GENERAL INTRODUCTION
The General Introduction covers the study background and justification, the preliminary literature analysis exploring the evaluation concept, the study context and point of departure, the research study, the organization of the thesis and the study benefits.

1. Study Background

In the international community there is broad agreement that poverty must be reduced. The United Nations (2002) enshrines poverty reduction and the right to development as a human right. Globally, extreme poverty remains a reality for more than a billion people who live on less that US$1 a day (United Nations 2005, 2006, 2007). The World Bank (2006, 2007) predicted that many countries in the developing world will not reach their Millennium Development Goal (MDG) targets because of the current slow pace of change. To halve extreme poverty by 2015, current efforts need to be increased, requiring increased investment coupled with accountability.

Bamberger and Abdul (1991), Meizen-Dick et al. (2003), Crawford et al. (2004) and Clark et al. (2005a, 2005b) assert the need to demonstrate results from investments in poverty reduction programs. In South Africa, poverty still persists. The available literature shows that: poverty is concentrated in rural areas with 41% of the population contributing only 10% to the national income (Du Toit and Neves 2008; Human Science Research Council (HSRC) 2007; Seekings and Nattrass 2005); between 40-60% of the population live below the poverty line (Armstrong et al. 2008; Du Toit and Neves 2008; Luyt 2008); and there is an increasing inequality gap between the poor and the rich (Republic of South Africa 2007; HSRC 2007; Seekings 2007).

According to Mark and Henry (2004) and Dale (1998, 2004), evaluations are closely tied to initiatives that affect people’s lives, hence the need for evidence (Balthasar 2006; Barnes et al. 2003; Ginsburg and Rhett 2003; Labin 2008; Nutley et al. 2003; Pawson 2002a, 2002b; Shadish et al. 2005; Skinner 2004). Some literature refers to this evidence as results (Kusek and Rist 2004; Kusek et al. 2005; Morris 2006). Evidence- and results-based initiatives, in the context of the MDG and South African poverty level, put a greater emphasis on monitoring and evaluation (M&E) (Governance and Social Development Resource Centre (GSDRC) 2007).

Consistent with the global imperative to tackle poverty, many authors suggest that M&E should influence social betterment (Balthasar 2006; Christie 2007; Eggers and Chelimsky 1999; Henry 2001, 2003; Julnes et al. 1998; Lawrenz et al. 2003; Mark and Henry 2004; Weiss et al. 2005). It is important to clarify what is meant by social betterment before proceeding further. Social betterment is explained as the reduction or prevention of social problems to improve social
conditions (Mark et al. 1999, 2000). Despite the war on poverty and a call for the use of M&E systems, legislation calling for systematic M&E in South Africa only came about in 2004/05 (Cloete 2009; The Presidency 2005a, 2005b). Of particular relevance to this study is the South African Government White Paper on the Transformation of Public Services (WPTPS) (Republic of South Africa 1997) and policy documents of the Government-wide Monitoring and Evaluation System (GWM&ES) (The Presidency 2005a, 2005b, 2007c). The two documents contain directions for the national and provincial departments, amongst other things, to monitor and evaluate progress and introduce corrective action where appropriate. In particular, the GWM&ES identified public service effectiveness as the key challenge, making M&E critically important (The Presidency 2005b, 2007a, 2007c). This is imperative in an environment of limited resources to discharge the social betterment function in an efficient and effective manner. However, the Presidency (implementation update in supporting of GWM&ES 2007a, 2007b, 2007c) and The Public Service Commission (PSC) (the consolidated public services M&E reports 2003, 2006, 2007a, 2007d) painted a gloomy picture of government M&E systems as: under-developed, inadequate, and neither centrally nor ideally located. However, the Presidency (2005a and 2005b) indicated the following positive attributes for future improvements: preparedness to improve and enhance systems and practice; advantage of ‘late coming’ learning from others’ experiences and international evaluation best practice; departments having some level of capacity (in strategic planning and budgeting systems units); and evaluation is generally acknowledged as strategically important and useful.

The dominant development paradigm posits that agriculture promotes pro-poor growth (Department for International Development (DFID) 2005; Diao et al. 2005, 2007; Meijerink 2005; Meijerink et al. 2006). With the majority of poor people relying on agriculture in South Africa, agriculture can pave the way for rural upliftment. Agriculture can underlie progress on the broad array of economic and social indicators that the MDGs emphasize and that the South African government’s Program of Action (PoA) aspires to. A basic view here is that agriculture is an important primary component in the national economy, and especially the rural economy. In addition, the South African government and public organizations are spending more to uplift the rural economy. The increased expenditure in agriculture is noticeable from recent national budget speeches (Manuel 2008, 2009) and Limpopo Department of Agriculture budget speeches (Litsatsi-Duba 2009, 2010).

Reforms supporting agriculture and its expenditure, for example the M&E system, can play a distinctive role in improving social conditions (Diao et al. 2005, 2007; Meijerink 2005; Meijerink et
al. 2006; Tabor 1995, 1998). The M&E system could improve the relevance, effectiveness, efficiency and sustainability of agricultural programs as required by the agriculture policy (Department of Agriculture 1995). It is axiomatic for initiatives in rural development (especially agriculture) to demonstrate significant and lasting changes to justify continued funding. For this reason, building evidence- and results-based agricultural initiatives is imperative. It is particularly so for the LDA. The question is why LDA? The choice of LDA as a case study was opportunistic. The researcher has a good relationship with the organization’s executive management and the organization showed willingness to participate. However, the reality of the matter flowing from the background provided, the LDA is perfectly suitable because: (i) Limpopo is the second poorest province after the Eastern Cape, with majority of its citizens living in rural areas, (ii) agriculture promotes pro-poor growth in rural areas, and (iii) the LDA as a public service provincial department M&E is still deficient and underdeveloped.

