RESEARCH SUPPORT REQUEST

Research Title: Policy and Institutional Arrangements Necessary for Providing Operational Agrometeorological Services and Information: A Case of Same District, Kilimanjaro – Tanzania

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1.0 Introduction, Problem Statement and Objectives

Livelihoods of the majority of the population in developing countries, Tanzania inclusive, depend on agriculture which is very sensitive to climate change and variability. Agrometeorological services and information are thus imperative to smallholder farmers to counterbalance risks (e.g. loss of planted seeds due to unfriendly weather), ease shocks (e.g. strong wind which destroy plantations, incident of drought or heavy rains) and meet contingencies (ensure household food security) (Nicol, 2000; Stigter, 2005; 2008).

In Tanzania there are various sectoral policies (e.g. agriculture policy, environmental policy) and action points (e.g. Tanzania National Adaptation Programme of Action (NAPA)) that recognise the importance of agriculture in a changing climate. Justification for the opportunities of operational agrometeorological services and information to smallholder farmers should, therefore, be guided by these policies and strategies. Institutions, on the other hand, are the vehicles for policies and strategies implementation as well as the filters which determine the success or failure of livelihood strategies. In Tanzania, there are both formal and informal institutions and their frameworks are legal, regulatory as well as organizational (Tumbo *et al*., 2007). Their macro-micro linkages in fulfilling this mandate are of a paramount significance.

Same District is among the district that makes Kilimanjaro Region and over 70% of its population are smallholder farmers. It is among the semi-arid areas in Tanzania which depend much on rain fed agriculture, with the rainfall average of 700-900mm per year. The district is characterized by scattered hills that are descending to undulating and rolling plains, the slopes are thus susceptible to soil erosion and vulnerable to landslides. Policies and strategies set at the national levels are expected to influence the way things are done at the local level thus setting a ground for implementation, most especially on agrometeorology services and information delivery.

Despite the presence of various policies and strategies as well as the institutions, climate and weather (un)predictability has continued to bring difficulties to organised response farming. In this line of thinking, farmer and farming system differentiation is the prime concern of underlying operational agrometeorological alternatives in scenarios of agrometeorological services and information under condition of continued varying climate (Murthy and Stigter, 2006; Stefanski *et al*., 2007; Stigter, 2008).

1.1 Problem statement

Operational advisory services and information products related to agrometeorology, in most of the developing countries, seldom reaches smallholder farmers (WMO, 2009). The manifestation of the smallholder farmer's information isolation in Tanzania and Same District in particular, however, is not clear whether it emanates right from the current policies and/ or the way institutions are arranged for provision of operational agrometeorology services. The proposed study is therefore geared in finding such information.

1.2 Objectives

i. To examine the current policies and institutional arrangements that is being used in providing operational agrometeorological services and information
ii. To assess the adequacy of the policies and institutional arrangements in providing operational agrometeorological services and information to smallholder farmers
iii. To determine necessary changes to policies and improvements on institutional arrangements

1.3 Research questions

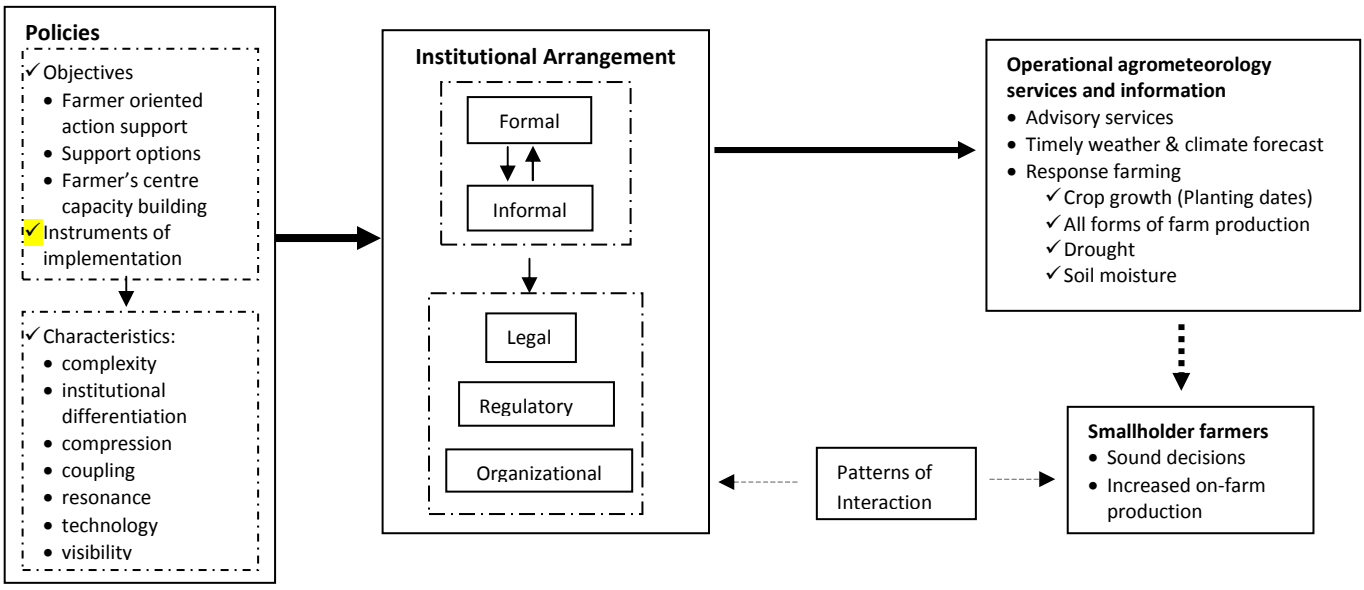
The study will be guided by the following research questions:

