

the WIMCO-sponsored Farm Forestry Project was launched in 1984. WIMCO-sponsored Farm Forestry Project promoted the poplar based agroforestry plantations by providing technical know-how for planting and care of poplar trees and buy back guarantee with a minimum support price. Poplar replaced Eucalyptus tereticornis when the latter's market prices declined in the 1990s. Market prices for poplar wood were reached at highest in 1994-95 and as a result farmers sold their wood in open market deviating from minimum buy back support price of the promoting company. The poplar based agroforestry plantations had been increasing at a very faster rate all over northern India upto year 2000. Ten million trees used to be planted annually in 0.02 million ha with an average density of 400-500. But poplar was no more popular among farmers during 2001-2004 because the prices of their produce touching an all time low. Farmers were forced to sell their produce at throwaway prices anywhere between Rs.700 (14 US\$) and Rs.1550 (31 US\$) as compared to Rs.3500-5500 (70.0-110.0 US\$) per ton. Farmers were compelled for pre-mature felling of poplar. Sale price of 6-8 years old poplar tree with a girth of 1 m was lower down to about Rs.500-600 (10.0-12.0 US\$) per tree in 2004. The low market price of poplar wood discouraged the farmers with the result the farmers were compelled to deviate from poplar based agroforestry plantations. Accordingly nursery growers also reduced the production of poplar saplings in their nursery. Rates and demand of poplar wood were start increasing by the end of 2004 and the farmers were again attracted towards poplar based agroforestry plantations.

Presently the sale price of poplar wood is up Rs 10000 (200 US\$) per ton depending upon girth and quality of wood. Timely pruning is very important for the production of excellent quality knot free wood. The tree attains a girth of 1 m at breast height (1.37 m) after an average age of 6-7 years and such a tree fetches an average of Rs.3500 (70 US\$). The net income from poplar plantation would be about Rs.200000 (4000 US\$) per hectare per year (three times in comparison to crops alone).

Keywords: Agroforestry, poplar, *Populus deltoides*, commercial plantations, market prices, quality of wood

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Forest Certification updates in Argentina

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The definition of "Forest Certification" appeared during the nineties and was considered an instrument which contributes to the conservation of forests, through a good management and also with other benefits which are connected with a positive environmental and social impact in the community.

This Certification is a tool which verifies formally and willingly that the forest management developed by the owner of a "unit of management" complies with several Standards and functions as the "Eco labelling".

The Certification entities are responsible for the preparation of independent audits (according to the IRAM 39.803 Regulation), the concession, suspension and modification of the certificate, to inform

CERFOAR, (Civil Association for the Argentine Forests Certification Administration) control of the granted certification's use and also about the trademark PEFC (Programme for the Endorsement of Forest Certification).

The Argentine Accreditation Organization (OAA) established in 2011 the documents and general proceedings for the evaluation and accreditation of entities that certificate these organizations should comply with the IRAM 352 Regulation is equivalent to the ISO/IEC Guide Nº 65 and also with other specific requirements. In this sense, the auditing groups should have the necessary technical competence with economic, social and environmental issues in connection with the forest management of the requiring entity, and also the forest certification judgement. Each one of this should have a "Leader" qualified forest auditor. It is important to say that the validity period of the "Sustainable Forest Management Certification" is of five (5) years, and it is renewable.

As a conclusion we can add that in our country (Argentina) several organizations worked following the "Sustainable Forest Management Principles", and there is a big interest from the producers to achieve a good qualification which may allow them to compete in more demanding markets.

Keywords: Forest, Sustainability, Certification, Markets, Quality.

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The effects of wood industry in the economical development of Kosovo

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Kosovo is a relatively small country with 10870 km² where 42% of its territory is covered with trees. To date, Kosovo has passed through three important phases of economic development: the emergency phase after the recent war, the second phase with the privatization of social enterprises and the present third phase of sustainable development.

The after war period was very important for the forest sector as it led to its reconstruction, privatization and development aiming at the internal and foreign markets. Positive developments in the field of wood industry led to a marked increase in the number of work places offered and consequent requirement for a specialized and qualified workforce.

