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### Is Urban forestry a tool to improve the quality of life and development in Latin America? Needs, actions and perspectives

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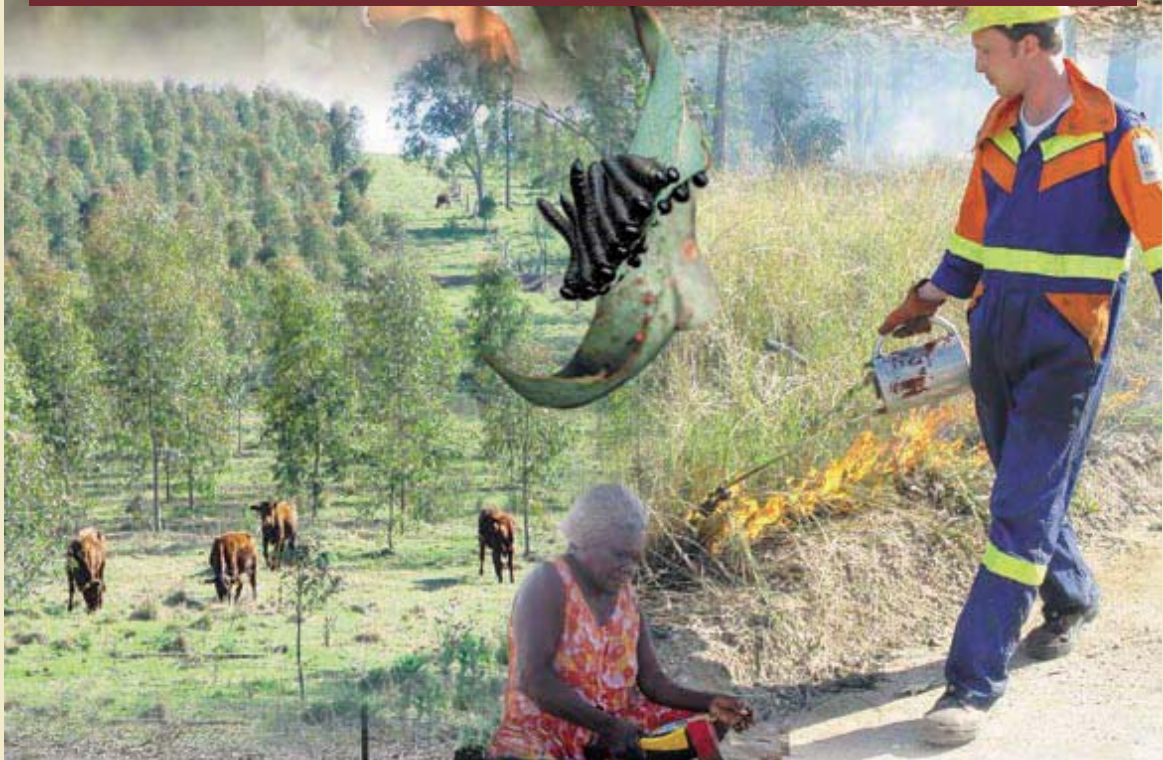
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# The International Forestry Review



Forests in the Balance: Linking Tradition and Technology  
XXII IUFRO World Congress, 8-13 August 2005, Brisbane, Australia

## ABSTRACTS



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generating information to characterize the existing situation of the green spaces, and in identifying issues and concerns. On the basis of the results of the analysis, the paper recommends another framework necessary to achieve an ideal level of sustainable green space management. It includes, among others, various institutional, social, political and bio-physical programs designed to address these issues and concerns which would need multi-disciplinary and multi-sectoral involvement.

**Management of forests in the Prague capital area with respect to their forms of use and function.** Podrazsky, V., Karas, J. (Czech University of Agriculture Prague, Czech Republic; [podrazsky@fle.czu.cz](mailto:podrazsky@fle.czu.cz); [karas@fle.czu.cz](mailto:karas@fle.czu.cz)), Matejka, K. (IDS, Czech Republic; [ids@infodatasys.cz](mailto:ids@infodatasys.cz); [ids@infodatasys.cz](mailto:ids@infodatasys.cz)), Vyskot, I. (Mendel University of Agriculture and Forestry, Czech Republic; [vyskot@mendelu.cz](mailto:vyskot@mendelu.cz)).

