Agrekon

VOL. 8 No. 2 APRIL, 1969

REQUIREMENTS FOR CONTRIBUTIONS

Articles in the field of agricultural economics, suitable for publication in the journal, will be welcomed.

Articles should have a maximum length of 10 folio pages (including tables, graphs, etc.), typed in double spacing. Contributions, in the language preferred by the writer, should be submitted in triplicate to the Editor, c/o Department of Agricultural Economics and Marketing, Pretoria, and should reach him at least one month prior to date of publication.

The Journal is obtainable from the distributors: "AGREKON", Private Bag 144, Pretoria.

The price is 25 cents per copy or R1 per annum, post free.

The dates of publication are January, April, July and October.

"AGREKON" is also published in Afrikaans.

Contents

		Page
I.	EDITORIAL	1
II.	ECONOMIC TENDENCIES IN THE SOUTH AFRICAN AGRICULTURE ...	2
III.	ARTICLES	
	1. Decentralization of activities ..... P.S. Rautenbach, Planning advisor to the Prime Minister	4
	2. Principles of rural development ..... P.C. Fourie, Chairman, Planning and Development Advisor Board of the Orange Free State, and D.J.G. Smith, Director, Institute for Social and Economic Research, University of the Orange Free State	10
	3. Social and demographic characteristics of rural areas ..... S.P. Cilliers, Professor in Sociology, University of Stellenbosch	14
	4. The organisational structure for the planning of national and sub-national development ..... C.J. Viljoen, Department of Urban and Regional Planning, University of Pretoria	24
	5. Features of the economic growth and development of rural areas ... H.A. Kotzé, Professor of Agricultural Economics, University of the Orange Free State	27
	6. Service areas and rural development ..... P.J.D. du Toit, Senior Lecturer, Institute for Social and Economic Research, University of the Orange Free State	40
	7. Farm management - a prerequisite for sound agricultural development ..... H.S. Hattingh, Assistant Chief, Division of Agricultural Production Economics	54
IV.	STATISTICS	60

Service Areas and Rural Development

by

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1. CRITERIA FOR RURAL DEVELOPMENT

Rural development is community development: the planning and acquiring of a better life for the inhabitants of a rural area. A rural area is determined by certain physiographic, economic and social criteria causing its inhabitants to form a homogeneous community within a larger society. The way of living of such a community is determined by economic production and community services and the activities of its wider rural setting.

Community services and activities exist in the various service centres of a rural area. These centres are focal points of the economic and social activities of their respective service areas. The spatial distribution and functional form of service centres and the service areas of the latter will be discussed next. Their role in rural development will also be examined.

2. ORIGIN OF TOWNS

Agriculture is the main production sector in most rural areas of South Africa. The existing secondary industries are, at most, supplementary to agriculture. Towns in a rural area are, therefore, chiefly centres where farmers can obtain necessary goods and services. The location of a centre should be such that the minimum of effort is demanded of consumers regarding all their activities within the given service area. For this reason most towns were established at places which were not only endowed with natural features suited to the lay-out of a town, but which were also centrally placed for the provision of economic and social functions needed by the surrounding farming community.

The needs of consumers vary. Some goods and functions are needed frequently, but consumers are willing to travel only short distances to obtain them. The purchase of other goods occur less frequently and can be postponed until a longer and multi-purpose trip can be undertaken. Because the location of service centres vary according to different types of products, a variety of centres develop. The difference in the distance travelled for the purchase of general merchandise and furniture is illustrated by the accompanying Figures 1 and 2. General merchandise consists of day-to-day necessities which are usually bought at the nearest service centre. Furniture consists of selected goods and is less frequently in demand. People prefer shopping where several stores, offering a large variety of furniture, are available. For this reason the purchase of furniture is done in towns which are situated further away.

Central Place Theory deals with the location, size, function and distribution of these service centres and their service areas.[1] The principles of this theory are best explained by applying them to the North-Eastern Cape.[2]

3. SYSTEM OF TOWNS

The North-Eastern Cape is a rural area which specialises in stock-farming, a slow-growing industry. The towns in this area were founded as service centres for the farming community in the middle of the nineteenth century. The towns are evenly distributed over the entire area, although it is very mountainous in parts. The towns are from thirty to forty miles apart : a day's journey in terms of the means of transport of the last century. Distances were greatly reduced by motor transport. This and other factors, such as the change from a subsistence to a market economy, caused the decline of several towns and

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1) The following exposition of the central-place theory is based mainly on the work of B.J.L. Berry, Geography of market centers and retail distribution, Prentice-Hall, Englewood Cliffs, 1967.

2) The only research on this subject in South Africa is by H. Carol, "Das agrargeographische betrachtungssystem : ein beitrag zur Landschafskundlichen Methodik, dargelegt am beispiel der Karru in Südafrika", Geographica Helvetica, 7, 1952, pp. 17 to 67;

M.A.H. Smout, Natal towns : a study in comparative urban geography, Unpublished M.Sc. Thesis, University of Natal, Durban, 1966; and

R.J. Davies, "The South African urban hierarchy", South African Geographical Journal, 49, 1967, pp. 9 to 19.

