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# The impact of socio-economic factors on the performance of community projects in western Kenya<sup>1</sup>

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## ABSTRACT

*This paper examines the impact of selected socio-economic factors including the work ethic and the level of participation in rural development performance via community development projects among the Nandi people of western Kenya. Data was sourced from a social survey of 27 randomly selected community development projects and a sample of 329 respondents – the intended beneficiaries of the projects. The findings support the prediction that the prevailing work ethic, socio-economic factors and the participation in such projects have a paramount influence on community development performance. It is recommended that development planners, policymakers and implementers should look for new strategies of improving the community's socio-economic status as well as promoting the work ethic and participation level because these are the factors responsible for the poor performance of community development projects.*

## Introduction

THIS STUDY EXAMINES the impact of socioeconomic factors on rural development performance with particular reference to community

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development projects among the Nandi people of Western Kenya. Considerable finance, manpower and material resources have been committed to rural development projects countrywide in Kenya such as health centres, cattle dips, water supply projects and those aimed at women and youth groups, but there has been no corresponding improvement in the performance of these community projects. Projects initiated in Nandi District, in particular, have also yielded little in relation to the investments made (Kenya 1989a, 1994a). Given the population growth rate in Nandi District of 3.86% coupled with the low performance of most rural community development projects, rural people's standards of living in the district are on the decline, as reflected by falling disposable income per capita (Kenya 1989a:42-46, 1994a:50,66-67, 1996:4-5,10).

Though economic reasons, internal policies and structural rigidities may partly account for the poor performance of local projects and consequently of rural development, explanatory factors responsible for this trend have not been clearly identified and widely researched. However, it has been hypothesized that participation is influenced by the availability of conducive opportunities and resources. Kabwegyere and Migot-Adholla (1981) argue that socio-economic factors such as education, rural or urban residence, sex, age, marital status, income, religion and family size influence participation. They argue that if the score on each of these variables is low then participation is reduced and in that context, development becomes insignificant.

The prevailing work ethic and level of community participation, on the other hand, have been noted to play a very significant role in the development of nations and, whenever any lapses are experienced in the development process, these features should be examined (Weber 1930; Misra 1985:91; Thomas 1985; Uphoff 1972; Nyoni 1987; Tisdell 1988). The poor work ethic of rural people and their lack of input, or inadequate involvement, in the planning and implementation of local projects need to be examined critically to establish the extent to which these factors are responsible for the poor performance of community development projects. Little has been done so far in Nandi District to establish the extent to which these factors are responsible for the lack of community development.

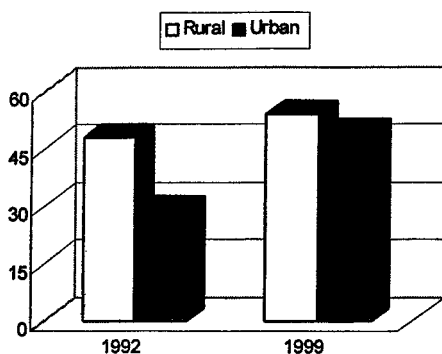
## Literature review

### *Development and the poverty level in Kenya*

DESPITE THREE DECADES of concerted efforts to improve living conditions in many developing countries, poverty still persists throughout the Third World with many people now slipping below the poverty line. The problem and extent of poverty in sub Saharan Africa, which is a consequence of stagnating and declining economic development, has been growing. Bryant and White (1982:277), Baker (1997), Breth (1997) and the World Bank (1995a) note that many developing countries that were once able to feed their own populations are no longer able to do so and most of these countries have become net food importers. It is estimated that in 1992 42 percent of the approximately 525 million people in sub-Saharan Africa were living below the poverty line of US \$370 per capita. This number is expected to rise to about 304 million or 50 percent of the region's population by the year 2000. There is now a growing concern that poverty, which until recently was a predominantly rural phenomenon, is now spreading quickly in rapidly growing urban centres. Furthermore the distribution of global poverty is projected to shift dramatically towards Africa, from 16 percent in the mid-1980s to 50 percent by the turn of the century (Breth 1997:52-53; Sirleaf 1997; World Bank 1995a; 1997:34-40; the Food and Agricultural Organization (FAO) 1993:2-6).