2. Study Justification

The contention of this study is that an effective State is fundamental for achieving sustainable social betterment initiatives through the use of systematic M&E. The following concerns are addressed with regard to social betterment issues. First, to address issues of poverty alleviation and other aspects of social betterment, initiatives receive substantial investments. Another related issue is that of a growing concern from policy makers and members of the public over the cost, performance and achievements of government and public organizations (Crawford et al. 2004; Forss et al. 2006). Governments and organizations in the social betterment arena are under increasing pressure to deliver results and to improve performance in delivering quality service (Kusek and Rist 2004; Kusek et al. 2005; Schweigert 2006; Van Der Knaap 2006 ). They are called upon to demonstrate that their social betterment initiatives contribute to improvement (Crawford et al. 2004).

Second, there is a strong imperative to use resources wisely and to learn from previous experience (Forss et al. 2006; Liverani and Lundgren 2007). The inability to distinguish worthwhile initiatives from ineffective ones hinders governments and organizations to fulfil their major role in discharging their public service responsibility. It is important to distinguish worthwhile initiatives from ineffective ones, while demonstrating significant and lasting changes in the wellbeing of the intended beneficiaries (Rossi et al. 2004; Stufflebeam and Shinkfield 2007).
Third, South Africa is largely divided into two economies: one sophisticated and well-adjusted to global imperatives – the First Economy, and the Second Economy which is largely comprising a high unemployment rate of people located in rural, semi-rural and peri-urban areas (The Presidency 2010: on-line). The rural economy has fallen behind the rest of the country’s economy. The main culprits of such a disheartening state are the inability to account for resources consumed and to use lessons learned for improvement (Crawford et al. 2004; Forss et al. 2002). Reintegrating marginalized groups in rural areas is a priority post-1994 (Du Toit and Neves 2008; Luiz 1996, 2002; The Presidency 2003).

Fourth, the value of M&E systems is judged by its utility towards improving the life of program beneficiaries and the public (Rossi et al. 2004). Ideally, M&E systems should ameliorate social problems (Christie 2007; Eggers and Chelimsky 1999; Henry and Mark 2003; Henry 2003; Mark et al. 1999, 2000; Mark and Henry 2004; Weiss et al. 2005). According to Mark et al. (2000), social betterment is the *raison d’être* of evaluation.

Fifth, it is still deeply disappointing to recognize that relatively little is known about the results of most of the social betterment policies, programs and projects (or more generally ‘initiatives’) (Clark et al. 2005a, 2005b; Clark 2008). This is due to poor planning and performance, mostly associated with low use of systematic M&E and its findings (for example Wholey 1986, 1996). Other authors also noted that low levels of evaluation use still persist (Cousins and Leithwood 1986; Kirkhart 2000), without contributing to social betterment. To achieve social betterment, the literature shows an increasing demand by legislatures, funders and donors asking governments and public organizations for proper planning, design, implementation and evaluations of the public services they provide (Mark et al. 2000). The M&E systems and their results are not an end in themselves; they should contribute to social betterment. Accordingly, a State is effective when initiatives are implemented based on clear and credible M&E evidence or results.

Addressing these five concerns – which are underpinned by being accountable and learning for improvement – the South African government (specifically the LDA) will improve public service relevance, efficiency, effectiveness and sustainability to redress poverty and inequality. We posit that an M&E system can provide accountability and learning improvement through documenting the inputs, activities or process, results and the utility of the work (Dale 2004; Frechtling 2007; McLaughlin and Jordan 2004; Renger 2006; Sartorius 1991). To achieve accountability and learning, if LDA is interested in evidence- or results-based policy should have a systematic way to monitor and evaluate its social betterment programs.
Against this backdrop, an assessment of the literature revealed that almost all documents articulating the status of M&E in South Africa were published by the government. There is no academic literature exploring ways to build a systematic M&E in the South African public sector. The central purpose of the study is to design a practical program evaluation (PPE) model (and related policies and projects) for the Limpopo Department of Agriculture (LDA). The assertion is that such a design can be a powerful public management tool to improve the way in which governments and organizations achieve results. The model is done through exploring issues surrounding evaluation of social betterment initiatives in general while specifically illuminating issues that affect the design and sustainability of a PPE model. The frame of reference is agriculture. However, the conceptual framework and methodological design of the PPE model, and the ideas presented, are relevant to wider social betterment work. The emphasis though is on systematic M&E of agricultural research, development and extension (RD&E) initiatives, especially for the initiatives intended for the disadvantaged.

