Development and its Social Impact on the Local Communities in the Juba Valley

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Introduction

There is a need for the design and development of all projects to be geared towards absorbing the country's nationals and satisfying their aspirations. Development is for whom and by whom? The best projects, associated with the highest national aspirations, are those conducted in the rural areas of Somalia, especially in the riverine belt. Yet, the ever-growing shanty towns inhabited by migrants from the countryside are becoming a frightful feature of all urban centers.

Somalia is much poorer than the other countries of East Africa. Yet, walking around Modadishu, one does not notice as much poverty from the apparel and appearance, compared to what is very noticeable, for instance, in Nairobi. The groups that make the worst showing are the rural migrants who come from regions receiving development resources.

This paradoxical phenomenon raises a number of questions in the minds of students of development, such as:

— What is development?
— Is development not for people?
— Are the local people not among the target groups of development programs?

It is with the purpose of answering the above questions that this short paper aims at exploring the social impact of some ongoing development projects on the rural people inhabiting the lower stretches of the Juba Valley.

The Juba Valley Area

1. *Background*

The problem of the human factor in the typical Juba Valley area, like elsewhere in Somalia, is difficult to assess. Population statistics of any degree of accuracy, like population size, classification by age group, sex, occupation, etc., are almost invariably still difficult to obtain. The same can be said about population growth, death rate and mobility. No less difficult to quantify are things like fami-

ly size, and the labor force, both community and family-wise; the aspects that have hardly been studied include variety of skills and quality of services that could be rendered by various occupational groups or individuals and, by the same token, their work, habits and attitudes, which are relevant to the modernization roles of society.

In Somalia, as a whole, nomadism is the principal response to the arid conditions. It is true that the Juba Valley is more fortunate than most of the country on two scores: first, its rainfall is usually the highest in the country; second, the river provides the largest amount of surface water for most of the year.

For these reasons, the area has one of the largest and oldest agricultural populations. In the traditional production of the valley, work arrangements are determined by the natural environment and social organization. Unlike in the west of the country, traditional herding and cultivation here are least affected by the constraints of modern market economy and technology. This is mainly because the farmer or the herder has been producing for his own consumption and not necessarily for sale.

Moreover, he is not using much in the way of machine technology. Hence the failure of his productivity is often caused by such things as climatic hazards (drought and floods) and turbulence on the social scene, e.g. clan conflicts. In traditional communities, the demand on his production has been very limited. Before recent times, with the exception of items of clothing, the population of the Juba Valley sought nothing from the outside world. By selling their surplus products from livestock or agriculture (e.g. food crops) or items of value easily collected from the forest (e.g. ivory, gum, honey, and wood) to the towns, they were able to obtain all their requirements beyond what they produced. Nowadays, even their surplus labor has been fetching employment and income from the modern sector of the economy as well as from the ever expanding services of the State. On the other hand, the desire of these communities for modern goods and services has been growing enormously as a result of rapidly expanding socio-physical infrastructures which are destroying their isolated life styles. In other words, due to external forces the social setting of the traditional nomad and tiller of the Juba Valley is undergoing gradual transformation.

2. *Human Resources of the Juba Valley Area*

Reliable demographic data for the area, as for the rest of the country, is inadequate. The only nation-wide census ever taken was in 1975. This particular year was one of catastrophic drought. Due to the particularly massive increase of the nomadic population in the riverine belt that year, the distortions in the census must have been huge. 1975 also marked the end of the nation-wide rural development campaign that provided (besides the census) mass literacy, health services (vaccinations and inoculations) for the people, as well as certain veterinary vaccinations. The total population figures used for the census were those registered for literacy; for vaccination/inoculation whichever of the two figures was higher was taken as *the* accurate figure in each district. Thus the census figures were, in places, below actual; but here, due to the high rate of migration from other parts of the country, some of the figures were inflated.

