

RURAL SETTLEMENT PLANNING IN THE CISKEI

BY

N. V.D. WESTHUIZEN

TOWN AND REGIONAL PLANNER
DIVISION OF PLANNING AND DEVELOPMENT
CISKEIAN GOVERNMENT SERVICE

1. THE NEED FOR RURAL HOUSING

The first half of the twentieth century has witnessed three major revolutions. The political revolution has given self-government to nearly a third of the world's population and has brought their aspirations for a better life to the forefront of world attention. The revolution in communications has broken down the barriers of distance and language, and the dynamism of ideas can no longer be contained within the limits dictated by social privilege or political consideration. The demographic revolution has imparted to the challenge of poverty and want a new dimension (Abbot, J.C. 1967).

It is against this background that the Ciskei is about to join the ranks of new independent states and the rest of the Western World. One challenge of paramount importance facing the Ciskei is to sustain her people and in doing so utilize the natural resources available through agricultural development projects such as illustrated in the Ntabatamba Development Plan (Journal for Regional Planning No. 7, April 1978 "After Thornhill" - A Resettlement Plan for Ciskeian Immigrants Ex Herschel and Glen Grey Districts : G.F. Godden). In order to implement such a plan many rural villages will have to be modernised, the smaller or larger villages extended, reconstructed or new villages built.

In developing countries the severe population pressure has created an immense backlog and deficit in housing and the provision of infrastructure and services, aggravated by a scarcity of resources. A distinction must be made between urban growth and urbanization. Urban growth is the growth in area and population of urban centres. It is in these centres that present housing programmes are in practice. Urbanization however, includes both rural and urban growth and includes various social and economic changes being adopted by rural people regarding their work, settlement patterns and housing practices. These changes come about as they become more influenced by urban values (Finlayson, K.A. 1976).

Till recently there was no clear answer or policy statement in the Ciskei regarding the provision of low income rural housing programmes. Hence, the Division of Planning and Development of the Department of Agriculture and Forestry began a wide-spread search for practical alternative solutions, with the emphasis on guided self-help, housing in a variety of forms, alternative methods of settlement design, land

management, housing finance and associated social and economic development programmes for the widespread rural population.

A spatial organization of the agricultural population into rural residential settlements, rural towns and regional centres is therefore necessary. Community leadership and social change come to a head in community centres and thereby a transfer of responsibility can take place to the people of that community. Furthermore services and social functions can be centralized within each rural residential settlement.

2. EXAMPLES OF RURAL SETTLEMENTS ELSEWHERE

2.1 Rural settlements in the United States

Several years ago Marion Clawson proposed a system of farming towns for the United States based on the provision of necessary daily services and distances farmers travel to these services. The threshold values of the services to be incorporated in the towns and the labour intensity of the agricultural practices were analyzed. It was proposed that the towns vary between 500 and 1 000 residents and be approximately 16 kilometres apart. (Clawson as quoted by Page, 1977).

2.2 Tanzania

Government policy regarding urban and regional planning in Tanzania concerns three aspects :

- (i) growth of town and cities;
- (ii) the development of Umjamaa* villages in rural areas;
- (iii) promotion of regional growth.

In order to promote rural development, create centralization points and counteract migration to the cities, emphasis was placed on Umjamaa villagisation. The villages consist of groups of families - on the average about sixty families - who collectively farm the surrounding land, with possible future diversification to fishing and small industry. Several such villages are located around a regional centre which will allow them to collectively maintain a primary school, health centre and a market. The authorities would provide serviced sites on which individuals would erect their own dwellings (Finlayson, K.A. 1976).

3. RURAL SETTLEMENT PROGRAMME IN THE NTABATAMBA AGRICULTURAL DEVELOPMENT PROJECT

3.1 Objectives

- (i) The spatial organization of the rural people concerned with the project into pre-selected and determined rural settlements, which in turn are placed within the regional hierarchy structure.

- (ii) The design and development of site and service rural settlements supported by the necessary technical, legal, financial and organizational assistance.
- (iii) A policy of progressive implementation be adopted whereby a broad framework regarding minimum standards of construction and design can be modified from time to time as lessons are learnt from one project to another.
- (iv) That the aim of these settlements is not one of simply providing a large number of residential erven, but to uplift the quality of life of the rural dweller.
- (v) A central organizational housing body be created which in turn will control the various settlement development units of each rural settlement.
- (vi) That each rural settlement serve as the reception organization for the incoming resettled persons.

3.2 Location

The proposed settlements were sited within the overall framework of the region and the land use plan of the agricultural project.

