

Valuing brooks in an urban environment – residents' opinions about brook restoration in the Helsinki region

European River Restoration Conference, 27.-29.10.2014, Vienna
Auri Sarvilinna, Virpi Lehtoranta, Turo Hjerppe & Jukka Jormola Finnish Environment Institute

Contents:

- Why we have an interest in urban brooks?
- The study
 - What, where and when?
- The results
 - Residents' opinions about urban brooks
 - Willingness to pay (WTP) for the improved state of urban brooks
- Conclusions

- Brooks, an underrated part of the urban environment?
- Hydrological and physical alterations, poor water quality, littering
- Loss of habitats and landscape



- Urban brooks are valuable environments
 - Important parts of the catchment areas
 - Providing habitats and biodiversity
 - Providing various ecosystem services
- Restoration of urban brooks has many benefits
 - Improved water quality and flood protection
 - Improved diversity
 - Improved recreational opportunities
 - Improved aesthetic values
 - Improved economic values
 - Increase in real estate prices
 - Fishery



- Could this be the future of our urban brooks?

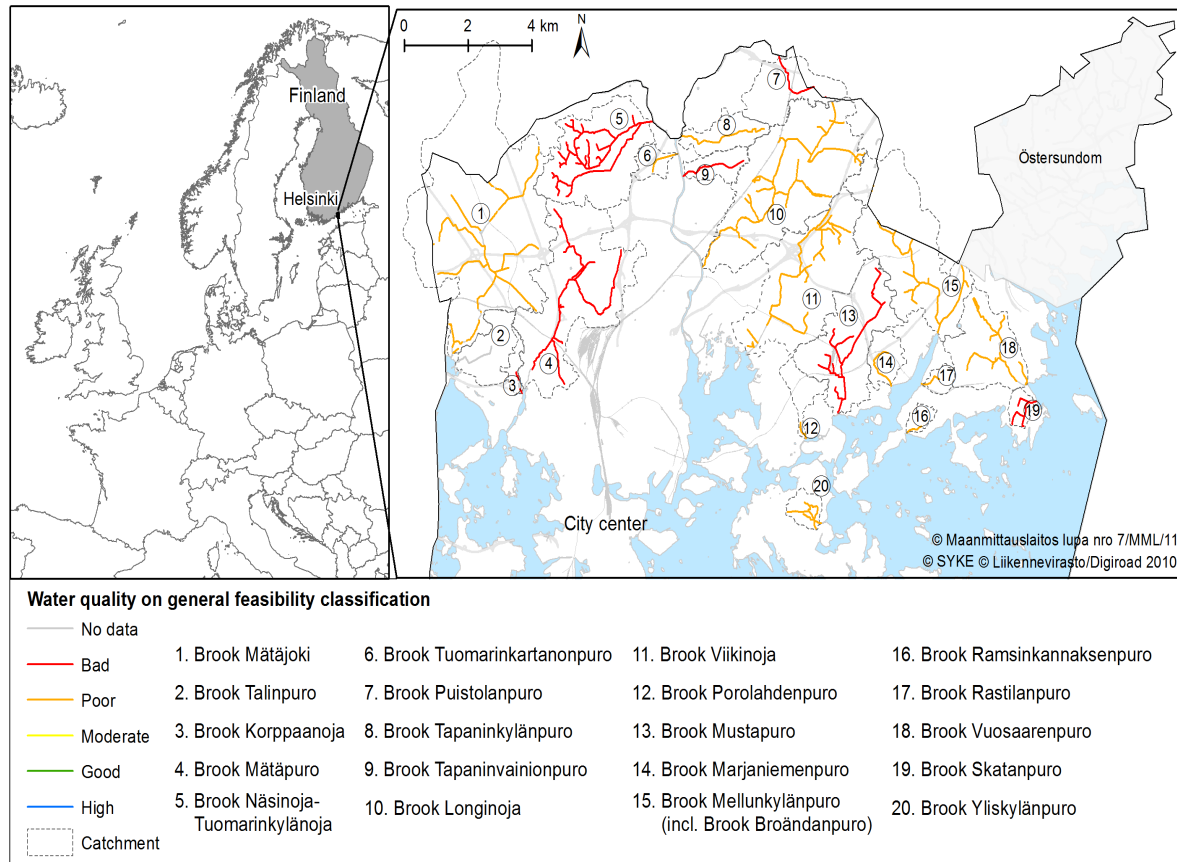


Valuing the brooks in an urban environment

- What are the residents of Helsinki feeling about urban brooks and their restoration?
- What are they ready to pay for improved ecosystem services and improved quality of their environment?



