# Affordable social provision: an ecological approach

Ina Snyman

This is a publication of the Committee for the Subprogramme: Affordable Social Provision of the National Research Programme: Affordable Social Security.

# ACKNOWLEDGEMENT

CONTENTS

# EKSERP

Die publikasie verteenwoordig die integrering van die resultate van 'n gespreksgroep oor die ekologiese benadering in verskillende dissiplines met 'n literatuurstudie oor die onderwerp. Omdat vir die werksaamhede van die Subprogram: Bekostigbare Maatskaplike Voorsiening daar 'n behoefte is aan 'n uiteensetting van potensiële navorsingsterreine wat spesifiek te doen het met die doeltreffender aanwending van menslike vermoëns en van die potensiaal van bronne in die mens se omgewing, het laasgenoemde tema die hoofklem in hierdie monografie ontvang.

Dit blyk dat die ekologiese benadering 'n nuttige raamwerk bied vir die ontleding van vraagstukke op die gebied van bekostigbare maatskaplike voorsiening; en uiteenlopende onderwerpe soos die potensiaal van 'n organisasie om sy ledetal binne 'n sekere omgewing te vermeerder, sentralisasie en desentralisasie van dienste; die terapeutiese waarde van natuurbronne en die inskakeling van geassosieerde werkers by 'n professionele span, kan aan die hand van die ekologiese model bestudeer word.

# ABSTRACT

This publication represents the integration of the proceedings of a discussion group on the ecological approach in different disciplines with a literature study on the subject. The activities of the Subprogramme: Affordable Social Provision reveal a need for an exposition of potential research areas that relates to the optimization of human capabilities and of resources in the human environment. The latter theme therefore, has been the main focus of this monograph.

It appears that the ecological approach offers a useful framework for analysing issues within the field of affordable social provision, and diverse topics such as the potential of an organization to increase its membership within a certain environment, centralization and decentralization of services, the therapeutic value of natural resources and the incorporation of associated workers into a professional team can be studied according to an ecological model.

# 1. INTRODUCTION

In the parable of the gold coins (Luke 19) the story is told of an employee who elicited a "Well done!" from his employer after he had used the single gold coin given to him to the best possible advantage, and had increased its value to that of ten coins. He was rewarded for his diligence by having ten cities placed under his jurisdiction and/or administration.

In contrast, another employee who had hidden the one coin entrusted to him so that it would merely be intact and not lost by the time his employer returned, was told that he had been a bad servant, and that the least he could have done was to put the coin in the bank. By not doing this, he had not only failed to let any value accrue to the coin, but had actually allowed it to lose value - assuming that even in those days money devalued somewhat over time.

On the supposition that we are meant to learn from parables, we may see this particular parable as a suggestion of how societies are expected to deal with resources entrusted to them.

Perhaps the employee with the ten coins would have been an exploitative, overcompetitive, relentless merchant if he had had more time, or if he had been a late twentieth century developer. Balancing non-disturbance and development - in such a way that they constitute neither neglect nor exploitation - and integrating satisfactorily all competing forces, interests and claims on resources, fall within the field of study of _ecology;_ and on Friday, 13 September 1985 the persons mentioned in the acknowledgement, together with a few others, discussed how different disciplines defined the ecological approach and what the various components of such definitions looked like in the real world.

On that occasion relevant material from the vast literature already available on the subject was displayed, and titles of books or copies of articles were exchanged. The participants' interest in the variety of points of view was aroused and follow-up reading was done by several of them.

More or less simultaneously the operationalization of a national research programme to investigate and develop strategies for more affordable social security was initiated, and a list of basic assumptions or objectives were formulated and published as "statements of intent" (<u>Research Bulletin 1 of 1986</u>:59-61).

Some of these statements have a special bearing on the subject of <u>resource utilization</u> and the interrelation among different kinds of resources in an environment, for example:

- <u>Affordability</u>: Some social provisions have become very expensive and may create unmanageable budgets, and research should be instrumental in discovering new ways of providing essential services.

- <u>Establishment of networks</u>: Research should indicate how more links can be forged between people and how the creative potential of such links can be developed optimally. Ways of providing new facilities without using many additional expensive resources should also be investigated.

- <u>Effectiveness and efficiency in formal provisioning</u>: Research may assist in finding the best combinations between parsimony and the satisfying of all needs, as well as between comprehensiveness and smooth, swift service rendering.

- <u>Upgrading</u>: The standard of housing, education and health should at least be maintained but at best be upgraded or improved, and research should reveal how all resources could be used and developed more effectively.

- <u>Prevention of deterioration</u>: Through research, ways can be identified to develop different kinds of preventive measures, for example the prevention of accidents or pollution in the work place, and the prevention of undesirable conditions in a community.

On Friday 12 September 1986, exactly one year after the discussion on ecology, the Work Committee for Affordable Social Provision, one of the subprogrammes constituted under the umbrella programme of Affordable Social Security, met

for the first time. They endorsed the commitment to the <u>optimization</u> <u>of resources</u> and undertook to generate research regarding ways and means towards reaching this objective. Main research areas would be

- the different kinds of resources that are at issue;

- the various demands on such resources that have to be accommodated;

- the main implications of the neglect or abuse of resources;

- solutions to problems arising from conflicting demands and overuse or underuse, and.

- the special application of non-human resources in the solving of human relationship problems.

As many of these areas were touched on in the discussion on ecology in September 1985, the rest of this monograph will draw mainly on the content of that discussion and on the relevant literature.

2.    THE ECOLOGICAL APPROACH

To bring the earlier mentioned <u>statements-of-intent,</u> and more specifically the <u>research areas</u> of affordable social provision, closer to the subject of ecology, it is necessary to look firstly at some definitions of ecology and some references to the specific attributes of an ecological approach.

In 1979 Germain (p.7) described ecology as a form of general systems theory that "rests on an evolutionary, adaptive view of human beings (and all organisms) in continuous transactions with the environment".

About a year later he and Gitterman (1980:4-5) redefined and expanded the concept of "human beings in continuous transactions with the environment", by stating: "Ecology seeks to understand the reciprocal

relations between organisms and environments: how species maintain themselves by using the environment, shaping it to their needs without destroying it; and how such adaptive processes increase the environment's diversity and enhance its life-supporting properties."

Beukes et al. (1985:5) give a briefer description but differentiate clearly between the science and the main identifiable structure in its field of study: "Ecology is the scientific study of living things in relation to each other and to their environment whilst an ecosystem is the functional relationship between a community and its environment."

Greif and Lynch (1983:35-71) on the other hand use the term "ecosystems" to describe one of the perspectives that could constitute the frame of reference for the practice of social work, particularly as contrasted with the traditional medical model in which the client was seen as the main "source of the problem and resource for change" (pp. 17-19). This does not imply that social work had not progressed beyond the medical model until the advent of the ecological perspective. The person-in-situation had for a long time been the unit of attention in social work; but the ecological or ecosystems perspective has added a biological dimension with its emphasis on all organisms and their continual influencing of one another. This biological dimension has made "ecological thinking" popular in many disciplines and has led to the development of various "derivative states" (Greif, Lynch 1983:37) of the concept, one of which is that in use in social work.

Other derivative states of ecology can be found in such disciplines as anthropology, sociology, geography and home economics; and such more circumscribed subject areas as the social indicators' movement, quality-of-life studies, urban planning and housing. (Steyn 1984:117-124; George, McKinley, 1974; Smith 1972:43-57; Schutte 1985:104-110.)

A few examples will suffice. Geography for instance studies the earth-as-habitat-of-man[1] and one of three paradigms may prevail; namely that according to which man is superior, that in which nature is superior and that in which both have equal importance. The latter views man as the agent who is in charge of, yet responsible for, the exhaustible resources of nature.

4

As far back as 1864 Marsh published a book entitled <u>Man and nature or physical geography as modified by human action</u> (reprinted by Harvard University Press in 1965), and over the years ecology has been considered by various authors as geography-related. For example in 1923 Barrows is believed to have developed the notion of geography as human ecology (Barrow 1923:1-14; Kates 1967:55); in 1936 White and Renner published their <u>Geography: an introduction to human ecology</u> (in which they identified economic, social and political ecology), and in 1966 Eyre titled his book: <u>Geography as human ecology: methodology by example</u>.

In 1967 Kates wrote about geography as a science of the environment that should straddle the social and natural sciences; and although Hawley and Steward at about the same time (1968:330) questioned the validity of calling geography "human ecology", Norwine and Anderson in 1980 confirmed their call "for geography to assume its rightful role as 'human ecology' at least in large measure" (p. vii).

A final reference brings the discussion back to the key theme of this monograph, namely people's use of resources. Carter (1968), in explaining the differential land use of different groups of people, relates culture to the fact that countries and areas with similar rainfall, topography, climate, etc. are inhabited by people with a great variety of lifestyles; while Hawley and Steward (1968:337-344) on the other hand, define cultural ecology[2] mainly by pointing out how different cultures resulted from the particular ways in which people in different parts of the world used the resources of, and adapted to, their environment.

