# Table S1. Summary of studies, which examine determining factors of on-farm diversification

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| **Production system to be diversified** | **Country of study** | **Mean farm size (ha)** | **Effect of farm size on on-farm diversification** | **Reference** | |
| Maize system | Zambia | nd | Positive | (Sichoongwe et al., 2014) | |
| Maize system | Malawi | 0.8 | Positive | (Kankwamba et al., 2012) | |
| Rice system | India | nd | Positive | (Mandal & Bezbaruah, 2013) | |
| Rice system | Cambodia | 1.5 | Positive | (Seng, 2014) | |
| Livestock-forest-crop systems | Ecuador | 28.3 | Positive | (Torres et al., 2018) | |
| nd | Ethiopia | 1.2 | Positive | (Mussema et al., 2015) | |
| Pulse-cereal system | India | nd | No effect | (Goswami et al., 2017) | |
| Crop and livestock systems | Ghana | 7 | No effect | (Asante et al., 2018) | |
| Maize and groundnut system | Zambia | 6.2 | No effect | (Dube et al., 2017) | |
| Rice, sugarcane, and cassava systems | Thailand | 6.1 | No effect | (Taweekul et al., 2013) | |
| Rice system | India | nd | Negative | (Kumar et al., 2012) | |
| Rice system | Thailand | 2.5 | Negative | (Kasem & Thapa, 2011) | |
| Rice, maize, and wheat systems | India | nd | Negative | (Naseer Hussain Bazaz, 2013) |
| **Method:** A literature research was carried out in academic.microsoft.com for the following four key word combinations: 1) diversification, determinants, farming; 2) diversification, factors, farming; 3) diversification, determinants, cropping; and 4) diversification, factors, cropping. Twelve journal articles and one research report were selected from 173 returned publications because these focused on on-farm diversification and included farm size in the factors, which were studied. | | | | | |

**References**

Asante, B. O., Villano, R. A., Patrick, I. W., & Battese, G. E. (2018). Determinants of farm diversification in integrated crop–livestock farming systems in Ghana. *Renewable Agriculture and Food Systems*, *33*(02), 131–149. https://doi.org/10.1017/S1742170516000545

Dube, L., Numbwa, R., & Guveya, E. (2017). Determinants of crop diversification amongst agricultural co-operators in Dundwa agricultural camp, Choma district, Zambia. *Asian Journal of Agriculture and Rural Development*, *6*(1), 1–13. https://doi.org/10.18488/journal.1005/2016.6.1/1005.1.1.13

Goswami, S., Choudhary, H., & Bisht, A. (2017). Factors influencing crop diversification as a tool to twofold farmers’ earnings in Uttarakhand. *Indian Journal of Economics and Development*, *13*(2a), 228. https://doi.org/10.5958/2322-0430.2017.00070.1

Kankwamba, H., Mapila, M. A., & Pauw, K. (2012). *Determinants and spatiotemporal dimensions of crop diversification in Malawi*. https://www.researchgate.net/profile/Henry\_Kankwamba/publication/266936017\_Determinants\_and\_spatiotemporal\_dimensions\_of\_crop\_diversification\_in\_Malawi/links/543f813d0cf21c84f23cdced.pdf

Kasem, S., & Thapa, G. B. (2011). Crop diversification in Thailand: Status, determinants, and effects on income and use of inputs. *Land Use Policy*, *28*(3), 618–628. https://doi.org/10.1016/j.landusepol.2010.12.001

Kumar, A., Kumar, P., & Sharma, A. N. (2012). Crop diversification in Eastern India: Status and determinants. *Indian Journal of Agricultural Economics*, *67*(4), 600–616. https://ageconsearch.umn.edu/record/204840/files/04-Anjani Kumar-Crop Diversification.pdf

Mandal, R., & Bezbaruah, M. P. (2013). Diversification of cropping pattern: Its determinants and role in flood affected agriculture of Assam plains. *Indian Journal of Agricultural Economics*, *68*(2), 1–13. https://ageconsearch.umn.edu/record/206329/

Mussema, R., Kassa, B., Alemu, D., & Shahidur, R. (2015). Determinants of crop diversification in Ethiopia: Evidence from Oromia region. *Ethiopian Journal of Agricultural Sciences*, *25*(2), 65–76. https://www.ajol.info/index.php/ejas/article/view/142816

Naseer Hussain Bazaz, N. H. B. (2013). Crop Diversification in Jammu and Kashmir: Pace, Pattern and Determinants. *IOSR Journal of Humanities and Social Science*, *11*(5), 1–7. https://doi.org/10.9790/0837-1150107

Seng, K. (2014). Determinants of farmers’ agricultural diversification: The case of Cambodia. *Asian Journal of Agriculture and Rural Development*, *04*(08), 414–428. https://ageconsearch.umn.edu/record/198422/

Sichoongwe, K., Mapemba, L., Tembo, G., & Ng’ong’ola, D. (2014). The determinants and extent of crop diversification among smallholder farmers: A case study of southern province Zambia. *Journal of Agricultural Science*, *6*(11). https://doi.org/10.5539/jas.v6n11p150

Taweekul, K., Caldwell, J., Yamada, R., & FuJimoto, A. (2013). Factors affecting diversification in rain-fed agriculture in four amphoes (districts) in Khon Kaen Province, Thailand. *International Journal of Technology Management & Sustainable Development*, *11*(1), 93–107. https://doi.org/10.1386/tmsd.11.1.93\_1

Torres, B., Vasco, C., Günter, S., & Knoke, T. (2018). Determinants of agricultural diversification in a hotspot area: Evidence from colonist and indigenous communities in the Sumaco Biosphere Reserve, Ecuadorian Amazon. *Sustainability*, *10*(5). https://doi.org/10.3390/su10051432