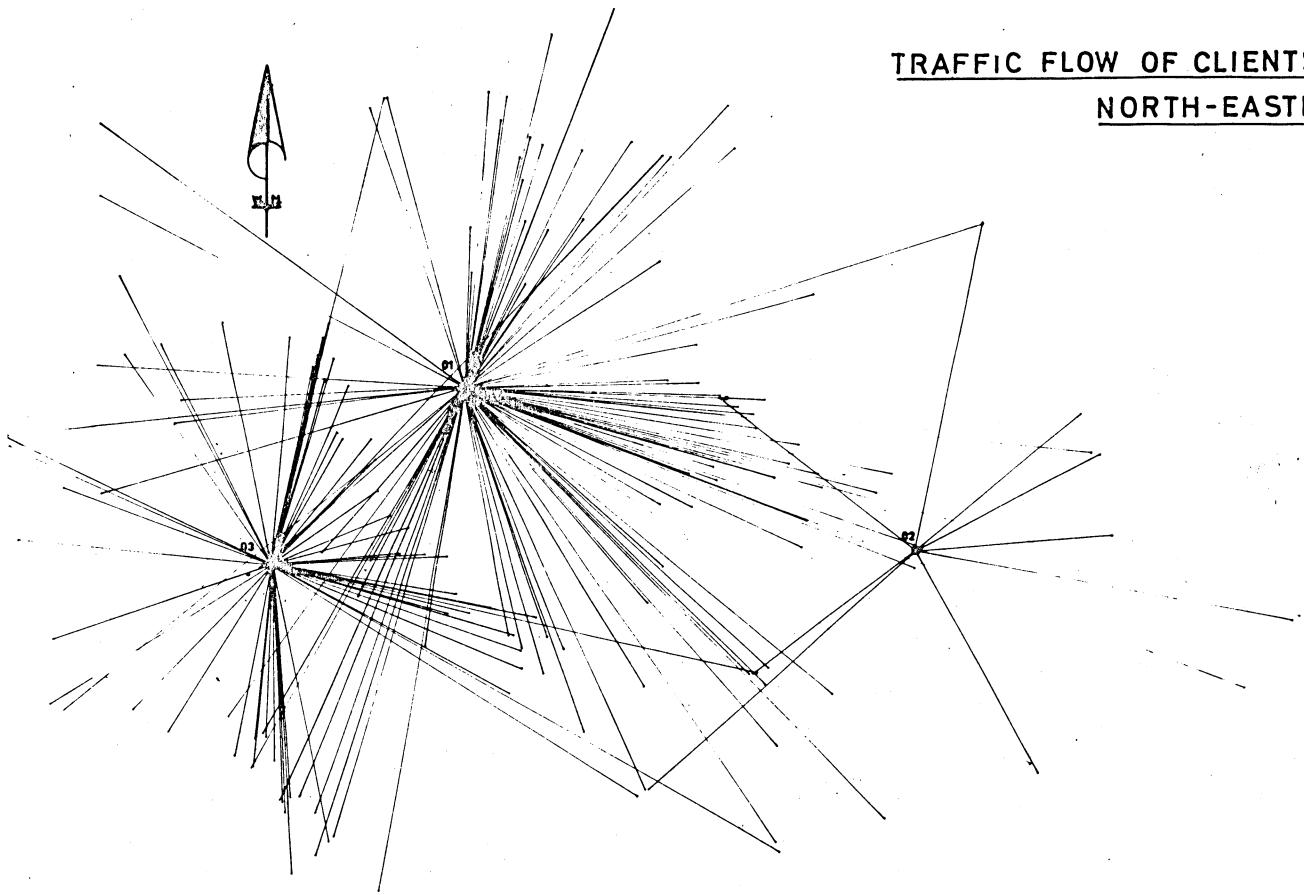
Figure 1

TRAFFIC FLOW OF CLIENTS OF GENERAL DEALERS
NORTH - EASTERN CAPE 1966

I SER, BLOEMFONTEIN

Figure 2

TRAFFIC FLOW OF CLIENTS OF FURNITURE DEALERS NORTH-EASTERN CAPE -1966



Legend

Towns

01	ALIWAL-NORTH	07	JAMESTOWN
02	BARKLY-EAST	08	LADY GREY
03	BURGERSDORP	09	MACLEAR
04	DORDRECHT	10	MOLTENO
05	ELLIOT	11	RHODES
06	INDWE	12	UGIE

Direction of travel of clients who live outside the spesific service area

I SER, BLOEMFONTEIN.

the growth of others. A few towns declined while others developed into regional centres with big service areas. The functional status of these towns are shown in Figure 3. Those towns which have retained most of their functions are the most accessible. The development possibilities of towns with less favourable locations are greatly influenced by their relative position to the regional centres. At present Rhodes is a hamlet within the service area of Barkly East, a major town. The latter falls within the even bigger service area of the regional town, Aliwal North. See Figure 3. This interdependence created the system of central places which exist in the North-Eastern Cape today.

Figure 3 makes it clear that towns of differing precedence exist in an area. The order of a town in this hierarchy is determined by different interdependent factors such as the size and composition of its population, its service area and its central place functions.

4. SYSTEM OF CENTRAL-PLACE FUNCTIONS

The central-place functions in a town, as for instance a general dealer or a high school and central attributes such as the supply of electricity, have different orders in the hierarchy of functions. They can be divided as follows:

(i) Necessary services or everyday commodities which are required frequently and for which consumers are willing to travel only a short distance; and

(ii) selected or shopping commodities and services which are required infrequently and for which consumers are willing to travel further. These two main groups of functions can be divided into several sub-classifications. See Tables 1 and 2.

This difference is accentuated by the range of a function, that is the distance a consumer is willing to travel to obtain this function. The lower limit of the range of a function is the distance which includes the minimum number of consumers. This minimum number, the threshold value of the function, is necessary for the lowest possible turnover which is needed for the profitable upkeep of the function. The threshold value is determined by the composition, personal income per capita, cultural level and other characteristics of the population of the service area of the centres. The threshold population, that is the minimum size of the population of a centre necessary for the provision of the central function, can be used as an estimate of the threshold value of the central function. A town must have a population of at least 365 Whites to justify the existence of one cafe while an optician needs a threshold population of 5,394 Whites. See Table 3. The former is an essential central function of a town and the latter is an infrequent select function which is only provided by a central place with a high order.

The functions within a given group are more or less identical with regard to threshold population and incidence in towns which are found within the same order of service areas. A community hall, general dealer, church and garage are functions without which a town cannot exist. The threshold population of these functions varies from 239 to 367. Several groups of functions can be identified in this manner. Necessary attributes, that is functions which occur only once in a town, and choice attributes can be distinguished in a similar manner. The supply of electricity and a municipality are necessary attributes and a local newspaper is an example of a choice attribute.

