

Economics and Management of High Productivity Plantations

Juan Gabriel Álvarez González, Universidad de Santiago de Compostela, Spain

Chris Goulding, C 4.04.02 - Planning and Economics of Fast-growing Plantation Forests

Klaus von Gadow, C. 4.00.00 – Inventory, Growth, Yield, Quantitative and Management Sciences



Intensification of wood production and expanding areas of planted forests, are both a source of conflict and opportunity. Planted forests have the potential to improve the economic welfare of the communities in which they occur. At the same time, intensively managed industrial forest plantations arouse much controversy as to their real benefits for the local community and the natural environment.

The global area of timber plantations has dramatically increased by an average of 14 million hectares per year between 1990 and 2000, reaching a total of 187 million hectares. Only a small proportion of this area consists of high productivity plantations, with mean annual increments between 10 to 40 m³/ha/yr or more. These plantations are becoming very significant in terms of world wood supply. The increase in wood supply may be underestimated, perhaps leading to over supply, price competition and a reduction in profitability.

Social and environmental needs are increasingly affecting planning decisions and management methods applied to plantations whose original primary objective was the production of industrial wood. Multiple use, demands for increased biodiversity, attractive landscaping, and social acceptability come increasingly to the fore.

Unlike the corn field, a planted forest is capable of delivering both a multi-habitat forest and a productive tree crop producing essential raw materials with an economic return on investment. Using ecological jargon: plantation forests can have a lot of beta-diversity.

The conference on “The Economics and Management of High Productivity Plantations” demonstrated ways of how these objectives could be achieved, using examples from different parts of the world. Scientists from Asia, Africa, Oceania, the Americas and Europe participated in the proceedings, which featured three days of oral and poster presentations and a field excursion, including contributions in social and economic disciplines; inventory, growth and yield; and silviculture and management.

“Productive plantations, whether for industry or energy, need not be ecological deserts devoid of wildlife or an unwanted landscape, but efficient wood-growing crops managed so as to enrich diversity, development and their desirability as a land use. With plantation forests ‘you can have your cake and eat it’, generating win:win situations. This, I believe, is the future direction for the great bulk of planted forest”. (Julian Evans)

The conference “The Economics and Management of High Productivity Plantations” held in Lugo, Spain, from 27-30 September 2004, was attended by 71 scientists from 19 countries and featured 3 days of oral and poster presentations and a one-day field trip. The event was organized by the Escola Politécnica Superior of the University of Santiago de Compostela and sponsored by [IUFRO 4.04.02](#), Division 4.