<u>Home economics</u>, or the formerly used term "home management" relates according to Wessels (1980:1) directly to the word "ecology" which derives from two Greek words meaning "house" or "home" and "science" respectively. (See Note 1.) At some universities the term "home economics" has already made way for a curriculum in "human ecology", but even where this is not the case, home economics builds further on the root disciplines of the physical, biological and social sciences as well as on the arts, and combines them with the applied areas of nutrition, foods, family economics, family sociology, management, human development, housing, textiles and clothing (Wessels 1980:2).

The main reason for the extent of this study arises from the fact that the family as an ecosystem is at the core of home economics, and the main focus of study is the process of interaction - the reciprocal relations - between the family and its natural and man-made environments (Wessels 1980:2).

Nichols (1970:41-42) makes particular reference to resource utilization when he states that the mentioned interaction process contains four major sets of variables that make up a system of family resource use namely, family welfare, the purpose and outcome of resource use; the situation, which includes objects and events in the family's environment; the orientation set of variables, which refers to cognitive and other directive elements playing a part in a family's perception and evaluation of the situation, and lastly the management set concerning decision-making and related activities. (See also Boshoff 1984 about organization in households.)

In sociology, like in geography, ecology is seen either as marginal to sociology, that is, as providing a substructure for studying social factors and human behaviour, or as a definitive sociological approach or model according to which any social phenomena could be analysed (Reynolds 1985).

In the ecological approach sociology stresses the reciprocal relations between society and social processes, and the physical space, environment and nature within which such a society exists and such social processes take place.

Three major schools of ecological thought are found in sociology, namely classical/orthodox ecology that studies the social structure and spatial setting of groups (use of space as a resource); neo-orthodox ecology that emphasizes the way man organizes himself in, and adapts to his environment by using a specific culture, and sociocultural ecology that explains the spatial distribution of people and of functions by means of cultural values, attitudes and beliefs (Bardo, Hartman 1982:44-73). However, even outside the identified ecological models, sociology concerns itself with reciprocal relations, and over the last few decades a great deal of attention has been given to the relations

between the social environment (for example the size, density and heterogenity of a population) and the lifestyle people have developed, for example conventional or unconventional attitudes or behaviour.

Nelissen (1972:20) feels that the kind of ecological aproach used in sociology should be called social ecology - because it deals mainly with societal groupings and their interrelations - as opposed to human ecology, which he sees as having links with biology, physiology and medical science. He concedes that in Anglo-American literature the term human ecology is currently used most of the time and "social ecology" so seldom that it appears as if such a distinction is not made in those countries. For the purposes of this monograph such a distinction, although interesting and potentially useful, will also be ignored.[3]

In explaining the interrelations that exist among the different social and natural forces, the different disciplines are also related. In the section on geography and ecology Carter's (1968) explanation of the cultural determinants of different ways of using land for different ways of living was referred to;[4] and, conversely, Mukerjee, speaks as far back as 1926 (P. vi) in his Regional Sociology of a human ecology that "seeks to provide us with the keys to the origin of diverse social types, correlated with the plant and animal communities of a natural, easily distinguished region".

Cain goes further (1967:27-52) and argues that ecology can provide the basis for synthesis among all or any of the social sciences. "Whatever the scientific inquiry or the application of scientific knowledge and understanding in engineering or any other action or management program, if it concerns itself primarily with environmental relations, it may truly be called ecology" (pp. 28-29). What makes a scientist an ecologist is his focus of attention on the ecological action system, in which action, reaction and co-action take place continually among the physical environment and all living organisms (p. 29).

Apart from the different authors' efforts at finding points of contact within the various disciplines, the recurrent appearance of the same

set of terms also shows that the disciplines all deal with a <u>similar</u> <u>kind of enquiry although from different angles</u>.

The following are some of these concepts which will appear regularly in the rest of the discussion. They are listed here according to the order in which they were first mentioned in this monograph, although related references that appear later will be brought forward to elucidate or elaborate on a particular term. Because the bibliographical details have already been given, they will not be repeated, although authors' names may be mentioned where they contribute to reading ease.

Germain sees ecology as a form of general <u>systems</u> approach, while the term <u>ecosystem</u>(s) has been used a couple of times, particularly to indicate the subject of study in ecology. Nichols speaks of the <u>system</u> of family <u>resource use</u> as the target of study in home economics, and Cain refers to the ecologist's focusing of attention on the ecological <u>action system</u>.

Using a systems approach already implies the presence of some of the other concepts such as <u>reciprocal relations</u>, or the <u>functional relations</u> between a community and its environment; an action system relies on actions, reactions and <u>transactions</u> while the elements or organisms in an action system <u>continually shape</u> and <u>influence</u> one another.

In their turn these latter concepts link up with Germain's reference to ecology as resting on an <u>evolutionary, adaptive</u> view of human beings in continual transactions with the environment; a system-in-process, in other words. Continual adaptation and evolution then, imply a never-ending process of <u>balancing</u> or harmonizing, in which all species try to <u>maintain</u> themselves by <u>using the environment</u> yet not <u>destroying</u> it.

The concept of "using the environment", for its part links up with that of <u>management of the habitat</u> or Nichols's "<u>management set</u>", which deals with decision making and related activities, and Cain's view of ecology as an <u>engineering</u> or other <u>action or management</u> programme that concerns itself primarily with environmental relations.

8

The concepts of <u>maintenance,</u> <u>balance</u> and <u>environment use</u> also have to do with that of <u>life support</u> as applied by Germain and Gitterman in their reference to the way in which the beneficial properties of the environment increase when species shape it according to their needs without destroying it.

The environment supports a variety of <u>different lifestyles</u> which are shaped to a large extent by the way people use the resources of, and adapt to the environment. This diversity[6] increases <u>interdependence</u> but also <u>competition</u> and conflict, which in turn increase the need for adaptive and balancing efforts to re-establish the sort of equilibrium that will allow the total ecosystem to continue functioning.

This discussion of common terminology is not an attempt at finding a general ecological approach. It merely suggests a list of concepts that might be used to construct models or paradigms for research, policy-making, planning and programme development in multidisciplinary contexts. Even where a single discipline undertakes one or more of these activities a knowledge of points of contact with other disciplines or approaches should facilitate any encounter with them.[7]

In the sections that follow these concepts find expression within the context of the identified research areas regarding resource optimization.

3.    RESEARCH AREAS FROM A PERSPECTIVE OF RESOURCE OPTIMIZATION

As stated earlier, discovering the best way to create and apply resources is an important task when more affordable strategies of social provision are sought, and the relevant research areas mentioned before will now be discussed in greater detail.

3.1    <u>The different kinds of resources that are at issue</u>

Foa and Foa (as quoted by Specht 1985:226) claim that all resources fall into six classes, namely love, status, information, money, goods and services. However, as Zimmerman stated over 50 years ago (quoted by Norwine, Anderson 1980:49), the term "resource" does not refer to a

"thing or a substance" but to a function or an _operation_ (cf. operationalization) by such a thing or substance aimed at attaining a certain end.

Both Specht (1985:226-230) and Gergen and Gergen (1981:382-417) emphasize that the essence of resources lies in the fact that they get _exchanged_. According to Specht (p. 226) "All interpersonal interaction involves an exchange of resources";[8] and this is so, say Gergen and Gergen (pp. 384-385) because human action is motivated primarily by the desire to gain pleasure and avoid pain, the sources of pleasure and pain are the actions of other persons, and other people will usually only produce such pleasure-giving actions in response to appropriate behaviour or action by the person seeking to gain pleasure and avoid pain.

The resource being sought nevertheless to a certain extent determines the kind of exchange that will take place. Affection, for instance, is only received from and given to certain people, while goods and money can be exchanged with a variety of people, including strangers. Moreover, affection can more appropriately only be exchanged for affection, while the delivery of a service or goods requires reciprocation in the form of a similarly concrete resource (Foa and Foa as quoted by Gergen and Gergen 1981:390-391).

Two more frameworks for categorizing resources can be mentioned. Firstly there is the simple, but more "ecological" division of the eco-system or the environment into human, man-made and natural subsystems or environments (Kotze, Swanepoel 1983). Each one of these forms an environment or a pool of resources for each of the other two and their integration and harmony are stressed by the authors, particularly where the human being manufactures a technical aid, originally using natural resources, in order to make better use of or adjust to other natural resources. For example, man builds a railway line to transport goods to a seaport, or constructs a dam to store water. Very similar to this distinction, is that of Germain and Gitterman (1980:137-151) who differentiate between the social and physical environments with a subdivision of the physical into a built world and a natural world. However _they_ point out that each of these environments, though full of resources, could also be a source of obstacles and stresses.

In fact, it can be assumed that what constitutes a resource for some elements in an environment might be a source of stress for others.

Secondly, there is a more traditional social work model which looks at resources from the point of view of the helping function of social work: "People are dependent on systems for help in obtaining the material, emotional, or spiritual resources and the services and opportunities they need to realize their aspirations and to help them cope with their life tasks" state Pincus and Minahan (1973:3), and then continue to explain that, owing to inadequacies in the functioning of the resource systems that are ordinarily available to the individual, a new set of systems should be conceived on behalf of certain individuals and groups.