The following parameters were observed :

- (i) Established on poor agricultural soil.
- (ii) Adjacent to and within daily walking distance of fertile irrigable soil to be sub-divided into farmer lots.
- (iii) Favourable location of grazing pastures.
- (iv) Readily available water sources for domestic purposes.
- (v) Accessible by existing infrastructure.
- (vi) Avoidance of steep southern slopes.
- (vii) Shelter from the cold south-west winds, a feature of the winter climate in the area.
- (viii) Low ground water table.
- (ix) Load-carrying capacity of the subsoil.
- (x) Exposure to sunlight and shadow range.

3.3 Concept and design (See fig. 1 Outside Cover)

The rural settlements are designed to accommodate between 300 and 500 family units as this was reasoned to be the minimum population size to warrant a primary school, clinic and limited shopping facilities.

The concept of design followed throughout the series of settlements in the project was that of a focusing of activities within the settlement on the community facilities, that is, the primary school, clinic, shop and market centre and community halls. These community facilities are clustered together within a central park area, easily accessible from all areas of the settlement. Within the park areas a network of washing troughs, coupled with children's play areas are envisaged. The washing and playing nodes will be interconnected by an informal pedestrian route which will give access to the adjoining farmer lots.

The primary school (as shown in fig. 1) will operate as a Community School, that is, both the school buildings and the sports facilities will be used by the whole community as well as the school children. This concept of a community school will then alleviate the present situation where both schools and sports fields (both costly structures) are dormant and unutilized outside school hours. In the initial stages of development within the settlement the school buildings can be used for meetings of the community committee and religious groups, until the community halls have been constructed.

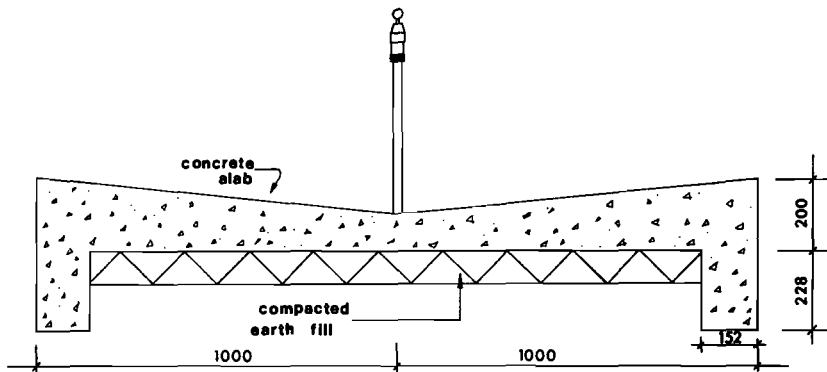
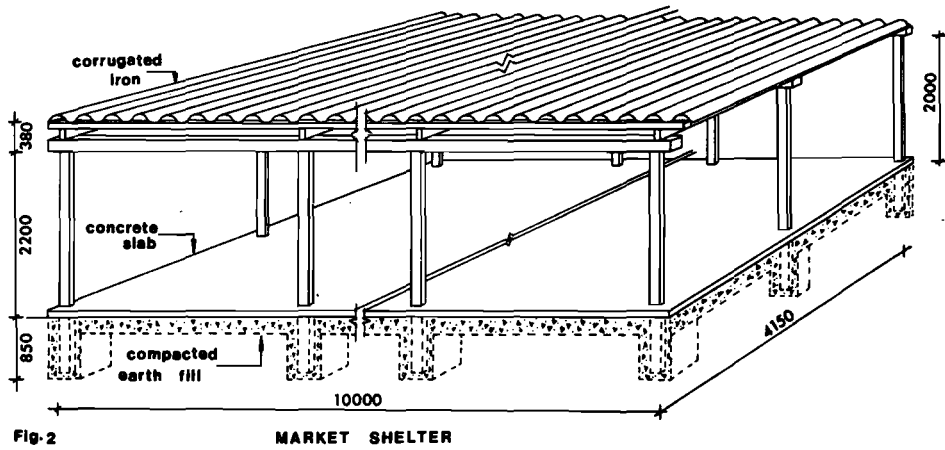
Erven of 40 m x 50 m in extent were provided, thus allowing adequate space for vegetable production and the housing of a limited amount of livestock which are returned from the pastures in the evening.

Initially only site and service facilities will be provided and the school and clinic will be constructed within the central park area. It was felt that flexibility in the planning of the central area would make it possible for the community to take an active part in the development of the additional communal facilities.

An exercise is envisaged whereby the public open spaces are planted and maintained by those people living immediately adjacent to them. This would lessen maintenance by the local authority, promote environmental awareness and ensure a lower incidence of vandalism.