The level of poverty in Kenya is high and it is still rising. Absolute poverty in rural areas was recorded at 47.9% compared with a rate of 29.3 and 28.9% in urban areas in 1992 and 1994 respectively. The 1999 estimates puts the figure at 52.3% countrywide, with in rural areas having an overall incidence of 53.9%, while in urban areas the incidence is 49.33%. (FAO 1986; Kenya 1996:151; Ministry of Finance 2000; World Bank 1995a:22-23, 1995b:18-25). Today poverty manifests itself in form of hunger, lack of drinking water, minimum health facilities and shelter, together with illiteracy and lack of access to basic education. Finding creative solutions to cope with poverty is now one of the greatest challenges facing the continent. However, despite three decades of concerted effort and the adoption of various approaches to improve the level of development in many developing countries (by integrating

**Growth of absolute poverty in Kenya,  
1992-1999**



the rural population who are largely peasants), the performance of development projects and the conditions of living of the rural poor are deteriorating and there are indications that success will not be a term of reference very soon. This scenario has led some development experts to ask themselves a very pertinent question: Why are development efforts not bearing fruit among the rural poor?

In this era of structural adjustment programmes, introduced by International Monetary Fund and World Bank (Mills 1989:1-11), coupled with frequent aid cuts, many African countries, Kenya included, are now realizing the need to ensure a strong work ethic and high levels of participation of rural people in the development process. Alongside the desire to realize increased rural participation is the need for the development of rural social structures and institutions that can sustain growth and rural development (FAO 1993:52). Thus, enhancing the work ethic of rural people and their participation in the process of development is one of the first and primary goals to be achieved in the rural development process, which operates on the foundation of the development approach adopted.

Nandi District development prospects are bleak. The district's productivity level, that had initially shown signs of revival, has of late declined and the real disposable income per head has fallen dramati-

cally during the last few years. The district development committee observes, "the district's economy is stagnant, which implies that the welfare of the people is not well met, particularly those in wage employment" (Kenya 1994a:66-67; 1989a). The Ministry of Planning (Kenya 1989a:41-43) notes that the poor management of rural production organizations, low land utilization and the low generation of employment opportunities are some of the major constraints to development in Nandi District. For the purpose of this article, the performance of only one sector, community development projects, is examined.

### *Community work and the rural Nandi work ethic*

THE WORK ETHIC has been associated with the surge in economic development in Europe in the eighteenth century. This tremendous achievement in development has been attributed to a set of beliefs and values (the work ethic) that were held by early merchants and industrialists, who, through hard work, reinvested and expanded their businesses (Weber 1930). Since then, community or national development is assumed to be vested in the work ethic within a community and its culture, norms, beliefs, values and attitude towards work. Though attempts have been made here to discuss the Nandi work ethic, there is very little information on it. To bridge this gap, oral information was sought during fieldwork. Information gathered from most of the old men and women in the community indicated that the Nandi were hardworking people in the past. Given the highland tropical climate (with high rainfall and temperatures ranging from 20 to 30°C) of the area they occupy and the low population, its livestock and crop production was sufficient for most of the rest of eighteenth, nineteenth and early part of twentieth century. People rose early to farm or keep their cattle and retired late in the evening. It was reported that warriors could go for days, weeks and months on raiding missions in other communities living far away from the Nandi and would often return with cattle, goats and sheep (Ogot 1985). Due to animosity existing between them and other communities, they always remained alert in case their enemies launched an attack. This meant that almost everybody in the community was involved in at least some form of work. If they were not training

in the army, young people were either taking care of the cattle or occupied in relatively limited farming. In this way every member of the community was engaged in work in one way or another. With the change in times, and therefore change in life style, such as living in one's own farm with one's own property and children, the community work spirit has almost died away.

Immediately after independence in 1963 a number of reforms were introduced. These ranged from changes in communal land ownership to individual ownership and the encouragement of individual investment in various sectors of the economy which had hitherto been the preserve of the colonialists. The new government's objective in encouraging individual work or "private" work was to increase productivity in agriculture and other sectors where productivity was thought to be low due to lack of individual motivation. Furthermore, land tenure reform was taken with the primary objective of facilitating individual access to credit facilities so as to stimulate increased investment, employment and wealth creation. Although the intention underlying these changes was good, it tended to undermine community spirit and community involvement in community development projects because it created a strong link between individual work and individual achievement. In this way, the new government encouraged the privatization of work and consequently discouraged involvement in community development activities, unlike the policy during the colonial times.

