CHAPTER 6

A SYSTEMS MODEL FOR WOMEN'S SUSTAINABLE DEVELOPMENT THROUGH LAND REFORM

6.1 Introduction

The previous chapter discussed the different land reform cases and how production aspects – as a result of land reform – played a role in women's sustainable development. Challenges that women face in accessing land, utilising land and sustaining themselves have been dealt with in relation to the government's policies and women's efforts. The different legislative prescriptions that support land reform have been discussed in relation to their applicability to the study.

Chapter six highlights the systems approach for women's sustainable development through land reform. Land ownership policies have played a central role in people's development in South Africa, Zimbabwe and other African countries such as Zambia, Malawi, Namibia and Mozambique, to name a few, as early as the 1950s. Land usage tends to contribute to better livelihoods, improved economic development and environmental sustainability.
Land ownership and the usage thereof is often seen as a way of providing the basic needs for a household.

Chapter Six proposes the systems model, specifying the necessary inputs that are processed and the resultant outcome. The proposed systems model becomes applicable in this study because the discussions have up to now emphasised the point that land reform is a system of government, which has been proposed to allow equitable access to land. The sections that follow provide clarity on the systems model, as a proposed model for this study.

6.2 The systems approach defined

The systems approach is one of the approaches to organisation theory. The organisation theory deals with specific organisational dimensions. Vasu *et al.* (1998: 26) stated that organisation theory deals with dimensions, such as organisation design, which is the formal structure, internal functioning of the organisation and the external environment. According to the Free Management Library (2010), a system is an organised collection of parts (or sub-systems) that is highly integrated to accomplish an overall goal. Robbins (1987) in Roux *et al.* (1997:28) and Vasu *et al.* (1998: 45) define a system as a set of interrelated and interdependent parts arranged in a manner that produces a unified whole.

There is a visible interconnectedness and interdependence between the sub-systems or parts of a system (Symphony Orchestra Institute, 2010). A system is the grouping together of functionally related parts that are conceptually separated from their environment – in order to achieve a unified whole (McKinney & Howard, 1998: 156). All systems require a feedback mechanism, known as the feedback loop, which cautions the system on how effectively it is performing (Vasu *et al.*, 1998: 45).

The Systems Approach, which is said to have been based on the Decision-making Approach puts the emphasis on the process and description of organisational reality. According to Jones and Street (1990: 61), any analytical or management approach which attempts to accommodate the basic notions of general systems theory might be termed a systems approach. The systems approach builds on the principle that organisations are *open* to their environment and should strive for an appropriate relation with their environment for sustenance (Morgan, 1997: 39).

In this approach, an understanding of how existing structures function is critical, as opposed to organisational efficiency, productivity and rationality. Within the systems approach, organisations are conceptualised using the model of the system. Senge (1990 in Vasu *et al.,* 1998: 45) defines a model as a representation of a phenomenon that helps with understanding reality in a more comprehensive way.

The section above discussed the systems approach and other approaches to organisational theory. The open systems model, as a representation of the systems phenomenon, is outlined in the following section.

6.3 The open systems model

Open systems acknowledge the existence of environmental inputs into their existence, in this case: the need for land, and the outputs that are produced. External clients and forces become important for the process to continue. Easton (1990: 118) stated that a system represents a kind of dynamic coherence among the parts that generates special properties, such as feedback. This makes it possible for a system to adapt and regulate itself for a goal-oriented change.

Living systems have integrity and their character depends on the whole or entirety (Senge, 1990:66). According to Edwards III (1978: 87), to decide on the best means to a given end, policy-makers must have a clear notion of the end they desire to achieve. The question to government departments is whether the role they play as government departments in the policy process and the realisation of this goal actually lead to women's sustainable development.

The central ideas regarding the characteristics and behaviour of systems include the notion that systems contain components which interact with each other, and such interaction is a determinant of the system's behaviour (Jones & Street, 1990: 61). The nature of a human life can be associated with such a system; and added to that, would be the opportunities and the resources provided to support life. A goal is usually set at the beginning of a period, followed by plans and policies to realise such a goal. The plans, processes and resources are allocated to achieve the set goal. Implementation of a government programme, such as land reform, would be representative of the systems approach. People's needs for land, staff, budget and documents all become part of the inputs, with the departments concerned forming part of the system; and the urgency to deliver then becomes the output.

The measurable output is constituted by the activities of the employees and the observable results of the activities constitute the outcome. The outcome, in this case, would be the benefits earned from the use of such land and the ultimate income and sustainable improved conditions of life.

