Interactive comment on "Minimum forest cover for sustainable water flow regulation in a watershed under rapid expansion of oil palm and rubber plantations" *by* Suria Tarigan et al.

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The area under study, the Jambi province of Sumatra, is experiencing a rapid decline in forest cover which is accompanied by a loss of a wide range of ecosystem functions. Local people in the area frequently report about an increasing severity of water scarcity in dry season as well as an increase of flooding events in rainy season. The latter is of greatest concern as flood events are increasingly impeding effective land use of local farmers. These observations are oftentimes related to the land use change and deforestation activities in recent years. Ongoing discussions about the linkages between forest transition and hydrological outcomes have pointed to the regional heterogeneity

and site specific characteristics of alterations in water flows. It is for this reason that empirical studies as well as site-specific hydrological models as those by Tarigan et al. are urgently needed to better understand the linkages between forest cover and water flows. In addition to discussions on the minimum amount of forest cover, I hope that further research will 1. give more insights to the question of where forest areas should be protected most urgently and 2. how we can implement policies of minimum forest cover without excluding vulnerable social groups from the possibilities to access and benefit from their natural resources.

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