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Nordic Forest Research
Co-operation Committee (SNS)

Send the report to SNS-secretaries Jonas Rönnberg and Elin Andreasson (andreasson.sns@slu.se)

FINAL REPORT for CAR

Please notice that the size of text sections in the form can be adjusted if needed.
The length of the final report should not exceed 3 pages. **Supplementary information can be attached**

1. CAR titel	Nordic-Baltic Centre of Advanced Research on Forestry Serving Urbanised Societies II: CARE-FOR-US II
2. CAR coordinator (name, address, telephone, e-mail)	Professor Anders Busse Nielsen University of Copenhagen Institute for Geosciences and Natural Resource Management Section for Landscape Architecture and Planning Rolighedsvej 28, DK-1958 Frederiksberg, Denmark E-Mail: abn@ign.ku.dk Tel: +45 51330692 From April 2015, PhD Natalie Gulsrud (same affiliation as Anders Busse Nielsen), will support the coordination of CARE-For-US II
3. Duration	1 January 2011 – 31 December 2015 (granted extension to 1 September 2016)
4. Cost	SNS-funding: 2.000.000 DKK

<p>5. The purpose of the CAR / main problems / hypotheses addressed</p>	<p>In Europe, the green structure of cities and their surroundings, in which forests and other tree resources play a major role, provide urban societies with an essential range of goods and services. Recent years have seen the development of urban forestry as an integrative, multidisciplinary approach to the planning and management of all forest and tree resources – ranging from street trees to peri-urban woodlands – in and near urban areas, with the aim of providing multiple benefits.</p> <p>CARe-FOR-US II continues the successful work from the previous funding period, being a catalyst for research in the fields of urban forestry and forestry at large. The Centre of Advanced Research on Forestry Serving Nordic Urban Societies (CARe-FOR-US) will:</p> <ul style="list-style-type: none"> • Enhance networking and knowledge exchange on forestry serving urbanised societies amongst leading researchers within the Nordic-Baltic region, with special emphasis on the involvement of PhD-students and other early-career researchers. • Compile and disseminate up-to-date information on the state of art of research within the CAR’s field, with particular emphasis on aspects of governance, nature and health relations, recreation and tourism, and qualitative woodland management, e.g. through targeted review papers. • Facilitate efforts to undertake innovative research on forestry serving urbanised societies. Research that promotes close collaboration with policy and practice has been prioritized. • Enhance the contributions and recognition of Nordic and Baltic researchers and research capacities on the European and global scale. • Promote the dissemination of lessons learnt and methods developed for urban forestry to Nordic and Baltic forestry at large, e.g. through policy briefs.
<p>6. Brief description of the network and research plan and of possible larger deviations from the plan</p>	<p>CARe-FOR-US II has had two main organizational structures: Firstly, a network of seven national coordinating institutions, in Denmark, Estonia, Finland, Iceland, Latvia, Norway and Sweden. Secondly, parallel work packages, each coordinated by a senior researcher and a PhD-student.</p> <p>In the first CAR period, several emerging research topics were identified. These have been used to select four prioritised research themes for CARe-FOR-US II:</p> <ol style="list-style-type: none"> 1. Governance 2. Urban Forest and Human health 3. Forests and human health , recreation and tourism 4. Quality forest management <p>The work package coordinators and representatives of the coordinating institutes have constituted the CAR’s Management Group. CARe-FOR-US has had its secretariat at the Department of Geosciences and Natural Resource Management, University of Copenhagen.</p>
<p>7. Results (max 2 pages)</p>	<p>In the following a selection of outputs are summarized. They have been selected to illustrate the span of the CAR’s activities, and are not a full list. For further information on the CAR’s activities and results, please see the annual reports</p> <p>Consolidating urban forestry in the Nordic region Through the network and coordination activities, the CAR has helped urban forestry research to mature and consolidate each of the four research themes so they now each qualify for targeted networks. This is due to the increased number of active researchers and research activities in the individual topics, not at least a growing number of PhD projects. The CAR has been a valuable</p>

platform for networking as well as development of several joint research proposals, including reviews and empirical research (see the annual reports for further details). Especially the topic of health benefits of urban forestry and urban greening has grown and been consolidated.

Expanding the geographical scope of network and research activities

The CAR has supported Nordic-Baltic researchers in efforts to take leading roles in research projects (e.g. GreenSurge, <http://greensurge.eu/>) and networks that go beyond the Nordic-Baltic region, e.g. COST Action FP1204, GreenInUrbs (<http://www.greeninurbs.com/>).

