

Enhancing communication for effective dissemination of soil fertility management in the Central Highlands of Kenya

Author: Kimaru, Wairimu Serah

Abstract:

Increased recognition of soil fertility depletion as the main biophysical factor limiting crop production in many African small holder farms has renewed interest in the dissemination of soil fertility management (SFM) practices. Despite soil technology development and research outputs, few of the recommendations from soil fertility management research have been put into use by the targeted end users. Accessibility and utilization of the existing knowledge is inadequate due to the communication methods and tools used in dissemination and up scaling of soil fertility management practices. With this background, this study was set out with the following objectives; i) to investigate availability and reliability of sources on SFM for farmers, ii) to identify communication channels used by researchers and extension agents and iii) to determine socio- economic factors that influence preference of communication methods by farmers, in the Central highlands of Kenya. Questionnaires were used to collect information from 22 researchers and 105 extension workers. In order to determine the socio-economic factors influencing farmers' preferences of communication methods, individual household interviews were conducted where 240 randomly selected farmers were interviewed. Data was analyzed using descriptive statistics (frequency, mean, percentages and Chi-square). Spearman correlation coefficient and logistic regressions were used to test the magnitude of the relationship between dependent and independent variables using statistical package for social sciences (SPSS) programme. Results showed that farmers perceived other farmers as the most available and reliable source of information on SFM while radio were perceived as highly available but relatively unreliable by farmers. Demonstration, farmer 'to farmer extension and workshops/seminar were sequentially ranked as the first three methods preferred by the farmers. Majority of the researchers and extension officers frequently used field days and demonstration as methods of communicating to farmers on soil fertility management. Preference of demonstration by farmers in training on green manure was positively influenced by age ($r=0.158$, $P=0.05$) and number of non formal trainings ($r=0.114$, $P=0.05$) but negatively influenced by farm size ($r=-0.132$, $P=0.05$) and gender ($r=-0.184$, $P=0.01$). Gender, education, number of non formal trainings attended, farm size and number of times a farmer had been visited by an extension agent were significant predictors in preference of field days in training on animal manure. Continued use of demonstration method was recommended as it was highly preferred by the farmers as well as considered effective by the extension agents and researchers. For effective dissemination of SFM, agricultural stakeholders should consider farmers' socio-economic characteristics while designing extension intervention strategies to be used in dissemination of soil fertility management practices. This is envisaged to increase adoption of SFM practices which will consequently lead to increased crop production and contribute to reduction of extreme poverty.