Problems regarding the availability, accessibility and utilization of resources will be discussed later. The categories of resource systems suggested by Pincus and Minahan will therefore only be mentioned here. They divided resource systems into

(i)     informal systems, including relatives, friends and neighbours;

(ii)    formal systems, referring to formal groups or organizations such as a neighbourhood association, tenants' union, or a parent-teachers' association, and

(iii)   societal systems at a local, regional or more centralized level, including welfare organizations, health and housing agencies and state welfare departments (Pincus, Minahan 1973:5-8).

The authors mentioned then "rearranged" these resources as it were, to find a network of more particular relevance to clients seeking help from social workers. They found that four systems were basic in social work practice, namely:

●   The change agent system, which includes the social worker, and, in non-private practice, the employing body in which he is specifically employed for the purpose of creating planned change.

- **The client system**, which may be an individual, group or organization or anyone engaging the services of the social worker as a change agent. The social worker will however turn attributes that the client system has to offer, round to the latter's advantage so that the client system can also act as a resource for itself.

- **The target system**, which includes all the people the change agent needs to change or influence in order to accomplish his goals. The target of change could be either in or outside the client system, and intervention could be achieved through direct or indirect interaction, the latter usually being the case where the target system is somewhat beyond the sphere in which the social worker operates from day to day, for instance the formal political structure, or simply a relative who lives far away.

- **The action system** consists of those people with whom the social worker deals in his attempts to accomplish the tasks and achieve the goals of the change effort. Several different action systems may function in any one situation, and may be involved in identifying or studying a problem, influencing major targets of change or assisting in other ways. As one of the main "actors" in the situation, the social worker includes himself and the rest of his change agent system in the action system.

In his contribution on crisis intervention in Meyer's publication on clinical social work in the ecosystems perspective, Panzer (1983: 179-214) emphasizes social context as: producing stress, influencing the perception of a stressful event, and providing the social support - that is, the resources - to facilitate coping with a crisis.

Specht (1985:225-230, referred to earlier) defines the different kinds of interaction, or different styles of exchange involved in negotiations between the social worker - or other expert helpers such as teachers' consultants, planners, et al. - and, alternately clients; those who are part of the latters' environment such as relatives, friends and neighbours; colleagues; and employers, policy makers and funders. He terms these clinical, collateral, collegial and sociopolitical interaction, and points out specific characteristics of exchange

in each category of interaction, for example, competition for resources, conflict of interest and unevenness in bargaining power.

Germain and Gitterman (1980:151-155) also use a type of categorization to discuss interchanges between people and environmental elements in problem-solving processes, but relate the nature of the interchange to the role of the social worker - mediator, advocate or organizer - rather than to the level or category of people with whom he is in interaction.

Finally, Whittaker (1986:17-25) sees child welfare services offered within a more ecological framework as moving away from a preoccupation with formal (professional) helping systems to a recognition of informal (lay) systems, as well as away from a "narrowly defined clinical role based on a deficit model of human functioning" (p. 18) to a broader repertoire of strategies which include family treatment, consulting with informal helping networks, etc.

An ecosystem could be considered a system of _interacting_ elements, forces, actors, components, etc., but for the sake of this discussion it has been "redefined" so to speak, as a set of interrelationships among potential resources. Furthermore, whichever of the frameworks is used, all have in common a number of overlapping and interrelating elements/forces/actors/components. Expressed diagrammatically (See Diagram I), the number and size of the circles and the way they overlap, as well as the explanatory legends would for instance be slightly different for each framework used, but the basic components of all the frameworks can be expressed in such a single diagram.

# D I A G R A M  I
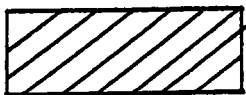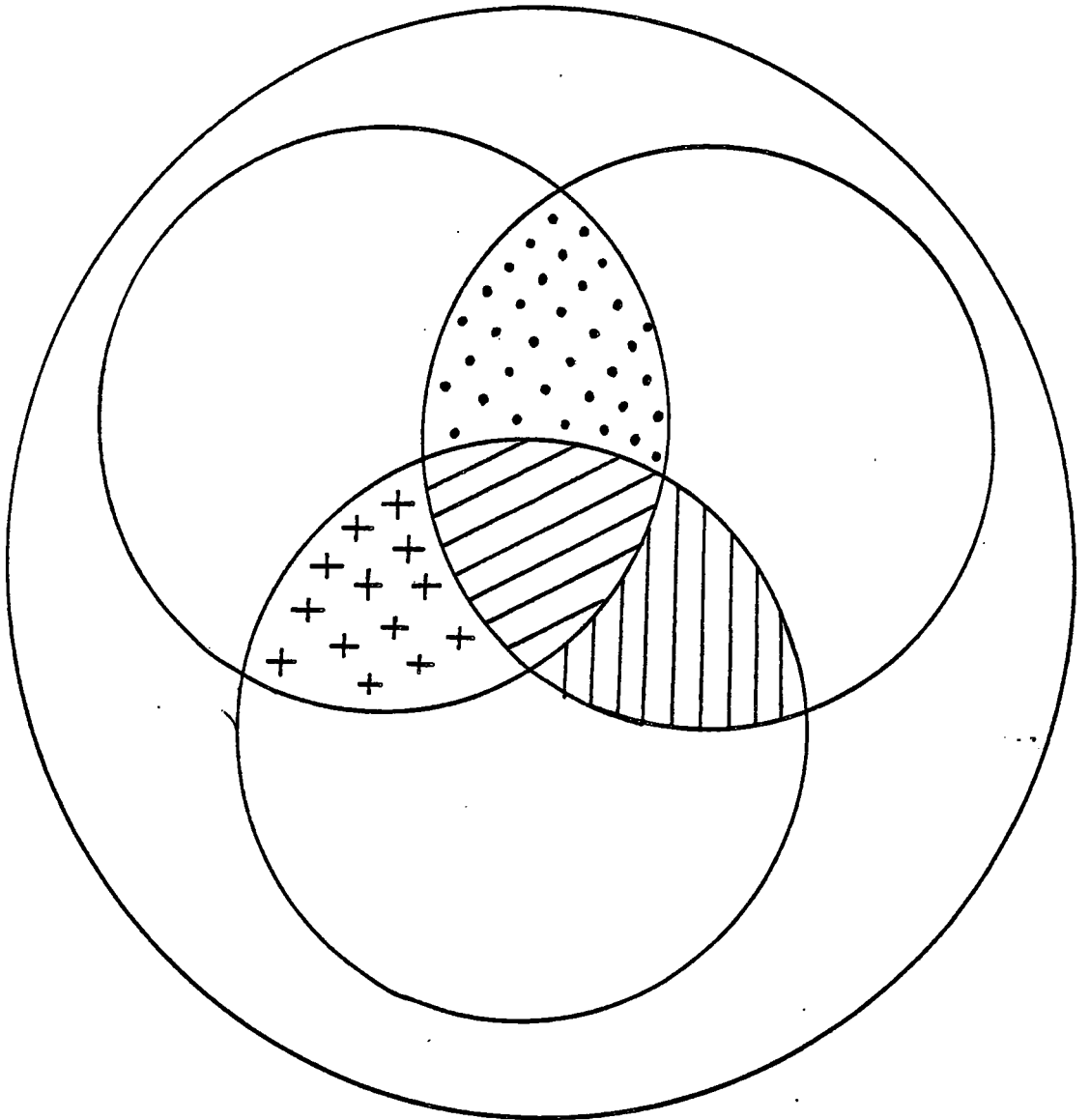


} = Different sets of interrelations

In this section reference was made only to kinds of resources available
and the categories into which different authors divide them. Most of
the emphasis has been on those kinds of resources social workers and
other human services workers usually need, although there is hardly any
limit to what the social worker may use on behalf of his client, once
it becomes available. However resources have to be available, acces-
sible, affordable, etc. and in the next section more attention will be
given to this matter.

## 3.2    Demands on resources

Although resources may be discovered, developed, renewed, expanded
(Stark 1975:452-453; Commoner 1972:117-120) and redistributed, the
ecosystem as a whole as well as the different ecological processes -
including resource use, sharing and exchange - have certain restrictive
characteristics that act as constraints (Commoner 1972:120-124). Such
constraints necessitate special consideration in the form of, for
example, prioritizing, long-term planning and other particular inter-
ventions that will be discussed more fully later.

Although ecological processes are in actual fact part of the dynamics
of the ecosystem, a distinction will, for the sake of this discussion,
be made between the resources available and the process of utilizing
them.

## Characteristics of resources

If resources had been unlimited or could be renewed or expanded infi-
nitely, it might have been possible to accommodate most demands without
too much trouble.

However many authors agree that resources become depleted (such as
natural forests and minerals), poisoned (such as polluted water or air),
or disorganized (such as chaotically congested traffic) (Stark 1975:
437-465; Gerasimov 1983:81; Commoner 1972:120-124).[9]

Resources may also get out of control as is found when there is too much growth in:  nature (for example the overabundance in a jungle forest); man-made products (for example the already mentioned congested traffic, or industrial waste resulting from industrial development or eutrophication - which is the overfertilization of a water pool with nutrients) and human resources (for example too rapid population increase) (Stark 1975:453;  Gerasimov 1983:81;  Commoner 1972:102-104, 121-122).