3. Preliminary Literature Analysis on Evaluation

3.1. Brief history

Evaluation research grew into ‘modern’ practice of program evaluation during the early 1960s (Fitzpatrick et al. 2004; Henry 2001; Hong and Boden 2003; Rossi et al. 2004). The war against poverty through the Great Society legislation, in the United States is credited as the major evaluation catalyst, which accelerated the conceptual and methodological developments (Fitzpatrick et al. 2004; Rossi et al. 2004; Shadish et al. 1991). According to Shadish et al. (1991) and Weiss (1998a), the huge investments during and after the Great Society legislation raised issues of impact. After this, in the United States, Acts requiring evaluation emerged. Thereafter, evaluation became a profession (Fitzpatrick et al. 2004). Despite 50 years of program evaluation the term evaluation is still understood differently by different authors (Bamberger 2000). There is no generally accepted definition of the term evaluation (Fitzpatrick et al. 2004; Sawin 2000). A number of different definitions have been proposed, each with valid arguments (Hong and Boden 2003; Russ-Eft and Preskill 2001). This wide array of definitions led to the development of different theoretical models of evaluation (Alkin 2004; Stufflebeam 2001), each with different emphasis and underscoring different elements of evaluation.

3.2. Difference between evaluation and research
The terms evaluation and research, more specifically action research, are often confused and/or used interchangeably (Russ-Eft and Preskill 2001). Weiss (1998a) observed that the reason is because both evaluation and research use social science methods. They both share the design, measurement and analysis tools that come into play affecting decisions when planning and conducting evaluation and research studies. Even though the two forms of enquiry employ the same techniques, they are significantly different (Hong and Boden 2003; Russ-Eft and Preskill 2001; Weiss 1998a). To differentiate them, Shaw in Hong and Boden (2003) mentioned seven general differences; Russ-Eft and Preskill (2001) identified seven differences based on the purpose and the stages of each inquiry; and Weiss (1998a) also identified seven differences according to method and subject matter. Generally, evaluation and research are initiated for different purposes, respond to different kinds of audience or clients’ questions or need, and report their findings in different ways to different groups (Russ-Eft and Preskill 2001). Most importantly, evaluation as opposed to research is to solve practical problems like poverty (Rossi et al. 2004). Table 1 presents specific differences between evaluation and research.

Table 1: The differences between evaluation and research

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Research</th>
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<tbody>
<tr>
<td>Addresses practical problems</td>
<td>Addresses theoretical problems</td>
</tr>
<tr>
<td>Culminates into action (emphasizes use of constructed knowledge)</td>
<td>Culminates into description (emphasizes production of knowledge)</td>
</tr>
<tr>
<td>Makes judgment of merit or worth</td>
<td>Describes</td>
</tr>
<tr>
<td>Addresses short-term issues</td>
<td>Addresses long-term issues</td>
</tr>
<tr>
<td>Evaluation questions concern policy &amp; program recipients</td>
<td>Research questions concern formulated hypothesis</td>
</tr>
<tr>
<td>Is non-disciplinary</td>
<td>Is disciplinary</td>
</tr>
<tr>
<td>Includes insiders (can be subjective)</td>
<td>Is always conducted by outsiders (mostly objective)</td>
</tr>
</tbody>
</table>

Source: Hong and Boden (2003), Russ-Eft and Preskill (2001) and Weiss (1998a)

3.3. Meaning of evaluation

It is important to understand different evaluation definitions to know how to conduct and practise evaluation properly. In our study, different prominent definitions are presented rather than an attempt to put forth a universal definition. None the less, an incorporation of important parts of the presented definitions is made.

First, the earliest and still the commonly used definition was proposed by Scriven in 1967 (Shadish et al. 1991). Traditionally, evaluation is defined as judging the merit or worth (generally
called value) of something (Scriven 1991b). We will call the ‘something’ being evaluated an evaluand (Scriven 1991b). Evaluation literature differentiates between worth and merit. When judging the merit of an evaluand, one is judging its inherent value, but when one is judging the worth of an evaluand one is judging its value within a particular context (Mathison in Russ-Eft and Preskill 2001; Stufflebeam and Shinkfield 2007). Judging merit or worth as the definition is widely used and the most preferred (Fitzpatrick et al. 2004; House and Howe 1999; Mark et al. 1999, 2000; Stufflebeam 2001; Stufflebeam and Shinkfield 2007). Hence forth, the general term ‘value’ will be used to represent worth and merit.

Second, Weiss (1998a:4) defined evaluation as “the systematic assessment of the operation and/or the outcomes of a program or policy, compared to a set of explicit standards, as a means of contributing to the improvement of the program or policy”. That is, (i) systematic assessment indicates formality and rigour; (ii) the investigation should focus on both the operation and outcome of the program; (iii) investigation results and evidence should be compared according to some set standards; and (iv) the purpose of evaluation is to contribute to the improvement of program or policy. Of note in this definition is the emphasis on the political context.

Third, the definition by Wholey et al. (2004) is based on using approaches from social science research. Wholey et al. (2004:xxxiii) defined evaluation as a “systematic assessment of program results and, to the extent feasible, systematic assessment of the extent to which the program caused those results”. For them and also important for this study, evaluation includes ongoing monitoring of programs, as well as one-off studies of program process or program impact.

Fourth, closely related to the definitions by Weiss (1998a) and Wholey et al. (2004), Rossi et al. (2004:16) defined evaluation as “the use of social research methods to systematically investigate the effectiveness of social programs in ways that are adapted to their political and organizational environments and are designed to inform social action to improve social conditions”. To them the concept of evaluation entails a description of the performance of the evaluand against some standards or criteria for judging that performance. They further argued that failure to describe program performance with a reasonable degree of validity may distort program accomplishment.