The settlement plan is a basic design within present economic conditions, but incorporates aspects inherent to a prosperous society, that is, the provision of sufficient park and recreation areas, adequate size erven and street widths, thereby allowing upgrading by economic input in the future

* Umjamaa in Swahili means 'familyhood'.



scale: 1:10

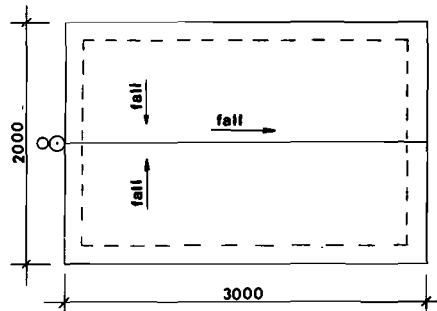
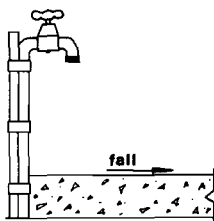


Fig-3

WASHING TROUGH

3.4 Infrastructure

Because the project entails the provision of site and service only the initial works will involve the construction of streets and the demarcation of sites only. The primary school and clinic will receive highest priority amongst the community facilities. The community halls, shop and sports facilities will be constructed in co-operation with the community association of the settlement.

Chlorinated water from a reservoir will be distributed through numerous tap points situated on the sidewalks.

Toilet facilities will take the form of pit-latrines.

3.4.1 Market shelters

Market shelters (fig. 2) will be constructed to serve as protection from the elements for persons selling their produce or persons resting outside the shops or clinic. As illustrated these shelters will be constructed from timber with a corrugated iron roof and cement floor. Wooden benches for seating will also be provided within the market area.

3.4.2 Washing troughs

Within the traditional Ciskeian rural way of life, a stream adjacent to any village plays an important social function as it is here that womenfolk and girls daily meet while washing clothes and other fabrics. Furthermore young children in the care of these women and girls play in the immediate vicinity.

The concentration of people in a rural settlement as shown in figure 1 would place extreme pressures, such as stream bank trampling and detergent pollution, on nearby streams.

To overcome such side effects, but still maintain the social function of such a practice a series of washing troughs (fig. 3) are to be constructed within the park areas. These washing troughs are to be coupled with childrens' play areas for the young children in care of those washing. It is intended to screen these areas by means of shrub planting and rudimentary facilities can be created for the drying of the laundry.

At a later stage of development when piped water is available to each household such a practice might cease to exist, but until such a time the washing troughs could fulfil an important function in the lives of the rural dweller.

3.4.3 Play furniture

It is proposed that robust wooden play furniture and sand pits be located within the park areas adjacent to the dwellings, in close proximity of the washing troughs and at the market and clinic site.

3.5 Dwelling structure

Due to present economic conditions a housing programme for the settlements could not be feasible. Initially residents will provide their own dwellings, but a limited housing programme is being envisaged for those families who do not have the means to erect a substantial dwelling structure.

3.5.1 Expandable core dwelling unit (fig. 4)

The programme will entail a self-help scheme under the supervision of a settlement development unit of the Ciskeian Government. This development unit will merely supply the necessary materials and give guidance to construction.

Research regarding proto-type dwelling units is still ongoing but an expandable basic/core dwelling unit developed by the Divisional Council of Diaz has been incorporated as one of the possibilities.

This expandable unit consists of a frame of treated timber poles as uprights with a grid of thin wattle poles to which fine mesh wire is attached. After wooden window and door frames and an asbestos roof are fitted, a cement-sand plaster is applied to the wire mesh to a thickness of 5cm to 8cm thick to form the walls.

Features of the dwelling unit are :

- (i) Constructed from materials abundant in the Ciskei.
- (ii) A simple construction using traditional building methods, and can be erected by the family and community.
- (iii) The basic core is expandable making provision for larger families or extension in the future without a deterioration in appearance.
- (iv) Several designs are possible on one plan, creating a variety and also a measure of personal identification with the dwelling unit.
- (v) A low cost of below R500 per unit.
- (vi) A sturdy, well insulated structure.
- (vii) Several features such as a gutter and flexible downpipe to a drum for the collection of domestic water, a sawdust-cement floor mixture for insulation, being provided at minimal cost.
- (viii) An inexpensive cement-based colour wash on the exterior walls enables the residents to personalize their dwellings.
- (ix) Internal walls made of any suitable material.
- (x) A proto-type visited after 8 months of habitation showed no signs of cracking or faulty construction (Kemp, J.R. 1978).

3.6 Control and management

Normally traditional rural village communities do not act in a manner which may be termed as unsystematic but their behaviour depends on their stage of development and is restricted within the boundaries at the village (Jähne, J., 1964).

However, with the developed settlements as described above, planned control has become both a possibility and a necessity.