However, on the basis of various assumptions and a certain analytical approach, the present population of all the administrative districts in the Valley

is said to be 58,000, and its breakdown by occupation is estimated to be as follows:

Occupation	*%*
Nomadism (herding)	65
Agriculture	23
Urban	12

The natural growth of the population is also hard to assess. The assumptions are: overall natural growth 2.7%; rural migration to the cities and development centers 0.7%.

Information on the population in the nomadic areas is even more difficult to obtain. The fluctuations emerging from migrations, and the special difficulty associated with establishing demarcation lines between nomads and non-nomads add to the problem. However, it is estimated that nearly 200,000-300,000 nomads periodically enter the Valley from other regions (see: «Development of the Juba Valley» by Agrar und Hydrotechnik GmbH, pp. 45-46)).

The breakdown of the population by occupation in the development area alone, which again is based on the combination of assumptions and rough analysis, is as follows:

Occupation	*N. of Persons Engaged*	*%*
Nomadic stock raising	184,000	38
Agriculture	184,000	38
Urban	116,000	24
	484,000	100

The development area under study lies between Baardheere and Kismayo. The «urbans» include all those who use skills and are not engaged directly in agriculture or livestock rearing. The rural craftsmen (e.g. blacksmiths) and the village food-store owners are in the secondary-tertiary sector.

According to IMPRESIT (IMPRESIT Ref. 6 Vol. III, 1978, p. 35) the average size of a rural family is 7 persons, and of the urban family 6. The workforce per rural family is roughly 2.5 units. Hence the agricultural workforce in the development area is estimated at 65,000. To make meaningful qualitative assessments of the possible productivity of such a labor force, a host of questions have to be answered, for which so far there are no answers. These include:

— Actual average working time;
— Semi-settled population;
— Rate of sedentarization;
— Possibilities of improving labor productivity;
— Part-time and seasonal employment, both as a problem and as a solution;
— Negative and positive impact of the extended family on production;
— Negative impact of the poor sense of territoriality on land conservation;
— Impact of community isolation on the productivity of the individual.

The health of the traditional village communities here is the poorest in the whole country. A host of serious water-borne diseases, TB, and diseases related to poor environmental sanitation and malnutrition result in all kinds of health hazards. There are hardly any health facilities, either for prevention or cure, at rural level. This is further complicated by the traditional isolation of these communities. Prior to the development projects, they were often enclosed by thick bush and seldom had access to either the main roads or towns. Isolation was further aggravated by periodic floods and heavy rainfall. As a result, they were not taking advantage of the modest health facilities available in the urban centers.

As concerns education, however, the rural areas have been more fortunate. Most of the larger settled villages took advantage of the introduction of the Somali script in 1972-73 and of the nation-wide extension of basic education as from 1975.

In accordance with the educational policy of the Government, a primary school is to be established wherever a community can ensure a minimum enrolment of 25 children. Consequently, the enrolment of school-age children in the region suddenly rose from 5% to 24%, with an increase in female attendance from 25% to 35%.

This being the background, let us now review the changing social environment of the local people, generated by the dynamics of big irrigation and agricultural development projects.

Sociological Analysis

As mentioned earlier, this brief study seeks to throw light on the possible social impact of large development projects along the Juba Valley on the original communities in the area.

The baseline data utilized here has been procured mainly from two sources. One source is several studies on the area both before and after the development projects. The second one is a series of field surveys by three teams on 26.12.85, 16.1.86, 5.1.86, 9.1.86, and 25.1.86. The three teams collected their information mainly by visiting the sites of three large-scale irrigation projects along the southern reaches of the Juba river, namely: Fanoole Dam, Mareerey Sugar, and Mugambo Projects.

The method used for data collection was interviewing the management of these projects, supplemented by meeting some members of the local communities; some of the interviewees were ordinary people; others happened to belong to the Local Administration. Through the study of the villages affected by the three above mentioned Projects, we hope to depict, with regard to each Project, the social impact on the original inhabitants.

1. *Mugambo Project Area*

The field study to collect baseline data and background information from the viewpoint of the local inhabitants was conducted with the help of questionnaires put to 30 discreetly selected men in two villages directly affected by the Project.