It is also possible for resources to fall into disuse and a consequent state of neglect.  Again this is applicable to nature (for example soil erosion), man-made products (for example non-occupied housing) and human resources (unused skills and qualifications).

Resources are not always available or ready for use by those who need them.  Sometimes it is the resources that are intrinsically hard to reach or to transform into useful substances, for instance certain subterranean materials or resources found in inhospitable surroundings. At other times people are unable to make use of resources because of certain inadequacies in their own armoury - for instance limited education, or ignorance - or because of prohibiting attitudes and beliefs prevailing in the community or wider society.

Ecological processes

If it is accepted that demands on resources take place mainly within a framework of exchange, certain characteristics of the exchange process are relevant in a discussion of demands.

It was mentioned earlier that man's actions are motivated primarily by his desire to gain pleasure or satisfaction of some kind and to avoid pain or unpleasantness.  Although - as was stated in the same context - a person looks to others as sources of pleasure and pain, he will try to achieve maximum pleasure at minimum cost (Gergen, Gergen 1981:384-385).  Where people perceive that they themselves have paid too high a price for too little pleasure, they tend to try and re-establish equity by demanding more.  Such feelings of entitlement might lead to greed and a general exploitation of different kinds of resources.

On the other hand those who see themselves as having been deprived might wish to demand excessive compensation from the others whom they see as having deprived them. This again could lead to an overdemand on resources. Gergen and Gergen describe studies that highlight this process: "(O)verpaying a worker may be impossible in his or her own eyes. (A)s payment exceeds the subjects' estimates of what is fair, the subjects' perception of task difficulty increases" (1981:395).

Although, as stated before, diversity and specialization are assumed to increase choice and efficiency, they also increase physical and social mobility, and geographical and social distance. This is particularly the case in urban areas which, according to Mukerjee (1968:11) are the "(b)attle ground of the titanic conflict between acquisitions of specialization achieved by individuals, groups and institutions, spatially separated and socially oriented, and the new gifts, ideas, experiences and values which individual mobility and variation assure for society".

Human services workers are becoming increasingly familiar with this conflict as it is experienced in the extension of the continuum or hierarchy of specializations in any particular field of practice. For example, as case or welfare aides, childcare workers, etc. are introduced to fill service gaps between, on the one hand, social workers with advanced training, and on the other, volunteers and kinship and neighbourhood support systems, the conflict regarding sharing such resources as information, decision making power, office space and budgets, as well as that about boundaries of service, also increases. Similarly, a new welfare agency may be founded to respond to a previously unmet need in the community, but such agency will compete with existing organizations for resources, such as members, staff and funding (McPherson 1983:519-532).

## 3.3     Main implications of neglect or abuse of resources

Although there may be more obvious or commonly known examples of depletion or exploitation of resources, neglect is mentioned and discussed first for two reasons:

Firstly, errors of commission tend to be more easily noticed and defined than errors of omission, and conservationists are able to attack development and redevelopment efforts more explicitly - and without being easily countered - than indifference and a lack of maintenance and good care.

Secondly, in the field of human resources, societies are inclined to underuse or neglect capabilities and potential rather than to overuse them, perhaps for the reason that as far as human effort and achievement is concerned, it is much more difficult to notice underutilization.

In practice the two reasons do not necessarily refer to different kinds of situations. For example, thwarting plans to build houses or roads because such structures could destroy scenic beauty or agricultural land may in actual fact lead to neglect and loss of human potential that could have developed through the improved accommodation, better transport or increased job opportunities that could have been created. Also, if the scenically attractive area revealed an overgrowth of undesirable plants or serious soil erosion, and the agricultural land was never anything more than a thoroughfare for vagrants or a dumping place for waste or discarded household articles, neglect had already been allowed to take place in the natural resources about which concern is now shown.

One very common form of neglect is waste; which could constitute both ineffective and inefficient resource use. It (waste) could refer to a resource which has obvious potential utility but has been ignored or left alone, such as wasteland, or an unused bridge or unused specialized training. Or it could refer to something residual or leftover, which could either be part of the output of production (Judais 1986:1) such as industrial smoke or nuclear waste, or to that part of an original resource which is not considered fit for use, such as parts of a slaughtered[10] animal or of vegetation.

Sometimes waste is caused by a process of neutralization, in other words, a catalyst would be necessary to ensure the best utilization of the resource, but such a catalyst is not available. For example poor housing or a lack of housing may imply a wastage of public expenditure

on education or health (Ash 1986:115), and architectural barriers and exclusionary attitudes may impede the full employment of disabled people (Ruselem 1976:179-190).

Three of the most important implications of neglect are the following:

- It is usually a process over and above a condition or state. In other words, it is not just a matter of non-use but of deterioration, rusting, crumbling or fading out, and this process takes place in a derelict building, or where a railway line has fallen into disuse, or where the training and skills of people have become obsolete.

- Keeping unused or underused resources intact, or maintaining them in an idle state means additional wastage. This applies to the cost of maintaining an unused mine, a "historic monument" serving as museum but never visited, a less well-known legal aid scheme with rigid qualifications for use, or an underused holiday resort for disadvantaged children.

- If certain resources are unused or underused or in a state of neglect, other more expensive resources have to be substituted. Where trains have stopped running an increase occurs in overloaded buses and transport vehicles, which in turn damage a more expensive road system - not even considering wastage through road accidents caused by increased heavy vehicle traffic. Where self-help groups are ignored, expensive professionals have to carry the extra burdens of tasks often inappropriate to their level of training - otherwise their clientele simply lose out on the opportunity to be helped (Toseland, Hacker 1985:232-237); and where people refuse to patronize a neighbourhood facility because of its lack of sophistication, they may find the prices of its more sophisticated competition soaring when the former is compelled·to terminate its activities and the latter becomes a monopoly.

On the other hand, as has already been mentioned, resources are exhaustible and destroyable and as a result of the basically competitive nature of exchange relations there is a tendency towards maximum exploitation - rather than to ordinary neglect.

Abuse then takes the form of either damage to or overconsumption or depletion of a resource, and although human beings are the main perpetrators of such abuse, natural resources could also cause damage or affect some other resources - including human beings - adversely. For example, although developing countries may seldom have a problem with pollution of water by industrial waste, they still suffer from a lack of clean or "safe" water as a result of the presence of certain minerals, insects, plants or animals in or around the water (Snyman 1986: 25, 32). Where this is the case, water-related diseases in humans and household animals put a damper on improvement in the quality of life of the people - as do chronic irregularities in the behaviour of wind, rain, earthcrust or riverbeds in these or other regions (Gold 1980:203-216).

However, it is the zeal and intervention of human beings that are inclined to disturb the ecosystem and damage, destroy or deplete natural, man-made and social resources. Man causes most of the air, noise, water and earth pollution as well as the exhaustion of all kinds of energy resources - fossil fuels, electric power, combustible plant material and food (Polunin 1972:72-75; Nobile, Deedy 1972:195-259; Stark 1975:438-448). His need to perpetuate himself causes the kind of population growth that eventually strains resources - including emotional and relationship resources - to the utmost. Other, non-basic needs aggravate the strain: for instance, hunting and other recreational needs have contributed to the extinction of certain animal and bird species (Nobile, Deedy 1972:108-194; Polunin 1972:69-72), while the arms race among big nations keeps the whole ecosystem permanently on the verge of nuclear disaster, leaving very serious and basic human needs unmet (Snyman 1986:3-5).

Although the individual, in his personal encounters may show some resistance to change, corporate man finds it easier to replace than to preserve, and within programmes of slum clearance, urban renewal, resettlement and the restructuring of transport or educational services, sound older housing stock, lively neighbourhoods, supportive relationships and functional systems may be destroyed (Light 1983:254-255; Bailey, Layzell 1983:231-234; Bardo, Hartman 1982:239-240).

It may be suggested that industrial and population growth be held at present levels so that, through consolidation and restitution, a certain measure of steadiness and stabilization can be achieved in the eco-system. The problem according to Stark (1975:453-454), is the major differences in industrial development existing at present among the countries of the world. If industrial growth were to be stabilized at present levels, the less developed countries would never escape from their poverty, a prospect none of them would accept. To catch up, such nations need to continue their current rapid industrial growth. The only alternative is for such nations' growth to be off-set by limiting the standard of living in industrialized countries. However, as has been stated before, it is difficult to keep a situation suspended in time: if it is not allowed to develop it is bound to deteriorate - a state of affairs that the industrialized nations will find hard to accept. This is also one of the main predicaments in which human services workers in general and community workers in particular find them-selves, namely to achieve redistribution of resources, or to rectify "territorial discrimination" and "spatial injustice" (Smith 1972:43-49), without deliberately impoverishing the more prosperous part of society, which is the main generator of society's wealth.

Therefore, the possible solutions discussed in the next section are not of the order of macrostructural changes, but merely suggestions about areas and directions in which an easing of discomfort may be brought about.