Developing new research and policy agendas

Urban Forest in NFI:

The CAR has initiated pioneering exploration of what National forest inventories (NFI) can tell us about urban forest resources. During 2014-15 the CAR coordinated a pan-European survey together with COST Action FP1204 GreenInUrbs and EFINORD to establish a baseline understanding of how urban forest resources are either considered or presently recorded in National Forest Inventories (<http://www.greeninurbs.com/urban-forests-in-europe-what-can-national-forest-inventories-tell-us/>). An expansion of National Forest Inventories (NFI) to include and report on UF will be a major step forward for their integration and recognition in national and international policy and decision making, as well as being in line with the evolution of forest inventories as multipurpose resource surveys, broadening their scope to include additional variables and to encompass non-traditional components. The findings of the survey were presented at EFUF 2015. (https://www.researchgate.net/publication/279203148_Urban_Forests_in_Europe_-_What_can_NFI_tell_us). The activities have provided the platform for development of an application for a new joint EFINORD-SNS network for activities in 2017 that link urban forestry and NFI researchers to explore the potential of NFI to provide valid data on forest resources in urban areas.

Urban Tree Diversity

By arranging the first international conference on Urban Tree Diversity at SLU, Alnarp, Sweden on June 16-18 2014 (www.urbantreediversity.com), CARE-FOR-US has together with IUFRO and ISA introduced and coined a new research and policy agenda. The conference has been the base for new networks and key publications on the topic exploring how urban tree diversity supports resistance and resilience to disturbances including climate change and pests and/or diseases respectively and ecosystem services provision in urban regions (See section 9). The activities have nurtured the platform for urban tree diversity conferences on a biannual basis with (former) CAR members in the steering committee. The second conference was held in Melbourne 22-24 February 2016, and the third is planned for Vancouver in 2018.

Urban Green Infrastructure (UGI) Governance

Support from the CAR has advanced efforts made in the research networks FP1204 GreenInUrbs and GreenSurge to define and challenge various outcomes of urban green infrastructure governance. One research focus in this vein has been on the potential governance implications of the European Green Capital Award. Findings show that “urban green infrastructure” is a contested term with a broad range of associated definitions. Therefore, the quality and delivery of UGI can differ and is greatly influenced by the political strategy and policy context in each city. In this sense the policy and governance processes for the planning and implementation of UGI take on a special role of importance in determining the environmental sustainability of

	<p>urban landscapes. Research from this study has been presented at the 2nd Urban Tree Diversity Conference in Melbourne, Australia in February, 2016 and again at the 2016 EFUF https://www.researchgate.net/publication/306065115_Light_Shades_of_Green_potential_governance_implications_of_the_European_Green_Capital_Award. These activities have provided the platform for development of a new research area in collaboration with the City of Melbourne and scholars from the CAR network focused on “green” place-making as a governance approach to urban re-naturing. This network will explore how the social and political processes in which local citizens iteratively create and recreate the green landscapes in which they live can inform nature-based solutions to climate resilient landscapes.</p> <p>Collaboration with policy and practice</p> <p><i>Policy briefs</i> During the final year, the CAR has developed a number of Policy briefs (See section 9) that translate state-of-the-art research overviews and action-oriented recommendations for practitioners and policy makers.</p> <p><i>Landscape laboratories</i> The CAR has supported the coordination of Landscape Laboratories, set up in the Nordic countries, as real-life testing grounds that facilitate innovation, for example in the shape of an unusual combination of trees and other vegetation. The CAR has supported their potential for serving as ‘experimental meeting places’, for example between landscape architecture, forestry and ecology, and supported their role in research projects as well as in education, and especially as a reference and inspiration for practitioners. The latter has resulted in a special issue (dossier) of ‘SCAPE magazine for landscape architecture and urbanism (http://www.scapemagazine.com/). CAR members have authored a number of popular scientific articles about the landscape laboratories and how they can inspire multiple use forestry and sustainable urban development. The special issue will be launched at the 9th international Biennial of Landscape Architecture in Barcelona, 29 September to 1 October 2016.</p>
<p>8. What advantages have been gained by the Nordic collaboration</p>	<p>The Nordic and Baltic R&D capacities within urban forestry have gradually developed where the individual different Nordic (and Baltic) has developed their own niche. Bringing together the respective expertise by means of a Nordic Centre of Advanced Research has been highly beneficial for taking urban forestry research and development to a different level as well as development of new research and policy agendas, as described above.</p>
<p>9. Publications and other communication activities (International scientific peer reviewed journals, other scientific publications, short communications, web etc.)</p>	<p>In the following a selection of the most recent and coming publications and communication activities are summarized. For further information on the CAR’s publications and communication activities, please see the annual reports.</p> <ul style="list-style-type: none"> - Rutt, R. L., & Gulsrud, N. M. (2016). Green justice in the city: A new agenda for urban green space research in Europe. <i>Urban Forestry & Urban Greening</i>, 19, 123-127. http://dx.doi.org/10.1016/j.ufug.2016.07.004 - Morgenroth, J., Östberg, J., van den Bosch, C.K., Nielsen, A.B., Chen, W., Sjöman, H., Hauer, R., Jansson, M. (2016). Urban Tree Diversity – Taking Stock and Looking Ahead. <i>Urban Forestry & Urban Greening</i> 15: 1-5. http://dx.doi.org/10.1016/j.ufug.2015.11.003 - Sjöman, H, Morgenroth, J., Deak Sjöman, J., Sæbø, A., Kowarik, I., 2016. Diversification of the urban forest – can we afford to exclude exotic tree species? <i>Urban Forestry & Urban Greening</i> 18: 237-241. http://dx.doi.org/10.1016/j.ufug.2016.06.011