The information so collected was as follows.

Village 1 - Mugambo [1]
Location: Seat of Mugambo Project
Interviewees: 5; 15 others were Project personnel
Estimated population: 3200
Number of families: 457 (source: IMPRESIT, 1979)
Traditional occupations of villagers: peasants 95%; urbans and nomads 5%.

Peasants and urbans live mainly in the village. The non-peasants are casual laborers or village people engaged in business. The nomads are away from the village except during the dry period (Jilal: January-March): at this time, prior to the inception of the Project, their livestock used to browse on the village farms. They also had easy access to river water. As a result of the Project things have changed enormously. Most of the village farms have been taken over by the Project without compensation to the owners. Only 40 families were offered new farms, and only 20 persons were employed by the Project. However, some people were engaged in the increased business opportunities in the village. How many of them has not been ascertained. Some of the peasants have cleared land outside the Project area. Due to the increased distance he has to walk to and from his new farm, the productivity of the average farmer has declined.

Some of the newly cleared farmland is often flooded by the irrigation canals built by the Project, but numerous canals have to be crossed to reach the farms: this does not make for easy transportation and easy access, especially during the rainy seasons and the floods. The unemployed adult men hang around the Project in search of employment. But the children and women prefer to work in the banana plantations, because this is less tiring and the workers can take home a few bananas daily as an incentive.

As for the nomads, the Project has adversely affected them: they are no longer free to browse on the fallow land of private farmers during the dry season; access to river water has been blocked, as almost all the land near the banks of the river has been enclosed by the project, or their routes are shut off by the crisscrossing of the irrigation canals. Even some of the peasants that owned a few head of cattle lost them when they became landless.

No improvement has been reported in the health of the people and their livestock as a result of the Project. On the contrary, the Project had an adverse impact: as a result of taking river water through the irrigation canals to extensive new areas, the traditional water-borne diseases (e.g. malaria) have increased. Although no definite figures are available, this is a logical deduction since the disease-bearing area has been extended, while no improvements in the health facilities of the village have been provided.

Village 2 - Kobon
Location: Southern end of Mugambo Project
Interviewees: Chairman of Village Committee, and 2 community leaders
Estimated population: 2200
Number of families: 310 approx.

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[1] Several villages are referred to in this paper: they have been numbered according to the order in which they are mentioned.

Traditionall occupations: peasants 90% (small land-holders: 0.5-5.0 ha per farmer); craftsmen (blacksmiths mainly producing «yambo», and carpenters mainly manufacturing stools and beds)
The majority of the population live in the village.

90% of the traditional farmland was lost to the Project. However, the Project has not yet commenced work on the land of the villagers, who therefore are still cultivating it. Most of the families keep some livestock.

The Project has offered direct employment to only 10 people. Most of the women, as well as children above age 10, work in the nearby banana plantations, lured by their unlaborious tasks and the few bananas that each farmhand takes home daily. Some of the married males make an earning from river fishing, while others seek employment in the nearby towns, like Jamama. The per capita income before and after the Project remains the same.

So far, the Project has not affected either the formal education or the health facilities of the village community. However, the Project must be bringing in new production tehnology: this will eventually enhance informal education in the area.

At the moment, the village is concerned about what will happen once the Project absorbs the village land.

On the whole, the inhabitants of the two villages selected for our sample study have some complaints against the Project.

But the social impact is not discouraging. The obvious hardships related to the Project include: (i) increased health hazards; (ii) watering problems, as the routes of the nomads to the river are cut off; (iii) dislocation of the herders; (iv) drop in children's education because they have to earn; (v) loss of time and energy by those of the farmers who have to walk long distance to and from work every day; and perhaps (vi) psychological dissatisfaction on the part of the villagers, who feel they have been robbed of their land.

All of these problems, and many others involving economic and ecological issues, could be corrected if the Project is implemented within the context of a comprehensive approach to development, accommodating both the social and the economic needs of the local communities.