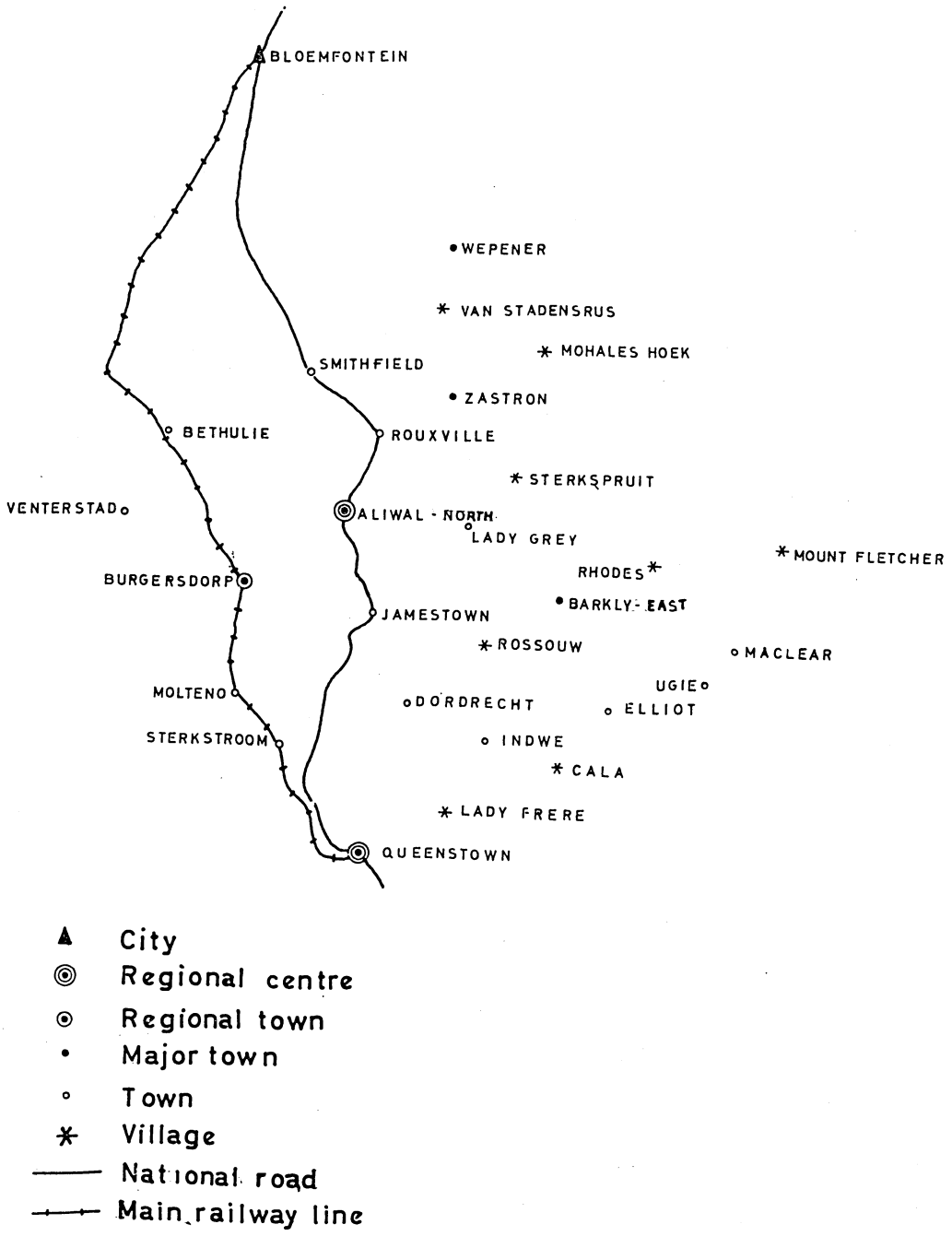
5. CENTRAL-PLACE SYSTEM

The most important factor determining the position of a town in the central-place hierarchy is the type of central functions it provides. This is determined by the actual range of the central function, that is the maximum distance at which the function can be provided economically, bearing in mind the location of other competing centres. If the consumer is located further than the effective range it is more economical to obtain the function at another central place. According to Figure 1, Rhodes provides a necessary function such as general merchandise. Taking competing service centres into consideration the service area of Rhodes is sufficient for the threshold value requirements of a low-order function like general merchandise. Consumers are unwilling to travel far for an everyday commodity such as general merchandise or groceries and the actual range of this function is, therefore, small. The contrary is true in regard to furniture. The actual range of a furniture dealer is large enough to enable inhabitants of Rhodes to buy furniture in Aliwal North. See Figure 2. Aliwal North has more central functions of a higher order and more units of these functions than Rhodes, and has, therefore, attained a higher position in the central-place system of the North-Eastern Cape. A centre with a higher position in the order of towns has also a bigger population than one which is lower down the scale. See Table 3B.

There is a regional town, Aliwal North, in the North-Eastern Cape, with a population of 3,023 Whites (1960), 131 establishments of 40 different central-place functions and with 14 different central-place attributes in 1966. Although it has almost the whole range of central functions, these functions do not equal those of a regional centre like Queenstown (9,743 Whites, 283 establishments of 40 different functions and 15 attributes) or a city like Bloemfontein (63,046 Whites, 1,343 establishments of 41 different functions and 15 attributes) in number or quality.

Figure 2

FIGURE 3 NORTH-EASTERN CAPE : FUNCTIONAL HIERARCHY OF TOWNS, 1966



Source: ISER, Bloemfontein, 1968

TABLE 1 - The different groups of functions and classes of towns in a central-place system

Town-classes		Groups of functions												
		Essential functions								Infrequent but essential and select functions				
		VIII				VII				VI				
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Average number of units per town												
Hamlets	VIII	1.3	2.3	1.2	1.0	0.3	0.3	0.2	0.5	0.3				0.2
	VII	1.4	5.7	2.0	1.4	2.3	1.4	1.0	1.1	0.3	0.3	0.3	0.4	0.1
Towns	VI	1.6	3.4	2.6	3.0	1.4	1.2	1.2	2.1	1.4	1.4	0.9	0.9	1.1
	V	3.1	6.4	3.8	3.6	1.9	1.8	1.2	2.6	2.0	2.2	0.9	2.0	2.1
Major towns	IV	2.8	8.0	4.2	5.3	2.3	2.2	1.7	5.0	2.4	3.2	1.0	1.4	2.9
	IIIB	2.7	9.6	4.9	5.3	3.6	2.3	1.7	5.3	2.6	3.0	1.1	2.4	3.7
	IIIA	3.6	11.8	6.2	5.6	4.6	3.0	1.4	8.0	8.0	3.4	1.6	2.8	3.6
Regional towns	II	5.3	15.8	8.9	9.6	6.9	5.6	2.9	12.1	3.1	6.5	2.5	4.4	2.5
Regional centres	IB	9.0	20.0	9.0	11.0	8.5	5.0	7.5	12.0	3.5	9.5	3.5	2.5	4.0
Cities	IA	17.7	52.7	20.3	52.7	54.7	29.0	9.7	67.7	8.7	39.0	10.3	7.3	9.3

