



Research project of counterparts funded at IPB

| Name | Counterpart | Title |
|------------------------|-------------|--|
| Herdhata Agusta | A02 | Soil water dynamics in oil palm and rubber plantations in relation to slope and vegetation cover |

The objectives were to assess the soil water infiltration capacity and the spatial distribution of soil moisture. Soil water infiltration was measured with a double-ring infiltrometer (see Figure 1) at different slopes and positions in the plantations and soil water content was analysed gravimetrically. Water infiltration rate in oil palm plantations, especially in the inactive pathway (*gawangan mati*) is much higher than in the active pathway (*pasar pikul*). The designed strips in plantations for collecting organic material after periodical harvests and maintenance purposes inhibit water runoff and facilitates more infiltration of water into the soil. It is indicated that good management can improve soil water infiltration, and thus alleviate a severe hydrological problem associated with conventional oil palm cultivations.

This research continues in 2016, funded by the Indonesian Directorate General of Higher Education (DIKTI).



Figure 1. Measurement of soil water infiltration with a double-ring infiltrometer.