Study area



Map of the study area and the selected brooks of interest and of the Helsinki “Small water action plan”.

The study

- Study was carried out in co-operation with SYKE and Public works department of the City of Helsinki (2010)
- Based on the Helsinki "Small water action plan" (restoration measures and estimated costs)
- Contingent valuation (CV) survey questionnaire sent in October 2010
- N=700
 - randomly chosen Helsinki residents aged 18-75
- General questions about respondents' opinions and preferences towards the urban brooks and their restoration
- Carefully describing the objectives and benefits of brook restoration

- Presenting a scenario:

If a small water fund would be established to improve the condition of brooks and other small watercourses, would you be willing to pay some amount for it during the next five years?

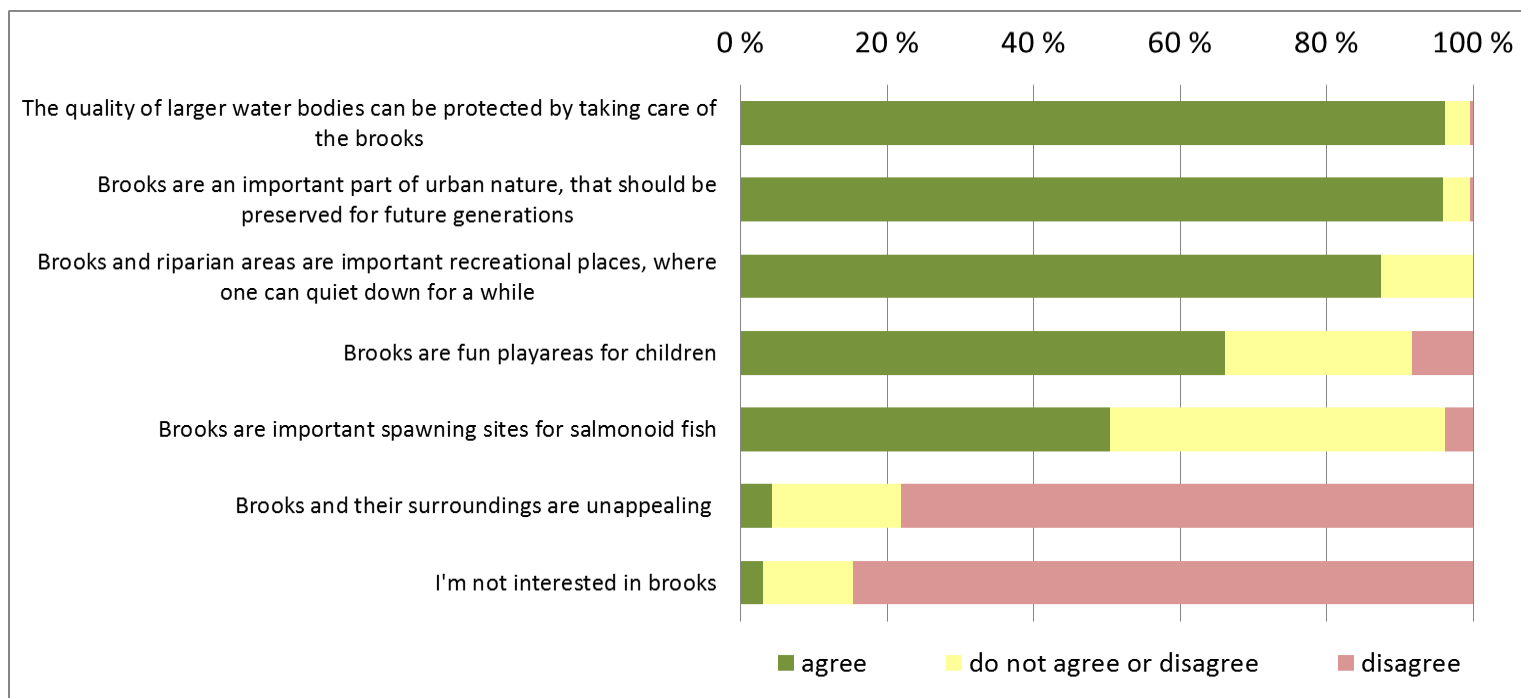
- ☐ Yes
- ☐ Yes, probably
- ☐ No => You may directly proceed to the question 13.