3.4    <u>Solution to problems arising from conflicting demands and over- or underuse</u>

In order to show that there is a limit in any society to the "cake" into which goods, services and talents can be divided, that is, limits to the pool of distributable resources, more aggressive terminology has been used so far in this monograph, namely "demands", "conflicts" within ex-change interactions, "exploitation", etc. However in thinking of solutions it may be advisable to use more moderate rhetoric and to commence from a stance that stresses a striving for accommodation, adaptation and harmony.

Germain (1979:12-13) states, for example, that all organisms "seek" effective interaction with the environment for survival. Human beings in particular strive for or towards

- competence or the capacity to have an effect on the environment and express this through the development and use of abilities and skills;

- relatedness, that is to care and to be cared for, and not to live in isolation;

- a sense of identity and a frame of reference derived mainly from their sense of relatedness and the nature of their relationships.

Gerasimov (1983:44) uses equally positive language when he depersonalizes the situation somewhat and looks more generally at the functioning of the total ecosystem. In earlier centuries, he states, pioneering groups had to settle new lands and develop their natural wealth, but today the task on hard for most societies is to manage a diversified and increasingly intensive utilization of already discovered natural resources, and to transform the nature and economics of already developed regions.

In such a more benevolent vocabulary, resources are used "intensively" rather than "abusively"; organisms, particularly human beings, instead of being greedy, grabbing and abusive seek to be related, to find their identity and to display competence.

Solutions will therefore be suggested within a framework that recognizes the needs of individual human beings to achieve and maintain a balance in their own lives, but also the need of the total ecosystem to maintain itself. The categories of this framework are: prevention of imbalance, restoration of balance and optimization of balance, and they will be discussed after a short explanation of the choice of the term balance which was only briefly mentioned in the list of concepts under Paragraph 2.

The concept of balance is viewed here as roughly equivalent to equilibrium. In systems theory it is maintained that one of the characteristics of a dynamic system is its striving towards maintaining or regaining a steady state, equilibrium or harmony. However policymakers and programme developers constantly have to determine whether a certain condition constitutes a "rough equilibrium" (McPherson 1983:519-532) or whether it is an example of deviation or imbalance. For instance, a family in which a great deal of mutual violence occurs may be a very close one and it is not easy to discover whether the long-term ill effects of repeated violent incidents will so adversely influence the family members and their functioning in different spheres, that all the advantages of closeness, for example a considerable measure of resource exchange, will be lost.

In social work the terms adaptation and more particularly coping (cf. Panzer 1983:181) are therefore preferred to the concept of adjustment to indicate an acknowledgement that any situation is fluid, that total adjustment or balance is practically impossible and that, in any case, a large measure of value judgement and subjective perception is involved in any pronouncement in this field. Nevertheless, to keep within the terminology of systems theory, the concept of balance and imbalance is used in this discussion.

Prevention of imbalance could take the form of non-interference or of active intervention. By refraining from killing certain rodents or carnivorous - or other - birds, the feeding cycle of a large number of species may be kept intact and balanced because enough of the species remains in order to sustain another kind that is more useful to human beings.

Not interfering in informal settlements and informal economies allows for the supportive networks and lively trade in such communities to continue to sustain their poor (Light 1983:255), and for the settlements in turn to be of use to more structured and formal sections of society. According to Hardoy (1986:16-18) two parallel cities are emerging side by side in all developing countries: the city inhabited by those who can pay for everything, including housing, and the city of

those who can pay little and have little access to services. Although some analysts would consider this an example of _imbalance_, these legal and illegal, or official and unofficial cities need each other and limited interference particularly in the "illegal" city, facilitates the establishment of jobs, labour, goods, services and recuperative trade without which rates of indigency, vagrancy, homelessness and urban unrest would be very much higher.

One last example: In a country where there is an ever-present threat of economic recession or of labour unrest, prevention of unproductivity and dissatisfaction in the work place should be a primary objective. Limited interference, that is, allowing employees to take some responsibility for their own work and to apply their own creative abilities to it, are particularly important in those many occupations where work demands are high and remuneration and other material benefits relatively low or limited; such as in certain public service positions, some helping professions or paraprofessions, the field of domestic work as well as some of the low-level jobs in any work setting (Kelly, Clegg 1982:11, 67, 74[11]; Akabas, Kurzman 1982:167). In the field of social welfare this kind of problem is compounded because those who control the budget and from whom a high degree of accountability is required, are not necessarily members of the professions represented by the direct service-rendering staff. Conflict arises particularly from the fact that staff expertise cannot always be translated into monetary terms (Akabas, Kurzman 1982:160-161).

In most instances however, prevention of imbalance can only be achieved through active intervention. Although natural hazards cannot always be anticipated, their effects can be prevented or minimized: for example land-use planning to reduce possible flood flows, and warning systems to limit the damage from earthquakes (Gold 1980:209). Additional traffic signs, traffic education and punishment for traffic offences are intended to prevent a certain percentage of traffic accidents, while a variety of safety measures inside and outside the home are expected to prevent attacks on persons and property. Innoculations and diet supplements are aimed at preventing illness, and chemotherapy is continuously being researched and applied to prevent at least some of the effects of degenerative diseases.

However social service professionals are more familiar with the field of income maintenance and provision for life cycle crises - anticipated ones such as marriage, family increase or old age, but also unexpected ones such as the early death of a breadwinner, serious illness or unemployment. New schemes for income distribution, saving, short-term and long-term insurance, public assistance and public services are regularly being devised to help prevent destitution in the event of prolonged illness, unemployment and old age; and one of the issues requiring a great deal of research is that of short-term provision for more immediate and unexpected needs, as against the anticipated but more distant needs of old age. A further question concerns the extent to which such provisions should be regulated through legislative intervention and/or run as part of a state programme.

Restoration of balance involves such concepts as reparation, restitution, retribution, recycling and recuperation. The first two terms are usually used to describe some healing or therapeutic action, the third to indicate compensation, the fourth reuse of the byproducts of a resource to limit unmanageable or dangerous waste, while the fifth is similar to the fourth but implies a salvaging activity with regard to something - furniture, clothing, containers - which has been discarded in the formal economy but is of use in the informal economy.

Of course, a first step in such reparative action is to cease the harmful process that produced the condition requiring restoration. Sometimes such a first step is all that is necessary to restore balance; for example new technology may put an end to pollutional smoke stacks before much damage has been done, or, ending incorrect child-rearing methods may reverse uncomplex behaviour disorders and re-establish stability in family relationships.[12]

However it is not always possible or advisable to stop potentially harmful action. Mineral resources need to be mined and converted into wealth for the benefit of society, people will have to continue working in factories where a certain amount of pollution and the operation of dangerous machinery are inevitable, the planning of new dam projects or tourist attractions will have to be proceeded with for the sake of raising revenue, in spite of the fact that such projects may change the

characteristics of the region, and health or welfare bodies will have to expand their services to meet crying needs, even though high staff attrition, resulting from work overload, may be expected.

What is needed, according to Gerasimov (1983:81-82) is a monitoring of the ecosystem indicators that will reveal when the resilience of resources is being overtaxed or their stability disturbed. Once this has been ascertained it may be necessary to determine priorities, that is, to compare the costs and benefits in each situation. Often a "trade-off" has to be settled for when any of two or more alternatives may cause a certain amount of damage. For example, although there is allegedly some slight risk of contracting cancer (Bennett 1986:4) from asbestos used in cement as a strengthening agent, the use of asbestos makes cement pipe a far cheaper alternative to cast iron and, if widely employed in less developed countries, could prevent many deaths and cases of chronic illness resulting from different forms of water-borne disease.

It has to be conceded that mining the asbestos is the real health hazard and this requires extensive preventive and curative measures; and perhaps only very high standards of protection and care can procure for this and other types of mining some ground in the "trade-off" argument.

In the helping professions such compromising strategies have become more accepted, particularly as the refining of planning models has promoted the concept of "optimization" based on the realization that the perfect solution is almost never feasible. For instance family group treatment may have only limited success as a therapy for family relationship problems but that will not necessarily make care away from home the best alternative for the children of the treated family; home rearing might still be the best, although not the ideal alternative. Similarly, certain kinds of deviant behaviour may be relinquished altogether as a result of professional intervention, but they may be replaced by other, less desirable forms of behaviour. Therefore, in fields such as the treatment of drug abuse and delinquency the idea of control, containment or maintenance instead of the total elimination of problem behaviour has gained ground - although the idea of containment has also often been criticized (Lander 1973:190-205; Central Office of Information

1979:20-22;  Bruno 1984:177, 197)  In other words - and put in more "ecological" language - the obvious way of curbing further damage to the human resources involved in these examples, may be the removal of elements from one relationship set and then these inserted into another, notably residential care.  However, to achieve adaptation in such a new environment is costly, and even where it has been attained, it may be either so superficial or, eventually, so complete that readjustment in the former environment has become impossible or very expensive.