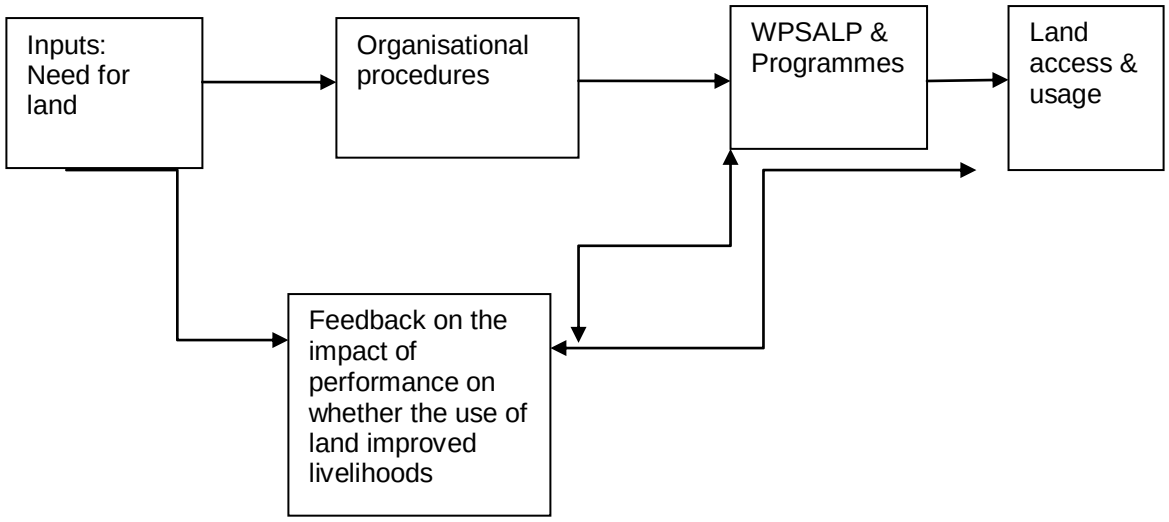
The system consists of various inputs, which go through specific processes to produce certain outputs. These together, accomplish the overall desired goal of the system. Within a system, items influence one another for the benefit of the whole; hence, the notion of systems thinking. Systems' thinking is defined as the process of understanding how things influence one another within a whole (Wikipedia, 2011). Senge (1990:12) relates to systems thinking as making it possible to understand the subtlest aspect of a learning organisation, and as the new way in which individuals perceive themselves and their world.

This is a correct assumption, because the State itself is constituted, amongst other things, by the people that exist in it. Senge (1990:6) associated the formation of rain with the system's thinking, because as soon as clouds form and darken the sky everyone expects rain; and it is only after the rain has fallen, that the clouds clear and it is hoped that a clear sky will be seen.

The components of the systems model are inputs, conversion processes and outputs (Vasu, *et al.*1998:45). According to Denhardt (2008: 83); Vasu *et al.* (1998:45) and Morgan (1997: 39) systems can be considered as either open systems or closed systems. These authors define open systems as dynamic, exchanging information, energy or other material with their environments. Open systems are capable of self-maintenance – on the basis of a throughput of resources from the environment (Scott, 1998: 89). There exists a direct influence between the open systems and their environment. Open systems receive various inputs from their environment and these are transformed within the organisation and then translated into outputs.
Open systems operate in a dynamic interactive way with their environment (McKinney & Howard, 1998: 157).

Morcol (2007: 195) describes complex systems as open systems, because there are loops in the interactions. Complex systems are also regarded as having a hierarchical feature in the form of levels, not as status and power (Scott, 1998:91). Diagram 6.1 show an example of an open system, which is said to maintain itself – to prevent the loss of the required flow of energy.

Diagram 6.1: Open systems



Adapted from McKinney and Howard, 1998. Public Administration: Balancing Power and Accountability: Second Edition. London: Preager Publishers

Diagram 6.1 above illustrates the importance of the input and output received from the input, as well as feedback on the total process. Received feedback is indicative of the fact that there is interaction between the different parts of the unit. As a result of the received feedback, it is possible to improve on processes and increase the level of output.

The level of land usage determines the amount of land that should be redistributed continuously; lack of land use, on the other hand, will determine whether redistribution should continue or not continue.

As indicated earlier, a system is usually made up of many smaller systems, or sub-systems (Free Management Dictionary, 2010).

An example is an organisation which is usually made up of many administrative units – with, management functions, products, services, groups and individuals. Systems interact with their environment and have a direct impact on the environment. The reverse happens when an environment hosts the system and has a direct impact on the system; hence, there is a need for the feedback loop. If one part of the system is changed, the nature of the overall system is often changed.

The Symphony Orchestra Institute (2010) defines an open system as any distinct entity that takes in resources from its environment, processes them in some way, and produces an output. The open system depends on its environment, and on interactions between the parts that make it up – also known as sub–systems – as mentioned in the previous paragraph. In an open-systems approach, there is a need to look both within and outside the environment.

Relationships that occur between the sub-systems internally are as important as those that occur outside the environment. It is crucial to recognise feedback signals received from the environment for the effective performance of the system. Systems are composed of multiple sub-systems and have a common character of interdependence and connectedness (Scott, 1998:91). The diagram below illustrates the process flow within decision-making as a sub-system within a complex system.