The basic aim and primary approach of this project are the quantification of social needs of urban forests surrounding Prague, by optimization of their functional use and by defining the target management. Owing to social needs, data such as spatial distribution, socioeconomic importance and functional-multipurpose use in the defined area were collected and analyzed. Next, optimization of the spatial distribution, structure and equipment were developed for functional usage. Data analysis serves to define the management of present and future forests, to quantify the economic requirements and effects, and to compare the costs and benefits of optimized versus classical management. Finally, one of the main outputs is the area categorization from the point of view of social needs.

**Twinning for urban forestry research and development: the Malaysia–Denmark experience.** Rahim Nik, A. (Forest Research Institute Malaysia; [rahimnik@frim.gov.my](mailto:rahimnik@frim.gov.my)), Schipperijn, J. (Danish Centre for Forest, Landscape and Planning, KVL; [jsc@kvl.dk](mailto:jsc@kvl.dk)), Haron, N. (Forest Research Institute Malaysia; [norini@frim.gov.my](mailto:norini@frim.gov.my)), Konijnendijk, C.C. (woodSCAPE consult, Denmark; [cecil@woodscape-consult.com](mailto:cecil@woodscape-consult.com)).

Urban forestry is a relatively new, interdisciplinary approach, focusing on the planning and management of forests and trees in and around urban areas. Recent years have shown the high potential of urban forestry in contributing, globally, to sustainable urban development. As with any new approach involving different disciplines, however, urban forestry research, development and educational capacities need to be improved and enhanced. Both Denmark and Malaysia have recognized the potential of urban forestry and are developing their R&D and educational capacities. In order to learn more from each other and to develop joint initiatives, urban forestry is one of the priority areas of an ongoing twinning program between the leading forestry R&D institutions in both countries. The program assists in development of special third-level education on urban forestry in both countries, as well as improvement of training of urban forest managers. Guidelines for urban forest management are being assessed and developed and a joint pilot project is being undertaken within ongoing green structure planning and development in Kuala Lumpur. Experience has shown that many of the challenges faced by urban forestry are similar in both countries, and that bilateral R&D cooperation can be highly beneficial and rewarding.

**Forest disease: Urban disaster?** Ramsden, M., Pegg, G.S. (Department of Primary Industries and Fisheries, Queensland, Australia; [Michael.Ramsden@dpi.qld.gov.au](mailto:Michael.Ramsden@dpi.qld.gov.au)), McIlwain, J.-J. (Brisbane City Council, Queensland, Australia), Francis, L.P. (Department of Primary Industries and Fisheries, Queensland, Australia).

The basidiomycete root and butt rot disease *Phellinus noxius* (Corner) G.Cunn. is a pantropical fungal pathogen with a wide host range, affecting both angiosperms and gymnosperms. This pathogen is endemic in many of the wetter native forests, usually below an altitude of 500 m. Clearing of these forests for plantations of inadvertently susceptible species has resulted in economic loss and unforeseen management issues. Harvesting of these plantations exposes an unnatural number of stumps, which are capable of acting as new entry points, and reservoirs of the disease for following plantations. This pathogen is also present in the urban environment and was recently identified in an important coastal dune area in northern New South Wales, Australia. In the Brisbane urban area, this pathogen affects a number of exotic and native tree species. Of concern is its widespread association with the decline of a number of significant heritage-listed *Ficus* spp. This paper will discuss the research currently being undertaken by forest pathologists within Horticulture and Forestry Science in association with Arboricultural Consultants from the Brisbane City Council. This research addresses the significance of this disease, control methods (chemical and physical), mode of dissemination and disease/decay initiation and progression.

**Is urban forestry a tool to improve the quality of life and development in Latin America? Needs, actions and perspectives through networking and a case-study approach.** Salbitano, F. (University of Firenze, Italy; [fabio.salbitano@unifi.it](mailto:fabio.salbitano@unifi.it)), Russo, I. (City of Havana, Cuba), Leon, B. (NGO TECNIDES, Peru).