The second step, then, after ceasing harmful activities or a damaging process, is active restoration.  This may take the form of geographical changes or restoration such as cleaning a polluted water area by dredging or by creating more and better inlets and outlets;  improving eroded land by filling in ditches where soil has been washed away, or reforestation of overexploited woodlands.  Improvement may also be brought about by means of the use of safe chemicals, for example in water and petroleum;  and in a man-made world urban renewal may revive deteriorating central city districts - although, as said before, slum clearance and urban renewal may also destroy dynamic informal relationship networks (Light 1983:255).

In the field of human relations and human problems, the therapeutic work of different professionals is the best known type of restoration. In the past the long-term ego-psychological approach was perhaps the one chosen by most social workers, psychologicsts and even some psychiatrists;  but within an ecological approach the main requirement is the recovery of balance in the life of a client and his work colleagues, family or neighbourhood, and not life-long responsibility for, and personality restructuring of client or target systems.  Earlier references to "coping" within one's social context (Panzer 1983:179-214), and to attaining a "rough equilibrium" (McPherson 1983:525) are relevant here.

Consequently short-term, task-centred work has been developed, and although this is usually restorative and rehabilitative, it may also be preventative and promotive.

Some cases of violation of the environment are viewed in such a serious light by society that provision has been made for restoration, or more specifically restitution and retribution in legislation. The violation could be with regard to the physical environment, for example littering or disturbing legally protected flora and fauna, or it could be in the realm of human co-existence, as in the case of an attack on the good name, person or possessions of a fellowman. Only direct restitution, where possible, could restore the "victim" - be it nature or human being - to a former level of functioning, or could compensate for the loss incurred. In some types of court sentences the compensation is indirect, and the benefit accrues not to the victim but to some other part or element in the ecosystem.

Some court sentences, for instance fines and corporal punishment, "compensate" only by way of providing society or the victim with a certain amount of satisfaction, a feeling that justice has been done or that the "common good" has been served; and this may in itself be a way of restoring balance. On the other hand, the limited success of many kinds of sentences may be partly due to the perception by one or more sections of the societal system that the serving of the sentence has not fully restored the balance in human relations, or the perception of the victim that he has overpaid and that society now owes him a refund.

As was stated earlier, an effort to limit the amount of harmful waste by conserving materials and energy and by sacrificing economic growth is neglectful or antidevelopmental, and unacceptable to both developing and developed groups in a single society or in the world in general - although each group may theoretically accept limited growth for the other.

A more prodevelopment approach would favour activities to reduce such waste by means of planned reuse, recuperation or reclamation and recycling of waste products (Judais 1986:1-3).

In the natural and man-made worlds, examples of recycling and reclaiming are associated with the reuse of water, paper, glass and ferrous materials, the reprocessing of mine dumps, the composting of organic wastes, etc. The cost of recycling, people's general unwillingness to collect or store recyclable or reusable material and the possibility of

generating and discharging residuals that are more damaging to the environment than the original waste, all should be investigated and weighed up against the advantages of reuse and recycling in each case, or at least in the case of each kind of commodity.

In the field of human relations, "recycling" and "reclamation" is often found with regard to married or older women returning to work and/or their retraining. Although in this respect it is more a matter of turning waste into use than of restoration made necessary by abuse or malfunctioning, the idea of reactivation of a part of a system to make it more functional and productive is basic to the ecological concept of restoration of balance.

Ways and means to facilitate women's return to job markets have received much attention over the past decade or more, as have the many obstacles to their satisfactory and smooth re-entry; but much research still needs to be conducted in this respect (Yohalem 1980; Jones 1982:282-285; Lubbe 1985:30-32).

However, over and above being a form of restoration, retraining is also a form of upgrading or enrichment and therefore ties in with the third of the three categories of solutions to problems concerning use of resources, namely optimization of balance.

Optimization of balance then, involves improving of resources or making them more relevant. The better known examples are perhaps again those found in nature, such as soil enrichment or adding soil and nutrients to barren material like gravel, the desalination of seawater, breed improvement in the animal world, and the cultivation and breeding of plants and wildlife that would thrive in, and so enhance, particularly inhospitable environments.

In the human environment the upgrading of neighbourhoods through servicing, the creation of amenities and the reinforcement of weak building structures are examples of optimization; and in personal and group relations optimization of balance may refer to orientation and enrichment courses both in the work place and in family life, selective and appropriate job placement, periodic training and retraining for specific

occupational needs, and adjustment courses or group sessions for immigrants and other categories of resettled people including persons discharged from long-term institutional care (Handy 1984:77, 121-122, 125; Kelly, Clegg 1982:11, 67).

"Empowerment" is another form of optimization and refers mainly to the need for social workers to help clients gain access to and make proper use of resources such as health services, training facilities, job opportunities, etc. (Solomon 1987:79-91). However empowerment also refers to helping people overcome their perceptions of personal powerlessness, inferiority or lack of worth.

Enrichment and upgrading also entail the expansion of the range of staff specialities in the welfare service-rending system through the introduction of task-specific paraprofessionals and aides. Although this greater diversity also has - as stated in the discussion on Ecological Processes (3.2) - greater conflict potential, it should serve to improve the total balance of the ecosystem through cancelling out the gaps and deficiencies so characteristic of a too narrow range of job skills.

The way these solutions have been presented here, may create the impression that they are easy and self-evident, and that people simply need to learn to set them into motion. However, within an ecological approach that essentially uses a systems model, it is recognized that influencing of any part of a system affects other parts, perhaps adversely. For instance, total non-interference in an informal settlement may lead to unhygienic conditions constituting a health hazard; and total non-interference in the way employees arrange their work, may lead to too much diversity and proliferation in an industry.

Therefore, the tasks of discovering the right blend of solutions and finding the circumstances under which certain strategies will or will not bring about the desired objectives are inherent in any effort to solve ecological imbalances. There is no single way to maximize growth in an economy say Hage and Clignet (1982:77-92); neither uncontrolled capitalism nor regimented socialism. Moreover, morale and innovation are as important for a successful economy as cost-cutting and high production.

30

For this reason the different matters relating to resource use have in this monograph been divided into "research areas", and it is envisaged that solutions to the problems mentioned will be attempted within an enquiring or investigative frame of reference, and not according to a master plan that assumes that there are no more unanswered questions left.

3.5  The special application of non-human resources in solving human relationship problems

Because the active relation between man and his environment often lies at either of the extreme ends of the conservationist-exploitist continuum, the restorative qualities of natural resources are underestimated and understressed. The more obvious exceptions are mineral waters, mudbaths, herbs and spices with their better-known and very specific healing qualities, while certain substances are known to, and used by, specific professionals only, for instance in the pharmaceutical and cosmetics industries.

Parks and green areas are usually considered to be restful or to constitute areas for walking and playing, but they are just as regularly "no-man's-lands" requiring an intensive protective and cleaning service without being put to much use.

However more deliberate and purposeful equipping and staffing of resorts, walking trails and nature and wildlife parks have been accompanied by programme timetables focusing on specific recreational, diversional, educational and therapeutic objectives.

Therapeutic objectives are receiving increasingly more attention, particularly in some instances where professional efforts to help restore harmonious human relationships fail to evoke a positive response. The therapeutic use of pets (Odendaal 1985:33-36) and of music is specifically relevant where there is a need to help a particularly withdrawn and emotionally guarded person, or where opportunities for relationships and ventilation have been thwarted or have proved disappointing.

From an ecological point of view pets connect a person to another part of the ecosystem that may, for a while at least, bring greater satisfaction than links with fellow human beings. Such a link (with a pet) may also be a first step towards re-establishing contact with other human beings (Atkinson 1985:13-14).

The same applies to wilderness therapy: Cataldo (1979:46) explains that human beings need to achieve relatedness and connectedness with nature in the sense of caring for nature and not just subjecting and exploiting it. He then continues to describe the experience of a group of violence-prone urban children in a forested and mountainous area where they were not able to buy from shops. They had to learn how to survive in the wilderness and developed such essential skills as co-operation, self-control, group purpose and perseverance (Cataldo 1979:46-73). In other words, to cope truly with and adapt to the demands of nature, they had to cultivate human relationship skills.

At the same time the children temporarily got away from many of the strains and stresses of restricted urban life and experienced unexpected and unfamiliar freedom and mobility.

In general then, the natural world may be used as a helping instrument in providing respite, growth and corrective experiences in a variety of settings (Germain 1979:19); and particularly those professionals who use group work methods on a regular basis could experiment over a wider range with the use of natural resources to improve people's skills in human relationships.

4. SUMMARY

The research areas proposed initially are merely broad themes encompassing a variety of related ecological issues, and the objectives of the programme: Affordable Social Provision regarding resource use, can only be pursued within more circumscribed research projects. In this summary a few guidelines relating mainly to the human services fields will be suggested.

## 4.1    Substitution

The objective of the best use of resources and of affordability both require that the least expensive alternative that still meets the intended purpose will be chosen. In an ecological sense such an alternative is the one which minimizes resource consumption or allows for the maximum amount of resource sharing or resource saving.

Priority research projects would therefore relate to the finding of more affordable substitutes in the field of diet, health promotion, staffing of human services agencies, service-rendering strategies, income-maintenance schemes, etc.