2. *Fanoole and Mareerey Project Areas*

The social impact of the Mareerey and Fanoole Projects could be assessed on the basis of the survey conduced by Farah Aboker Knayre, Secretary of the National Research Council, and Miss Kathryn Craven of ARD on 2-5 January 1986, and supplemented by some documents on the Projects themselves. Interviewing people in official positions as well as others was the method adopted.

Jilib, with its estimated population of 85,000, is divided into 10 sub-districts, seven of which have been directly affected by the Projects:

Sub-districts	*N. of villages affected*
1. Kaytoy	8
2. Cusman Moote	10
3. Haraawe	6
4. Cusbooley	8
5. Kamtande	9

6. Mareerey	5
7. Kalaanje	13

Most of the peasants were expropriated of their land; others had their sources of water diverted or blocked, or their fields deliberately flooded to drain off the Project farms. Expropriation mostly affected the sub-districts of Kaytoy, Cusman Moote and Haraawe.

Mr. Farah and Ms. Craven first interviewed the District Commissioner of Jilib: he gave them a coherent, clear picture of the Projects' impact, as he saw it, on the local communities. In his view, some of the positive fruits of the development efforts were: (i) improved local health due to improved transportation from the villages to the larger town; (ii) extension of educational facilities to some of the nomads. However, no one was able to testify as to how the health of these people can be bettered by improved communications. The available primary health facilities have not shown any increase: neither new curative facilities (e.g. dispensaries, hospital beds, medical professionals) nor preventive health services like improved sanitation, vaccination, clean water, etc., were reported by the survey team or the interviewees. On the other hand expanded irrigation would obviously spread the waterborne diseases to new areas, or intensify their impact on some localities. As for education, the nomads newly brought from other parts of the country, like those trasferred from Dujuma to Mareerey Project, are now, of course, getting some education — formal, non-formal, and informal as well. But they are not the target group of this study. Like the rest of the country, the typical nomads of Jilib District remain as a rule, outside the scope of the educational services of Government.

On the negative side, since many farmers lost their land to the Projects, unemployment or underemployment of the locals are likely to rise. The survey team interviewed farmers in four villages: 2 in the neighborhood of Fanoole, and 2 in the Mareerey area. Their findings are summarized below.

a) Fanoole Project Area

Village 3

Six people, including the village herdsmen, were interviewed; another 7 were present.

Originally there was farmland on one side of the village, and dense bushland on the other side. The bushland was rich in wildlife, but not suitable even for grazing, according to the villagers. The village was then moved to a nearby site. In the villagers' view, one benefit of this relocation is that the clearing of the bush has ended their problems with elephants, while more breeze now reaches the village. Both statements need to be qualified: firstly, the elephants and other wildlife may have been a threat to the villagers — but they could be tamed and turned into community assets, e.g. for recreational schemes; secondly, the bushland, besides acting as a windbreak and protection against soil erosion, must have been a reservoir of firewood for the village. Equally the use of the woodland may, on the whole, prove disadvantageous.

At present, there are about 128 families: 73 are living in one part of the village; the other 55 reside at a separate site. Prior to the inception of the Project,

400 families lived in the village. No adequate explanation is yet offered as to why 68% of the original families have left; of course, one of the causes is the loss of land to the Project. Some people accuse the cholera epidemics of March 1985 for chasing away some families. This view is rather weak, since in the traditional Somali society the people do not abandon their native areas because of plagues like cholera.

The villagers have correctly noticed the increase of malaria since the Project started. This must be true, due to increased irrigation. In addition, they blame the Project for the outbreaks of cholera; their claim is based on the fact that cholera had never occurred there before. Of course, there is no supporting evidence for their allegation. On the other hand, it is fair to admit that the muddy and dirty environment created by the Project may have added fuel to the fire, since the new environment resulting from the Project, although it did not introduce the disease in the area, may well have aggravated the conditions favorable to its spread.

