



WHAT ARE THE MAIN VALUES OF TORNIO FOR YOU?:

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

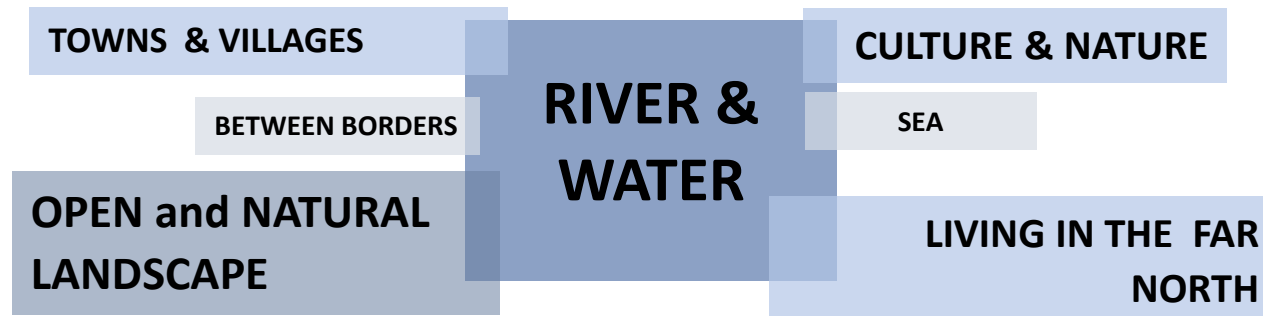
- Villages
- Old buildings
- Lively villages
- History of the settlement
- Connections between settlements and the river. the river landscape comes out nicely around the city center of Tornio

BETWEEN BORDERS

- “life” on both sides of river
- Uniqueness – not built, border crossing

SEA

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



WHAT IS IMPORTANT IN THE TORNIO LANDSCAPE 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



RIVER & WATER

FEELINGS, PEOPLE & COMMUNITY

BETWEEN BORDERS

CULTURAL
LANDSCAPE-
ENVIRONMENT

TOWNS & VILLAGES

OPEN and NATURAL LANDSCAPE

LOCAL ECONOMY

SUSTAINABILITY

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



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

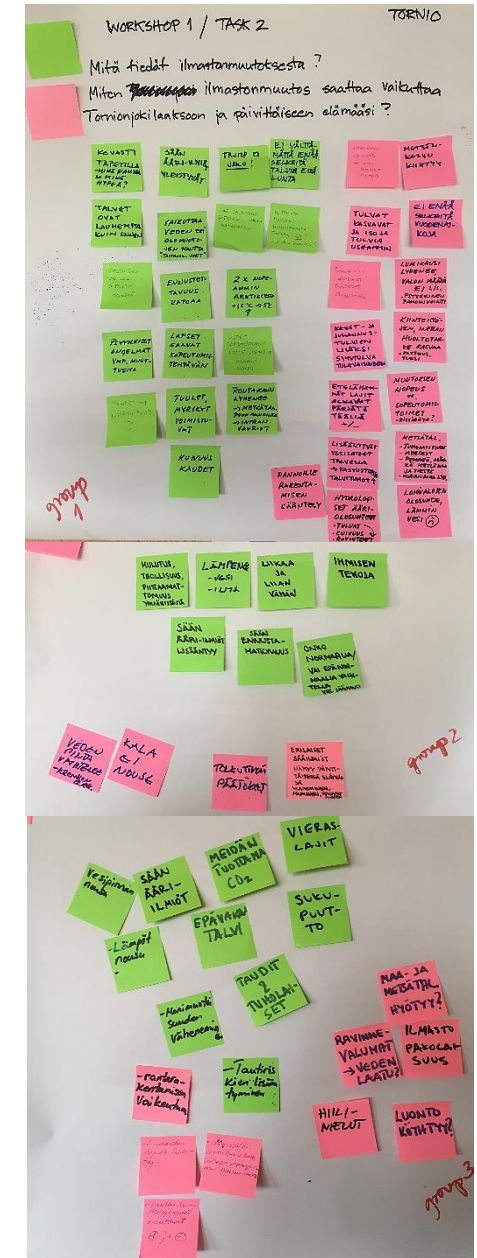
- Construction becomes more difficult on the riverside
- The need for deepening the sea-lane is diminished due to rising sea levels
- Carbon sinks
- The need for maintenance of buildings and infrastructure - humidity, wind
- Regulations of construction become tighter

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.



HOW DO YOU THINK THAT THE AELCLIC PROJECTS CAN CONTRIBUTE TO THE DEVELOPMENT OF THE FUTURE PLANS FOR THE TORNIO RIVER VALLEY?

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.
- Can pass information to others - friends, colleagues, children taking part locally + knowledge about adaptation
- Understanding / helping others to understand

CO-DEFINING LOCAL SOLUTIONS AND ACTIONS

- "bottom-up"
- Interaction and networks
- Understanding and making solutions together
- New ideas
- Customized solutions for the area
- Facilitating common understanding (more)
- Seeing the diversity of adaptation
- Maybe we could find new things to compensate for the potential effects of climate change

AWARENESS 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

