
Exploring the Effects of Farmer Community Group Participation on Rural Livelihoods

By David Amudavi

Efficacy of Community Groups

Community groups are increasingly recognized as plausible instruments through which rural communities can overcome constraints affecting their welfare. In particular, groups may be important in promoting economic well-being and offering buffers against natural and policy shocks. They can facilitate low cost access to information, thereby stimulating technology adoption, enhancing contract enforcement and facilitating labor sharing at critical times. They may also be important in cooperative marketing input supply and savings and credit. Group participation may thereby enhance one's opportunity to locate the information, resources and influence necessary to advance economic welfare.

Group participation is the involvement by individuals in specific informal or formal organizations for purposes of realizing not only utilitarian individual interests, but also for attaining mutually satisfying collective interests. The capacity to do so lies in individuals' ability to explore and develop new ways of thinking, organizing, and acting in response to emerging issues. This hinges on the social structures internal to the groups, structures that organize the formulation and enforcement of rules, the making of collective decisions and the execution of collective actions. It also lies in the social connectedness of groups with the state and other external agencies. Benefits may accrue in part from structural linkages mediated by groups.

Despite widespread current fascination with community groups, there has been scant careful, empirical examination of their efficacy as a remedy for government and market failure. This is due, in part, to past studies' focus on the effects of group membership and less on the access to services mediated by those groups, and partly due to failure to distinguish which group types are best placed for particular responsibilities. These limitations hinder useful inference. Hence this study systematically explores the possible variation in

groups' capacity to contribute to member households' welfare through different services under different mediating structures. We seek to establish whether group participation substantially influences household welfare and whether this varies by group type and by the extent of group mediation of access to services.

The paper endeavors to assess why some individuals participate in groups while others do not. It then assesses the effects of participation in groups on rural welfare through service acquisition, distinguishing between groups and the benefits they offer. Two principal propositions underpin this exploration. First, the level of group participation, as measured by the density of mediating structures, exerts an important and significant effect on welfare, beyond that accounted for by household resources. Second, resources accessed through group participation also exert an important and significant effect on welfare, beyond that accounted for by both household resources and density of group membership. These questions are important in policy analysis and design in order to enhance groups' capacities to help smallholder farmers.

Data were collected in three purposively selected districts in Kenya: Embu, Vihiga and Baringo. A household questionnaire was administered to a random sample of 480 farmers and several focus group discussions were held with the groups to determine their functions and stability.

Group Development in Kenya

Groups in Kenya have often been formed in response to various social and development issues in the spirit of a rallying concept 'harambee.' The concept literally means social actors coming together to pool resources (human, financial, social and political) to address specific issues. This has spawned groups (for example, self-help groups, youth groups and women groups) and captured public attention by such groups' potential to take on bigger responsibilities, prompting the public

extension service to carry out its mandate by working directly with community groups.

Methods

Two measures were used to estimate economic well-being or welfare: annual household income and asset ownership. These measures provide a snapshot of the standard of living for each household. Annual income was computed from crop and livestock activities, non-farm activities and formal sector employment. Ownership of assets was determined from information on key household items and the condition of respondents' dwellings. We computed an asset index, via principal components analysis, as an alternative diagnostic measure to income. The asset index's interpretation is simply that a higher score denotes higher economic well-being.

Participation was considered in two types of groups: (1) Community groups formed endogenously within a community of their own accord based on their own identified needs, and (2) Supra groups formed exogenously by or in cooperation with external agencies (e.g., government, NGOs, private businesses) in response to some anticipated resource flow between external entities and the community. In most instances, the purpose of the endogenous groups is to express or realize a particular value or norm rather than to achieve a specific material gain or a payoff. On the other hand, exogenous groups focus on some specific objective (e.g., production, input supply, and marketing) and are linkage-dependent. Density of group memberships was measured by the number of groups to which a household belonged.