This social change has affected the young people's work ethic negatively. There is no longer any peer or community pressure that attempts to instill the work ethic. Today the young, who would otherwise be among the leading working groups on family and community projects, idle around without gainful employment (Rono 1997).

### *Participation in rural development*

THE PARTICIPATION OF the people has been recognized as central to development (Cernea 1991, 1992). Community participation was officially recognized in Kenya in the 1950s when the colonial government, having realized that not much could be achieved without the involvement of the potential beneficiaries, formally launched the community devel-

opment movement. This is by no means to say that people's participation in community activities dates back only to this time. Prior to the arrival of the colonialists, different communities in Kenya met their basic needs in various ways through community participation (Jones and Rolls 1982:222–23; Ndung'u 1995; Aboud 1989; Bibangambah 1985:25; Muia 1987:50–53; FAO 1988:48–49; ILO 1972:15; Kenya 1965, 1972:4–9).

At independence the new leadership put community participation in a new and better perspective. The late President Jomo Kenyatta, for instance, introduced what he termed *Harambee* or the spirit of self-help upon his election as the first President of Kenya. In June 1963 he said:

We must bring all the communities of Kenya together, to build a unified nation. In this task, we shall make use of those attitudes of self-help; good neighbourliness and community assistance which are such an important feature of our traditional societies (Kenyatta 1964:8).

In pursuit of this goal the government in its 1970–1974 and 1974–1978 development plans again emphasized the stimulation of the spirit of self-help among the people. The resulting enthusiastic response of people throughout the country led to achievements far greater than were expected. Community involvement increased and small community projects that did not necessarily require large financial or material cost in terms of inputs (such as cattle dips, nursery schools, women and youth group activities) were successfully implemented. Most of these projects were accomplished with little support from the central government throughout the country (Kenya 1970:524; 1972:1–6; 1974).

Community involvement and participation in Nandi dates back to the pre-colonial period, that is, to at least the nineteenth century. According to Ogot (1985:178–179), for the whole of nineteenth century community development drew on the labour of the *kokwet* (village) and *pororiet* (community). However, it had narrow objectives, namely, to meet the very basic necessities of the community members in food, clothes, shelter, health-care and security. Operating basically in a peasant economy, the Nandi people utilized community participation on a small scale involving five to seven households who were either rela-



tives or neighbours in local development projects. This is because generally the community had no command of technologies that could allow investment in bigger development projects. Thus, many people grouped into what were more or less work parties where neighbours and relatives helped each other at harvest and more so during labour-intensive seasons. During the colonial period participation by Nandi communities in government-directed or supported community development activities was never realized because of their conservativeness and hostility to the colonial rule. But participation in community development activities gathered momentum immediately after independence and larger community based projects have been completed since then (Oboler 1985:153–165; Rift Valley Province Annual Report 1990).

The government's efforts in nearly all development endeavours after independence have been largely directed towards the involvement of the rural people (Kenya 1979; 1984b; 1989b; 1994b; 1996). In its Sixth Development Plan covering the period 1989–1993, for instance, the Kenyan government development plan theme was "Participation for Progress" (1989:37). This theme was derived from the Sessional Paper No. 10 of 1965 on Africa Socialism and its Application to Planning in Kenya. The theme re-emphasized the need for the full participation of the entire population in the economic activities of the nation. Participation is here defined to mean the commitment and involvement of the Government, non-governmental organizations, co-operatives, private businesses and individuals in achieving social progress. Progress means not only national well-being but also a general improvement in the quality of life for all Kenyans. The Sixth Development Plan challenged Kenyans to nurture an entrepreneurial spirit which revolves around dynamism, inventiveness, innovation, initiative and a propensity to take risks (Kenya 1989b:38–39). Despite these efforts districts like Nandi have managed to achieve only 50% of the potential agricultural production (Kenya 1994a:77). This further supports the view that the success or failure of a community's development initiatives should be traced to the people's involvement or participation and the rate of that participation.

