2012 IUFRO ALL DIVISION 5 CONFERENCE
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ESTORIL CONGRESS CENTRE
LISBON - PORTUGAL
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# Conference Topics

## 1. Wood Quality

All aspects of the wood quality (natural and plantation grown trees; temperate and tropical forests) to promote a better understanding of the various factors which affect the tree growth and wood properties and suitability for processing. In particular, how the environment and other factors influence wood properties (physical and chemical), how these properties may be controlled by a changing wood resource, and how these properties influence the utilization of the material. The ultimate goal of such knowledge is the sustainable and better targetted utilization of our wood resource.

## 2. Physiomechanical Properties of Wood

Forecasts indicate that there will be increased worldwide demand for both conventional structural materials and innovative structural products. These indications, along with a growing need to conserve timber resources necessitates the development of improved and/or new design and construction methods that reduce inefficient uses of material and utilize products compatible with a forest resource that is changing. Increasingly, small diameter trees, plantation wood and wood from underutilized species are becoming large components of the forest resource base.

## 3. Wood-based materials and their Applications/Wood Processing (4)

Discussion will cover the processing of all kinds of wood products on a worldwide basis, and efforts to promote the processing of forest products to sustain productivity in an environmentally acceptable and efficient manner. Topics include research on wood drying, adhesives and wood gluing, sawing, milling and machining, production systematics, finishing and surfacing, and industrial engineering operations. A special focus is material from mall-diameter trees and underutilized species. New processing technologies also will be covered.

## 5. Wood Protection

The conservation of existing wood products is important to the sustainability of our timber resources. Three major threats to the expected long service life of wood products – fire, biodeterioration and weathering – can be mitigated by proper design and use. This topic focuses on these subjects. The topic is of general interest to the international research community on wood preservation, non-biocidal wood protection and fire protection issues, by providing a forum for discussing the critical issues facing research in wood protection and fire protection in the world today. The International Research Group on Wood Protection (www.irg-wp.com) will also be co-organizing the wood protection session(s).

## 6. Composites and Reconstituted Products

Sustainability of raw materials for producing all manufactured items and feedstocks is an important issue in the world today. Research in this area covers the use of various types of \wood and additives to produce new, innovative products to replace scarce resource and non-renewable materials. Discussion will cover new developments.

## 7. Pulp & Paper

This is a new area for D5 and contributions are sought in all aspects of pulp and papermaking, to provide useful discussion. Focus will be on developing countries and lesser-known species.

## 8. Properties and Utilization of Plantation Woods

More and more tree species have been introduced into forest plantation programmes. Discussion will cover information on the properties and utilization of newly introduced and exotic plantations, particularly in developing nations. Of principle interest of research on dry-area species, teak and eucalypts.

## 9. Energy and Chemicals from Forest Biomass

This topic covers the sustainable use, production and processing of renewable forest biomass for energy and useful chemicals. The areas of research of interest are direct combustion and gasification for heat, power and gaseous fuel production and liquid fuel production - namely ethanol and methanol through biochemical and thermal conversion. Other interests are: charcoal production for solid fuels, metallurgical use and activated carbon. Research into other chemicals from wood covers lignin, hemicellulose, cellulose and their derivatives, essential oils, pyrolysis derived polyphenols for adhesives.

## 10. Forest Products Marketing

Forest Products Marketing and Business Management covers all aspects of forest products business with a focus on marketing. Discussion is encouraged on a myriad of issues and topics on a global basis. Examples include sustainable business management practices, value-addition strategies, marketing, management, consumer behavior, Internet marketing, supply chain management, innovation, strategic positioning, branding, certification, and policy.

## 11. Non-wood Forest Products

Sessions will cover the wide variety of non-wood products found in forests around the world, and research to promote the discovery, development, and wise use of these resources. Special emphasis is on research on medicinal and aromatic plants, edible plant products and forest fungi, resins and gums, and many other so-called "minor forest products" which have long been important for rural and native people and which provide new opportunities for commercial development. Bamboo and rattan are included.

## 12. Forest Products Education

Education in forest products is critical to innovation, technological progress in the entire industry sector, and the reception of wood in society per se. Over the past few decades

education in forest products has been subject of major changes and if such trends continue, could have a negative impact on the wood product industry. This topic will provide a forum of discussion to evaluate current trends and strategy to meet future challenges in primary and secondary forest product education.

## 13. Wood Culture

The role of wood in culture is an interdisciplinary science area which provides a better understanding of the use and social aspects of wood from a cultural and historical perspective. Research in Wood Culture improves people's relationship with nature and opens new ways to understand wood from an economic, environmental, and social value perspective. Discussions will cover the historical and contemporary use of wood in different regions or countries in the world.

## 14. The Role of Wood in a Sustainable Society

Sustainable Utilization of Forest Products focuses on global issues regarding sustainably produced forest products. It provides a forum for researchers who study the production of wood and other forest products in a sustainable manner. Among other things, the group members examine questions regarding green certification, life cycle analysis and carbon sequestration, wood products from sustainable forest management, ecosystem services and wood production, and the economic contribution of wood products to sustainable forestry.

## 15. CORK: the ultimate sustainable forestry practice

Added knowledge on cork production considering enhancement of cork properties as final target for industrial purposes and yield in production, namely reduction of cork extraction periods and forest densification should play a central role in nowadays investigation. Genetic research approaches, silviculture practices improvement, tree biotechnology principles application, diseases and plagues control, influence of edaphoclimatic conditions and soil fertilization will be discussed in order to enrich the cork oak forest.