Participation in groups can offer several benefits: *material* (increase in consumption, income or assets), *social* (services such as schools, health clinics, water systems, improved and better roads), and *personal* benefits such as self-esteem. The distribution of service access was estimated by summing up all possible services obtained from each type of group. Higher scores reflect greater acquisition and diversity of services. Thus an increase in services provided, controlling for the number of groups to which a household belongs, identifies the welfare effects of providing more services through the same set of community groups. Current participation levels were compared to those of three years ago to assess the temporal relevance of the groups within a spatial setting. This is important in assessing possible growth in group membership.

Groups Participation Patterns

About 29%, 21% and 19% of survey households do not participate in any community group in Baringo, Vihiga and Embu Districts, respectively. In the same order, 71%, 77%, and 74% participate in 1-3 groups. Embu has 6%, Vihiga 3% and Baringo no households participating in at least four endogenous groups. A similar pattern is observed in supra groups, although these are far less common in Baringo than

in the highlands sites. Sixty percent, 9% and 9% do not participate in any supra group in Baringo, Vihiga and Embu, respectively, while 40%, 89%, and 80% participate in 1-3 supra groups. Embu has 11% farmers participating in at least four supra groups, while Vihiga has only 3% and Baringo none. The results suggest that most households belong to a group but very few, except Embu farmers, belong to more than three groups.

Analysis of variance on means of service access indices developed for both types of groups show statistically significant differences (Table 1). Embu farmers accessed the greatest number of group-mediated services compared to those in Vihiga and Baringo. They enjoyed about four times as many services through community groups as Baringo farmers and 63% more than Vihiga farmers. These differences were magnified in the case of supra groups, with Embu farmers enjoying more than seven and almost three times as many services mediated by supra groups as Baringo and Vihiga households, respectively. These results are consistent with the perceptions expressed by focus groups. Farmers in Embu accessed the highest diversity of services compared to those in Vihiga and Baringo.

Table 1: Comparisons of Mean Service Access (MSA)

Dependent Variable	(I) District	MSA	(J) District	MSA	Mean Difference (I-J)
Service Community group	Vihiga	3.73	Baringo	1.43	2.30(*)
	Embu	6.08	Baringo	1.42	4.66(*)
	Embu	6.08	Vihiga	3.72	2.36(*)
Service by Supra groups	Vihiga	3.36	Baringo	1.26	2.09(*)
	Embu	9.18	Baringo	1.26	7.92(*)
	Embu	9.18	Vihiga	3.36	5.82(*)

* The mean difference is significant at the .05 level.

These results are consistent with the perceptions expressed towards a hypothetical question about possibility of group dissolution. A key argument within the social capital literature is that collective action problems can be overcome through cooperation, and that cooperation is possible and is more likely where social capital exists. Therefore, if existing groups were to disintegrate, then the purported benefits from group participation would be lost. Embu farmers were justifiably much more apprehensive in response to this hypothetical question about a collapse of their groups than were those from Vihiga and Baringo. Farmers cited social interaction, social benefits (e.g., social support in times of hardships) and financial services as the main benefits likely to be lost. This also reflects the view that in social contexts, group participation hinges not only on perceived self-efficacy, but also on perceived collective efficacy, a belief that

individuals can solve their problems and improve their lives through concerted efforts.

Effects of Groups on Welfare

So does the density of group memberships and of services access through groups measurably affect household welfare? This hypothesis was tested using multivariate regression analyses. The results show that household resource endowments – level of education, size of livestock, and size of land with secure land tenure – have the expected, significant, positive effects on the household asset index and on income. There are also significant positive effects associated with young, male-headed households and residence in Embu or Vihiga. Controlling for these factors, the density of participation in supra groups significantly and positively affects both measures of household welfare. However, the corresponding services access indices are only significant with the asset index.