## 4.2    Impact analysis; monitoring; indicators

However, changing to self-care in health, case aides in a welfare service or a mobile service-rendering structure may not entirely meet the requirement of effective and quality service, and the impact of a substantially changed operation may have to be determined, either prospectively or retrospectively.

In welfare and related services it is often appropriate to monitor the service as the change is put into effect, and to adjust the new strategy as necessary. What to look for, in other words the signs or indicators of underlying processes, are not necessarily self-evident, and research is needed to determine the ways in which such diverse processes as unproductivity at work, staff dissatisfaction, substandard service to clients and poor budgeting and planning manifest themselves.

In order to ensure that such indicators distinguish between satisfactory and poor resource use, they should be developed to measure not only input - for example amounts spent on job creation - but also the process into which such input is invested, and more particularly, the outcome of the process - for example the number of people still employed in the newly created jobs after a specified period of time. Process and implementation research designs are indicated in cases like these.

33

## 4.3    Simultaneous accommodation of different important demands

Indicators should also be developed to determine the feasibility and successfulness of different alternatives, often simultaneously in operation, over shorter and longer terms. Dividing resources between: job training and development of general aptitude and insight; nonformal and formal education; preventive and curative skills and services in the health field; institutional and community care for a variety of vulnerable groups, and different professional and paraprofessional staff categories at a single agency, calls for specific research and planning designs, notably longitudinal and optimization designs which would indicate how divergent but equally important demands for resources could be met.

## 4.4    Legitimization and structuring of service provision

To protect resources, prevent exploitation and substandard service, and ensure the spreading and sharing of benefits, some formal framework should be provided. The question is how detailed and prescriptive such framework should be. Traditionally legislation, regulations and manuals have been fairly detailed directives; and the plea for privatization accompanied by deregulation is getting louder. However the latter may require a _different kind_ of legislation and regulations _rather than less_ of them; because when a certain amount of freedom is granted, or resources handed over from public into private hands, the boundaries of operation have to be set and described, usually in the form of guide-lines and contracts for sponsoring, long-term leasing, fundraising, and minimum standards and qualifications.

The task of research would be to analyse and measure the effects of legislation, circulars and other policy documents to determine how creative enterprise can be encouraged without giving licence to abuse. Such research could be conducted with regard to the development of pre-school services, community care of the aged, medical provision, housing for the poor, pension provision, and the small business sector.

## 4.5    Establishing links and networks

Because the concept of "co-ordination" has been overworked and misused
by an emphasis on structural liaison, particularly through committee
representation, the above heading has been selected to denote co-oper-
ative actions, ready availability for giving assistance and responsive-
ness to need.

Research should be concentrated on determining a feasible range within
which an organization can extend itself - including its potential to
attract membership from its environment - and expand and convert its
basic functions without taxing its administrative, planning and
budgeting tasks excessively.  It should also imply investigation of the
current rules and regulations for registration and other forms  of
licensing which generally require that objectives, functions and ways
of operating be clearly and rigidly defined.

Examples of bodies whose networking potential could be examined are
schools, churches, residential centres, the management of shopping
centres, etc.

With reference to the discussion in Section 3.1 of systems and sub-
systems relevant to welfare service rendering, there seems to be a need
to establish greater firmness and permanency in the links between dif-
ferent subsystems relevant to any case of client intervention.  Just
how this can be accomplished also seems to be a possible target for
research.  In fact, the establishment of links and the bringing about
of more harmonious relations among all elements in the ecosystem is
what an ecological approach is all about, and multidimensional research
methods may provide a good starting point to assist with the consider-
ation of a large variety of elements within a specific geographical and
social space.

NOTES

1.  According to the Greek-English Lexicon (Liddell et al. 1977:1204) the
    term "ecology" is derived from the word Ekos (oikos), which means house,
    habitat or household. Nelissen (1972:18) states that it refers to a
    house or a place to live in, including the occupants of the place and
    their activities. George and McKinley (1974:7) refine further and
    point out that "oikos" refers particularly to the sacred hearth of a
    house; oecology, as it used to be spelled, is therefore the study of
    the essence of the household. Household management is found in the
    word "oikonomos" where "nomos" means "to distribute".

2.  "Culture" is also very important in anthropology where Steward (Steward,
    Murphy 1977) developed his theory of cultural ecology around the concept
    of adaptation, concentrating particularly on those adaptive strategies
    that concern food-obtaining activities (Ellen 1985:218-220).

3.  Several sociologists have nevertheless used the term "social ecology"
    although not necessarily in antithesis to "human ecology", for example
    Hawley, Neumeyer, Quinn and Schafer as quoted by Fourie (1974) and
    Schurink (1976:10).

4.  After having moved between the different disciplines over a number of
    decades Carter reaches the conclusion in 1980 (p.25) that "anthropology
    plus geography equals human ecology".

5.  Hage (1974) developed the concept of a system -in-process as a model for
    analysing the activities of complex organizations, both from a
    cross-sectional and an aetiological perspective. He and various
    collaborators, notably Aiken (cf. Aiken, Hage 1971:63-82), studied
    health and welfare organizations and showed how, by using the concept
    of cybernetics (Bosman, Van der Merwe, Hiemstra 1986; Gove 1976) one
    introduces communication or interaction variables such as information-
    giving, guiding (control), feedback, etc., into an otherwise oversimpli-
    fied model of input-output or cause-effect.

6.  Germain (1973:324) understands "diversity" also as an increase in
    choices that extends considerable freedom to people but that may also

lead to proliferation, duplication and "overchoice". The latter, namely the disadvantages, are referred to again in the sections dealing with demands and the overuse and underuse of resources.

7.  A possible analogy is _crisis theory_ and _crisis intervention_ which are used by a number of different professions according to their different views of "a crisis" and how it should be handled. However, the amount of commonality in their points of view is sufficient to enable them to work together as a team in crisis centres - although not necessarily without conflict.

8.  The mere expression of an opinion to another person may not be considered an exchange of resources although the earlier-mentioned classes of "love" and "status" may also entail tacit or overt approval as resources. On the other hand, the simple expression of an opinion may not necessarily fall within the definition of interaction.

9.  Although a number of frameworks were referred to in the previous section a very convenient one for discussing the demands made on resources and ecological processes, is that which differentiates roughly between the human, man-made (built) and natural environments (worlds). However, because of the interwovenness of the different kinds of environments, the framework is not here applied in the strict sense of a paradigm every time examples are provided.

10. In a neighbouring country in which tourism and the selling of ivory, bone and leather articles are important revenue earners, the government applies a true ecological approach when it admonishes elephant and other animal poachers living adjacent to a wildlife park. It appreciates _their perceptions_ of having a right to park animals since there are so many of them while the people are poor and do not have a regular source of meat.

However, if _they_ kill an animal, they use only the sections they consider edible and as much as they can carry away and store for immediate consumption and home processing. On the other hand, the government or its agent, apart from culling more selectively, uses every part of the

animal, several of which are made into saleable articles for the tourist trade. The revenue from this trade goes towards public services and agricultural development - both of which directly benefit the would-be poachers.

11. Some trade union representatives and industrial supervisors nevertheless feel that the idea of job enrichment, extension, and/or enlargement, with its emphasis on increased sense of responsibility is being "oversold", and that the rank and file of employees prefer basic advantages such as payment and job security (Kelly, Clegg 1982:75).

12. In the case of ill-treatment of children it may not be possible to bring about the termination of the guardian's abusive behaviour without removing the children to a more therapeutic environment, even if only temporarily.

# BIBLIOGRAPHY

AIKEN, M., HAGE, J. The organic organisation and innovation. <u>Sociology</u> 5(1), January 1971:63-82.

AKABAS, S.H., KURZMAN, P.A. <u>Work, workers and work organizations</u>. Englewood Cliffs, New Jersey: Prentice-Hall, 1982.

ALTMAN, I., WOHLWILL, J.F. <u>Human behaviour and environment. Advances in theory and research</u>. Volume 2. New York: Plenum Press, 1977.

ASH, J. New directions in housing research. <u>Housing Review</u> 35(4), July-August 1986:115.

ATKINSON, D. Nothing more precious. <u>Social Work Today</u> 16(46), 29 July 1985:13-14.

BAILEY, J.M., LAYZELL, A.D. <u>Special transport services for elderly and disabled people</u>. Aldershot, England: Gower Publishing Company, 1983.

BARDO, J.W., HARTMAN, J.J. <u>Urban sociology</u>. Itasca, Illinois: Peacock Publishers, 1982.

BARROWS, H.H. Geography as human ecology. <u>Annals of the Association of American Geographers</u> XIII, 1923:1-14.

BENNETT, M.J. Exporting environmentalism. <u>The Asbestos Report</u>. No. 7, Oct. 1986.

BEUKES, E.P., et al. <u>Priorities for research on the development of Southern Africa</u>. Sandton, South Africa: The Development Society of Southern Africa, 1985.

BOSHOFF, E. <u>Organisering in Pretoriase huishoudings</u>. Pretoria: Universiteit van Pretoria, April 1984.