Town-classes		Groups of functions															
		Infrequent but essential and select functions															
		V					IV				IIIB						
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
		Average number of units per town															
Hamlets	VIII	0.2			0.2					0.3			0.3	0.7		0.1	
	VII	0.3								0.3	0.2	0.1	0.1	0.3	0.1	0.1	0.1
Towns	VI	0.4	0.4							0.4	0.4	0.3	0.2	0.6	0.1	0.2	0.1
	V	1.0	1.4	1.3	0.9	0.8	0.6	0.3		1.0	0.8	0.7	1.1	0.4	0.3	0.2	0.4
Major towns	IV	2.1	1.2	1.0	1.3	1.1	1.0	1.3	0.9	0.9	1.1	1.1	1.0	0.9	1.3	1.0	0.9
	IIIB	3.6	1.4	1.1	1.9	1.7	1.3	1.7	1.3	1.0	1.2	1.0	1.0	1.0	0.8	1.2	1.0
	IIIA	3.0	2.2	2.2	3.0	2.8	1.8	1.8	1.2	1.5	3.1	4.5	1.5	1.5	2.0	1.8	1.4
Regional towns	II	5.3	3.9	2.0	6.8	4.5	3.3	3.1	3.1	1.5	11.0	7.0	5.5	2.5	4.0	3.5	3.0
Regional centres	IB	3.5	6.5	4.0	7.5	7.5	3.0	3.5	5.0	1.5	27.7	21.0	88.3	2.3	12.7	6.7	11.0
Cities	IA	35.0	18.7	11.3	53.3	10.3	22.0	15.3	20.3	3.7							

Town-classes		Groups of functions										
		Infrequent but essential and select functions		Infrequent but select functions								
		III		II					IB	IA		
		30	31	32	33	34	35	36	37	38	39	40
		Average number of units per town										
Hamlets	VIII					0.1	0.1					
	VII											
Towns	VI			0.1		0.1	0.1		0.1			
	V	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1		
Major towns	IV		0.2	0.4	0.2	0.1	0.3	0.1	0.1	0.2		
	IIIB	0.4	0.1	0.6	0.1		0.1	0.1		0.3	0.1	
	IIIA	1.2	1.2	0.6	0.2	0.4	0.6	0.8	0.2	0.4		
Regional towns	II	1.5	2.3	1.3	1.1	1.1	0.9	1.1	1.0	0.1	0.5	0.6
Regional centres	IB	2.5	2.0	1.5	1.5	2.0	1.5	1.0	4.0	0.5	1.0	1.0
Cities	IA	18.0	7.3	4.3	11.3	6.7	6.0	5.0	12.7	1.7	7.7	5.0

Source: Survey was done by the Institute for Social and Economic Research, Bloemfontein, 1966.
This survey refers to 87 towns in the North-Eastern Cape and the Orange Free State, excluding the North-Eastern Free State.

Note: The central functions are as follows:

1. Community hall
2. General dealer
3. Church
4. Garage
5. Medical doctor
6. Butchery
7. Hotel
8. Cafe
9. Bank
10. Attorney
11. High school
12. General haulier
13. Agricultural agent
14. Engineering works
15. Ladies' hairdresser
16. Men's hairdresser
17. Insurance agent
18. Ladies' outfitters
19. Chemist
20. Furniture dealer
21. Men's outfitters
22. Bakery
23. Miscellaneous shop
24. Hardware
25. Agricultural equipment
26. Hospital
27. Radio and other electrical appliances
28. Dry-cleaner
29. Dentist
30. Chartered accountant
31. Shoe-store
32. Bioscope (2+ times)
33. Jeweller
34. Photographer
35. Printing-press
36. Florist
37. Wholesaler^
38. Veterinary surgeon
39. Optician and optometrist
40. Department store

TABLE 2 - The different groups of attributes and classes of towns in a central place system

Classes of towns		Groups of attributes																		
		Essential attributes							Select attributes						Infrequent but select attributes					
		VIII		VII					VI	V	IV		III		II		I			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Average number of attributes per town																		
Hamlets	VIII	0.8	0.8	0.2		0.2			0.8											
	VII	0.6	0.3	0.6	0.3	0.7	0.6	0.6	0.4	0.1	0.4	0.6		0.1					0.1	
Towns	VI		0.1	1.0	0.9	0.9	0.7	0.7	0.7	0.3	0.4	0.4	0.2	0.3		0.1			0.1	
	V			1.0	1.0	1.0	0.8	0.8	0.7	0.5	0.5	0.3	0.3	0.5	0.1	0.2	0.1	0.1	0.1	0.2
Major towns	IV			1.0	1.0	1.0	1.0	0.7	0.8	0.9	0.7	0.7	0.3	0.4	0.2	0.3	0.1		0.1	0.1
	IIIB			1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.4	0.9	0.3	0.1		0.3	0.1		0.3	0.1
	IIIA			1.0	1.0	1.0	1.0	1.0	1.0	0.8	1.0	0.8	1.0	0.6	0.4	0.2	0.2	0.2	0.2	
Regional towns	II			1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.8	0.8	0.1	1.0	0.9	0.3	0.3	0.5	0.4
Regional centres	IB			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	0.5	1.0	1.0	1.0	0.5
Cities	IA			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7		1.0	0.7	1.0	0.7	0.7	0.3

Source: See Table 1.

Note : An attribute occurs only once in a town while more than one unit of a function may be present in a town.

