**ACTIVITY:** Workshop1_TORNIO RIVER (FINLAND-SWEDEN)_PILOT LANDSCAPE  
**DATE and TIME:** 24.5.2019 (12:30-15:30)  
**PLACE:** Tornio City Hall (Tornion kaupungintalo)  

**ORGANIZERS:**  
- Juanjo Galan / Aalto University  
- Kirsi Hutri-Weintraub / Aalto University  
- Sampo Kangastalo / Tornio City  

**PARTICIPANTS:**  
- Sampo Kangastalo / Tornio City  
- Anu Rautiala / Tornio City  
- Aapo Määnpää / Tornio City  
- Göran Wigren / Haparanda City  
- Tiina Elo / Lapin Liitto  
- Riikka Pyykkö / The Museum of Tornio Valley  
- Virve Sallisalmi / Tranboundary river comission  
- Marika Saranne / Lapin ammattikorkeakoulu  
- Anne-Mari Söderström / MTK  
- Petri Leinonen / Farmer  
- Martti Isto / Farmer  
- Markku Vaaraniemi / Fisherman  

**KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):**  
- Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project.  
- Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Tornio River Pilot Landscape  

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**AGENDA:**  
1. **WELCOME / TERVETULOA**  
2. **PRESENTATION OF PARTICIPANTS**  
3. **INTRODUCTION TO THE AELCLIC PROJECT** (by Juanjo Galan (Aalto University))  
4. **INTRODUCTION TO TORNIO-HAPARANDA and EXISTING REGIONAL, LOCAL AND DETAIL PLANS** (by Sampo Kangastalo (Municipality of Tornio) and by Göran Wigren (Municipality of Haparanda).  
   **Coffee break**  
5. **TEAMWORK**  
   a. **TASK 1:** What are the main values of the Tornio river valley? / What is important in the Tornio river valley landscape to you or to the sector/community you are representing?  
   b. **TASK 2:** What do you know about climate change? / How might it affect the Tornio river valley and your daily life?  
   c. **TASK 3:** How do you think that the AELCLIC-project can contribute to the existing plans for Tornio and Haparanda?  
6. **NEXT STEPS:** Future Workshops and Visibility of the Local Network (webpage)  

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**1. WELCOME**  
- Welcoming words by Timo Nousiainen (Major of Tornio), Göran Wigren (Municipal planner from Haparanda) and Juanjo Galan (Aalto University.)
2. PRESENTATION OF PARTICIPANTS

<table>
<thead>
<tr>
<th>NAME OF CONTACT</th>
<th>INSTITUTION</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampo Kangastalo</td>
<td>Tornio City</td>
<td>REGIONAL/LOCAL ADMINISTRATION</td>
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<tr>
<td>Marika Saranne</td>
<td>Lapin ammattikorkeakoulu</td>
<td>RESEARCH</td>
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<td>Anne-Mari Söderström</td>
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<td>ECONOMY SECTOR</td>
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<td>ECONOMY SECTOR</td>
</tr>
<tr>
<td>Markku Vaaraniemi</td>
<td>Fishers</td>
<td>ECONOMY SECTOR</td>
</tr>
</tbody>
</table>

CONCLUSIONS:
- The local network includes already a wide diversity of stakeholders but it would be important to increase the presence of other economic services (tourism, services, commerce, etc.) and of societal organizations or social groups (hunters, ecologists, youngsters, senior citizens, etc.)
- Aalto University and the members of the local network will work to increase the number and diversity of participants

3. INTRODUCTION TO THE AELCLIC PROJECT
- Juanjo Galan (Aalto University) summarizes the goals, methods, structure, schedule and expected outcomes of the AELCLIC-pathfinder project and the reasons that led to the selection of the Tornio River Valley as one of the 16 European Pilot Landscapes of the project. In particular, the Tornio was chosen based on its location in the highly sensitive Boreal area, on its exceptional environmental and cultural values, on its transnational character and on the deep connection between local economy and natural landscape.

CONCLUSIONS:
- The AELCLIC-pathfinder project in the Tornio River valley is presented as an initial step towards a potential CLIMATE-KIC DEMONSTRATOR project and as an opportunity to include Climate Change Adaptation in existing regional local or detail plans.
- The envisioned CLIMATE-KIC Demonstrator would aim at producing LACAPs (Landscape Adaptation Plans to Climate Change) in those Pilot Landscapes in which a solid local network is defined during the of the AELCLIC-pathfinder project. A solid network should have the administrative, social and economic capacity and commitment to collaborate in the preparation of a LACAP for their respective area.