Fifth, Patton (1997:23) emphasizes utilization of evaluation findings, defining evaluation as “the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness and/or inform
decisions about future programming”. The same definition was used by Pawson and Tilley (1997) when suggesting the realistic evaluation which proposes a context-mechanism-outcome (CMO) configuration.

Sixth, Guba and Lincoln (1989:21) in their fourth generation evaluation took evaluation to be “human and mental constructions, whose correspondence to some ‘reality’ is not and cannot be an issue”. Claims, concerns and issues of stakeholders serve as an evaluation focus, providing the basis to determine what information is needed. Stakeholders are a focus because they are: (i) mainly groups at risk, (ii) open to exploitation and disempowerment; (iii) users of evaluation information; (iv) in a position to broaden the range of evaluative inquiry to the great benefit of hermeneutic and dialectical process; and (v) mutually educated by the evaluation process (Guba and Lincoln 1989).

Seventh, Mark et al. (2000:3) see evaluation as an alternative and broader tool to “assist sense-making about policies and programs through the conduct of systematic inquiry that describes and explains the policies’ and programs’ operations, effects, justifications, and social implications”. Importantly, their ultimate goal of evaluation is social betterment through better selecting, overseeing, improving and making sense of social programs and policies.

Lastly, Preskill and Torres (1999a) see an evaluation as “an ongoing process for investigating and understanding critical organizational issues…as an approach to learning that is fully integrated with organization’s work practices”. Their definition engenders (i) organizational members’ interest and ability in exploring critical issues using evaluation logic; (ii) organizational members’ involvement in the evaluation process; and (iii) the personal and professional growth of individuals within the organization. This definition suggests transformative learning as the focus of evaluation (Preskill and Torres 1999b, 2000; Russ-Eft and Preskill 2001).

In this study we concur that evaluation is a judgment of value. However, we also embrace alternative and broad views about other purposes and functions that evaluation can play. Evaluation should identify, clarify, and apply defensible criteria to determine the evaluand’s value in relation to those criteria (Fitzpatrick et al. 2004). Other functions above assessment of value include: organizational improvement, oversight and compliance, and knowledge development (Mark et al. 2000). Acknowledged in these definitions is: the systematic nature of evaluation, and evaluation of mechanisms responsible for change or operation and program results espoused by Patton (1997), Rossi et al (2004), Weiss (1998a) and Wholey (2004);
emphasis placed on policy by Weiss (1993a; 1993b; 1998a; 1998b; 1999), management and performance by Wholey (1986; 2001; 2004), and utilization by Patton (1997; 1998); the learning component of evaluation (Preskill and Torres 1999b, 2000; Russ-Eft and Preskill 2001); the pervasion of different stakeholder constructs when conducting an evaluation (Guba and Lincoln 1989); and evaluation for social betterment (Mark et al. 1999, 2000).

Compounding the problem of multiple definitions, program evaluations are conducted in different sectors for different purposes. The process of evaluation covers all sectors of society (Weiss 1998a). According to Turvey (2007) it permeates various professions and disciplines. Chelimsky (1997), Stufflebeam and Shinkfield (2007) and Turvey (2007) identified different types of program evaluation, indicating: educational, health, economic, environmental, foreign aid, agricultural extension, criminal justice, law enforcement programs, etc.

Other than the problems of different definitions and evaluation use in different sectors for different purposes, the term evaluation is also used differently. Generally, evaluation is mentioned jointly with the term monitoring; with some authors arguing that the terms have clear distinguishable characteristics (DFID 2005; Kusek et al. 2005). It is argued that this clear distinction influences how, when and for what purpose evaluation is conducted, as in Table 2 and Figure 1.
Table 2: The differences between monitoring and evaluation

<table>
<thead>
<tr>
<th></th>
<th>Monitoring</th>
<th>Evaluation</th>
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<tr>
<td><strong>Objective</strong></td>
<td>Tracks changes from baseline conditions to the desired outcomes</td>
<td>Validates what results were achieved, how and why they were or were not achieved</td>
</tr>
<tr>
<td><strong>Focus</strong></td>
<td>Focuses on the outputs of the project or program and activities and their contribution to outcomes</td>
<td>Compares planned with intended outcome achievement. Focuses on how and why outputs and strategies contributed to achievement of outcomes. Focuses on questions of relevance, effectiveness, sustainability and change</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>Tracks and assesses performance (progress towards outcomes) through analysis and comparison of indicators over time</td>
<td>Evaluates achievements of outcomes by comparing indicators before and after the intervention</td>
</tr>
<tr>
<td><strong>Conduct</strong></td>
<td>Continuous and systematic by program and project managers and key stakeholders</td>
<td>Time-bound, periodic, in-depth. Mostly external evaluators and stakeholders</td>
</tr>
<tr>
<td><strong>Use</strong></td>
<td>Alerts managers to problems in performance, provides options for corrective actions and helps demonstrate accountability</td>
<td>Provides managers with strategy and policy options, provides basis for learning and demonstrates accountability</td>
</tr>
</tbody>
</table>


Source: DFID (2005:13)

Figure 1: Types of evaluation by when they take place
Monitoring is conducted during a project life or program implementation to assess the efficiency and effectiveness with which inputs are used to achieve intended outputs (DFID 2005; GSDRC 2007; UNFP 2004). Some authors label this formative evaluation (Fitzpatrick et al. 2004; Hong and Boden 2003; Russ-Eft and Preskill 2001; Scriven 1996; Stufflebeam and Shinkfield 2007; Weiss 1998a). The same development organization’s documents distinguish evaluation as activities that assess the extent to which projects or programs have achieved their intended objectives, and their intended changes and benefits in the target populations (see Khan 1998). Fitzpatrick et al. (2004), Hong and Boden (2003), Russ-Eft and Preskill (2001), Scriven (1996a), Stufflebeam and Shinkfield (2007) and Weiss (1998a) label it summative evaluation.

