

Detailed farm analyses for ex-ante impact assessment of N2Africa technologies have started

People working with legumes produced by smallholder farmers in Africa know one thing very well: legumes have a great potential to improve soil fertility, productivity and resilience of African arable farming systems and to contribute to livelihoods of rural families. However, whether this potential is realised, depends on agro-ecological, socio-economic and cultural conditions. These conditions tend to be highly variable within farms and between farmers and regions. Understanding which legume types and varieties and which associated technologies, such as inoculation and fertiliser application, have an impact under which conditions can improve the effectiveness of research and development efforts in N2Africa and other projects with legumes in African farming systems. Therefore, the N2Africa team has initiated ex-ante impact analyses of N2Africa technologies.

Detailed farm characterisations are conducted to gather information on the availability and allocation of resources (land, crops, livestock, capital, labour, etc.), farmers' perception of legumes, and their access to input and output markets. Moreover, biophysical data on soil characteristics, biological nitrogen fixation and legume yields are collected. Such detailed farm studies are currently conducted in Rwanda and Malawi by two students from Wageningen University. Similar studies will be conducted in the coming year in other countries where N2Africa works. Results from these studies are complemented by a broad socio-economic household survey (baseline survey) carried out in the eight African countries where N2Africa works. In addition, maps of the mandate areas provide information on important drivers of adoption of legumes (length of the growing season, market access, population density, etc.) (Figure below). Statistical and modelling techniques are used to integrate data and predict impact of N2Africa activities on crop productivity and the livelihood of farmers and their families.

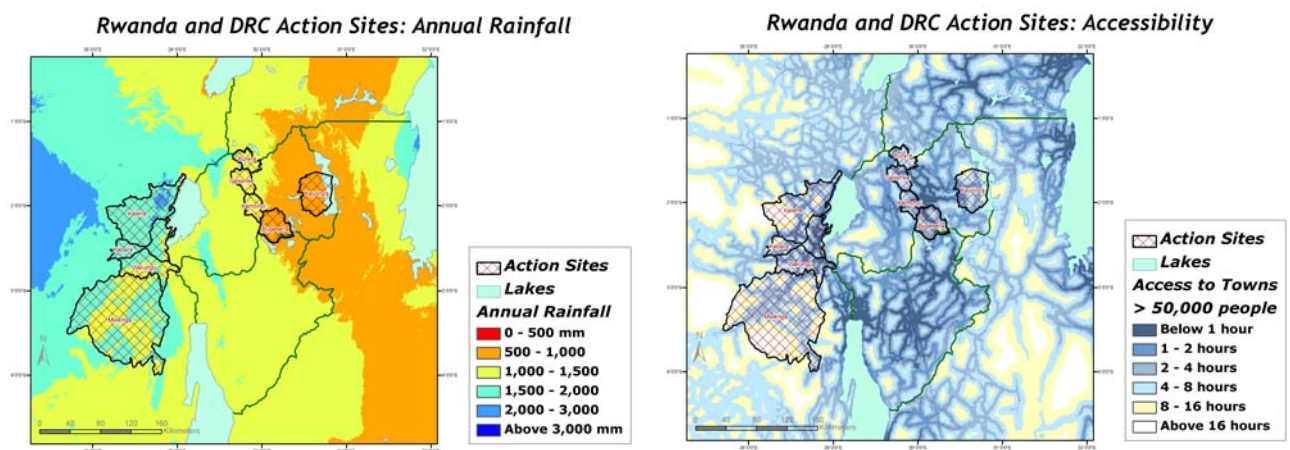


Figure: Annual rainfall and access to major urban centres in the mandate areas in Rwanda and DRC. Both are important drivers determining the adoption rate of legumes and help to predict the impact of legume technologies promoted by N2Africa.