The central attributes are as follows:

1. Telephone exchange (no 24-hour service)
2. Village management board
3. Telephone exchange (24-hour service)
4. Electricity
5. Municipality
6. Magistrate
7. City Hall
8. Agricultural co-operative branch
9. Water-filtering
10. Stock inspector
11. Grain roller-mill
12. Extension officer
13. Bioscope (once a week)
14. Sewerage system
15. Second-hand furniture store
16. Police district headquarters
17. Government veterinary surgeon
18. Newspaper
19. Agricultural co-operative head office

TABLE 3 - The threshold population of different functions and the average population per class of town

A: THRESHOLD POPULATION

	Groups of functions	Threshold population
VIII	Community hall	239
	General dealer	261
	Church	313
	Garage	367
VII	Medical doctor	309
	Butchery	544
	Hotel	779
	Cafe	365
VI	Bank	314
	Attorney	452
	High school	1,154
	General haulier	944
	Agricultural agent	896
V	Engineering works	903
	Ladies' hairdresser	1,139
	Men's hairdressers	1,412
	Insurance agent	1,100
	Ladies' outfitters	1,221
IV	Chemist	1,467
	Furniture dealer	1,461
	Men's outfitters	1,716
	Bakery	2,040
IIIB	Miscellaneous shop	1,351
	Hardware	1,531
	Agricultural equipment	1,562
	Hospital	1,849
	Radio and other electrical appliances	1,868
	Dry-cleaner	2,272
	Dentist	2,310
IIIA	Chartered accountant	2,315
	Shoe-store	2,345
II	Bioscope (2+ times per week)	2,965
	Jeweller	2,800
	Photographer	3,387
	Printing-press	3,137
	Florist	3,463
IB	Wholesaler	2,143
IA	Private veterinary surgeon	3,050
	Optician and optometrist	5,394
	Department store	6,080

B: POPULATION PER TOWN-CLASS

Town-class	Average urban White population (1960)
VIII	154
VII	228
VI	709
V	815
IV	1,290
IIIB	1,674
IIIA	1,897
II	3,435
IB	6,383
IA	34,403

Source: See Table 1

Note: Threshold population of a function, f=Y for $X_f=1$ in the linear regression equation: $Y=a+bX_f$ with Y=White population of a town in 1960; and X_f=number of units of a function, f, in a town.

A major town like Barkly East had a population of 1,148 Whites in 1960. In 1966 it had 59 establishments of 25 different types of functions and 12 attributes. These are either necessary, infrequent but essential or select functions. None of the higher-order select functions like a dentist or an infrequent but select function like an optician is present in a major town.

Lady Grey is a class V town. It has a White population of 646 and possesses only the four lowest-order groups of functions. It has also a smaller service area than either Barkly East, a major town, or Aliwal North, a regional town, situated on either side of Lady Grey.

6. CLASSICAL CENTRAL-PLACE THEORY

The founders of central-place theory were the German geographer, Walter Christaller, and the German economist, August Lösch.[3]. Lösch's economic landscapes" are more relevant to secondary production at later market-oriented stages. The system of Christaller is, on the contrary, more relevant to the analysis of the retail and service activities of the tersiary sector.

On the basis of the effective range of a commodity and its price, which latter increases in direct ratio to the distance between the consumer and the service centre, the service area can be visualised as a circle with the range of the goods as its radius. The different circular service areas of service centres which provide the same goods must overlap in order to serve all the consumers. The consumers, who are assumed to be rational in their buying habits, will visit the service centre which is located nearest to them. The overlapping areas are thus bisected and the service areas will become hexagons.

A large number of central functions must be provided to the consumers in a rural area. Assume the hexagon service areas of a few central places, regional towns, which provide all the necessary and choice functions, cover the whole area. The range of the functions with a low order are too small and other centres, major towns, must be established to provide these functions. Geometrically major town will be established at the central point between three of the original regional towns. This second network of hexagons of the service areas of major towns will cover the whole area. These major towns will provide functions of a lower order than the regional towns.

This procedure can be repeated to establish towns and also hamlets. Every lower-order centre is at the central point of three higher-order places. A major town will be surrounded by six towns. The central-place system of the North-Eastern Cape in Figure 4 illustrates this principle. A town like Rhodes provides only the basic needs of its hexagonal service area. Barkly East, a major town, provides not only the basic needs of the consumers of its hexagonal service area, but also higher-order requirements, such as furniture, to those in the service area of Rhodes. The regional town, Aliwal North, provides likewise the need of infrequent but select functions such as an optician to those in the service areas of both Barkly East and Rhodes.

The above mentioned system is formed according to the market principle of Christaller. According to the market principle the system of central places is founded on the basis of the range of the central functions. It requires that all possible central functions must be provided at a minimum number of central places.

A second principle which is not applicable to the North-Eastern Cape, is that of communication. According to this principle the total demand for transport and communication must be satisfied at minimum cost. The maximum number of higher-order central places should, therefore, be located on the major transport or communication routes. Another principle, the administrative, promotes the formation of complete districts which are controlled fully by a higher-order centre.

A practical illustration of this theoretical system can be seen in Figure 5. It reveals the flow of trunk-call traffic in this area. The direction of the flow of telephone traffic which is an excellent criterion of social and economic activity, is from a town via a major town to a regional town, then to a regional centre and finally a city. The one exception is telephone traffic from Wepener, a major town, to Zastron, a town according to the theoretical explanation in Figure 4. Zastron, however, developed instead of Mohales Hoek, which according to its location should have been a regional town.