All in all, evaluation is a matter of public law, to: (1) ensure accountability for resources consumed and outcomes delivered (i.e., to prove – judgement of merit or worth), and (2) promote learning for the betterment of future interventions and more effective socio-economic development (i.e., to improve) (Crawford et al. 2004; Forss et al. 2006; GSDRC 2007; Liverani and Lundgren 2007; Stufflebeam and Shinkfield 2007). In essence, it is a careful retrospective assessment of value of management and operations (actions), outputs, outcomes and impact of interventions (Everitt 1996; Hansen 2005; Henry 2002; Weiss 1998b). According to Stufflebeam and Shinkfield (2007), evaluation provides affirmation of value, improvement and accountability, and when necessary, a basis for terminating bad programs. It builds evidence about what works – program theories (Birkman 1987; Chen and Rossi 1987; Chen 2005; Donaldson and Scriven 2003; Donaldson 2007; Fear 2007; Leeuw 2003; Rogers 2008; Yeh 2000). Program theories make it possible to improve the efficiency and effectiveness of initiatives through bringing vital knowledge into the service of policy making and program design (Greene et al. 2001; Stame 2004; Weiss 1998a; Wimbush and Watson 2000). Evaluation ties together accountability and learning, the two most important purposes of conducting an evaluation (Crawford et al. 2004; Forss et al. 2006; GSDRC 2007; Liverani and Lundgren 2007); and it also assists organizations to improve their policies, plans (strategies) and practice (Eggers and Chelimsky 1999; Greene et al. 2001; Weiss 1998b, 1999; Wimbush and Watson 2000).

3.4. Forms of evaluation

It is important to distinguish between informal and formal forms of evaluation. Informal evaluations are “characterized by absence of breadth and depth because they lack systematic procedures and formally collected evidence” (Fitzpatrick et al. 2004:19). Since they are unsystematic they lack rigour and their evidence can be biased (Rubin 2003). Judgments and
decisions are made without observing different settings and depend on own experience (Fitzpatrick et al. 2004; Stufflebeam and Shinkfield 2007). The conduct of informal evaluations is prone to haphazard data collection resulting in misinformation, errors of judgment and expedient choices (Rubin 2003; Stufflebeam and Shinkfield 2007). In most cases they offer a weak basis for convincing decision makers and others of the validity of evaluation findings and appropriateness of conclusions and recommendations. Informal evaluations are more likely to result in faulty judgments because they are based solely on experience, instincts and reasoning (Fitzpatrick et al. 2004; Stufflebeam and Shinkfield 2007). According to Rubin (2003), they are mostly undertaken by people within the program; therefore, do not require much preparation and occur as regular events.

Formal evaluations are systematic (Patton 1997; Pawson and Tilley 1997; Weiss 1998a). Fitzpatrick et al. (2004:28) define formal evaluations as evaluations that “are held up to scrutiny against appropriate standards of the evaluation profession”. They are designed and executed to eliminate bias, are defensible and useful (Fitzpatrick et al. 2004; Stufflebeam and Shinkfield 2007). Formal evaluations are there to assist and extend natural human abilities to observe, understand and make judgments about policies, programs and other objects in evaluation (Mark et al. 1999, 2000). Formal evaluations are carefully planned with terms of reference, happen at particular stages, and mostly include external evaluators (Rubin 2003).

Our study will not distinguish between formal and informal evaluation, monitoring and evaluation or formative and summative evaluation. The term evaluation is used more broadly to cover both of these functions (Khan 1998). However, where the two have distinctive separate meanings they will be presented differently. In most parts of the thesis, evaluation terminology will be used broadly in the context of a program. In cases where a program is mentioned it is not necessarily in isolation from policies and projects (Weiss 1988b, 1998a), which we collectively call initiative(s).