4. INTRODUCTION TO TORNIO-HAPARANDA and EXISTING REGIONAL, LOCAL AND DETAIL PLANS
- Sampo Kangastalo (Municipality of Tornio) and by Göran Wigren (Municipality of Haparanda) explain the history, present and future plans for the municipalities of Tornio and Haparanda and their increasing cooperation (e.g. in tourism, urban planning, education, etc). In particular, the presentation includes:
  ○ TORNIO- (FI) – VISION 2027
CONCLUSIONS:
- The presented plans offer a wide variety of scales and topics for the AELCLIC project, from the detail plan for a new and climate change adapted urban area between Tornio and Haparanda, to more general strategies for the towns of Tornio and Haparanda or for the river Tornio floodplains. Therefore, one of the first goals of the AELCLIC project will be to defined more precisely the physical scope of the project.

5. TEAMWORK
- **TASK 1:** What are the main values of the Tornio river valley?

**RIVER & WATER:**
- “crystal” water
- Natural state of the river
- Free river
- Free running river
- Clean water
- Free river
- Cleanliness – water
- Wide river valley view
- Flood meadows
- Ice breaking in the spring
- Free water system
- Rising spring flood Nature, the river landscape comes out nicely around the city center of Tornio
- River landscape, hills behind, agriculture on both sides of the river
- River, islands and of course the cultivated river banks

**OPEN and NATURAL LANDSCAPE:**
- Wide space
- Hill landscape
- No windmills
- Wide space
- Open landscape
- Wide river valley view
- Flood meadows
- Long views + openness of the landscape
- Natural character
- Nature (vulnerable)
- Fish fauna
- Fauna: fishes, birds, wild animals, domestic animals
- Seasonal rhythm in the nature
- Cleanliness – nature

**LIVING IN THE FAR NORTH:**
- Freedom
- Beautiful
- Cleanliness
- Openness
- Winter, snow, ice
- Northern light
- Midnight sun shining parallel to river valley
- Seasons + light of the spring
- Ice breaking in the spring
CULTURE & NATURE:
- Kukkolankoski
- Culture and nature together
- Traditions
- Authentic traditional landscape
- Rural-like environment
- Layers of cultural environment
- Preservation of the cultural heritage
- Agriculture on both sides of the river

TOWNS & VILLAGES:
- Villages
- Old buildings
- Lively villages
- History of the settlement
- Connections between settlements and the river. The river landscape comes out nicely around the city center of Tornio

BETWEEN BORDERS:
- “Life” on both sides of river
- Uniqueness – not built, border crossing

SEA:
- Archipelago barren landscapes and sea
- Sea – gate to the world

- TASK 1b: What is important in the Tornio river valley for you or for the sector/community you are representing?

CULTURAL LANDSCAPE/ENVIRONMENT
- Relics
- Harmony of the landscape
- Cultural landscape
- Traditional landscape
- Preservation of an ancient field and meadow landscape
- Cultural values of the landscape
- Old traditional livelihoods
- Immaterial cultural heritage

TOWNS & VILLAGES
- Buildings
- Traditional houses
- Regeneration of the culture
- Not too much sporadic settlements
- Clean yards
- Constructions fitting to the landscape and buildings outside the flooding area

BETWEEN BORDERS
- Friendship cross the river
- River connects, not divides
- Common landscape for people in the Tornio Valley, Finland + Sweden
- ‘specific local’ culture on the both sides of the valley
- Freedom to go/travel between landscapes (borders)
- Preserving cultural heritage

**OPEN and NATURAL LANDSCAPE**
- Biodiversity
- Openness of the landscape
- Conservation of the landscape
- Fish fauna

**FEELINGS, PEOPLE & COMMUNITY:**
- Freedom
- Stories of people
- People with self-respect
- No litter

**RIVER & WATER**
- Flowing waterway
- Floods - both positive and negative

**SUSTAINABILITY**
- The intelligent use of natural resources and also appreciation of natural resources. The aim of the regional development work is to take into account nature and the opportunities it offers, for example to increase the comfort of people living in the area

**LOCAL ECONOMY**
- Travel and recreation

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**TASK 2a: What do you know about climate change?**

**CLIMATE CHANGES:**
- Extreme phenomena
- 2 times faster in the Arctic, 1.5 C ≥ 5 C
- Increase in temperature
- Unstable winter
- Air warms up
- Water warms up
- Extreme phenomena of the weather are increasing
- Unpredictability of the weather
- Too much and too little
- Winters are milder than before
- Extreme phenomena are increasing
- Winds, storms are getting stronger
- Droughts
- Not necessarily real winters or snow anymore
- Climate is changing - even we want or not - human effect