Diagram 6.2: Process flow in terms of the decision-making institution and contributions from other institutions for the same goal

Adapted from Botes, P.S., Brynard, P.A., Fourie, D.J & Roux, N.L. 1992. *Public Administration and Management: A guide to Central, Regional and Municipal Administration and Management.* Pretoria: Kagiso Tertiary.

Diagram 6.2 depicts a process flow in which the demand department (in this case DRDLR) has been used as an example. The decision to redistribute land is informed by the level of success in the use of such acquired land; and hence, sustainability. It becomes a logical sense to redistribute more land if the already redistributed land is utilised effectively and has the ability to ensure food security for the beneficiaries. On the contrary if less success is reliased even after land transfers decisions to proceed with redistributing land become less.

6.4 The proposed systems model for women's sustainable development through land reform

The systems model has been confirmed to be either an open system or a closed system. Within land reform, the open system is more applicable due to its nature of experiencing negative entropy. The limited use of land as a production resource results in decreased food production and subsequent poverty. Inputs received within the land reform open system are inclusive of contributions received from support organisations. Such support organisations would be government through its departments and political directives, non–governmental organisations (NGOs), research and learning institutions, such as the Agricultural Research Council (ARC) and the Grootfontein Agricultural Development Institute (GADI) which are the Department of Agriculture, Forestry and Fisheries (DAFF), State-Owned Entities, beneficiaries and community-based organisations (CBOs).

The process of conversion happens, based on the type of input; and the output is then realised. Within the land reform process, there is a need for the sustainable use of land. The sustainable use of acquired land becomes the ultimate outcome of the whole systems process. According to Vasu *et al.* (1998:49), in bureaucratic agencies, such as in the case of the DRDLR, the main aspects that influence the way public managers perform are outputs and outcomes.

Outputs are questioned when the activities of employees can be observed and if the results of such outputs can be felt. Changes that can be felt in the long term and become the reason for the agency's existence are the outcomes.

In the case of land reform, land transfers are the outputs, but the effect of such transfers, which is the sustainable use of land, becomes the outcome.

As opposed to the private sector, the public sector or government realises their fulfillment by knowing that the public is satisfied; and the effectiveness of programmes is subjective. In the private sector returns on investment determine the success of the business.

The tables below show the type of government and non-government inputs, conversion processes, output and outcome that are ideal in the success of land reform. The private sector tends to integrate financial planning into their strategic plans, and based on their income expectations, however, towards partnership creations some of the financial assistance is derived from the public sector, which is government (McKinney & Howard, 1998: 64).

Table 6.1: Government based inputs towards the systems model for land reform

Entity	Inputs	Conversion process	Output	Outcome
Politics	Political	Campaign	Elections	Law and order (governance)
Government	Legislation: WPSALP, the Constitution	Programme: Redistribution; Tenure Reform	Projects: Cases production	Better life: Improved income sustainable income
	Financial: Budget vote	Purchase of farms	Number of hectares transferred and utilised	Ownership; Production; job creation; Income
	Administrative capacity: Human Resources	Dedicated staff Training, ongoing monitoring and evaluation	Support in the form of training, infrastructure, marketing, production finance, technical support and information.	Service delivery

In Table 6.1 above, government based inputs emanate from political pronouncements and are translated into policies. The policies are further converted to programmes, which become outputs in the form of the actual projects (stated as cases in Chapter

Five). The cases realise a better life for the beneficiaries. In this thesis the five selected cases have indicated that women put efforts towards their use of land and hence they are able to sustain themselves and their families. Government inputs have been categorised into legislative, financial and administrative inputs. Chapter One detailed the reasons and the need for equitable access to land by all – as well as the constraints that led to a lack of access to land. The skewed land redistribution called for need to announce the necessity to redistribute land. This was followed by the development of the WPSALP (1997) and other related policies. The policy was later simplified into the different Land Reform Programmes, which aimed to realise the projects (cases as used in this study).

The process of land redistribution would not be possible without the allocation of resources, such as finances and people. In an open system, inputs are constantly received from the environment which ensures that the process remains permanently active.

Besides government inputs there are non-governmental inputs, as indicated in Table 6.2. These include efforts from NGOs and the beneficiaries through their sweat equity, accounted for by the individual's daily engagement in the activity that is undertaken.

Table 6.2: Non-Government-based inputs towards the systems model for land reform

Entity	Input	Conversion	Output	Outcome
NGOs / CBOs	Awareness creation	Advocacy Advisory Training	Representation Transformation	Equitable access to resources
Beneficiaries	Applications; commitment;	Land acquisition and utilisation	Hectares of land under production	Food security, empowerment, independence and skills development

Table 6.2 above depicts non–governmental related inputs from NGOs / CBOs and beneficiaries. Commonly, inputs made by the NGOs and beneficiaries are not tangible

(finances or staff) in terms of people's benefits. NGOs contribute their time towards ensuring that their client's needs are met.
Beneficiaries contribute with sweat equity on the land, and it is through their commitment (as discussed in Chapter Five) that success is realised.