3.5. Problems in evaluation inherent from the evaluation field

The literature (e.g., Sawin 2000) highlights the range of different problems facing practitioners in the field of evaluation. These problems make it difficult to formulate contextualized PPE models, which is the aim in this study. However, the problems depicted below do not indicate the field in disarray. The problems are a characteristic of a transdiscipline, complex, emerging and vibrant field. The field of evaluation is supposedly fractured.
According to Demarteau (2002), Greene et al. (2001) and Wimbush and Watson (2000), the reason for this situation is that evaluation has varied roots. There are disagreements about the definition, purpose and function of evaluation (Cook 2006; Eggers and Chelimsky 1999; Huberty 1988; Scriven 1994; Shadish 1994), due to the lack of a unified theoretical base to provide a generalized frame of reference (Levin-Rozalis 2000). The field has no accepted core or centre (Senchrest 1994), or unifying theory (Scriven 1994b; Shadish 1998). As a result, there are arguments and ideological splits (Greene et al. 2001; Senchrest 1994). Again, the literature analysis revealed that one of the dimensions – methodology dichotomy – is problematic (Chelimsky 1997; House 2001; Mark et al. 1999; Mark 2001; Smith 1994). One consequence of such problems has been the emergence of many different forms and approaches to conduct an evaluation (Hansen 2005; Weaver and Cousins 2004). Program evaluation is characterized as a relatively new discipline (Cook 2006); therefore, there is little experience, knowledge and understanding when calling for program evaluations to be undertaken. Finally, there are disagreements about: knowledge construction (Chen 1994c, 2005; Fetterman 1994, 2007; Scriven 1991a, 1994b, 1997); valuing evaluation products (Everitt 1996; Hansen 2005; House 2001; Mark et al. 2000; Scriven 1991a; Stufflebeam 2001b; Stufflebeam and Shinkfield 2007); evaluation use (Christie 2007; Henry and Mark 2003; Henry 2003; Mark and Henry 2004; Weiss 1998b, 1999; Weiss et al. 2005); and which stakeholders to engage or serve and how (Brandon 1998; Fetterman 1994, 2007; Johnson et al. 1998; Reineke 1991). Social betterment initiatives, and consequently their evaluations, have been shaped by changing times and accompanying challenges. For this reason, it is imperative to take stock of what has happened in the past to prevent practitioners from repeating mistakes.

4. Study Context and Point of Departure

As shown in Figure 2, evaluation is embedded within an organization, for example the case study institution – the LDA. Within the organization programs and people also exists. Organizations implement policies in the form of programs for social betterment. Programs and their evaluation happen in a particular context to yield benefits to targeted beneficiaries (Clark 1988; Cooksy and Caracelli 2005; Laperrière 2006; Rossi et al. 2004; Stufflebeam and Shinkfield 2007).
Box 1. National and global context: Social betterment initiatives operate within a wider and, increasingly, national and global context. Nationally, the rural economy of South Africa is the major sector of the economy and it is poor. Poverty alleviation of marginalized groups in rural areas is a priority of the post-1994 South African government (Luiz 1996, 2002). Globally, the United Nations (UN Office of the High Commissioner for Human Rights 2002) enshrines poverty reduction and the right to development as a human right. In addition, MDGs are demanding halving of poverty by 2015 (World Bank 2006, 2007; United Nations 2005). These requirements provide the overriding justification for the South African government to improve its public service quality, efficiency and effectiveness to redress poverty and inequality (Republic of South Africa 1997). The GWM&ES and White Paper on the Transformation of Public Service (WPTPS) documentation provide the policy principles to achieve these outcomes.
Box 2. Legislature or political context: The political environment provides policy direction and inputs. Policy is defined as “important decisions made by legislature and senior government officials that affect a broad portion of an organization’s program or activities” (Grob 1992:176). According to De Coning (2000:3), policy is “a statement of intent”. Initiatives which the organization deals with – implement and evaluate – are the creatures of political decisions (Hedrick 1988; Patton 1988a; Rossi et al. 2004; Weiss 1993b, 1993a). They are enacted, debated and funded through the political process. Grob (1992) argues that such policy decisions involve considerable resources, and span several years. The LDA must transform policies and implement programs, through using resources and conducting required activities (operations and management) to deliver results according to policy direction. In a democratic society, citizens should contribute to policy formulation. This is what Meyer and Cloete (2000) call policy agenda setting. It is suggested that most policy decisions are being made without public discourse or deliberation, an essential quality of democracy (House and Howe 1998; House 2004). For that reason, evaluation should be undertaken in order to allow the public to feed into policy debate. Hedrick (1988), Patton (1988b), Rossi et al. (2004), Segerholm (2003) and Weiss (1993b, 1993a) suggest various strategies for fostering the political use of evaluation results. According to Russ-Eft and Preskill (2001), if there is no clear intention of using evaluation findings, then evaluation should not be undertaken. Several studies (Grob 1992; Hedrick 1988; Mickwitz 2003; Mickwitz and Kivimaa 2007; Segerholm 2003; Weiss 1993b, 1999) suggest various strategies of how this can be achieved.

Box 3. Organizational context: The organization is included as an actor because people (administrators, managers and employees), programs and evaluations are embedded in organizations. The values and/or culture of the organization, due to people (a), will manifest in the intended social betterment initiatives, and also come into play when managing change that will emanate from the PPE model for social betterment evaluation. The LDA social betterment initiatives are designed and implemented as programs (b) and projects (at smaller scale) with farmers and community members as beneficiaries. The proposed PPE model is intended to be intra-organizationally implemented within the LDA. However, the LDA operates within a multi-layered and complex arena and form relationships with other institutions delivering social betterment. Also, outputs (the activities of the program or organizational staff; i.e., people with the LDA) are embedded here.
Box 4. Intended beneficiaries (Public): By definition, “social programs are the activities whose principal reason for existence is to ‘do good’” (Weiss 1993b:94). They are to ameliorate social problems and to improve social conditions. Social programs and their evaluation should contribute to the social betterment of beneficiaries and the public (Christie 2007; Mark et al. 1999, 2000a; Neubert 2000; Weiss et al. 2005). Ideally evaluation through measurement of outcomes and impact should contribute to amelioration of social problems (Christie 2007; Eggers and Chelimsky 1999; Henry and Mark 2003; Henry 2003; Mark et al. 1999, 2000a; Mark and Henry 2004; Weiss et al. 2005). According to Mark et al. (2000), social betterment is the raison d’être of evaluation. The worth of evaluation is judged by its utility towards improving the life of program beneficiaries and the public (Rossi et al. 2004). Outcomes and impact manifest at this level.