Perhaps surprisingly, given the literature's widespread celebration of endogenous groups, density of participation in community groups and service access through community groups are not statistically significant determinants of either household income or assets, although their estimated effects on both measures of welfare are, nevertheless, positive. Participation in community groups may enhance social capital and provide useful benefits, but not sufficient enough to significantly change welfare consistently and substantively. Participation in supra groups and their concomitant services produce larger positive effects on welfare.

Multiple logistic regression of group participation on a suite of explanatory variables indicates that neither assets nor income are statistically significantly associated with the probability of participation in either type of group. This suggests that the causality runs from group participation to household well-being, not the other way around.

One major factor cited as a cause of low group participation rates is lack of financial resources to meet the group prerequisites for active memberships. Groups attempt to secure more than minimum subscriptions from members through such requirements, meaning that those who have more resources would seem likely to utilize the opportunities offered by more productive groups. Whatever the interpretation, participation in supra groups, is likely to be a major factor in determining how group participation in any district transmits its benefits to rural families.

The multivariate regression analysis indicates that gender is positively and significantly related to the two welfare measures. But the logistic regression results reveal that participation in community groups is *less* likely in male headed households than in female-headed households. Interestingly, supra group participation follows the same pattern,

although that relationship is not statistically significant. The qualitative information gleaned through focus group discussions also indicates that whereas community groups, such as women groups, youth groups, and self-help groups assist households in purchasing basic household items, supra groups enable them to acquire much higher value assets. So these two types of groups play distinct roles. Against this background, it is important to learn more about the dynamics of resource mobilization and allocation, about how community groups establish and build their memberships; and how this relates to wider issues of group performance and participation in general.

Qualitative evidence collected from interviews shows that community groups can be an effective entry point for the poor to access resources, particularly if contracts are drawn to compensate for the market failures and institutional gaps that affect them. Hence, an effective group strategy that focuses on relevant key resources for the rural poor should seek to support groups where they are not efficient, expand their productive and useful functions, and promote access to extension services. Such support is necessary not only to improve participation in groups, but also to enable households to learn how resources, information, decision-making, delivery mechanisms, and accountability can be structured to improve benefits.

Summary and Policy Implications

This brief explores the importance of group participation by examining the effects of groups on welfare in three districts in Kenya. The results show that levels of group participation and associated access to services differ significantly across households and districts. The findings also show that human, physical and natural capital holdings and gender are critical factors explaining variation in household wealth and income measures, but that even after controlling for these factors, social capital manifest in group participation matters materially to household welfare measures.

But not all groups have equal effect. Density of memberships in supra groups linked to outside agencies has a strong positive effect on economic welfare. The fact that supra group-mediated services access has additional positive effects on household wealth, controlling for group membership, also indicates that supra groups offering a greater range of services are associated with the highest levels of economic welfare in the communities studied. The statistically significant effects of supra groups on economic welfare suggests the need to expand their organizational and resource capacity to benefit more farmers by enabling more asset accumulation and higher asset productivity, thereby stimulating income growth.

A key policy implication from these results is the importance of considering the capacity of groups

to undertake significant roles germane to improving livelihoods. Encouraging the formation and development of more groups should be checked against their capacity to leverage key services such as farm inputs, information, accessing markets and financial services. In many cases, increasing the services accessible through extant groups may be a more desirable course than fostering the emergence of new groups. Policymakers will also need to address the stark disparity across communities and districts in group participation rates and in the services available through community and supra groups.

About the Author

David Amudavi is a PhD candidate in Education at Cornell University and a Lecturer in Agricultural Education and Extension at Egerton University. This brief is based on his paper of the same title, drawn from one of his dissertation chapters.

Further Readings

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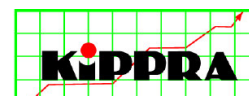
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Comments are welcome.
Please contact us at:
SAGA, Cornell University, 3M12 MVR Hall
Ithaca, NY 14853
607/255-8093, Fax 607/255-0178, saga@cornell.edu