This article undertakes to determine the impact of socio-economic factors and the contribution of the residents to the process of rural

development in the referred district. At issue is whether in the Nandi community socio-economic factors include the work ethic and the level and rate of their participation (that is, in the identification, formulation, planning, appraisal and implementation) in the process of rural development projects. Do the socio-economic characteristics of individuals have a significant impact on rural development performance?

### **Materials and methods**

#### *Sources and nature of data collected*

THE DATA USED in this study were obtained through a sociological survey conducted between December 1996 and May 1997 in the Kilibwoni and Kapsabet divisions of Nandi District. Field research involved interviewing participants using a structured questionnaire. Most of the conclusions arrived at in this study are based solely on the results from the statistical analysis of these data.

An exploratory survey was conducted to determine the research parameters and to select, from a number of possible locations, the places where the research would be carried out in Kilibwoni and Kapsabet Divisions of Nandi District. Since all the locations had projects that were established on a community basis, multi-stage random sampling was used to pick eight locations as research focus areas. Shortlisting of all the community projects in the eight locations followed. This was done by focusing only on projects that were initiated at the grassroots level by the community with the support of the local or central government in most cases. These were projects that solicited community participation (ranging from a 20% to 100% contribution) and were established with the view to improving the local people's welfare, regardless of type. The participation of the community in rural projects was measured specifically in terms of their assigned role in the project. These are projects where, with the consensus of the community, members (or each household, where applicable,) were assigned roles or required to make certain contributions to the development projects approved at grassroots level. Once these projects were identified, a simple random sampling technique was then applied to determine 27 sample projects for study out of a total of 310 that met the aforementioned

criteria. The data set comprised a collection of information on projects, the current level of participation, the work ethic and the rural labour input and output among other relevant issues, including the background of respondents.

### *Data processing and analysis*

A DESCRIPTIVE procedure in the form of a frequency distribution analysis was applied to describe the study's primary variables and the associated indicator items, mainly as they related to the study objectives and hypotheses. The analytical procedures used include:

- Correlation analysis: to determine bivariate relationships among a set of variables, including the dependent variable, to eliminate the statistically insignificant variables from further analysis.
- Multiple regression analysis: firstly, to determine the effects (if any) of the six independent variables on rural development performance. These are:
  - a the work ethic of respondents;
  - b the actual man-hours during which they participated in their respective projects;
  - c their participation rate in projects; their community work values and norms;
  - d their community dedication and sacrifice in work and
  - e the respondents' personal characteristics index; and
- Secondly, to determine the effects of the respondents' 12 personal characteristics on rural development performance.

## **Results and discussion**

### *People's participation in rural development projects*

PEOPLE'S PARTICIPATION was measured in terms of individual or community involvement in the identification, formulation, planning, appraisal and implementation through contributions in form of labour, cash or material input. Nearly all community development projects undertaken by the community members expected 100% participation (that is, involvement at all stages of the project) from its beneficiaries, whether they were youth or women's groups, primary schools, cattle dips or

**Table I: Respondents distribution by average expected number of participants, average actual number of participants and participation rate in rural development projects**

<b>Name of project</b>	<b>No. of projects</b>	<b>Expected no. of participants</b>	<b>Actual no. of participants</b>	<b>Rate</b>
Primary schools	5	76	77	101.3
Women's groups	3	12	15	125.0
Youth groups	6	21	24	114.3
Local churches	5	130	34	26.2
Self-help projects	2	3015	1010	33.5
Water projects	2	162	15	9.3
Community cattle dips	4	98	72	73.5
OVERALL MEAN		130.15	46.18	35.48

SOURCE: RONO P. K., 1999

churches. This expectation appears to have eluded most of the projects, although eight out of the 27 projects actually achieved this goal, and some received participation rates of over 100 percent (in terms of members who turned up) as the case is with primary schools, women's groups and youth groups, where many more people than had been anticipated turned up. Care should be taken, however, not to exaggerate these participation rates since we are dealing with a small number of participants per project. One additional member represented a larger percentage than it would if we were dealing with a large section of the community. In Table II averages have been used to determine the number of expected and actual participants for the various types of community development projects studied. The actual average participation rate is 35.48% when the average actual participants (46) are computed as a percentage of the average expected participants (130).

This implies that although the ratios of new members who join current ongoing rural development projects in Nandi community appear to be high, the actual participation ratio of all people in these activities is

in fact, only a third of the population residing in the two divisions. However the participation rate seems to rise in projects such as schools, women and youth groups, that tend to benefit the community members or project participants directly or indirectly as individuals or in groups.