There are additional inputs that are associated with production, such as fertilisers, seeds and chemicals that will enhance the productivity of land. These inputs become part of the conversion and output processes and are added and tilled into the soils, subsequently increasing the level of yield. The manner in which these inputs are utilised impacts on the environment either positively or negatively. The negative impact on the environment is as a result of excess fertilisers in the soil that end up polluting the soil and degrading the soil in terms of its productivity.

Sustainability has been explained as involving the optimisation of the economic, environmental and social elements (Bowler, 1996:16). The elements of sustainability involve strengthening political commitment, diversifying the sources of income and reforming institutions – for promoting widely shared growth and the adoption of environmentally sound technologies (NEPAD, 2003: 63).

Economic and social factors are human-related constructions; here, societal cultural aspects become important. These concerns are closely linked to acceptable conduct within society. The environmental aspects are related to nature; and there are hardly any negotiable requirements for realising its sustainability. There is a relationship between the political commitment, economic development, sociological behaviour, technological adaptation, legal aspects and the environment.
The above aspects come together within the environment, and they play a critical role in harmonising or destabilising the environment within which they occur.

6.4.1 Political aspects for women's sustainable development in land reform

According to the *WPSALP* (1997:5), land use and ownership have been critical in shaping the political, economic and social processes in South Africa.

Past land policies were the cause for insecurity of tenure, landlessness, homelessness and poverty in South Africa *(WPSALP,* 1997:5).
The current government realises poverty alleviation as one of the key priority areas that must be tackled. The original causes of poverty were brought about by the government of the time; and it is the government of today that has to reverse the same challenges.

The RDP (1994:21) confirms that support services and training at all levels must be provided to ensure that the allocated land will be utilised effectively. Section 25 of the *Constitution* (1996) confirms the right to property for all South Africans. Land became critical for the realisation of poverty reduction; and poverty is considered a basic problem in people's survival. Land must be suitably located geologically and environmentally with regard to economic opportunities and social facilities (RDP, 1994:24).

The traditional theorists, inclusive of Woodrow Wilson (1887:210), had a hostile view of political involvement in the management of public processes (Thomas, 1995: 16). These theorists believed that every effort had to be made to protect public administration from political interference. The form that these beliefs took was that of a politics-administration dichotomy. Goodnow (1900: 26) in Thomas, (1995: 16) explained the distinction between politics and administration as politics being related to policies, which can also be expressed as the will of the State. On the other hand, administration is related to the actual execution of these policies. According to these theorists, politics was seen as an arena for public involvement and public say, whereas administration was supposed to be left for the professional administrators without any public involvement.

The inequitable distribution of land in South Africa emanates from historical actions that were politically related. According to Davids (2005:1), the public voice reminds leaders at national, provincial and local spheres that they do not only lead; but, they also serve the public.

There is a difficulty, therefore, in separating political rulings from economic successes, because a positive economic success is indicative of a successful political ruling.

The process of administration was considered highly technical and immune to any public inputs, as well as any political influence. In this politics-administration dichotomy the formulated policies would flow down from the elected policy-makers through to the public administrators and end up with the public. The process was only top-down, and it did not allow for inputs upwards or any feedback in the reverse direction. Levi-Faur and Vigoda-Gadot (2006: 249) argue that the way public policy is formulated, expressed and implemented is reshaped by cross-cultural and cross-national policy transfers and diffusion. Even though these paradigms are not new, they have an effect on the ways in which public policy is shaped, consolidated and implemented.

Policy transfer is prevalent amongst political scientists, and is more oriented towards case analysis, whereas policy diffusion is prevalent amongst sociologists, and enjoys a rich tradition of quantitative research (Levi-Faur & Vigoda-Gadot, 2006: 249). Policy - makers use specific styles of working to handle the overwhelming amount of issues or problems posed to them by the political agenda (Van Thiel, 2006: 117). One can imagine if the order from the political agenda is too tall what happens to the rest of the processes in achieving good results from such policies.

Land reform was a priority, as far back as 1994, and it is still a priority to date. The prioritisation of the policy allows for resource allocation in the implementation of such policies. In Chapter Five, the observation was made that support in the form of funding for production was delayed, which led to the lower production challenges that most of the women in the cases had experienced.

Sustainable development allows for circular feedback between what goes in, in the form of an input and what comes out. The economic aspect, as one of the aspects of sustainable development is discussed in the following section.

The systems model is equally typical of what happens within sustainable development as far as sustainable development factors are concerned.
What goes into the environment, as a result of human social activities in their endeavor to improve economic growth determines the safety and shelf life for that environment in providing the same resources for the future.

