Proceedings of

The ICALRD – JIRCAS WORKSHOP

On

Enhancement of Remote Sensing and GIS Technologies for Sustainable Utilization of Agricultural Resources in Indonesia

Edited by S. Uchida, A. Hirano, Wahyunto, and R. Shofiyati

Indonesian Center for Agricultural Land Resources Research and Development (ICALRD)
Ministry of Agriculture
Japan International Research Center for Agricultural Sciences (JIRCAS)
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FOREWORD

The proceedings of Workshop on "Enhancement of remote sensing and GIS technologies for Sustainable Utilization of Agricultural Resources in Indonesia", has been prepared as an output of the framework of Japan International Research Center for Agricultural Sciences (JIRCAS) Japan and Indonesian Center for Agricultural Land Resources Research and Development (ICALRD) research collaboration in the period of 2007 to 2010, aiming at the application of remote sensing and GIS technologies for sustainable utilization of agricultural system in Indonesia.

In Indonesia, increasing the supply of agricultural products and stabilizing agricultural productivity are matters of great urgency due to population pressure and improvement in the standard of living. The major challenge for agricultural today is to sustain production under adverse soil and climatic condition. On the other hand, recently many attempts have been made to increase food production but these efforts have led to a deterioration of agricultural environments and global environment problems such as global warming, pollution of water, soil degradation, deforestation etc. Accordingly, sustainable agricultural technologies compatible with environmental preservation should be developed.

Remote sensing and Geographic Information System (GIS) Technologies have a great potency to speed up agricultural land resources inventory and are as up to date actual information for sustainable agricultural and environmental protection. These technologies can provide information to monitor "food vulnerability" in certain areas. Information of cropping extent, drought area, the sensitive and critical areas associated with food availability is really needed. Such information will be very useful for the national food stock policy.

I do hope that the proceedings will be very useful in order to obtain a better understanding in remote sensing and GIS technologies and their applications, especially on assessing food safety for sustainable agricultural land resources and its environment.

Dr. Masuo Ando
Director
Development Research Division
Japan International Research Center
for Agricultural Sciences

Prof. Dr. Irsal Las, MS
Director, Indonesian Center for
Agricultural Land Resources
Research and Development

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