The initial development of the settlements will vest in the hands of the Department of Agriculture and Forestry of the Ciskei Government who will be responsible for the agricultural development project as a whole. A local settlement development unit will be established for one or several such settlements to supply machinery, tools and construction equipment.

As soon as possible after habitation of the settlement a community association is to be formed. Such an association could, in conjunction with the development unit, play a leading part in the self-build housing programme, tree planting programme, the exercising of post construction control, enforcing and the use of influx control measures and the general welfare of the persons it represents. Such an association would have a tribal affiliation.

Such a community association could over time develop into a settlement management board on behalf of the Ciskeian Government.

3.7 Future developments

Due to general upliftment of the community and economic inputs possible future developments within the settlement could include :

- (i) An integrated water and sewage-reticulation system.
- (ii) Possible electrification.
- (iii) Paved streets.
- (iv) The installation of elementary solar water heating facilities for each dwelling.

3.8 Conclusion

Due to the development stage of developing countries the social development of the individual and the community is of parallel importance to the physical resource development. Social development in the form of cultural development, the provision of services and infrastructure, education and religious facilities, entertainment and youth movements, is an integral part of the social development of a community.

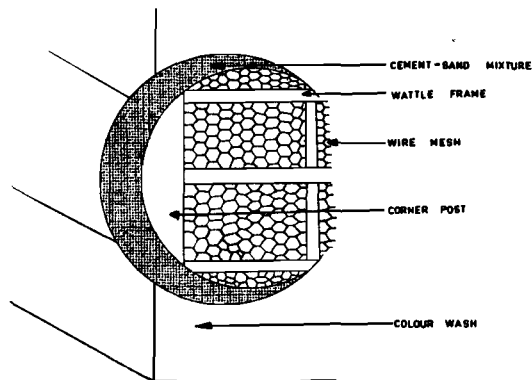
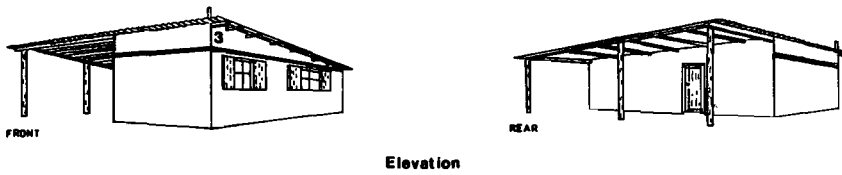
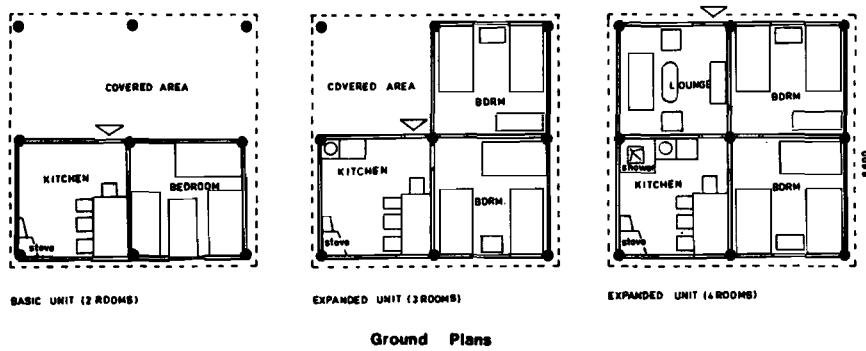
The establishment of the above-described rural settlements could play a major role in the social development of the rural people.

REFERENCES

1. Abbot, J.C. 1967. Marketing - its role in increasing productivity - United Nations; Rome.
2. Finlayson, K.A. 1976. Overseas visit to the United Kingdom - Course on Housing in Urban Development - Council for Scientific and Industrial Research; National Building Research Institute; Unpublished Report.
3. Jähne, J. 1964. Principles and Practice of Planning Villages and Proposals for Rural Building Projects; Construction Practice in Rural Areas, Part II; German Democratic Republic.
4. Kemp, J.R. 1978. Low Cost Emergency Housing for Inadequately Housed Farm Labourers - Divisional Council of Diaz; Port Elizabeth; Unpublished Report.
5. Page, D. 1977. Behuising in die platteland : n nuwe benadering tot landbouoorsprings; The South African Survey Journal, No. 94, Volume 16, pp. 54 - 62.

Fig. 4

EXPANDABLE CORE DWELLING UNIT



Wall Construction

Source: Divisional Council of D102

'n Tematiese versameling van artikels in beide landstale wat in die loop van die laaste aantal jare verskyn het oor streekbeplanning is nou in die pers en sal binnekort beskikbaar wees teen R5 per eksemplaar. Bestellings kan geplaas word by die Instituut vir Beplanningsnavorsing, Universiteit van Stellenbosch.