INTROGRESSION OF AFRICAN INDIGENOUS RICE (*ORYZA GLABERRIMA* STEUD) GENE TO RICE (*ORYZA SATIVA* L.) FOR SUSTAINABLE AND HIGH YIELDING RICE PRODUCTION IN AFRICA

— A CASE OF RICE BIODIVERSITY —

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In Africa, particularly in West Africa, rice consumption has been increasing with a remarkable rate due to increase of population and also due to the change of eating habit caused by the development of urbanization. In West Africa more than 50 % of rice is produced under upland conditions, and hence development of varieties and cultivation technologies for upland and moreover, LISA conditions have been so far strongly expected.

Oryza glaberrima, an indigenous African rice, has many desirable traits, although, the yielding capacity is low compared with Oryza sativa, the normal rice species which is often called Asian rice. The first desirable trait of Oryza glaberrima is strong weed competitiveness, which is extremely important trait when rice is grown in upland conditions. The second one is drought tolerance in terms of grain yield, and the third one is high adaptability to low fertilizer conditions, which is appreciated as one of the major LISA factors. The last one will be high protein content of the grain, which is an important trait for the improvement of human nutrition in Africa. A project of "Development of Interspecific Hybrid Rice between Oryza sativa and Oryza glaberrima" was initiated in West Africa Rice Development Association (WARDA) located in Cote d'Ivoire around 1990, aiming to combine the above mentioned desirable traits of Oryza glaberrima with high yielding capacity of Oryza sativa. The stage of breeding and agronomic characterization in the project has been successfully achieved, and now they have been into the final stage of seed multiplication and technology transfer. It can be said that the project of the interspecific rice which got a new name of NERICA (New Rice for Africa) is an example of rice biodiversity. The outline of this attractive project for food security in Africa will be reviewed in the paper presented.