i. What are the existing policies that support the provision of operational agrometeorological services and information
ii. Which institutional arrangements do support the provision of operational agrometeorological services and information?
iii. How adequate are the identified policies?
iv. How adequate are the institutions arrangements in the provision of the same?
v. What changes should be necessary to be implemented in the policies and improvements on institutional arrangements so as to enhance the provision of operational agrometeorological services and information?

2.0 Methodology

Research Design	Cross sectional
Sampling Procedures	National level + Intermediate level = Snowball sampling for respondents (key informants = Policy makers and national implementers)
	National Institutions to be studied = Simple random sampling (table of random numbers)
	Purposive sampling = respondents at local level (district to village level).
	Purposive sampling for 5 villages = Highland, Middle slope, and Lowland
	Simple random to get 150 respondents (i.e. 30 smallholder farmers from each village)
Data Collection	Primary data will be collected through semi-structured questionnaire (to smallholder farmers), checklist of questions to guide interviews with key informants. Secondary data will be collected by reviewing documents i.e. policies, strategies, institutional operational guidance etc)
Data Analysis	**Objective one**: Content analysis and recursive frame analysis
	Objective two: Descriptive statistics will be used with regards to the distribution of the adequacy responses for the Likert scales. Mean scores for the three levels will be presented with significant differences identified using ANOVA F-tests. Also, groups of respondents with similarly held attitudes will be identified using cluster analysis (both hierarchical and non-hierarchical techniques will be used).
	Objective three: Recommendations will base on the findings of one and two for both policy options and institutional arrangements

4.0 Research Conceptual Framework



5.0 Reference

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Proposed Budget for the Research

Code	Description	Unit	Qty	Unit Price (TZS)	Total (TZS)	Amount in US$[i]
1	***Proposal Preparation***					
1.1	Stationery	Lumpsum				
1.2	Production of the proposal	Copies	4	22,500.00	90,000.00	72
	Sub-total				**90,000.00**	**72**
2	***Field Data Collection***					
2.1	Stationery	Lumpsum			150,000.00	120
2.2	Questionnaire pre-testing	Days	1	65,000.00	65,000.00	52
2.3	Training of 5 research assist.	Days	2	20,000.00	200,000.00	160
2.4	Questionnaire copies	Copies	165(10 pg@	500	82,500.00	66
2.5	Return trip to the filed (From Morogoro)	Trip	3	50,000.00	150,000.00	120
2.6	Field transport					
	Local transport hire – motorbike	Days	40	20,000.00	800,000.00	640
	National + Intermediary interviews	Days	25	15,000.00	375,000.00	300
2.7	Principle investigator's allowance	Days	65	45,000.00	2,925,000.00	2340
2.7	Assistant investigator's allowance (5)	Days	10	15,000.00	750,000.00	600
	Sub-total				**5,497,500.00**	4398
3	***Dissertation Production***	Lumpsum			**450,000.00**	360
3.1	***Research Findings Leaflets Printing and Dissemination***	Copies	200 (4 pages @)	5,000.00	**1,000,000.00**	**800**
	Grand Total				**7,037,500.00**	**5630**

Note:

Institute of Development Studies, University of Sussex through the Climate Change Governance awarded me bursary worthy 1000US$ for this work and have already received the remittance advice amounting to 600US$ ready to begin the study. With the support from the IDS, I am still having deficit of 4630US$ so that I can accomplish the study, share the result and at the same time earn my Masters of Arts in Rural Development Degree.

Your support is highly appreciated in advance.

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[i] Exchange rates: 1US$ = 1250.00 Tanzania Shillings (TZS)