These developments have been sustained by higher education programs addressing these issues. One of the study programs is offered by the Faculty of Applied Technical Sciences, in Ferizaj, within the University of Prishtina. This is the only higher education institution in Kosovo, which for 35 years has been offering opportunity to study in wood industry and cooperates with wood processing enterprises and with the Kosovo Wood Processing Association.

Curriculum projects are focused in a way that the study process should be more closely related with industrial practices and scientific analyses of all practical parts in the economical context. The

large proportion of forests in Kosovo represents a relatively good potential for development of this sector both for the domestic market, and for exports of wood products. This sector can also be very attractive for foreign investments and can generate new jobs.

It is therefore essential to have scientific and technical knowledge on the national forests as well as on the species' quality for wood processing.

Keywords: Forest, wood industry, development, qualification, curriculum

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Development of Hardwood Flooring Quality Certification Program

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The forest based-sector is very important to Brazil in the social, economic and environmental areas. However, considering the Brazilian forest vocation, the wood products trade with higher value added is low. One of the reasons is related to the lack of procedures about quality of products. Hardwood flooring production is losing field and has been disbelieved by consumers because manufactures that search for high quality are facing a market competition of products of poor quality and low prices.

In several productive sectors and services, the adoption of quality system programs has provided significant benefits involving reduction of production cost, improvement of human resources training and increasing in quality of products and its sales. This way the National Hardwood Flooring Association – Brazil (ANPM) developed the Quality Certification Program (QP) to attend the demands of customers and ensure the quality of the products.

The purpose of this work is to show the phases of QP implementation for hardwood flooring which include the development of technical specification, audit procedures and management to use Quality Trademark.

This work was carried out by ANPM and associated companies (18 in total). The main focus was on hardwood flooring with 19mm thick including tongue and groove. The QP developments involved the survey of technical standards and models of certification programs, the consulting of the manufactures and consumers. The final step was the formalization and establishment of the standards. In addition, a preliminary quality products analysis was conducted applying the audit procedures to verify the adequacy.

The results showed that QP for hardwood flooring production allowed the development of four technical standards (Terminology, Standardization / Classification, Audit Procedures and Management), and two of them were made official by Brazilian official regulatory agency. Moreover the QP actions provide quality programs improvement along audit, so the flooring defects, thickness and width were easier to be controlled and the moisture content was the most difficult one.

Keywords: Hardwood flooring, technical specifications, flooring defects, ANPM

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Economic Panorama of the Brazilian Wood Flooring Segment

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In Brazil, the economic information related to wood flooring segment are few when compared to other segments of the Brazilian economy.

In this way, this research aimed to collect up dated economical information from wood flooring industries; obtained through personal interviews, local visit and oriented questionnaire application.

Based on the results it was possible to demonstrate that the most part of wood flooring industries are located in North region of Brazil and have till 50 formal employees. The sector shows a small economic participation in comparison with other productive chains in the forest products segment. Its more expressive contribution is related to export values and generation of job positions. In 2010 the Brazilian wood flooring industries produced around 11.6 millions of square meters, which represents a sales value of US\$ 567 million. During the last three years the industries redirected the products market, decreasing the quantity sold in the international market and increasing the sales to domestic consumers; although wood flooring have a very small participation in the domestic flooring market when compared to the most used product (ceramic flooring).

The main conclusion is that the sector needs initiatives to foster its development, mainly due the fact that, among the wood based products, wood flooring can be considered as a high added value product.

Keywords: Forest product market, economic analysis, wood flooring.

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Forest Management Certification as strategic positioning on the market

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Forest certification is designed as a market-linked mechanism to assure consumers that the wood products they purchase come from responsibly managed forests. To apply for forest management and chain of custody certification is frequently a decision of strategic positioning. The certificate of the Forest Stewardship Council (FSC) with its support from environmental and social organizations is regarded as a strong incentive to improve forest management practices. Certification can serve as risk management tool in helping to reduce social conflict in and around certified forests; and the impacts of certification are among others described as improving the image of the forestry locally and in associated markets; providing greater access to premium timber markets where they exist; and promoting forestry more generally through dialogue between the private sector, government bodies, non-governmental organizations and civil society. FSC certification also helps attract long-term investments, as it has robust feedback mechanisms in place to provide potential investors with a set of