Due to the reduction in their cultivated acreage, many villagers seek employment with the Project. Even children are employed as bird scarers. An average of 3 members of each family are said to be working for the Project. This is well above the average workforce of a traditional family in the Juba Valley, which is said to 2.5 units per average family of 7 persons. Another source of employment which was not mentioned either by the people interviewed nor by the team is the possibility of increased commercial activities, as a result of the demand for goods and services generated by the Project. Again, increased communications and transport are possible sources of new ideas promoting a better life.

The changing environment has not forced the people to abandon herding, but due to the reduced pastures and to shortage of labor, the average family is raising a lesser number of stock. Hence, though there are no fewer trashumant herders, a process of socio-economic adjustment seems to be fostered by the new economic set-up introduced by the Project.

In short, the negative social impact of the Project translates itself into: (i) health problems, and (ii) a drop in the number of school-going children. Both problems could be cured by adopting a comprehensive strategic plan for the development of the area. For instance, the present basic education available in our primay schools is hardly relevant for these children. To be meaningful, it must contain ideas, skills and attitudes which enable the recipients to participate effectively in modernizing activities and social living. The ideas, technology, normative standards, and value system carried by the Project are good in essence. The educational services must collaborate with the Project in fostering comprehensive socio-economic growth.

Village 4

This is Village 2 in Mr. Farah and his colleague's study of the Fanoole Project's impact on the local communities.

Two villagers were interviewed in the presence of others.

The village counts 30-35 families. None of them have left since the Project started. It is an old settlement, and the inhabitants were farming 400 hectares. The Project has taken away almost all of this farmland: only 20 ha are left to the village people. The villagers have been given new farmland elsewhere.

The Project was expected to provide water for the villagers' farms as well as for human consumption, but so far it has not fulfilled its promise to the community. Yet the interviewees reported numerous benefits of the Project to their village. These included:

(i) Learning driving and mechanical skills.

(ii) Better communications with the outside world. Owing to the now easy access to the main roads, they are linked with bigger markets. Hence they have more control over their products and are able to take advantage of national marketing opportunities. Prior to the Project, their crops were sold to visiting merchants, who determined the prices they would pay. These same merchants decided the quality and prices of the goods that the villagers bought from them. Again, due to improved transport, sick villagers can be taken to the district or regional hospitals.

(iii) The Project offered good employment opportunities. An average of 3-5 persons in each family work for the Project. This figure exceeds the traditional rate in the area. While the unskilled workers may work 6 months in the year, the skilled workers are employed full time and earn relatively good wages. Another source of employment is the gradually growing community business.

(iv) 4 villagers who were technicians have left the Project and secured jobs from other Projects in the region at a higher pay. In other words, the village is for the first time producing local people equipped with modern skills which are marketable at least nation-wise.

(v) There are also indications of some attitudinal changes: indeed, it has been reported that the villagers are now talking of building their own canals: this must be something new in their value system.

(vi) Another positive effect is the 'social insurance' against drought. Permanent employment in the Project will most likely guarantee a permanent supply of the means of survival, even in times of drought.

On the negative side, the casualties from malaria have shown a quantitative rise.

From the experience of these two villages one could conclude that the irrigation development projects in the Juba Valley have shown a positive social impact on the local communities, while the negative issues so far raised by these projects are few. They include: (i) deteriorating health conditions (e.g. rise in the number of malaria victims), (ii) drop in the school-going population, (iii) problems associated with the expropriation of land (e,g. psychological anxiety and sense of insecurity, as immediate responses). The development schemes have the potential to overcome these handicaps and to enhance the present positive gains associated with their implementation.

b) Mareerey Project Area

We now come to the villages affected by the Juba Sugar Project. Two sample villages are reported on.

Village 5

Eight to ten farmers were interviewed.

The villagers are traditional peasants. They used to farm 4,200 hectares of land: all of it was taken over by the Project.

Before the Project, 1500 families lived in the village. Another 500 families joined them: the newcomers were evacuated from other areas affected by the river flood of 1977. A third group of families came as Project workers.