	<ul style="list-style-type: none"> - Morgenroth, J., Nielsen, A.B., van Den Bosch, C.K., Östberg, J., Harðarson, S.B., Wiström, B., 2016. Urban Tree Diversity for Sustainable cities – Policy Brief. Nordic-Baltic Centre of Advanced Research on Forestry Serving Urban Societies, ‘CARE-FOR-US’. http://www.nbforest.info/factsheets/policy-brief-%E2%80%93-citizen-participation-better-urban-green-spaces - Molin, J.F., Fors, H., Faehnle, M. 2016. Citizen participation for better urban green space - Policy Brief. Nordic-Baltic Centre of Advanced Research on Forestry Serving Urban Societies, ‘CARE-FOR-US’. http://www.nbforest.info/factsheets/policy-brief-%E2%80%93-citizen-participation-better-urban-green-spaces - Gulsrud, N-M., Rutt, R.L., Nielsen, A.B., van den Bosch, C.K., Fors, H., 2016. Place-based green governance for climate-resilient landscapes and cities – Policy Brief. Nordic-Baltic Centre of Advanced Research on Forestry Serving Urban Societies, ‘CARE-FOR-US’. - Peschardt, KK, Stigsdotter, UK & Schipperijn, J 2016, 'Identifying features of pocket parks that may be related to health promoting use' <i>Landscape Research</i>, vol 41, no. 1, pp. 79-94. DOI: 10.1080/01426397.2014.894006 - Special issue (Dossier) of ‘Scape magazine for landscape architecture and Urbanism to be released 28 September, 2016. http://www.scapemagazine.com/ - Fors, H., Molin, J.F., Murphy, M.A. and van den Bosch, C.K., 2015. User participation in urban green spaces–For the people or the parks?. <i>Urban Forestry & Urban Greening</i>, 14(3), pp.722-734. http://dx.doi.org/10.1016/j.ufug.2015.05.007 - Several of the CAR researchers are contributing state-of-the-art chapters and editorial work to a new international Handbook on Urban Forestry, to be published by Routledge ultimo 2016. https://www.routledgehandbooks.com/
<p>10. CAR summary (about 1/3 page) for possible use in the News & Views section of Scandinavian Journal of Forest Research</p>	<p>Forestry in the Nordic and Baltic countries is increasingly influenced by urban values, norms and demands. During the last decade, Nordic Forest Research (SNS) has supported collaboration and knowledge exchange among leading researchers in a Nordic and Baltic Centre of Advanced Research on Forestry Serving Urban Societies, ‘CARE-FOR-US’. CARE-FOR-US has conducted, compiled and disseminated the scientific state of art in order to promote an active and efficient science-policy interface on strategic issues related to forestry serving urban societies. The CAR has support the urban forestry agenda and policy making. Today urban forestry has been consolidated in the Nordic and Baltic countries as an integrative, multidisciplinary approach to the planning and management of all forest and tree resources – ranging from street trees to peri-urban woodlands – in and</p>
<p>11. Date and signature</p>	<p>Date: 30.08.2016</p> <p style="text-align: right;">Signature of CAR coordinator:</p> 