7. CHANGES IN THE CENTRAL-PLACE SYSTEM

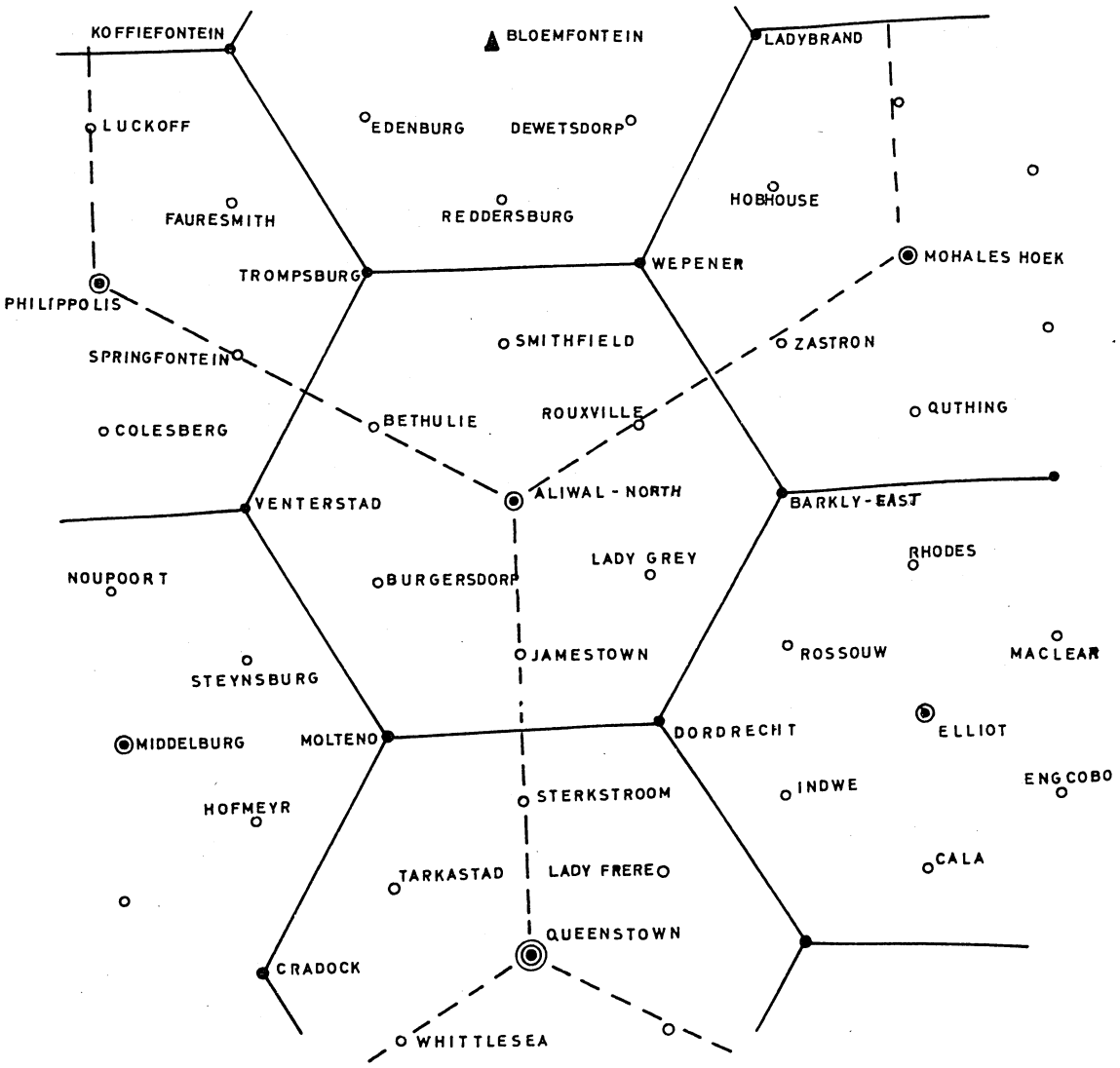
The central-place system is always changing. This can be seen in the North-Eastern Cape where the present status of the towns (See Figure 3) differ to a great extent from their original status. See Figure 4. These transformations are caused by different factors.

The development of transport is one of the principal factors. Transport as it becomes faster, more comfortable and cheaper enlarges the economic distance, and the range of most goods is increased. Motor transport is one of the most important factors increasing the economic distance of central functions. The establishment of a town (or the decline thereof, if it already ex-

3) Christaller, W., Central Places in Southern Germany, as translated by C.W. Baskin, Prentice-Hall, Englewood Cliffs, 1966; and Lösch, A., The economics of location, as translated by W.H. Woglom, Yale University Press, New Haven, 1954.

FIGURE 4

CENTRAL PLACE SYSTEM OF NORTH-EASTERN CAPE, 1966
MARKET PRINCIPLE



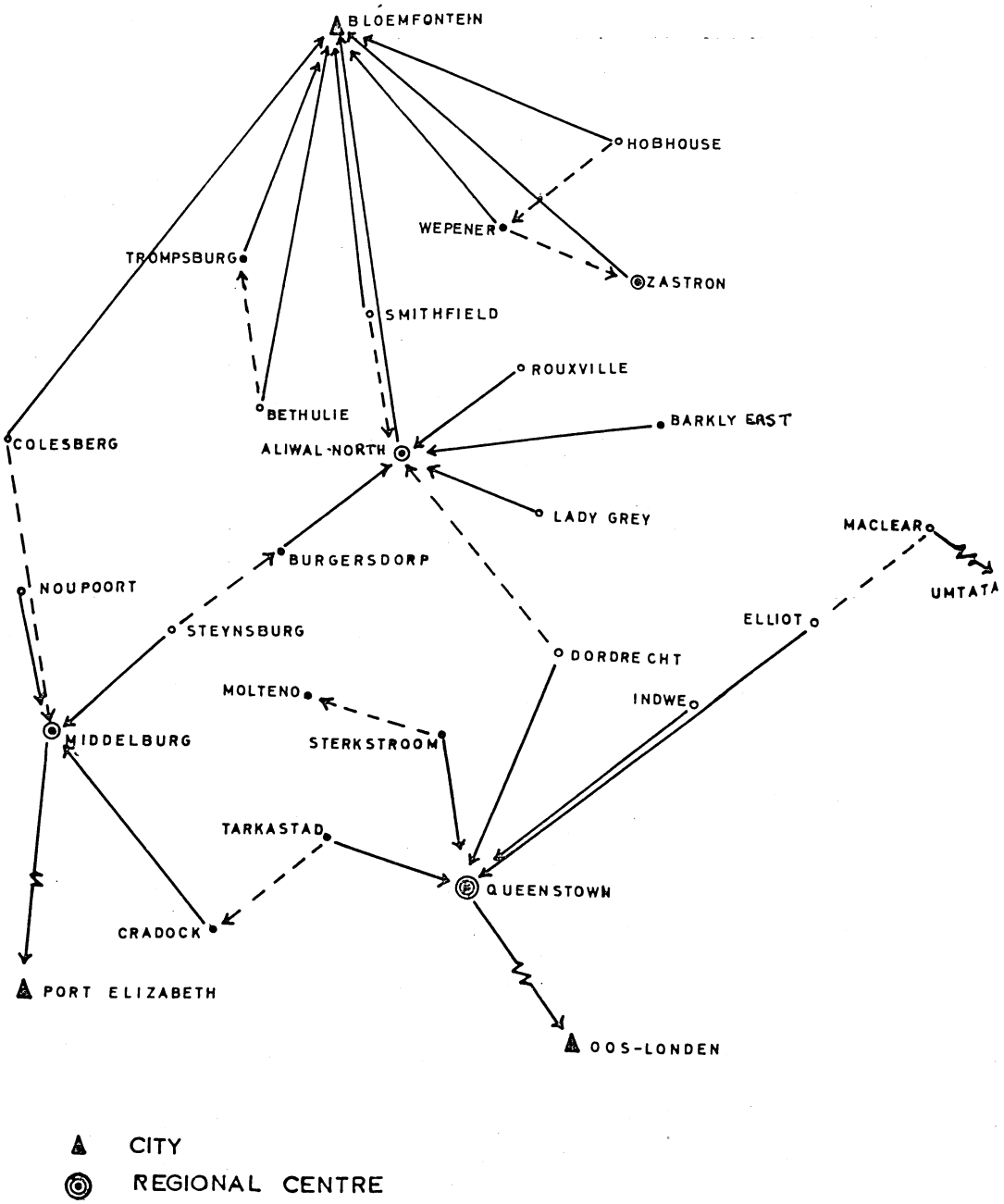
- CITY
- REGIONAL CENTRE
- REGIONAL TOWN
- MAJOR TOWN
- TOWN