The quality of life in urban settlements depends greatly on the quantity and quality of green space in and around towns. Latin America is the world's most urbanized region. In the year 2000, 80% of the people were living in towns and suburbs, and this share was forecasted to be over 85 % by 2020. Urbanization and poverty have gone hand in

hand; in the last 20 years the population living under the level of poverty in urban areas increased from 47 to 64%. Generally, urbanization takes over the best cultivated lands, causing a decrease in agricultural and forestry production. Other threats are pollution of natural and semi-natural ecosystems, such as woodland, and the increasing pressures on these due to human use and abuse. The quality of water and its catchments are heavily modified. Major problems also concern the relationships between human health and environment, and the limited amount of green spaces versus the high need for their benefits, such as mitigation for dust/pollution. The need for networking to develop urban forestry's contributions to sustainable development and combating poverty is described, based on an initiative launched in Lima in 2004. Selected case studies, highlighting strategies developed in Latin American countries, are presented.

**Towards greening and conservation efforts in the new federal government administrative capital: Putrajaya, Malaysia.** Sreetheran, M., Noor Azlin, Y. (*Forest Research Institute Malaysia (FRIM), Malaysia; sreetheran@frim.gov.my; azlin@frim.gov.my*), Raja Yusoff (*Perbadanan Putrajaya, Malaysia*).

Urban forests foster the green fabric of the urban landscape; harmonize the built-up environment that often dominates the scene. High quality buildings and urban forests, blended well, create special 'gems' of townscape. Green spaces such as parks and green corridors well integrated in the planning of a township can be seen in the example of the new Federal Government Administrative Capital of Malaysia, Putrajaya. Putrajaya has natural lush greenery with botanical gardens and large bodies of wetland spread across the landscape. The constructed wetlands were engineered to emulate the functions of natural ecosystems. The wetlands also serve as a bird sanctuary and provide habitats for other wildlife. Having a high biodiversity content, the wetlands serve as venues for public activities in wetland education. Putrajaya also hold great potentials for research in ecological and social functions of urban forestry, as will be discussed in this paper. The plan to develop Putrajaya as a Garden City is a very worthy effort. The aim of Putrajaya to become a model for other major cities in Malaysia is highly achievable.

**Inventory of drought damage by means of digital aerial photographs and adaptive cluster sampling.** Talvitie, M., Leino, O., Holopainen, M. (*University of Helsinki, Finland; mervi.talvitie@helsinki.fi; olli.leino@helsinki.fi; markus.holopainen@helsinki.fi*).

During spring and summer of 2003, severe drought damage was observed in park forests of Helsinki. The city commissioned an assessment of the damage by an inventory carried out in autumn 2003. The primary objective of the inventory was to map and document the extent of the damage by existing geographical information, digital aerial photography and field surveys. A secondary objective was to study the possibility of assessing drought damage by visual and numerical interpretation of digital aerial photography. Visual and numerical photo interpretation of digital aerial photographs was used to locate potential drought damage. Adaptive cluster sampling was utilized in field measurements and accuracy assessment. Study results showed that the area of serious damage was approximately 25 ha and most of these areas were located on rocky sites with low productivity. The proportion of damaged stock volume was 3.3% of total stock volume in the study area. Digital aerial photos proved to be an excellent tool for assessing drought damages. In further studies, alternative field sample and measurement methods for assess sparse forest phenomena will be tested. Data acquisition based on combination digital aerial photographs and modern field measurement technology will also be developed.

## **An overview of national forest greenhouse gas accounting systems: Progress and scientific challenges**

Organizers: Werner Kurz and Kevin Percy *Natural Resources Canada, Canada; wkurz@nrcan-rncan.gc.ca; Kevin.Percy@nrcan-rncan.gc.ca*

**The Kyoto perspective: Optimal use of wood.** Frühwald, A. (*University of Hamburg, Germany; a.fruehwald@holz.uni-hamburg.de*).

The poster deals with the optimal use of wood under aspects of the Kyoto Protocol. Carbon sequestration in the forest is honoured, especially in physical terms, by COP decisions. Sequestration in wood products is not fully acknowledged. The use of wood products contributes in several ways. Carbon sequestration occurs in wood products and amounts to 20–30% of that of forests above ground. There is low energy consumption in the production of wood products compared to others based on non-wood materials. Wood-based products are manufactured with up to 80% of renewable energy (wood residues) and this is superior to almost all other non-wood raw materials. The poster presents examples and proposals for comparative assertions.