**CAUSES & MITIGATION:**
- CO2 produced by us
- Consumption, industry, disregard for the environment
- Humans responsibility
- Human activities throughout the globe causes climate change. Much more than we do here, but we are all responsible.
- Big actions are needed to make the change even slower.
- Sum of many factors to be influenced at many different levels. Climate change is affecting and will have an increasing impact on the lives of all of us on earth and the consequences will only be strengthened
- There is a strong focus on CO2 emissions and the aim is to lower the concentration in the atmosphere. In addition, a new concern is the increasing methane in the atmosphere, which also have an impact on the climate

**SOLUTIONS: POLITICS, ECONOMY & WAYS OF LIVING:**
- Transnational cooperation is important
- Predictability disappears
- New generations get an adaptation task
- Annual ground frost will become shorter > affect to forestry and tree cutting
- Annual ground frost will become shorter > the damages to the infrastructure
- Businesses, cities, municipalities, organizations and individuals need to become more aware of the impact of their choices and actions on the climate

**ECOSYSTEMS:**
- Reducing Diversity
- Diseases and Pests
- Extinction
- Invasive species
- Affects water through different forms, "Heavenly Rivers"
- New invasive species, old ones move up

**DOUBTS:**
- Is there a normal or abnormal variation? Cp. ice age
- Common in news etc., fact or hype?
- Trump doesn’t believe
- Weather and climate are often mixed up

**WELLBEING & HEALTH:**
- Increased risk of disease
- Psychological problems as the environment changes
- Pandemic increase?

**RIVER:**
- Floods will probably decrease in Tornio river

**SEA:**
- Water surface rise

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**TASK 2b: How can climate change affect the Tornio river valley and your daily life?**

**LOCAL ECONOMY:**
- Agriculture and forestry benefit?
- Forestry - pests, storms, soft, wet forestland and roads, harvest/cutting time shortens
- More floods and more often big/wide floods
- Winter will delay, affects also to tourism as trade
- Fish does not rise (to river) / The condition of the salmons, the warm water - the negative thing
- The difference between the seasons (no clear differences between the seasons). This will affect northern Finland, there is going to be warmer summers and winters, also the soil and its vegetation and organisms will also change. This may allow, for example, the cultivation of novel plants in the area, but may also mean increasing pests.
- Winters are no longer as before, plants change, the river warms up and is no longer suitable for salmon

ECOLOGY AND ECOSYSTEMS:
- Distribution areas of plants will change - a positive thing
- Distribution areas of plants will change - a negative thing
- Impoverishment of nature?
- Forest growth accelerates
- No more distinct seasons
- Season of the snow cover may shorten and the river may stay unfrozen even in the winter

PEOPLE, WELLBEING, HEALTH & SAFETY:
- Climate refugees
- The fight against slipperiness is increasing
- Different weather phenomena can be seen in daily life - walking, living, dressing
- The ski season becomes shorter – a horrible idea
- Snow season shortens - The amount of light does not increase - mental nausea
- Season of the snow cover may shorten and the river may stay unfrozen even in the winter

CONSTRUCTION AND TECHNOLOGY:
- Construction becomes more difficult on the riverside
- The need for deepening the sea-lane is diminished due to rising sea levels
- Carbon sinks
- The need for maintenance of buildings and infrastructure - humidity, wind
- Regulations of construction become tighter

WATER & RIVER SYSTEM:
- Nutrient runoff > water quality?
- The water level varies
- More floods and more often big/wide floods
- In addition to the spring and midsummer floods, also autumn flood in the future

DOUBTS:
- Absurd decisions
- Speed of Change cp. Adaptation - conflict?
- Changes have also occurred in Finland due to climate change.

- TASK 3: How do you think that the AELCLIC-project can contribute to the future PLANS OF TONIO AND
  Promote new innovations in the area

LEARNING & SHARING
- Collect local facts
- Importing information and good practices from the world
- Global examples / solutions
- Academic knowledge is important
- Visibility > awareness > action
- Giving information about the impacts of climate change in Tornio river valley.
- Surveying and compiling changes in the area makes it possible to get ready. Adaptation takes time and in particular it is good to prepare for raising people’s awareness, The change will have an impact on various trades, the municipal sector and industrial activities, so adaptation work will have to be done on many levels and with different factors.

AWAWARENESS RAISING AND ACTIVATION OF LOCAL COMMUNITY
- Information → action to prevent
- Increase interaction between different groups
- Give some hope...?
- Interaction and networks
- Including various stakeholders: environmental groups, fishermen, farmers, tourism, etc.
Public awareness (rising). Opportunity for information and motivation

**MAKING TORNIO MORE VISIBLE**
- ’Export’ information about the area and making it visible

**ADAPTATION OF LOCAL ECONOMY**
- New business opportunities

**HEALTH & WELLBEING**
- Mental adaptation also involved?

**AGGRAVATING THE PROBLEM**
- Knowledge adds pain

### 6. NEXT STEPS: Future Workshops and Visibility of the Local Network (webpage)

- It is agreed to organize two workshops more during the AELCLIC-Pathfinder project. The second workshop will take place in August, it will concentrate in the co-identification of Climate Change impacts by different local stakeholders and will be accompanied by some introductory lectures explaining the expected Climate Changes in Northern Europe, Finland and the Tornio river valley. The third workshop will take place in late September and will concentrate on the co-definition of the key contents of a potential LACAP and on the conformation of a solid and competitive local network in order to include the Tornio river valley as one of the Pilot landscapes in the application for a Climate-KIC demonstrator project.

