE ARCTIC**

For presentation to the SDWG Heads of Delegation

October 2020



**Project Title:** 'Digitalization of the Linguistic and Cultural Heritage of Indigenous Peoples of the Arctic' (Short title: DLCH)

**Lead Country/Project leader(s):** Russian Federation

**Co-lead Partner/ Supporting Countries and PPs:** RAIPON

Norway (TBC), Iceland (TBC), Finland (TBC), Canada (TBC), USA (TBC), Sweden (TBC), Denmark (TBC), AIA (TBC)

**Project leader:** PhD Anatoly Zhozhikov and co-leader Msc Svetlana Avelova, UNESCO Chair, M.K. Ammosov North-Eastern Federal University

**Relationship to other AC Working Groups:**

**Observes:**

Association of World Reindeer Herders (WRH)  
IASSA, ARCTICenter

**Partners:**

UArctic EALAT Institute at International Centre for Reindeer Husbandry  
Arctic Portal  
Arctic Center at the University of Lapland

**Total Cost of Project (Russia):**

Sum costs (4 years):

Approx. 100 000 USD

Funding:

M.K. Ammosov North-Eastern Federal University  
Republic of Sakha (Yakutia) budget 80000 USD

**Other national funding:** Under application

## **Objective of Project**

The *Arctic Council DLCH Project* is focused on preserving and developing Indigenous languages, traditional knowledge and cultures of the Arctic Indigenous peoples including food heritage as a foundation for diversification of local economies and new approaches to adapt to Arctic change. The *Project* envisages wide use of modern digital technologies, creation of a GIS map and Arctic Indigenous peoples' knowledge database on a uniform multilingual portal, [www.arctic-megapedia.com](http://www.arctic-megapedia.com). The *Project* will provide access to information, promote better understanding and facilitate adaptation to Arctic changes based on the knowledge and resources of affected communities and peoples.

## **Rationale**



The *DLCH Project* is supporting the Arctic Indigenous peoples, which could contribute to the digitalization of their linguistic, food and cultural heritage. Arctic Indigenous peoples will be represented on a unified online portal. Using the information available on the portal, the Arctic Indigenous peoples will be able to learn from and adapt the experience of peoples living in similar conditions. The *Project* will also highlight the methods for engaging Indigenous youth and co-producing traditional Indigenous knowledge with science<sup>1</sup>.

The *DLCH Project* will also target the extension and development of the 'Preservation and development of languages and cultures of the small-numbered Indigenous peoples of the North on digital media and in Cyberspace' project led by the UNESCO Chair of the North-Eastern Federal University together with the leading scientists of the Institute for Humanities Research and Indigenous Studies of the North of the Siberian Branch of the Russian Academy of Sciences<sup>2</sup>. The implementation of the *Arctic Council DLCH Project* will be continuously reviewed and discussed at the international Northern Sustainable Development Forum held annually in Yakutsk.

The *Arctic Council DLCH Project* will be directly linked to the 'Arctic Indigenous languages and revitalization' project, an online educational resource hosted by the University library in Tromsø and Bodø in Norway and the NEFU UNESCO Chair funded by UArctic Norway. The Indigenous Peoples' Secretariat will coordinate the feedback received after the first draft of the language map has been on display at the 'Ságastallamin – Telling the Story of Arctic Indigenous Languages' exhibition. The purpose is to finalize a comprehensive circumpolar GIS map of the Arctic Indigenous languages to be used as an open online resource for education and research on a uniform multilingual portal of the Arctic Indigenous Peoples, [www.arctic-megapedia.com](http://www.arctic-megapedia.com), which will become a part of the *Arctic Council DLCH Project*.

Developing prototypes for machine translation between two Sámi languages are important for the future preservation and use of Indigenous languages<sup>3</sup>. Building an open-source development infrastructure for language technology projects has been pioneered in Giellatekno & Divvun language technology resources<sup>4</sup>. The *DLCH* project will seek to promote new technologies in machine translation and promote projects to implement these technologies in preservation and development of other Arctic indigenous languages.