The quality of what occurs to the environment determines the long-term usage of such an environment; there is a constant feedback seen through the environmental reaction. This, therefore, calls for the following recommendations:
Recommendation 1: Awareness creation is essential in the effective and efficient use of the resources in relation to their environment. The use of natural resources determines their ability to sustain both current and future generations from the outputs realised.

There is a possibility of utilising land exhaustively for immediate survival if proper support and guidance in the use of the acquired land is not provided on time.
Based on the critical need for government intervention on the land and its use, it is further recommended that:
Recommendation 2: Government, as the supporter of the public needs, should ensure that the current policies are implemented and appropriately supported. The urgency to redress inequitable land ownership has led to an oversight on some of the phases necessary to promote independence amongst women as beneficiaries of land; hence, the assumption and observation that government is obliged to support women as beneficiaries of land throughout the stages of land allocation.

This therefore calls for:
Recommendation 3: There is an obvious need to develop a plan of action for the access to land and to support it with a clear programme that includes an exit strategy. It has been observed that the lack of co-ordinated support to women through land reform has left other critical support steps, such as proposals on how long a government

department should support one beneficiary, as well as a clear exit strategy after the support of beneficiaries.

6.4.2 Economic aspects for women's sustainable development through land reform

As discussed in Chapter Four, economic aspects are regarded as that which makes the agricultural performance of women's activities on land realise their reason for living on land. A relationship further exists between the economic growth and the social aspects. Where a positive economic growth thrives, there is development in the lives and status of the communities; and, consequently, there is social cohesion. Hitchcock and Willard (2006: 16) define a healthy economy as including the following:

(i) multiple buyers and sellers;
(ii) timely and accurate information;
(iii) accounting standards and enforcement;
(iv) absence of governmental corruption;
(v) markets for financing development (stock markets, bond markets and banks); and
(vi) absence of deflation or high inflation.

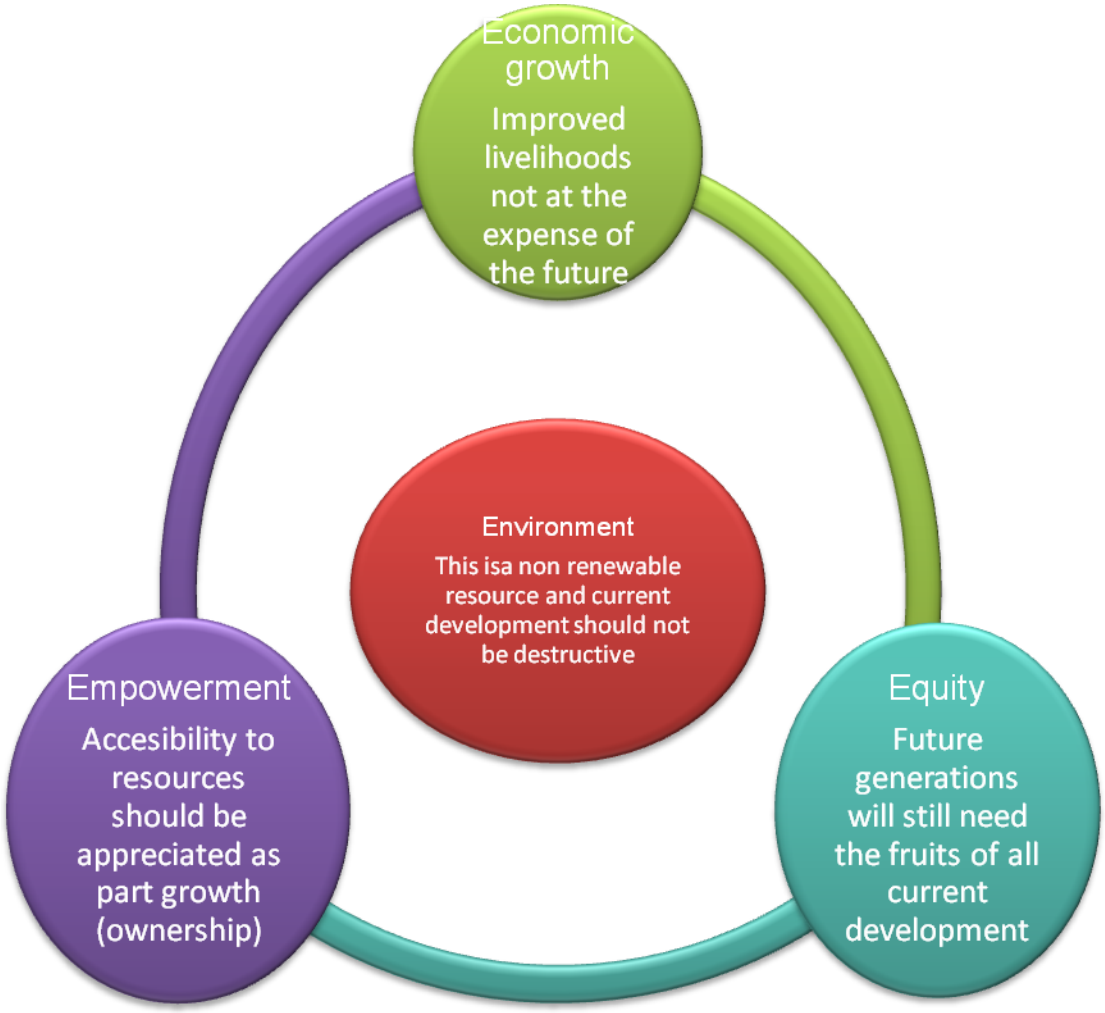
The main focus of the study has been defined as looking at challenges that women face in terms of benefiting from the Land Reform Policy for their economic growth, equity, empowerment and environmental growth in sustainable development.