- Asking the individuals to express their household's willingness to pay

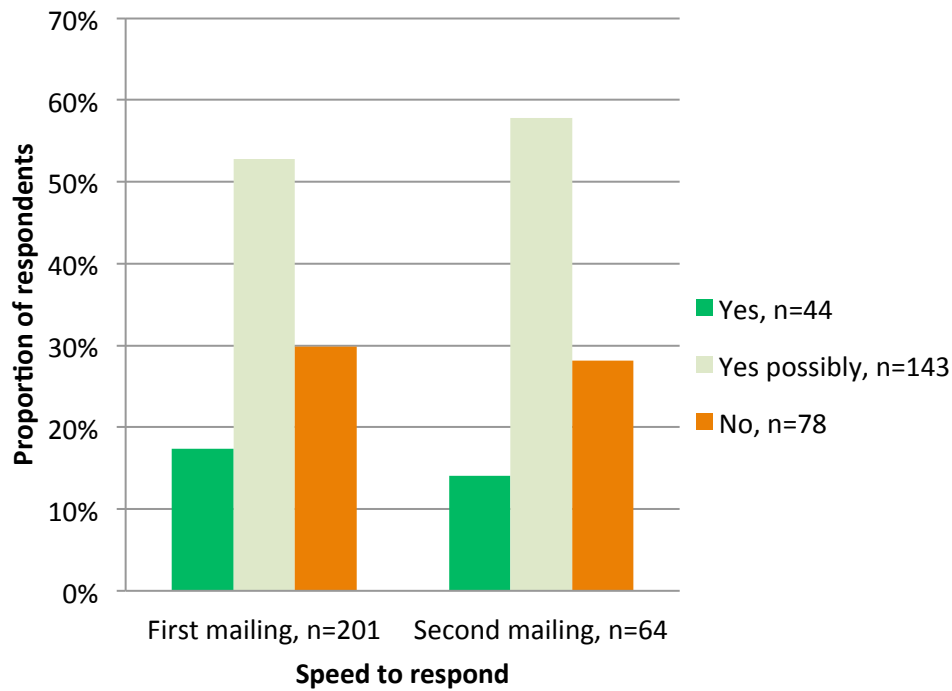
Results

- Opinions towards brooks highly positive
- Brooks are seen as an important part of urban nature that should be preserved for the future generations
- Response rate 38%



The respondents' opinions about given statements (n=261–263)

- 71% of the respondents were either willing or possibly willing to pay for brook restorations



- The total economic value (TEV) for better brook quality in Helsinki was estimated to be at least 7.8 million euros/year
- Costs of the Helsinki Small water action plan estimated to be 500 000 €/five years
- High benefit–cost ratio, high returns on brook restoration investments.

- The main motives behind the positive WTP

Reasons for paying	
I want to conserve brooks as a part of urban nature for the future generations	72%
Besides water quality of brooks I want to influence also water quality downward	44%
I want to elevate the value of the scenery	34%
I want to guarantee the good habitat for the biota in the water and in the shore	33%
I want to use the small waters and give the chance for other people to use them as well	26%
I want the water quality to be safe to let children and dogs safely to puddle in brooks	2%

Conclusions

- The Helsinki small water action plan is socially desirable and a good investment
- Non-use values were highly appreciated (biodiversity, landscape, the value of existence)
- Residents familiar with brook restoration projects might be more willing to pay (Longinoja)
- The importance of communication and education
- Clear message to the policy makers and the city authorities:
 - Local populations have a great interest in restoring their neighbouring waters, and are willing to participate in the costs and work if they are given the opportunity to do so

Next step: how to make that possible?



Thank you!