The *Arctic Council DLCH Project* will hold an international seminar on intellectual property rights related to languages, traditional knowledge and innovation in co-operation with WIPO, UNESCO Norway and Indigenous Peoples organizations in

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<sup>1</sup> Magga et.al, 2011; Eira I., 2012

<sup>2</sup> Zhozhikov A.V., Timofeeva-Tereshkina O.F. About the project of digitalization of languages and culture of Indigenous peoples of the Arctic // Indigenous languages as a factor of the Arctic sustainable development. – 2018 – Yakutsk. 356-359 pp.

<sup>3</sup> Moshagen, Pirinen, and Trosterud, 2013

<sup>4</sup> Tyers, Wiechetek, and Trosterud 2009



Kautokeino, Norway. The outcome of the seminar will serve as a major delivery to the Arctic Council.

### **Alignment with Arctic Council work:**

The Project aims to establish an international multicultural internet portal on the language, culture and food heritage of the Indigenous peoples of the Arctic.

The *DLCH Project* is aligned with the thematic areas of the Sustainable Development Working Group (SDWG) as reflected in its Strategic Framework. It will also become a contribution to the major goals of the Arctic Council SDWG and deliverables of the Russian chairmanship in the Arctic Council (2021-2022).

The *Project* is also in line with the international initiatives on multilingualism in the world (proclamation by the UN General Assembly of an international year of Indigenous Languages (IY2019) and the International Decade of Indigenous Languages (2022-2032).

The *Arctic Council DLCH* project follows the Indigenous Peoples' cultural heritage and digitalization guidelines provided by the Finnish Sámi Parliament and Norwegian Sámi Parliament. The outcome of the '[Digital Access to Sámi Heritage Archives](#)' project will be implemented in the current digitalization project. Each Indigenous peoples' organization will be consulted before publishing of their cultural or linguistic heritage/knowledge since the final decision-making power on intellectual property rights is in their hands.

The *Arctic Council DLCH Project* will follow the following [recommendations](#) from and the [ethical guideline](#) from Sámi/Indigenous stories/storytelling.

### **Background**

In 2013, the *DLCH Project* was presented at the VII<sup>th</sup> Congress of Indigenous Peoples of the North, Siberia and the Far East in Salekhard arousing great interest and support. In April 2013, the Arctic Indigenous peoples' multilingual portal [www.arctic-megapedia.ru](http://www.arctic-megapedia.ru) received the Far East Internet 'Sterkh' Award as the 'Best non-profit thematic project in the Far East'. Since 2014, the project expanded over the entire Far East organizing expeditions to collect material in Chukotka (Chukchi, Inuits), Kamchatka (Koryak, Itelmen), and Khabarovsk Region (Nanai, Negidal, and Udegei People). The collected material is used to:

1. Create digital educational multimedia DVDs about the languages and cultures of Indigenous peoples, including digital language maps.
2. Create an open multilingual [portal](#) about the Indigenous peoples including the Indigenous food heritage.
3. Disseminate the traditional knowledge of Indigenous peoples for educational and communication purposes.



The significance of the *DLCH Project* lies in the digital preservation of the languages and culture of the Arctic Indigenous peoples, for example, those of the Forest Yukaghirs with only 2-3 full-fledged native speakers. The obtained material is available online and used to teach the Yukaghir language increasing the number of native speakers among young people. Digital cultural heritage will include information resources on language and culture, both created as a result of digitization in traditional media, and materials immediately created in digital form.

### **Partners' contributions toward the Project**

The *DLCH Project* will involve organizations from the Arctic Council member states: Norway, Iceland, Finland, Sweden, USA, Canada, Denmark, and Russia. Their participation is in line with the objectives of this *Project*, as Indigenous and Arctic peoples of the Arctic live in their territories.

The Project provides for the participation of the Arctic states and Indigenous organizations. Each country participating in this *Project* will be able to freely manage information resources created in their country, as well as get free access to similar resources created by other Arctic countries.