Projects that benefited the community as a collectivity, that is, indirectly, recorded a low participation rate. Women's projects recorded the highest participation rate of 125 percent compared with all the project categories put together. Although it is difficult to discern which gender is more committed to community development projects, these results suggest that women in Nandi tend to be more committed than men to social development. This finding supports the social exchange theory which states that people will participate in an activity the more valuable they perceive the reward of that activity to be.

#### *Community dedication and sacrifice to work*

TO QUANTIFY AND therefore categorize dedication to work and sacrifice in the Nandi community within the divisions focused on, we sought responses to seven statements relating to the community's dedication and sacrifice to work. Information obtained was coded into data, translated into indices and measured along a Likert scale, as the case is with other variables examined above. Responses like "strongly agree" were labelled 4 points and "strongly disagree" was labelled 0 points, while the remaining responses were labelled in a descending order. The highest expected score based on the seven statements was 28 points and the lowest was 0 points. The cumulative points of each respondent were then divided by seven in order to determine his/her response category along a 5 point, dedication and sacrifice Likert scale with five categories, namely, very high, high, average, low and very low. Results of this analysis are presented on Table II. It would appear that cultural values and the transition of the community from a pastoralist to a sedentary agricultural economy have to some extent affected the community's commitment and dedication to community projects.

Findings indicate that a small proportion (13.7%) of the respondents felt that individual members in their community "highly" or "very highly" dedicated and sacrificed themselves to work. Forty seven percent (47.4%)

**Table II: Frequency and percentage distribution of respondents according to their community dedication to work and sacrifice index**

Level	Score	Frequency	Percent	Cumulative Percent
Strongly agree	4.00	2	0.6	0.6
Agree	3.00–3.99	43	13.1	13.7
No opinion	2.00–2.99	156	47.4	61.1
Disagree	1.00–1.99	119	36.2	97.3
Strongly disagree	0.00–0.99	9	2.7	100.0
MEAN SCORE	2.167	TOTAL	329	100.0

felt that members of their community had average dedication and sacrifice to work. The rest (36.2% and 2.7%) felt that members in their community had low-to-very low dedication and sacrifice to work. The mean dedication and sacrifice to work score was 2.16, implying a relatively low-to-average commitment by the local people in the development projects being carried out within their community.

It can be concluded that members of the Nandi community in the areas of study have low-to-average dedication and sacrifice to work. It can also be argued that due to the “compliance effect”, respondents do not want to appear either eccentrically over-committed or eccentrically uncommitted and so their responses fall along the average-to-low mean as a result.

### Peoples' work ethic and community projects

THE WORK ETHIC refers to the developed societal norms, values and beliefs that enforce or encourage conformity to the need for dedication, commitment and sacrifice of one's time, including leisure time, and energy to work. The work ethic also involves and encourages individual sacrifice with the aim of achieving the highest level of productivity allowed using the technology available (Bates *et al.* 1989). This variable was measured using the Likert Scale (Triandis 1971) based on the

respondent's answers to twelve key work ethic questions posed to them.

### *Measurement of work ethic*

TWELVE INDICATOR items listed below measured the work ethic variable. The work ethic was measured by the number of points an individual scored along a four-point Likert Scale. The twelve comprehensive questions probing people's commitment to work were intended to determine whether, in the context of the Nandi community, the respondents had been or were doing the following:

- working on Sundays and public holidays
- working in the rains and bad weather
- risking all their money and property by investing it in their work
- helping neighbours with their work even with no payment
- following up the assistance of the government and other officers even under difficulties
- adopting all innovations suggested by other people
- insisting on completing the work started even under difficulties
- undertaking any type of work that comes their way
- encouraging children and relatives to take any jobs that come their way
- consider working too hard to be harmless to health
- participating in projects unrelated to their occupation
- accepting a job that demands waking up at 5.00 a m. in the morning every day

The responses to the twelve questions were constituted into an index and respondents were awarded 4 points if they said they "always" to one of the twelve activities related to work and 3, 2, 1, and 0 for "almost always", "sometimes", "hardly" and "never" respectively. The highest score is 48 and the lowest is 0 for the twelve question items presented. The total score was divided by 12 and the average score taken to stand for the individual work ethic index. These scores range between 0 to 4 and are categorized into five work ethic levels corresponding to the five response alternatives: 0.00–0.99, 1.00–1.99, 2.00–2.99, 3.00–3.99 and 4.00 as shown in Table III, which presents the frequency and percentage distribution of respondents according to their level of work ethic index.

