LES ACTIONS DE LA DGCD DE ACTIVITEITEN VAN DE DGOS

DGDC'S ACTIVITIES LAS ACTIVIDADES DEL DGCD

DEVELOPMENT CO-OPERATION PRIZE

The Development Cooperation Prize is annual incentive prize - financed by the Belgian Development Cooperation (DGDC) and organized by the Royal Museum for Central Africa - for students and young researchers, from Belgium or developing countries, whatever their discipline. The prize is awarded to scientific works that contribute significantly to knowledge that can be applied to development in the South. Sustainable development is to be their principal aim and poverty alleviation a priority. The prizes are attributed to Bachelor's and Master's theses, postgraduate papers, Ph.D. theses, or publications in scientific journals.

In the course of the years of the prize existence, the fields represented among the participants has remained more or less stable: the majority of files represent the exact sciences - with a very large share originating from the agricultural and applied biological sciences, followed by the human sciences and biomedical and veterinary sciences.

The prize is granted to maximum 14 students and 6 researchers and consists of an award of 1,250 € for students and 2,500 € for young researchers. Since 1998 the awards have been handed over by the Minister for Development Cooperation during a ceremony in the Royal Museum for Central Africa. The laureates from abroad are invited to Belgium especially for this occasion. Many use their stay in Belgium to establish or renew contacts with the Belgian academia in thier fields of interest.

Two abstracts regarding the accomplishment of laureates from Colombia and France awarded in 2005 are presented below.

Physicochemical Characterization of the *Guadua angustifolia* Kunt Fibre

Lina Rocío Osorio Serna* and Efraín Trujillo De Los Rios*

This work carries out a characterization of the technical bamboo fibre of Guadua, in comparison to man-made and other natural fibres, with the aim of using this type of material as an alternative for both the Colombian, the regional (South American) and export markets (to the industrialised countries).
The use of the technical fibres of bamboo, and particularly of Guadua in Colombia, opens up vast perspectives for the use of this raw material in applications other than the construction world as is now largely the case. Although Guadua bamboo is already processed in Colombia into engineered products such as laminated Guadua (*colguadua*), the innovation of using technical fibres as an alternative to fibre glass and analogous products is completely in line with a variety of studies into the use of natural fibres, such as bark fibres like flax and jute, to make composites with a sustainable image. Figures reveal that the production of Guadua bamboo lies in the region of about 15 cubic m. per ha per year, which signifies huge potential for both natural Guadua and for plantations. Production capacity like this, in combination with its use as a technical fibre in high-quality composites for the car industry, for example – by analogy with activities in non-developing countries - is highly relevant to the development of a raw material-to-final product chain in Colombia.
The consideration of the possibilities of using the technical bamboo fibre in a similar way to strong natural fibres like flax is new and very useful as an alternative route for the use of this raw material. The comparison with other fibres on the basis of specific strength is highly advantageous in view of the self-weight of composites.

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An Integrated Production System at the Level of Small-scale Family Businesses in the Outskirts of Kinshasa, DRC

Emilie Vautravers**

Poverty in the city and outskirts of the city lead to a proliferation of agricultural activities in these areas. This results in social, economic and environmental problems which threaten the sustainability of small-scale family businesses.
The writer bases her work on an experiment in Colombia in which cattle farming and vegetable production is integrated to solve the above-mentioned problems: it concerns a sustainable system with a diet that is as varied as possible for the farmer's family, an income from the extra production and a minimum of disruption to the environment. The writer studies the possibility of introducing this system to the outskirts of Kinshasa, in the knowledge that environmental factors in and around the city have to be very similar to those in Columbia.
First, a detailed study is made of the environment in and around Kinshasa and the writer comes to the conclusion that there are enough similarities between the two situations. This is followed by a description of the concrete situation and a summary of possible problems and bottlenecks. The discussion of the actual integrated system is preceded by a highly detailed description of the animal and vegetable production components of the system. The writer concludes with a general discussion and offers her view of the possible introduction of the system into other regions in Africa.
This is a highly detailed work which contains both data from the literature and the writer's own observations; if validated, this document could undoubtedly be used as a reference work for similar studies. The production data, fertilizer balance sheets, output tables and graphs have a direct practical value, but can also be used together with the enclosed questionnaires as a blueprint for further work. Finally, the writer places her work in a broader context and indicates how the proposed methodology can be used in a more global fight against poverty, malnutrition and disease.

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