The villagers received no compensation for their land. As the Project brought almost all the workforce from outside, it did not employ the locals directly. With the exception of some families engaged in seasonal farming on new land often lying far from the village, some set up temporary camps on the farmland, at least during such periods of heavy work as ploughing, harvesting, etc. Part of the community must be engaged in the growing local business generated by the Project economy.

The obvious benefits for these people would appear to include: (i) better communication and transport, hence (ii) less isolation, and (iii) availability of a greater variety of consumer goods (if one has the money).

Unlike the communities affected by the Mugambo and Fanoole Projects, these villagers are, rightly, not happy about their relations with this Project.

Village 6

The loss of land hit these unfortunate villagers twice: first in 1972, when the Banana Board took away 300 hectares (however, they received compensation in course of time: 400 ha on the other side of the village were cleared for farming and assigned to them); then in 1974, when the Sugar Project started, all of the 400 hectares were taken from them without compensation. One farmer claims that he lost roughly 2.4 ha of sesame in that year. These products, priced at present Sh.So. 900 and Sh.So. 3500 respectively, would offer an annual earning of Sh.So. 80,000 or a monthly income of Sh.So. 6,000. Now the net income of the family is the salary of one family member working in the Project at Sh.So. 600 per month. Needless to say, the loss felt is great. And the villagers strongly feel they were robbed when they were expropriated. Some villagers have gone to other villages and secured farmland; others have moved closer to the Project and sought jobs.

There used to be 800 families in the place; now less than 100 are there. An average of 2 persons per family work in the Project. The average pay is Sh.So. 600 per month. The average villager who is still engaged in farming has to walk 2-4 hours every day, whereas prior to the Project the walking distance was no more than 20 minutes: this is a enormous waste of time and energy and, in economic terms, a great loss to the farmer. The villagers say that the average family used to produce about 100 quintals of maize. Now the entire village does not harvest 100 quintals. This economic loss must stir hard feelings towards the Project in the local community.

No educational and health problems have been mentioned by the farmers; but, as noted earlier, the complex irrigation system must result in a significant increase of health problems related to waterborne diseases.

Conclusion

The three major development projects in the southern part of the Juba Valley have been, by and large, beneficial to the original inhabitants of the area. They have introduced modern techonology and more rational and relevant value systems and ideas for modern productivity. Due to improved transportation and communications, the population is less isolated. On the whole, employment opportunities have increased, particularly for the communities in the Mugambo and Fanoole Project areas. Problems related to new health hazards or expropriation, real or imagined, will be overcome if these villagers are reckoned among the priority target groups of similar strategic development projects.

Areas for Further Study

Due to the paucity of basic data, especially in the social sector, further investigation of certain matters relevant to this type of study ought to be undertaken, namely: (i) matters which will enrich our understanding of the actual impact of these development projects on the social environment of the local communities; (ii) other aspects useful in preparing the local people for effective participation in the development endeavors both as the implementing force and as beneficiaries. Of these, we have in mind the following:

1. 200,000-300,000 nomads from other parts of the country used to visit the region periodically in the dry season, especially in periods of drought. We have been unable to discover what happened to them after the Projects. It is most likely that they have lost traditional grazing land in the Valley and ease of access to the river for watering the animals.

Some puzzling questions are: have they made meaningful adjustments or are they just suffering from the Projects' interference? What sort of remedial interventions could be launched to deal with the problem (if there is a problem)?

2. It is our strong belief that the present basic education is most unsuited to help the local communities play their appropriate role in programs of rural development like the ones under review. Our present educational services are not designed to offer the participants the basic notions or concepts, skills and attitudes required by modern agriculture. Therefore, an in-depth study of the matter will perhaps be instrumental in generating and sustaining a type of basic education better attuned to reality and to the modernization of the social environment.

3. It is true that crop farming and stock raising could complement one another, making for a richer farming culture. Hence, we suggest some sort or research to explore the feasibility of mixed farming in those areas.

4. These projects are State-owned, while other big agricultural projects (like Bay) aim at helping the individual farmer to become more productive. Here again a comparative study is essential, so as to identify the more successful of the two approaches.