Source: ISER, Bloemfontein, 1968

FIGURE 5

CENTRAL PLACE SYSTEM OF NORTH-EASTERN CAPE

FLOW OF TRUNK-CALL TRAFFIC, 1961 AND 1963



- CITY
- REGIONAL CENTRE
- REGIONAL TOWN
- MAJOR TOWN
- TOWN
- MAJOR TRAFFIC FLOW
- MINOR TRAFFIC FLOW

SOURCE ISER Bloemfontein, 1968

ists) as has been described, is delayed. Rather than justifying the establishment of a town by providing choice goods, like clothing, it is now justified by providing functions of a lower order, such as essential services. The range of choice goods increases because of motor transport, with the result that a consumer is willing to buy choice goods at a major town which is further away. This development is to the advantage of central places of a high order and prejudices towns of a lower order.

The threshold value of a central function can change. The department store, for instance, originated from a combination of the functions of wholesale and retail services. It requires a relatively high capital outlay and reaches its break-even point at a much higher sales volume than an ordinary general dealer. A department store has, therefore, a higher threshold value and demands a bigger service area. It will be located in a regional town and not in a town. The supply of general merchandise consequently shifts to a central place of a higher order.

Although the threshold value of a function can remain the same it must nevertheless shift if the population of its service area declines. The service area does not justify the function any more and it disappears. The consumers in this area must now go to the next service centre of a higher order to obtain this function. With the decrease of the rural population the high school at Rhodes closed and the high school at Barkly East had to be used. This decrease in the population is a general feature of the rural areas and is one of the main reasons for the disappearance of several central functions in towns of a low order.

A change in consumer preferences also influences the range of central functions. A consumer's preferences and his idea of the economic distance of a function changes together with a rise in his standard of living. If a central function is more popular its range increases. A poor person will have his appendix removed by his local doctor while a wealthy person will go to a city to have his appendix removed by a specialist. The economic distance for medical services is greater for a rich than for a poor person. This difference is well illustrated by an analysis of the buying pattern of farmers.[4] Farmers with big farms, who are supposed to maintain a higher standard of living, purchase more of their products in the regional towns and centres. This fact is further accentuated by an analysis of the travelling pattern of farmers in the North-Eastern Cape.[5] Farmers with bigger farms travel more by motor (20,255 miles per year) than those with smaller farms (9,388 miles per year). In the North-Eastern Cape this factor will have an ever increasing influence as farming units become bigger in future. The accompanying rise in the standard of living will be the reason for more and more purchasing being done outside this area.

The risk exists that the way of life of the inhabitants of a rural area may deteriorate in this changing central-place system. The inhabitants who fail to alter their travel patterns will experience a decrease in the number and quality of the central functions of their service centres. Those who travel more and farther in order to satisfy their needs will also experience various shortcomings. Their community life will languish, but at the same time they will not be incorporated in the community life of the city where their shopping and other business is being transacted. According to Vrey only a few rural people are able to establish a link with an urban society.[6] A rural inhabitant is able to use the services provided by the city, but is never truly assimilated by the urban society. The urban society will, at the same time, not be able to appreciate the needs of the ruralite nor be willing to further his interests. This has two consequences. Firstly, the social level of living in the rural area declines and secondly, the farmer is being isolated as a social being. Isolation has, therefore, a wider influence than merely on the social terrain. Its influence extends also to other aspects of rural life, such as farming techniques, etc. As soon as the rural person is deprived of community life he is inevitably impoverished as a social and cultural being. A degeneration of his way of life will result because social and economic welfare cannot be separated for long.

It is not the normal population flow to the cities which should be stopped, but the flow of purchasing power to the cities and the consequent degeneration of the community life of the rural areas. It is with this in mind and on the basis of the preceding central-place system that the following development plan has been evolved.

