EXECUTIVE SUMMARY

National Seminar on Multifunctionality and Conversion of Agricultural Land was held in Bogor on 2 October 2002 at the Center of Soil and Agroclimate Research and Development, and on 25 October 2002 in Jakarta, attended by around 90 persons of experts, researchers, and decision makers and the Director of Functional Cooperation, ASEAN Secretariat. Ten research papers from Citarum watershed, West Java, and one research paper from Kali Babon sub watershed, Central Java, were presented at Bogor, and six invited papers were discussed in Jakarta. The seminars and proceedings could be summarized as follows:

A. Paddy field multifunctionality

1. So far, function of agricultural land, has been evaluated based on marketable products, while the non-marketable services such as environmental protection, job opportunity and rural amenity functions were ignored. Any non-marketable services have to be considered in every decision of land use changes. Without any consideration of the non-marketable products, the profit of farmers is much less than the total values of product and services (marketable and non-marketable products).

2. Several methods and approaches to evaluate environmental services have been known such as: replacement cost method (RCM), contingent valuation method (CVM), and travel cost method (TCM). These methods have to be validated to be more precise and reasonable.

3. Using RCM in Citarum river basin, it’s found that replacement cost of paddy field for environmental service reached 45% of paddy marketable product. It means that paddy farmers contribute to the community at no charge the services equivalent to 45% of rice marketable value. Considering this extra service, reward should be given to make farming more attractive.

B. Paddy field Conversion

4. Land conversion has been debated especially because of the uncertainty of the magnitude, but all agree that conversion of agricultural land has been accelerating due to rapid increase of land for non-agricultural uses.

5. There were two opinions on conversion of agricultural land to non-agricultural land. First, because land use of agriculture is less economical than non-agriculture uses, conversion of agricultural land, to non-agricultural is considered as a normal economic phenomenon that can not be avoided or controlled. Second, food security is a national strategic program and controlling the conversion is a must. Investments for paddy field infrastructure development and environmental services provided by agriculture must be taken into account in land use plan.
6. Conversion of 1.6 millions ha paddy field has happened in Indonesia from 1981 to 1999. Supposing no conversion had happened, Indonesian rice production should have been 8.9 million ton higher than the current national annual production. Even though within the same period the government has developed 3.2 million ha new rice fields, rice import has increased from 0 in the early 1980’s to around 3 million ton annually in the last few years. This figure is approximately around 10 % of the current national consumption; an amount that can easily lead to food insecurity had the rice import been affected.

7. The gap between private and social value of agricultural land is very wide. The question is, can the government fill the gap? Since food security is stated as a commitment in national development program, the government needs to develop measure to make national commitment a success. One of the measure although difficult to do is controlling paddy field conversion.

C. Clean Development Mechanism

8. Realizing of environment negative impacts caused by short-term profits in economic development, in 1997 the UN declared the Clean Development Mechanism (CDM), which is known as Kyoto Protocol. This Protocol urge developed and developing countries to commit in controlling the increase of greenhouse gas emission. Develop countries have more responsibilities compared to developing countries, because 55 % of GHG emission happened in the developed countries. As part of the global responsibility Indonesia as a developing country should participate in the CDM program.

9. To employ the CDM, it is necessary to define land status/tenure, range of technology selection (regreening or afforestation), and actors involved in the area. Consideration of large area of about 17 million ha of grass and degraded land that might be used for the CDM, it is necessary for the government to develop a national program on this issue.