Women's empowerment for economic growth, equity and environmental development aimed at their sustainable development has proven to be an all-inclusive and challenging process.

Recommendation 4: Observations made on LRAD and PLAS farms as highlighted earlier in section 5.7 of Chapter Five indicate levels of success in the farming operations due to lesser numbers (in these cases beneficiaries were family members). This calls for more focus on supporting family farms for success.

It can be a concern for government as a public entity to support a single family, instead of a community, but if more jobs are created and more families are food secure, the route towards supporting individual families is the best. The following Diagram 6.4 illustrates that the processes are closely related to the environment within which they occur.

Diagram 6.5: Outcomes of development



Adapted from Cloete, F. and Mokgoro, J. 1995. Policies for Public Service Transformation, Kenwyn: Juta & Co, Ltd.

Diagram 6.5 above is an illustration of how important the environment is within which activities that lead to growth and sustainability occur. In the centre of the diagram is the environment; and the current generation's empowerment and economic growth depend on it. The same environment is expected to provide for the needs of the future generations in the same way to meet their growth and development needs.
Land is not different; what happens to it currently will determine what output it will provide for the future.

According to Bowler (1996: 10), the structure of the economy is never stable for a long period. The credit crunch during 2008/09 is an example showing that the economy never stabilises. Communities in a country strive for improved economic growth, but the result is that the strained environment is not able to continue from generation to generation. The result of such a credit crunch was an increase in the input costs for land users and a resultant decline in the overall production and sales due to fewer buyers. The price increase challenges were different for these women as evident from the cases women operating under such difficult economic conditions were still able to increase their production because of their commitment to the production process.

When prices fall in the market, land becomes abandoned at the expense of production. The case of Zimbabwe as mentioned in 5.8.2 of Chapter Five is a crisis scenario, wherein even though land is availed it cannot be put to good use because of the decline in the economy of a country. The trend in South Africa is that due to neglected land activities, land owners put it up for sale, with the result that government procures it and settles people. The newly settled farmers face the same immediate challenges that their predecessor faced. The lack of success from land-use related activities leads to further neglect of the land and in some cases repossession of such properties due to the non-repayment of loans. The economic dimension within a system is reflected in the value of the output, in that the better the output, the higher the investment costs from the markets (Barnett *et al.,* 1995: 7).

If the output has a lower value, increased costs are experienced in the form of increased inputs costs; and this leads to a possible system's failure. In the case of land reform, as shown in Chapter Five, women producers will not be able to meet their market targets if they are faced with high input costs.

6.4.3 Social aspects for women's sustainable development through land reform

Societal aspects are dependent on the culture of the society (Hitchcock & Willard, 2006: 17). The universal basic human needs which cannot be substituted are as follows, according to Hitchcock and Willard (2006:17):

(i) the subsistence need, as well as the protection and security needs;
(ii) the desire for affection and understanding;
(iii) participation in activities that affect women;
(iv) the ability to be creative and have identity and meaning; and
(v) freedom of speech or association.

Women are affected by all the above needs more than men, because of their presence within their communities. It is in the latter years with the introduction of the Acts, such as the *Employment Equity Act,* 1998 (Act 55 of 1998) that the acceptance and support for women has been prioritised. Land was associated with livestock ownership and livestock owners were mainly men. Livestock ownership was, however, not associated with food security which is taken to be women's responsibility.

The success of the social aspects is reflected in the capacity of the system to adequately support farming communities and related institutions, such as markets (Barnett *et al.*, 1995:7). Lack of secure tenure, poor policies and changing social conditions are some of the social factors that lead to non-sustainable agricultural systems (Barnett *et al.*, 1995:7).

Recommendation 5: The inclusion of women in the land reform process has been assumed to be in the form of recipients, and not as contributors. There is an urgent need to consider women as contributors to the success of land reform.

The concept used in the economic inputs of women in land reform's sustainable development has resulted in real success for women. Elements that have contributed to women's commitment were: Presence on the farm with management capability and the ability to take decisions together made up commitment.