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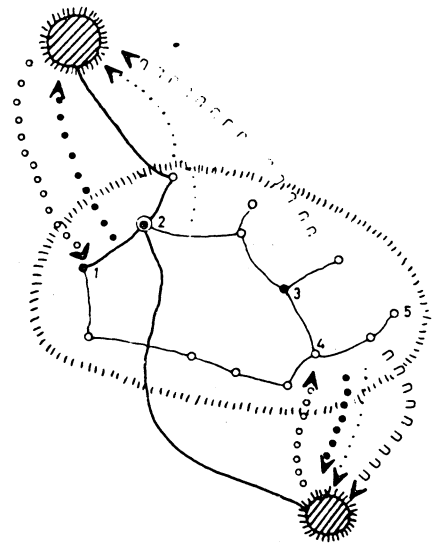
4) Kotzé, H.A., Die ekonomie van Noordoos-Kaap met besondere verwysing na die landbou, Unpublished D.Sc. (Agric.) dissertation, University of the Orange Free State, Bloemfontein, 1966, p.106; and

Wood, M.I., Marketing and purchasing behaviour of farmers in the Letaba district, Unpublished M.Sc. (Agric) dissertation, University of Pretoria, Pretoria, 1968, pp. 91 to 94.

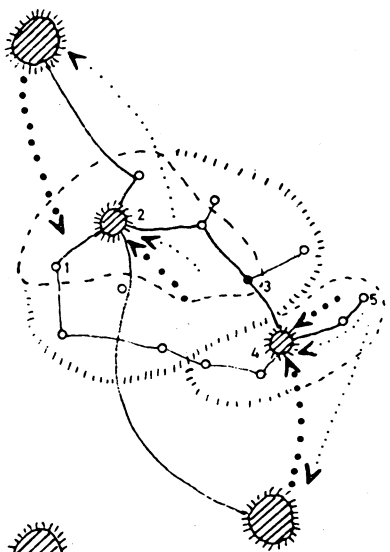
5) Du Toit, P.J.D., 'n Ondersoek van die vervoerstelsel van Noordoos-Kaapland, Unpublished M.Sc. (Agric.) dissertation, University of Pretoria, Pretoria, 1968, chapter 5.

6) Vrey, W.J.H., 'n Sosiologiese-demografiese studie van die Sentrale Karoo, Unpublished report, Institute for Social and Economic Research, University of the Orange Free State, Bloemfontein, October, 1968.

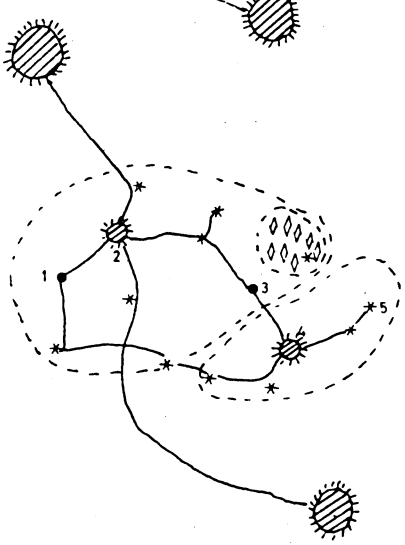
FIGURE 6 DEVELOPMENT PLAN FOR A RURAL REGION : NORTH-EASTERN CAPE



(a)



(b)



(c)

- Capital and purchasing power
- Population migration
- Finished products
- Agricultural products
- Downward-transitional rural area
- Developing rural area
- Core region
- Regional town
- Major town
- Town
- Village
- Black-top road
- Gravel road
- Ski-slope and trout angling

1. Burgersdorp
2. Aliwal North
3. Barkly East
4. Elliot
5. Maclear

Source : ISER, Bloemfontein, 1968

8. PLAN FOR DEVELOPMENT OF A RURAL AREA

The plan of development is schematically illustrated in Figure 6 according to the principles developed by John Friedmann.[7] A declining rural area such as the North-Eastern Cape is characterised by an outlfow of capital and purchasing power and the shifting of the population to other regions. This region possesses a relatively large number of towns which are declining. Furthermore, some parts of the region are mountainous, and soil erosion is a serious problem. See Figure 6(a).

Recognition of Aliwal North and Elliot as the regional towns of this area is the first phase in the development plan. The establishment of light industries in the two towns is an important growth factor but is not necessarily a priority. Such development must usually be undertaken with capital and entrepreneurship from outside. The fact that these regional towns are not attractive to outside investors at present will hamper the establishment of industries. An investment in the service and retail trade will need less capital and will be of more benefit to the region. The Government must not only recognize these two regional towns as the headquarters of the existing administrative and educational network, but must also move other administrative and educational functions to the two towns. The establishment of a technical school, with a limited curriculum which concentrates more on the re-education of the inhabitants, is important. The enlarging of the existing hospitals in the two towns will also play a major role in determining their status. A further step is the renovation of the existing business buildings. Initially this cannot be left to private initiative. Such renovations will accelerate as soon as sales increase and can then be left to the private sector.

The most important factor in the development of regional towns is the improvement of the road system, with regional towns as the centres of the system. The construction of tarred road from Aliwal North to Barkly East will shorten the economic distance to Aliwal for consumers in this area. They will purchase more goods at Aliwal North. The same will happen if the road is tarred from Elliot to Maclear and also to Barkly East. The building of tarred roads from these two regional towns will enlarge their service areas for the more central functions. See Figure 6(b).

The completion of a tarred road-system will bring the rest of the North-Eastern Cape within the sphere of influence of the two regional towns. Not only do they become the shopping centres of the region, but are also turned into community centres which are exclusively tuned to the specific needs of their rural service areas. A strong regional awareness is cultivated among the inhabitants. It is now opportune to mobilise private capital and the entrepreneurship of the region itself to establish light industries. See Figure 6(c).

The exceptionally mountainous terrain of the North-Eastern Cape was the biggest obstacle in the transport system of the area for a long time. With the tarring of the main routes this obstacle will be converted into an important growth factor. The best ski-slopes in the country are found near Rhodes, while it also possesses excellent trout streams. The Rhodes area can most probably be turned into a mountain reserve. The development of tourism will stimulate the further development of the region.

The status of all other towns in the region would decline to that of hamlets, but this was in any case inevitable. With the suggested development the way of living of the inhabitants of the region would be maintained and even increased. The inhabitants would not have to be satisfied with few and inferior services in their own declining towns, nor would they have to look to cities for these services. The trade and community growth points of this rural region would satisfy in full the large variety of needs of its inhabitants.

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7) Friedmann, J., Regional development policy: a case study of Venezuela, The M.I.T. Press, Cambridge, 1966, pp.87 - 98.