**Table III: Frequency and percent and cumulative percent distribution of respondents by their level of work ethic index**

<b>Work ethic Level</b>	<b>Work ethic Score/Index</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Very strong	4.00	0	0.0	0.0
Strong	3.00–3.99	40	12.4	12.4
Average	2.00–2.99	216	65.5	77.9
Weak	1.00–1.99	67	20.6	98.5
Very weak	0.00–0.99	5	1.5	100.0
<b>MEAN SCORE</b>	<b>2.306</b>	<b>N=329</b>	<b>100.0</b>	

**Means**

Cath/ACK	=2.705	n=143
Protest	=2.627	n=178
Muslims	=3.03	n=4
Traditionalists	=2.98	n=4

SOURCE: RONO, 1999

The table shows that there was no respondent whose work ethic index reached 4.00, and only 12.4 percent of the respondents score between 3.00–3.99 points, which represents a strong work ethic. About two-thirds (65.5%) of the respondents had an work ethic index average of 2.00–2.99, which represent an average work ethic and the rest – 22.1% of the respondents – had a weak-to-very weak work ethic. The distribution of the work ethic score, as described above, implies that the work ethic among the Nandi community is average or less than average. This could be the main explanation for the poor performance of community projects in the area.

Looking at the role of religion among the Nandi people, findings showed that there was little difference in the work ethic across religions. It is interesting to note, however, that Catholics had a slightly higher mean work ethic of 2.705 points against 2.627 points of Protestants along the Likert scale, contrary to the prevalent social science view that Protestant communities are generally more hardworking than Catholic communities. Another interesting finding was that both Muslims and traditionalists had stronger work ethic than both Catholics and



Protestants, with mean work ethic of 3.03 and 2.98 points on the Likert scale respectively. A number of possible explanations can account for these observations.

First, in relation to Catholics and the Protestants, it can be argued that the church doctrines of both religious groups in Kenya were not well assimilated upon introduction. These doctrines were preached to the local communities by European priests and bishops who did not share the same language and customs as the community, compared with the reception these doctrines had in Europe where they originated.

Besides, it is almost over a century since these religious organizations were established in Kenya and their adherents have since then undergone or experienced varied and rapid social changes that might have significantly affected their beliefs, and convictions about work. The latest developments in Europe with regard to the level of economic development in predominantly Catholic communities concur with my finding of the rising work ethic among Kenyan Catholics. Recent findings in Europe reveal that the predominantly conservative Catholic Spain and Ireland have recorded high economic growth rates that used to be considered the norm for South East Asian countries (*Daily Nation*, 18/5/1998). This revival in European Catholic economies may suggest the emergence of a new generation of Catholics who are less conservative and more ready for change; a new generation with new values – which include a positive evaluation of material prosperity.

While church doctrines and affiliations are strongly related to individual work ethics, it can also be argued that the Kenyan Catholic communities may be undergoing a social transformation similar to that of the contemporary European Catholic communities. This apparent change may also reflect the differences in religious organizations, coupled with unity and good leadership. The unity of the Catholic Church has enabled it to exercise a uniform and strong influence on its members' religious beliefs with regard to work, which in Kenya appears to be fairly strong. For these reasons the Catholics have shown a higher work ethic than the Protestants because of the stability of the Church and the openness of its members to modern ways of life and work in

Kenya. While Catholics have maintained relatively united, strong religious beliefs and church leadership models, Protestants the world over, have not. There have been many divisions and off-shoots among leading Protestant churches where people break away and form new churches with new or modified doctrines. Thus, the new Protestant churches today in Kenya may have religious beliefs which may not primarily be work-oriented (compared with earlier European Protestants) and if they are, these beliefs are not strictly adhered to, a situation reflected by the low work ethic among their contemporary members.

*The effects of individual socioeconomic variables*

IT WAS POSTULATED that there may be significant positive relationships between the personal characteristics of people (either individually or in combination) and their performance in rural development. These characteristics may determine their level of commitment to work and hence their level of participation in rural development projects.