Where:

- Presence on the farm = PF
- Management capability = MC
- Ability to take decisions = AD
- Commitment = C.
- The knowledge of participants which = KP
- The success of participants = SP

Women's contributing factors, such as Commitment, Knowledge of Participants and Success of Participants make up the Women's Economic Input (WEI). The economic input should be looked into with the Women's Social Input (WSI), Women's Cultural Inputs (WCI) and Women's Environmental Inputs (WEI). The above should be used as a guideline to inform policy on what women and other beneficiaries should contribute to the success of land reform.

It is hoped that studies such as these will strengthen women's participation and improve their access to resources, including land.

6.5.4 Technological aspects for women's sustainable development through land reform

The introduction of technology in farming has improved efficiency in farming in terms of yield, time spent in production and time spent on hard labour. The introduction of mechanisation has improved agricultural production by increasing crop and livestock yields, reducing the labour force, and thus producing a higher output per worker, per hectare of land and per unit capital invested (Bowler, 1996: 14).

Technology is an important input in realising good outputs, especially in the short term, such as in the agricultural sector where production is highly seasonal. Examples include shorter maize varieties, increasing milk production yields in dairy cow breeds due to more efficient feed conversion ratios, disease-resistant potatoes, dwarf root-stock in apple and pear trees (Bowler, 1996:16).

It has been observed that some of these technological improvements have had controversial health implications for humans such as the use of quick release fertilizers which will shorten the growth span of a crop but have harmful effects to people's health.

Acceptance of these technologies might be beneficial to women as producers in the short term, due to the quick results earned, but the long-term effects on the consumers might be detrimental due to the high amount of chemicals used to modify the level of production.

Some of the technological improvements are in communication aimed at improving the amount of time spent on farms for production. Women, like all farmers need to spend sufficient time on the land for them to be successful. The time spent on the farm should not, however, compromise women's access to information. Methods that can improve women's lives in terms of government bureaucracy are essential. Such methods, however, should not deny them the necessary time to work on the farm.

Recommendation 6: There is a need to implement the National Land Summit resolutions which are stated in Section 3.4 of Chapter Three of this document. These encourage partnerships and co-operation in realising delayed land reform targets and the necessity for co-ordinated efforts in achieving the land reform targets.

The cases used in the study have revealed that women have been able to overcome poverty – as a result of their access to land. Women are discriminated against by tribal authorities, colonial and apartheid rulings and the family law of inheritance. The discrimination that faces women, as a result of social practices – both inside and

outside the household – has not affected women's performance on the land. Legislation such as the *Constitution* (1996) has been instrumental in removing some of the legal restrictions that were intended to impede women's access to land and the financial services needed to develop it.

The fact that Land Reform Policy implementation has contributed to the success of women as users of land paints a different picture from the doubt that the State has in terms of further redistributing land to the HDIs. The business sense and commitment observed from women has contributed to their success, regardless of the late support that was received from government. One of the cases used was led by a widow, yet the case is one of the most successful in sustaining the beneficiaries.

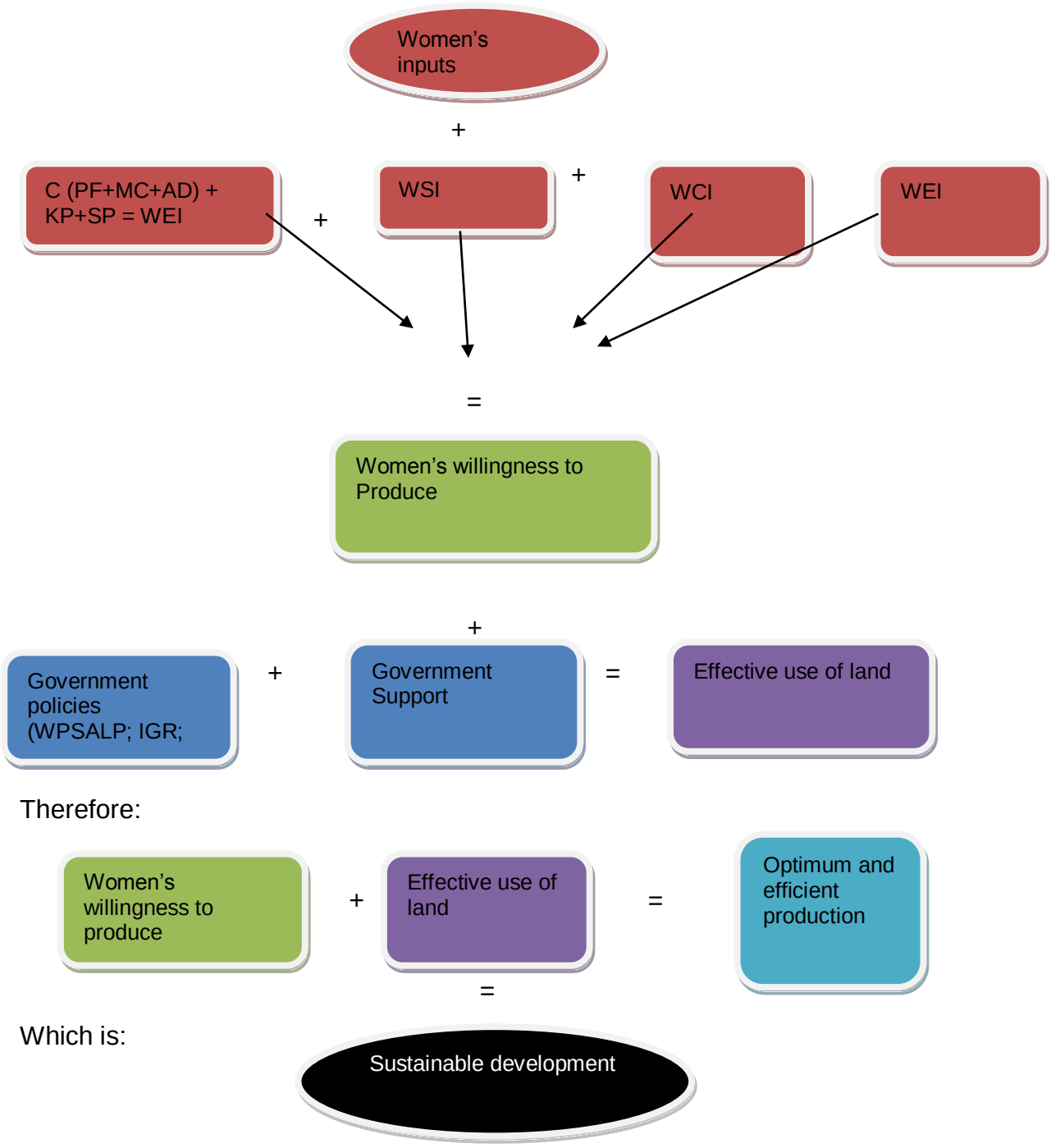
Women have not accessed land in large numbers, as is indicated in Figures 1.1, but the few that have accessed land have utilised it to their benefit and to the benefit of their employees. The argument has been that there has been little assessment of land reform on gender relations between women and men in households and communities, especially in terms of finding out who controls the land and resources, as well as the income derived from the use of land.

