## Contribution of Irrigation Scheme on Food Security to Community Surrounding Rungwe Mpya in Kasulu District, Kigoma Region

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The study was about to assess the contribution of irrigation scheme on communities. surrounding Rungwe Mpya in enhancing households' food security. The specific objectives were to examine the households' food security status; establish the influence of irrigation scheme on households' food security and identify major determinants of households' food security in the study area. A multi- stage stratified sampling procedure was used to select 152 sample households from both irrigation users and non-users living within the targeted area. A combination of quantitative analysis like descriptive statistics, Household Food Balance Model, binary logit model and qualitative study were used to reach at reliable results by using data gathered from both primary and secondary sources. The survey result revealed that 29 % of sample households were food insecure and 71 % food secure. There was huge gap in food calorie availability ranging from 788-8405Kca in the study area. Food insecure households were found to have an average of 24% food gap in terms of dietary energy, which is needed to fulfil the national minimum requirements. The average per capita calorie supply for irrigation users was found substantially increased by 889 Kcal, which is about 42 % percent of the minimum requirement of food calorie requires by an individual. The use of SSI was found significantly related to household food security situation in provision of household dietary energy and taking a lion share in the proportion of study areas major - consumable from food crops production. The logit model revealed that household size, educational status of household head, cultivated land size, engagement in nonfarming, access to irrigation and credit service were found significant determinants. SSI is one of the viable solutions to household food supplement and hence promoting of smallholders to produce directly consumable food grains is advantageous. It is important to address those food security determinants and farmers' views in planning and executing of development policies and programs by all stakeholders to tackle the problem of household food insecurity in the study area. Thus, the concerned development partners being governmental or non-governmental should join hands to promote the development of irrigation schemes.