- The following participant institutions and individuals confirm their availability and interest in being visible in the webpage of the AELCLIC-Pathfinder project (Tornio river valley section):

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<thead>
<tr>
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<td>Haparanda Stad</td>
<td>Göran Wigren</td>
<td><a href="mailto:goran.wigren@haparanda.se">goran.wigren@haparanda.se</a></td>
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<tr>
<td>Farmer</td>
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<td><a href="mailto:petri.leinonen@elomestari.fi">petri.leinonen@elomestari.fi</a></td>
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- A doodle Poll will be organized to schedule the second workshop in August. All the participants are encouraged to share the Doodle Poll and the invitation to join the local network amongst other individuals, organizations or institutions.
### SUMMARY:

**Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):**

- The local network in the Tornio river valley but more stakeholders from the Swedish side, from societal organizations and from other economic sectors would be needed in order to make a more representative and operative network to plan future actions for Climate Change Adaptation and Mitigation. **ACTION:** Aalto University, the Landscape Observatory of Finland and the local stakeholders will invite more local stakeholders in order to have more participants in the second workshop (August 2019).

- The involvement of the municipalities of Tornio and Haparanda is crucial to plan future actions and to create a local platform for Climate Change Adaptation. **ACTION:** give more responsibility to the Municipalities of Tornio and Haparanda in the project.

- The results of the workshop reveal a strong connection between the local community and their inhabited landscape, which is clearly associated with the river Tornio and the natural and open character of the landscape, which also defines some of the main characteristics of the local identity (e.g. freedom, enjoyment of seasonal changes, etc.). Interestingly, the participants express that their dearest values of the Tornio river valley are connected with the cultural dimension of the landscape, with the interaction between culture and nature, with the significance of settlements and buildings in the rural and fluvial environment, with the trans-frontier condition of their landscape and with the local feeling of community.

   - Many of the participants were well informed of the general impacts of Climate Change in the region, of its causes and of the need of defining solutions affecting ways of living and local economies. In addition, the participants highlighted the effects of Climate Change in ecosystems, health and safety. Some participants were doubtful or skeptical about Climate Change.

   - The main impacts and opportunities of Climate Change in the daily life of the participants were primarily connected to the Local Economy (agriculture, forestry, fishing, etc.), local Ways of Living, Health & safety, local Ecosystems, need of technical changes in Buildings & infrastructures, and the water system. Some participants also expressed their doubts about Climate Change and their concern about overreactions.

   - Finally regarding the contribution of the AELCLIC project to existing regional, local or details plans, the participants perceived the AELCLIC project as an opportunity to Learn & Share, both within the regional community and with other European regions. In addition the AELCLIC project was perceived as an opportunity for awareness raising, for the activation of the local community and for the co-definition of solutions & actions. **ACTION:** Consider that the frontier is just an administrative line and that Tornio and Haparanda work basically as a united functional area. Reinforce the exchange of ideas between the Pilot Landscapes of the AELCLIC-pathfinder project. Invite experts to the workshops 2 and 3 in order to enrich the discussions and provide locals with more detailed information. Increase the component of the project connected to the co-definition of strategies and solutions (workshop3).

- **WORKSHOP2:** Will be scheduled in the end of August. **ACTIONS:** Aalto University will open a Doodle Poll to set the best possible date and time. The following topics are proposed for the discussion in the workshop2: The River, The Sea, The Border, Ecological Migrations, Agriculture and Forestry, Carbon Neutrality.

- **RESULTS of the WORKSHOP1 and visibility of the Local Network in the webpage of the project:** **ACTION:** The results will be processed by Aalto University and displayed in the Webpage of the AELCLIC-pathfinder project (www.aelclicpathfinder.com).
**ECONOMIC REPORT:**

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<th>TYPE OF COST (approximate)</th>
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<td>Travel &amp; Accommodation Costs for the partner(s) members</td>
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<tr>
<td>Goods, materials and external services: Coffee breaks</td>
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<tr>
<td>Sub-granting (e.g. Travel &amp; Accommodation costs for Third Parties or collaborators)</td>
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<td><strong>TOTAL</strong></td>
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