Executive Summary

Seminar with a theme “Appreciation of Agricultural Multifunctionality for Controlling Land Conversion and Realization of Permanent Agricultural Land” was conducted to discuss various research results and ideas on multifunctionality of agriculture (MFA), permanent agricultural lands, sustainable agriculture, farmers’ livelihood and conservation of agricultural resources. The seminar was officially opened by the Minister of Agriculture of the Republic of Indonesia, Dr. Anton Apriyantono, MS and concluded by the Director General of Indonesian Agency for Agricultural Research and Development, Dr. Achmad Suryana. The seminar was attended by 160 participants ranging from researchers, extension specialists, academicians, the Peoples Representatives, NGOs and policy makers in agriculture. Fifteen papers, including from Japan, Republic of Korea, Philippines, Malaysia, Germany, World Agroforestry Centre, and from various institutions in Indonesia have been presented. The seminar formulated the following conclusions and recommendations:

Regulatory Aspects

1. The accelerating rate of agricultural land conversion (for example, for paddy field from 90 thousand ha per year in the 1981-1999 to up to 188 thousand ha per year in 1999-2002 periods) is a threat to the success of rice self-sufficiency and environmental quality maintenance. This threat should be brought to the attentions of the legislative, executive, judicative, and the rest of community. Agricultural land conversion should be controlled by regulatory measures, in addition to improving incentives for farmers.

2. The Presidential Decree No. 98, 1998 on prohibiting the conversion of highly productive agricultural lands has not been effective. Amendment of the decree, by adding the penalty of violation, and the role of the central government in conversion control should be added.

3. The principles of MFA should be used as a basis of the amendment of verses of agrarian law. Hence, MFA principles should be advocated and disseminated to the legislative body as well as to the community at large.

Economic Valuation of Multifunctionality of Agriculture

4. Economic valuation of MFA at Citarum River Basin, West Java, showed that paddy fields produced the functions of erosion control, water resource preservation, flood mitigation, heat mitigation, rural viability, and waste disposal, collectively equivalent with 51% of marketable products of rice produced in the area. If other functions such as food security, employment, biodiversity conservation, carbon sequestration, and preservation of socio-
cultural values were included in the valuation, the MFA in this area would far exceeding the 51% value. Other agricultural systems, especially tree crop based and well conserved annual crop based farming, also produce significant multifunctionality.

5. The substantial values of MFA could be regarded as farmer’s contribution to the community, free of charge, external of the market and policy systems. Therefore, it’s justifiable to step-wisely internalize the MFA in the market as well as in agricultural policies to make agriculture an attractive sector.

6. There is a need to further improve the valuation of MFA, especially by strengthening the socio-cultural aspects. In addition, it’s necessary to further analyze the tradeoffs between the positive and negative externalities and, in turn, develop management recommendation to maximize the positive and minimize the negative externalities.

**Multifunctionality for Agricultural Revitalization**

7. Industrialized countries such as Japan and Korea, albeit their high purchasing power, but with their beliefs of important roles of agriculture, have developed various measures like direct payment, pegging of floor price of strategic commodities, and development of agri-tourism parks to maintain agriculture. Furthermore, the communities in these countries are increasingly aware of the importance of MFA, such that they actively participate in maintaining the MFA. Paradoxically, Indonesia as an agricultural country loses control of conversion of highly productive agricultural lands to non agriculture.

8. Campaigns and education, through research and dissemination to develop awareness on MFA should be conducted by the Ministry of Agriculture, by engaging its assets (institutes) located in each province. The dissemination could be conducted through, for example, round table discussion involving all stakeholders, publication through various media, inclusion of MFA principles as an educational subjects at schools, and development of agro-tourism, visitors’ plots, and field laboratory.

9. Lessons from Japan indicated that there are increasing areas of abandoned agricultural land and that farming becomes the business of old citizens and very limited number of young generation are interested in agriculture. Similar condition has started to happen in Indonesia which threatens the continuity of farming. Therefore, the government needs to develop effective and systematic strategies to attract the younger generation in farming, such as through facilitation of rural agribusiness development. In addition, there is a need to build the capacity of farmers through education, training, and extension.

10. The 15 million ha target of permanent paddy field as appear in the “Revitalization of Agriculture, Forestry and Fishery, RPPK” document, should be regarded as a dynamic target. A simulation on conversion (X) and
extensification (Y) showed the relationship “Y = 2.2 X – 64,000” for maintaining Indonesian sufficiency in rice until 2025. This means that conversion should be controlled to less than 29,000 ha per year. If conversion exceeds 29,000 ha per year, then for every hectare of converted paddy field, 2.2 ha new paddy field, with its infrastructural supports, need to be developed.

11. The challenge is how to curb the current rate of conversion of more than 100,000 ha per year to as small as possible. Extensification of paddy field for compensating the converted land are subjected to various constrains such as decreasing availability of the suitable lands, declining popularity to farm (which lead to abandonment of newly developed lands), and a substantial need for time and capital investments to develop supporting institutions in new paddy field areas.

12. It should be noted that the environmental, social and cultural functions of agriculture can not be transferred, meaning that the conversion of agricultural lands in Java island and extensification in the outer islands, can not solve the problem of degrading environmental quality, and forgone agricultural socio-cultural assets in Java.

13. The success in maintaining agriculture determined by, among others, ability to diversify existing commodities to increase profitability while maintaining MFA. For example, the newly announced subsidized credits for development and replanting of rubber and oil palm by the Minister of Agriculture would better be directed for the development of rubber agroforests, consisting of diverse perennial tree crops, with multiple benefits to farmers as well as the environment as has been shown by many researches. Productive clonal rubber material can be integrated in diverse rubber gardens.

14. Programs that should be considered in revitalizing agriculture include: (a) increasing the availability and farmer’s access to technology and capital; (b) development and maintenance of irrigation infrastructure; (c) capacity building of farmers’ group and development of networks between farmers’ institution and other agribusiness elements; (d) improvement of farmers’ access to agricultural inputs and markets; and (e) protection of farmers from forfeited, low quality agricultural inputs (fertilizers, seeds, pesticides).