The study has revealed that women are successfully in control of land, and are fully responsible for its use.

Diagram 6.5 illustrates the results of women's inputs and government policy as inputs of a land-reform systems model; the processes, in the form of women's activities on farms, and government support and the outcome – which is in the form of production and women's livelihoods.

The impact of the whole process becomes sustainable development in which resources and people are in harmony.

Diagram 6.6: Sustainable development as a result of joint government and people's efforts within the context of the land-reform systems model.



Therefore:

Which is:

The above diagram is an illustration of the fact that combined efforts from both women and government will realise good results in the sustainable use of land and sustainable development.

Policies that are targeting women's empowerment have assumed that women are somehow handicapped, and they need to be saved from their situation. This study has indicated that women's inputs in their development have actually assisted in ensuring sustainability.

Policy formulation, therefore, has to take cognisance of the fact that the beneficiaries of such a policy play a critical role in its success.

6.7 Conclusion

The discussion above has shown that human sciences, as opposed to the natural sciences are vastly different. In natural science, laboratory tests are conducted and normally results are predictable, whereas the results of the human sciences are quite unpredictable. In an engagement with humans, as in Public Administration, it is not easy to know what results will be found, as opposed to the natural sciences which is tested to prove facts that had already been anticipated. There is a further relationship between natural sciences and human sciences in terms of their use of resources for their existence. The natural sciences, however, are more on the experimental side than on human science. In this study, land use for sustainable development has been analysed in terms of the policy that guides its distribution; and the use of such land is in terms of sustaining the women's livelihoods.

The common resource in this study is land. Land benefits for women's sustainable living depend on their ability to utilise the land in an ecologically friendly manner. Results obtained from the use of land are more quantitative, and become useful in informing women's lifestyles in terms of their success or failure as a result of using land. On the other hand, women's commitment towards using land can only be assessed qualitatively because it is a relative term.

Unless commitment can be analysed by using the variables provided in Chapter Five, it becomes difficult to measure it.

The development of policies should take environmental aspects into consideration. since as stated in Chapter Four, the environment within which a policy is developed and the implementation thereof are important for the success of such a policy. A spectrum of inputs is necessary for successful policy implementation. Successful policy implementation, in this regard, is taken as the implementation of policies which lead to sustainable development. These inputs or success factors include the role that the public plays in the formulation of these policies, the amount of information that is available for use and the awareness levels of the people involved.

All development that is not enhancing the sustainability of communities does not help the current nor the future communities. Several initiatives, as stated in Chapter Four, show ways of improving the manner in which people should preserve their environment. All activities that have a bearing on the environment will impact on the livelihoods of the people in that surrounding. Participation of the to-be beneficiaries of such development activities must be involved in activities that will benefit them. Non-involvement of the relevant stakeholders will lead to a lack of ownership of such development – and ultimate failure.