BOSMAN, D.B., VAN DER MERWE, I.W., HIEMSTRA, L.W. Die tweetalige woordeboek - Bilingual dictionary. Kaapstad: Tafelberg Uitgewers, 1986.

BRUNO, F. Combatting drug abuse and related crime. New York: United Nations Social Defence Research Institute, 1984.

CAIN, S.A. Can ecology provide the basis for synthesis among the social sciences? In: GARNSEY, M.E., HIBBS, J.R. Social sciences and the environment. Boulder, Colorado: University of Colorado Press, 1967:27-52.

CARTER, G.F. Man and the land. New York: Holt, Rinehart and Winston, 1968.

CARTER, G.F. Earlier than you think: a personal view of man in America. College Station, Texas: A & M University Press, 1980.

CATALDO, C. Wildness therapy: modern day shamanism. In: GERMAIN, C.B. Social work practice: people and environments. New York: Columbia University Press, 1979:46-73.

CENTRAL OFFICE OF INFORMATION, REFERENCE DIVISION. The prevention and treatment of drug misuse in Britain. London: Her Majesty's Stationery Office, 1979.

COMMONER, B. The closing circle: confronting the environmental crisis. London: Jonathan Cape, 1972.

ELLEN, R.F. Ecology. In: KUPER, A., KUPER, J. The Social Science Encyclopedia. London: Routledge & Kegan Paul, 1985:218-220.

EYRE, S.R. Geography as human ecology: methodology by example. New York: St. Martin, 1966.

FOURIE, J.H. Ekologie in sosiologiese perspektief. Pretoria: Universiteit van Pretoria, 1974 (M.A.-verhandeling).

GEORGE, C.J., McKINLEY, D. Urban ecology. New York: McGraw-Hill, 1974.

GERASIMOV, I.P. Geography and ecology. Moscow: Progress Publishers, 1983.

GERGEN, K.J., GERGEN, M.M. Social psychology. New York: Harcourt Brace Jovanovich, 1981:384-417.

GERMAIN, C.B. An ecological perspective in casework practice. Social Casework 54(6), June 1973:323-330.

GERMAIN, C.B. Social work practice: people and environments. New York: Columbia University Press, 1979.

GERMAIN, C.B., GITTERMAN, A. The life model of social work practice. New York: Columbia University Press, 1980.

GOLD, J.R. An introduction to behavioural geography. Oxford: Oxford University Press, 1980.

GOVE, P.B. Webster's third new international dictionary. Springfield, Massachusetts: G & C Merriam Co. Publishers, 1976.

GREIF, G.L., LYNCH, A.A. The eco-systems perspective. In: MEYER, C.H. Clinical social work in the eco-systems perspective. New York: Columbia University Press, 1983.

HAGE, J. Communication and organizational control: cybernetics in health and welfare settings. New York: John Wiley & Sons, 1974.

HAGE, J., CLIGNET, R. Coordination styles and economic growth. Annals, AAPSS 459, January 1982:77-92.

HANDY, C. The future of work. Oxford: Basil Blackwell Publisher, 1984.

HARDOY, J.E. Habitat and health: an exploration of their interrelationship. In: TULCHIN, J.S. Habitat, health and development. Boulder, Colorado: Lynne Rienner Publishers, 1986.

HAWLEY, A.H., STEWARD, J.H. Ecology. In: SILLS, D.L. International Encyclopedia of the Social Sciences Vol 4. New York: Macmillan & Free Press, 1968:328-344.

JONES, G. Second chance for women engineers. New Scientist 94 (1303), 29 April 1982:282-285.

JUDAIS, R.S. White South Africans' knowledge about, attitude towards, and practice in respect of the voluntary recycling of domestic solid waste. Pretoria: Human Sciences Research Council, 1986 (Report S-137).

KATES, R.W. Geography: the case for the specialist generalist in a science of environment. In: GARNSEY, M.E., HIBBS, J.R. Social sciences and the environment. Boulder, Colorado: University of Colorado Press, 1967:53-76.

KELLY, J.E., CLEGG, C.W. Autonomy and control at the workplace. London: Croom Helm, 1982.

KOTZé, D.A., SWANEPOEL, H.J. Guidelines for practical community development. Pretoria: Dibukeng, 1983.

LANDER, B. Attitudes toward Methadone maintenance. In: HARMS, E. Drugs and youth: the challenge of today. New York: Pergamon Press, 1973:190-205.

LIDDELL, H.G. et al. A Greek-English Lexicon. Oxford: Oxford University Press, 1977.

LIGHT, I. Cities in world perspective. New York: Macmillan, 1983.

LUBBE, B. The underutilised human resource - a challenge to organizations. Unisa Alumnus 7(2), December 1985:30-32.

MARSH, G.P. Man and nature or physical geography as modified by human action. Cambridge: Harvard University Press, 1965.

McPHERSON, M. An ecology of affiliation. American Sociological Review 48(4), August 1983:519-532.

MUKERJEE, R. Regional sociology. New York: The Century, 1926.

MUKERJEE, R. Man and his habitation. New York: Humanities Press, 1968.

NELISSEN, N.J.M.  Sociale ecologie.  Utrecht:  Uitgeverij Het Spectrum, 1972.

NICHOLS, A.  Research, our knowledge base.  In:  NICHOLS, A. et al.  The family:  focus on management.  Washington, D.C.:  American Home Economics Association, 1970:35-43.

NOBILE, P., DEEDY, J.  The complete ecology fact book.  Garden City, New York:  Doubleday, 1972.

NORWINE, J., ANDERSON, T.D.  Geography as human ecology?  Lanham, M.D.:  University Press of America, 1980.

ODENDAAL, J.S.J.  Die rol van die troeteldier in rehabilitasie.  Rehabilitasie in SA 29(2), Junie 1985:33-36.

PANZER, B.  Crisis intervention.  In:  MEYER, C.H.  Clinical social work in the eco-systems perspective.  New York:  Columbia University Press, 1983:179-214.

PINCUS, A., MINAHAN, A.  Social work practice.  Itasca, Illinois:  F.E. Peacock Publishers, 1973.

POLUNIN, N.  The environmental future.  Proceedings of the first International Conference on Environmental Future, held in Finland from 27 June to 3 July 1971.  London:  Macmillan, 1972.

RESEARCH BULLETIN:  Journal for the SAPRHS 16(1), 1986:59-61.  National Programme:  Affordable Social Security.  (By Dr Ina Snyman).

REYNOLDS, E.  Die ekologiese benadering in sosiologie.  Ongepubliseerde refe-raat gelewer by besprekingsgroep oor ekologie.  Pretoria:  RGN, 13 September 1985.

RUSALEM, H.  Ecological approaches to counseling the physically disabled.  in:  RUSALEM, H., MALIKIN, D.  Contemporary vocational rehabilitation.  New York:  University Press, 1976:179-190.

SCHURINK, W.J. 'n Sosiologiese ondersoek na die ekologiese verspreiding van misdaad in Pretoria: 1969-1971. Pretoria: Universiteit van Suid-Afrika, 1976 (M.A.-verhandeling).

SCHUTTE, C.D. Social interaction at a high-rise, high-density urban flat complex. South African Journal of Sociology 16(3), 1985:104-110.

SMITH, D.M. Geography and social indicators. The South African Geographical Journal 54, 1972:43-57.

SNYMAN, Ina. Social work research: International actualities and trends. Pretoria: Human Sciences Research Council, 1986 (Occasional Paper No. 22).

SOLOMON, B.B. Empowerment: social work in oppressed communities. Journal of Social Work Practice 2(4), May 1987:79-91.

SPECHT, H. Managing professional interpersonal interactions. Social Work 30(3), May-June 1985:225-230.

STARK, R. Social problems. New York: Random House, 1975:437-465.

STEWARD, J.C., MURPHY, R.F. Evolution and ecology: essays on social transformation: Julian H. Steward. Urbana: University of Illinois Press, 1977.

STEYN, H.P. Southern Kalahari San subsistence ecology: a reconstruction. The South African Archaelogical Bulletin 39(140), 1984:117-124.

TOSELAND, R.W., HACKER, L. Social workers' use of self-help groups as a resource for clients. Social Work (NASW) 30(3), May-June 1985:232-237.

TULCHIN, J.S. Habitat, health and development. Boulder, Colorado: Lynne Rienner Publishers, 1986.

VAN ROOYEN, I.J.J., COMBRINK, M. Gevallewerk: 'n integrerende benadering. Pretoria: Academica, 1980:61-65, 148-151.

WESSELS, H.L.  Huishoudkunde Hic et Nunc.  Bloemfontein:  University of the
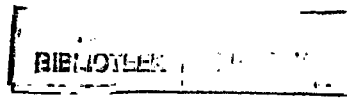Orange Free State, 1980 (Inaugural paper 20.3.1980).

WHITE, C.L., RENNER, G.T.  Geography: an introduction to human ecology.  New
York:  D. Appleton-Century Co., 1936.

WHITTAKER, J.K.  Formal and informal helping in child welfare services:
implications for management and practice.  Child Welfare 65(1),
January-February 1986:17-25.

YOHALEM, A.M.  Women returning to work.  London:  Frances Pinter (Publishers),
1980.