NEFU UNESCO Chair together with Norwegian and Finnish researchers have become a co-executor of the following grant projects:

1. 'Arctic Indigenous languages and revitalization: an online educational resource' hosted by the University library in Tromsø and Bodø in Norway. The main result of the project – a peer-reviewed comprehensive circumpolar GIS map of Arctic Indigenous languages will contribute to the *DLCH Project*.
2. 'Feasibility study on co-production of knowledge between researchers and Indigenous communities for climate change adaptation' implemented jointly by scientists from Norway, Finland and Russia through the grant of the Nordic-Russian Cooperation Program in Higher Education and Research and coordinated by the International Centre for Reindeer Husbandry. This part of the project will hold a seminar on Indigenous peoples' intellectual property rights.
3. 'Indigenous Food Innovation Enhanced' project led by the Nord University Business School and International Centre for Reindeer Husbandry in Norway. The project is part of the Arctic Council EALLU Arctic Change, Indigenous Youth and Food Culture project. It is part of the Arctic Council Arctic Food Innovation Cluster (AFIC).
4. 'Human Adaptation in the Changing Arctic' network established by NEFU UNESCO in 2019. The project is focused on human adaptation in the Arctic for various sciences: climate, environmental, sociological, cultural and language studies. Its main goal is to study traditional, local and scientific knowledge to develop scientifically based adaptation solutions for the Indigenous population of the Arctic.

5. A grant from the Ministry for the Development of the Arctic and the Affairs of the Peoples of the North of the Republic of Sakha (Yakutia) to support the *Arctic Council DLCH Project*.
6. *The Arctic Council DLCH Project* will coordinate its work with professor Trond Trosterud, UIT The Arctic University of Norway and Dr Jargal Badagarov, Ulan Ude University Buriatia to promote activities on developing prototypes for machine translation between different Indigenous languages. The seminar on the relevant theme will be delivered as the outcome of the *DLCH Project*.

### **Project Activities**

- Form an international team of contributing participants from Arctic states;
- Study best practices for preservation of the linguistic and cultural heritage of the Arctic Indigenous peoples;
- Interview and record native speakers of the Arctic Indigenous languages and keepers of traditional Indigenous cultures; Collect materials from public and private archives on linguistic, cultural, historical and food heritage;
- Involve Indigenous youth in research work to preserve linguistic and cultural heritage;
- Present the Arctic Indigenous peoples on the Arctic multilingual Internet [portal](#) and create a structured knowledge base for preservation and development of language, their original culture and traditional way of life using GIS technologies;
- Develop GIS maps of Arctic Indigenous languages;
- Hold a seminar on the Arctic Indigenous peoples intellectual property rights; Hold a seminar on Building an open-source development infrastructure for language technology.

### **Timeframe and Project Completion**

#### **January-December 2021, preparatory phase - Platform Design and Organization**

This phase would involve searching for financial support and organizing of a temporary working group to coordinate, distribute and communicate at the international and national levels. Organization of international seminars and consultations for the experience and best practices sharing of linguistic and cultural heritage in the Arctic countries participating in the *Project*. Development of a new web-design and structure of the platform. Start of expeditionary work.

#### **January 2021 - December 2023, main phase - Data Collecting and Content Creation**

Obtaining financing. This phase will focus on bringing international academic expertise in documenting the languages and cultures of the Indigenous peoples as well as carrying out expeditions to areas of Indigenous Peoples residence and organizing community-based seminars and workshops there. This stage will also include analyzing, generalizing, systematizing, digitalizing, and processing of the

collected data, as well as creating 3D models of cultural and historical objects. Adding content to the portal. Organizing seminars as stated in the *Project* objectives.

### **January - December 2024, final phase - Maintaining the Platform and Disseminating Results**

Communication and presentation of the *Project* results. Completion of the final *Project* report. Maintaining the user-friendly and easily accessible portal.