Box 5. Social Betterment: According to Hughes and Traynor (2000) and Bhola (2000), there are challenges in social betterment initiatives and their evaluation of the results. Challenges are associated with: lack of accepted and tested criteria for quality (Levin-Rozalis 2000); finding useful data to appraise results (Hughes and Traynor 2000); the problem of attribution (Bhola 2000); the multiple dimensions of social initiatives (Barnes et al. 2003); the time scale necessary to bring about change (Kautto and Similä 2005; Kirkhart 2000); and different categories of impact (i.e., impact by design, intervention and emergence) (Bhola 2000).

Other authors also explored the concept of impact (Allen and Black 2006; Barnes et al. 2003; Douthwaite et al. 2003; Neubert 2000; Van Den Berg 2005; Van der Meer 1999). This impact is presented as Sustainable Livelihoods (Carney 1998; Goldman et al. 2000) or the triple bottom-line approach (Hendriques and Richardson 2004; Rogers and Ryan 2001; Willard 2002).

- The Sustainable Livelihoods framework assumes that analyses of rural livelihoods need to be understood in terms of (a) people’s access to five types of capital asset; (b) the ways in which they combine and transform those assets in the building of livelihoods that as far as possible meet their material and their experiential needs; (c) the ways in which people are able to expand their asset bases through engaging with other actors through relationships governed by the logics of the state, market and civil society; and (d) the ways in which they are able to deploy and enhance their capabilities both to make living more meaningful and to change the dominant rules and relationships governing the ways in which resources are controlled, distributed and transformed in society. The five capital assets are: human capital – skills, knowledge, ability to labour and good health; physical capital – basic infrastructure, production equipment and enabling means; social capital – social resources (networks,
membership of groups, relationships of trust, access to wider institutions of society); financial
capital – financial resources available to people (savings, supplies of credit, regular
remittance or pension); and natural capital – the natural resource stocks from which
resources flow (Carney 1998; DFID Development 1997). Sustainable indicators have
become popular tools by which policymakers can assess progress towards a more
sustainable agriculture (Stevenson and Lee 2001).

- The triple bottom line approach measures performance on improved community wellbeing,
  reduced environmental impact and increased economic vitality at the community level
  (Rogers and Ryan 2001). It is proposed that the notion of the triple bottom-line finally
  presents corporations with a mechanism to establish this integration.

**Box 6. Body of knowledge**: For this study, a body of knowledge comprises a complete set of
corcepts, terms and activities that make up the evaluation professional domain, as defined by
the relevant evaluation practice. For evaluation, it contains the views and philosophies that
underpin the discipline or field and ways of thinking (Henry 2001). It includes the methodological,
epistemological and ontological paradigms that evaluators adhere to (Borsboom et al. 2004;
Guba and Lincoln 1989; Martens 2008a, 2008b). The evaluation body of knowledge has
influence on the PPE model that will be proposed. However, the field of evaluation faces several
challenges with regard to the body of knowledge. According to Yeh (2000), evaluations
frequently contribute little to the body of knowledge for constructing improved programs,
evaluations rarely provide useful information about how to improve their programs; and they
rarely demonstrate how those suggestions might be implemented. These problems weaken the
link between social betterment initiatives and evaluation practice (Hellström and Jacob 2003).
The body of knowledge is important towards building cumulative knowledge from successive
evaluation findings (Henry 2001). According to Patton (2001:329), a body of knowledge
“harvests and shares an organization’s collective knowledge to achieve break through results in
productivity and innovation”. For the design of the model it has both theoretical and practical
implications. It influences the way in which the other levels are interpreted and incorporated. For
this reason, it would then be possible for the LDA to gain incremental learning (and
improvement) about initiatives and their effects on social betterment.

**Box 7. Evaluation**: Evaluation is a careful retrospective assessment of the value of
management and operations, outputs and outcomes of initiatives (Fitzpatrick et al. 2004;
Stufflebeam and Shinkfield 2007; Weiss 1998a). The need makes evaluation a matter of public
law, requiring: (1) accountability for resources consumed and outcomes delivered (i.e., to prove)
and (2) learning for the betterment of future interventions and more effective social betterment (i.e., to improve) (Crawford et al. 2004; Forss et al. 2006; Liverani and Lundgren 2007). These two functions make evaluation an integral part of an organization. That is, evaluations are valid ways for an organization to increase the quantity and quality of its service delivery. As this study posits, initiatives should be evidence based, and evaluation should contribute to social betterment. The assertion is that the influence of evaluation and its products is the central outcome of any evaluation. Without such influence, evaluation cannot contribute to its primary purpose of social betterment (Christie 2007; Segerholm 2003).