Twelve socio-economic variables were identified as having a possible influence on rural development performance. These are: the respondent's age, sex, formal education, informal education, annual income, religious affiliation, major occupation, marital status, total number of children, children of school age and who are in school, children of post-school age who are working and total number of other dependants. In order to test the prediction that the community's socio-economic factors significantly influence rural development, two types of analysis were undertaken.

First, to test the effects of the twelve variables individually on the dependent variable, rural development performance, and on the five independent variables, namely, the respondent's participation in rural development projects, their work ethic, their participation rate in projects, their community work values and norms, and their community work dedication and sacrifice.

Second, to test the combined effects of the socio-economic variables, combined into an index and included in the regression equation as a sixth independent variable.

**Table IV: Regression of the community project performance and independent variables on all socio-economic variables**

<b>Significant socio-economic variables</b>	<b>beta and significant level</b>
<b>a) Dependent Variable</b>	
Community project performance	None
<b>b) Independent Variable</b>	
1. Respondents' participation in rural development	None
2. Respondents' work ethic	
i) religious affiliation	0.1255 <sup>a</sup>
ii) age	0.1845 <sup>a</sup>
iii) children of post-school age and working	0.1569 <sup>a</sup>
3. Respondents' participation rate in project	
i) children of post-school age and working	0.2765 <sup>c</sup>
4. Community values and norms	
i) major occupation	0.1619 <sup>b</sup>
ii) religious affiliation	0.1451 <sup>b</sup>
iii) age	0.1769 <sup>a</sup>
5. Community work dedication and sacrifice	
i) gender	0.2171 <sup>c</sup>
ii) major occupation	0.1216 <sup>a</sup>
iii) religious affiliation	0.1441 <sup>b</sup>
iv) informal education	0.1392 <sup>a</sup>
<sup>a</sup> p < 0.05	<sup>b</sup> p < 0.
	<sup>c</sup> p < 0.001

SOURCE: RONO, P. K. 1999

The dependent variable and each of the five independent variables were separately regressed on the twelve socio-economic variables. The results are shown in Table IV. The statistics in Table IV imply that: First, rural development performance, the dependent variable and the respondents' participation in rural development projects, are not influenced by any of the respondents' socio-economic variables individually. Second, the respondents' work ethic is influenced by their (respondents') religious affiliation and age and the number of their children of post-school age who are working. Thus, older Protestant respondents

and those with a large number of children of post-school age and who are working, tend to hold a higher work ethic.

Third, the participation rate in projects is influenced by the number of working children of post-school age of respondents. The other eleven socio-economic variables (age, sex, formal and informal education, annual income, and others) seem to have no effect on the participation rate of the local population in rural development individually.

Fourth, community work values and norms are influenced by the respondent's major occupation, religious affiliation and age. Thus, older Protestant respondents whose occupation is mainly farming, business or transport or are hoteliers, civil servants or teachers, tend to hold higher community work values and norms.

Fifth, community work dedication and sacrifice is influenced by gender, major occupation, religious affiliation and informal education. This indicates that sex of respondent, occupations such as farming, business and transport and hoteliers, civil servants and teachers, Protestants and those who have no formal education tend to have positive effects on community work dedication and sacrifice within the Nandi community in the areas where this study was conducted.

In conclusion, findings from the analytical tests do support the study predictions. The results revealed that:

- there is a significant relationship between peoples' work ethic and rural development performance,
- there is a significant relationship between peoples' participation in rural projects and rural development performance,
- there is a significant positive bivariate relationship between peoples' participation rate in rural projects and rural development performance and,
- there is a significant relationship between six personal characteristics of the people, combined as a socio-economic index, and rural development performance.

These findings support the conclusion that rural Nandi people demonstrated average levels in work ethic, attitudes, values, norms, dedication and sacrifice and actual participation in rural development projects.

The projects' performance and effectiveness were correspondingly of average levels.

It is recommended that policymakers and development planners should look for new strategies of improving the community's or promoting the people's work ethic, and participation level because these are the factors that are responsible for the poor performance of community development projects. As a prerequisite, community development agents at all levels must ensure that these projects are community-led and designed if they are ever to bring about rural development in Kenya.

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