### **Anticipated Outcomes**

1. Compiling an invaluable digital collection of the Arctic Indigenous languages and cultures;
2. Representing all the Arctic Indigenous peoples on the Arctic multilingual Internet portals: [www.arctic-megapedia.com](http://www.arctic-megapedia.com), [www.arcticportal.org](http://www.arcticportal.org), [www.arctic-council.org](http://www.arctic-council.org) and other relevant websites;
3. Promoting the traditional Indigenous culture online, transferring traditional Indigenous knowledge to the youth and engaging youth in science and research, facilitating educational activities for teaching native languages and culture of the Arctic Indigenous peoples, preserving and developing their language and culture;
4. Creating a unified structured knowledge base and platform for Arctic Indigenous peoples, which will allow to learn from each other, preserve and develop their languages, cultures and traditional way of life;
5. Establishing a multicultural environment for communication between peoples living in the Arctic;
6. Utilizing digital technologies to train future personnel for the Arctic regions, taking into account the nomadic lifestyle.
7. Expanding 'Arctic Indigenous languages and revitalization: an online educational resource' project through the methodic peer-review process on the first draft map together with partner organizations.
8. Developing GIS maps of the Arctic Indigenous languages;
9. Conducting a seminar on the Arctic Indigenous peoples' intellectual property rights;
10. Conducting a seminar on Building an open-source development infrastructure for language technology

### **Project Deliverables**

As the outcomes of the *DLCH Project* the proposed program of activities will have delivered:

- Online knowledge database and platform that provides access to the digital materials of the Indigenous languages, cultural and food heritage
- Reports on the stages of the *Project*;
- Recommendations for the Arctic Council on the preservation of linguistic heritage and culture of the Indigenous peoples of the Arctic;



- Community-based seminars and workshops;
- GIS maps of the Arctic Indigenous languages;
- 3D models of cultural and historical objects.

After the support from the Arctic Council SDWG is finalized, the project will be supported by the Government of the Russian Federation, the Government of the Republic of Sakha (Yakutia), the interested Arctic states, M.K. Ammosov North-Eastern Federal University, the Association of Indigenous Peoples of Russia and the Republic of Sakha (Yakutia), the Northern Forum and other structures and stakeholders involved in the Arctic and preservation of linguistic and cultural heritage.

### **Communications**

The *Project* is aimed at a broad target group - Indigenous peoples living in the Arctic, Indigenous youth, as well as on individuals who study Indigenous languages, cultures and traditional way of life. The Indigenous peoples of the Arctic live throughout the Arctic, have different nationalities, languages and distinctive cultures, but they do face common challenges and threats caused by climate change and globalization in small Arctic communities. We believe that the *DLCH Project* can help to level up existing inequalities related to the creation and dissemination of locally relevant information as well as educational and cultural activities in Indigenous languages.

These are harsh climatic conditions, sparsely populated, inaccessible and similar traditional life activities (reindeer husbandry, hunting and fishing). As a result of the *Project*, the Indigenous peoples of the Arctic will benefit in many ways, especially in revitalization and preservation of their languages, cultures and traditional lifestyles, which will ultimately contribute to the sustainable development of their people, as well as to the development of the Arctic with their knowledge and experience. Arctic indigenous youth will gain their native languages and cultures and will be engaged in science and indigenous knowledge development. Results of the project also could be used in educational purposes.

The Arctic Council SDWG can communicate information about the goals and objectives, implementation strategies and final results of this *Project* to the wider community of the Arctic Council, supporters, beneficiaries and residents of the Arctic through the media, as well as through the Arctic multilingual portal [www.arctic-megapedia.ru](http://www.arctic-megapedia.ru) and partner portals and communication channels, on which all information on this *Project* and all the challenges of the Indigenous peoples of the Arctic will be collected and displayed.



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The *LCH Project* will be communicated and consulted at upcoming international and local events such as Arctic Circle, ASSW, IASSA, UArctic Congress, 3<sup>rd</sup> Science Ministerial, Northern Forum GA, and more.

Outreach support and cooperation will be sought from the Arctic Council observing members.