Box 8. Evaluations deficit co-exist with the ‘black box’: In South Africa there is an acknowledged evaluation deficit (The Presidency 2005a, 2005b, 2007b; The PSC 2007a, 2007e). Stame (2004) defines an evaluation deficit as an unsatisfactory situation where conducted evaluations provide information that does not have effects and influence. In addition, any influences are not corroborated by the understanding of evaluation workings and mechanisms of the evaluand (Barnes et al. 2003; Henry and Mark 2003; Mark and Henry 2004; Pawson and Tilley 1997; Stame 2004; Van der Knaap 2004). Further, the usefulness of evaluations is hindered by the ‘black box’ problem. The ‘black box’ is defined as the space between the actual input and the expected output of an evaluation process of the evaluand (Bezzi 2006; Stame 2004). The associated problem is the impossibility or inability to see inside the evaluand, its mechanisms and the context which has generated it. Inside the ‘black box’, things occur which are not well understood or understandable, but from which results are produced (Bezzi 2006). The ‘black box’ problem results in a lack of knowledge about the context, what mechanisms makes evaluation more helpful to practitioners, planners and managers and policy makers, and initiative results.

These issues presented in Figure 2 have the potential to hinder the capacity of evaluation to improve policy, decision making and practice, and subsequently intervention beneficiary improvement, evaluation influence nexus (Madzivhandila et al. 2007). To understand evaluation in the LDA, the focus of the study is to explore. These issues are central to the question: what type of a practical evaluation model can be developed, intra-organizationally implemented and sustained in the LDA? When that is achieved, the LDA can maximize evaluation influence on policy making, management and operational decisions and practice for social betterment.
5. The Research Study

5.1. Study type

This study is qualitative in nature. More The philosophical assumptions that the qualitative (or descriptive) research brings to the study are widely publicised (for example: Babbie and Mouton 2001; Babbie 2007; Creswell 2007, 2009). That is, this thesis is descriptive in nature, describing how social betterment programs can be evaluated practically. Descriptive studies must be exploratory if relatively little is known or little research exists on the topic or the subject (Babbie and Mouton 2001; Babbie 2007; Hakim 2000), which is the case here. Because it is descriptive, the aim is to explore and understand how program evaluation is done and can be improved as a complex problem at the LDA.

5.2. Research problem and its variables

Social betterment is strongly featured in the mandates of many South African national and provincial government departments. The problem is of evaluation not influencing social betterment. Before presenting the study research objective, it is important to understand the variables that form the complex problem to be addressed. As in Figure 3, the variables occur in temporal order, preceding each other in time (Creswell 2007, 2009). That is, one variable will probably affect or cause another variable. Figure 3 contains: independent variables, which affect outcomes (they are antecedents or predictors); mediating variables, which stand between the independent and dependent variables; and dependent variables, which depend on independent variables and they are results of the independent variables. The study assumes a positive relationship between the independent and dependent variables (i.e., evaluation and social betterment) (Creswell 2009).

No/low evaluation contributes to no/low effect or influence to social betterment. The study posits that evaluation in the LDA is not ideal. As such, evaluation does not inform the social betterment initiatives the organization has implemented. Where evaluations have been undertaken, they had insufficient effect on policy change or to improve organizational or program decision making, practice and subsequently quality of beneficiary lives, due to unknown influence mechanisms. This qualitative research study is framed to describe what is going on, and what can be done as best practice, after which to build, embed and sustain a PPE model to address the evaluation deficit problem.
5.3. Research objective

The research objective is to gather information so that a description is made of what is going on, and what can be done. It is to identify and describe evaluation best practice together with accompanying considerations the LDA needs to take into account when building and intra-organizationally implementing a functional PPE model. The ultimate aim is to build a relevant, contextualized and pragmatic model that maximizes evaluation influence on policy making, management and operational decisions and practice, and which is also capable of measuring pertinent social betterment results. To achieve this aim, a systematic PPE model is proposed. The central research interest is design (including its implementation and sustainability), not the actual conduct of evaluation in current LDA initiatives. Nonetheless, the design will reflect the LDA-specific situation through the use of case studies. In doing so, the model should provide information that is credible and useful, enabling the incorporation of accountability and learning for social betterment. Therefore, the linchpin of this thesis is Paper 6, Madzivhandila et al. (2010a).
5.4. Research questions

The ultimate goal of research is to formulate questions and to find answers to those questions (Dane 1990; Kayrooz and Trevitt 2005). The following are the primary and secondary research questions for this study.

The primary research question is:
What type of PPE model can be built in LDA?

The secondary research questions are:
1) How does conceptual evaluation theory and practice affect PPE model design?
2) What are the factors that should be considered for designing a PPE model?
3) What is going on in terms of LDA social betterment initiatives through policies, programs and projects?
4) What is the current LDA program evaluation system?
5) In what way should the PPE model be designed for the LDA?
6) In what way should the proposed PPE model be intra-organizationally implemented?
7) What are the critical considerations when managing change brought by the proposed PPE model?
8) What are the characteristics of a quality evaluation when conducting a meta-evaluation?

5.5. Study methodology: Design

There are a number of important issues involved in the use of literature analysis and case studies in the study methodology. The reasons to include literature according to Bouma (1993) and Creswell (2009) are to: identify gaps in the literature; to avoid reinventing the wheel; carry on from where others have already reached (building on the platform of existing knowledge and ideas); identify other people working in the same field; increase breadth of knowledge of the subject area; provide the intellectual context for our own work, enabling this study to position itself relative to other relevant work; identify opposing views; put this study into perspective; demonstrate ability to access previous work in a study area; identify information and ideas that
may be relevant to this research project; and identify designs and methods that could be relevant to this thesis.

Interest in what is going on brings forth the use of case studies. De Vaus (2001) defines a case as the object of the study or the unit of analysis, and information collected that ‘we’ seek to understand as a whole. He further mentioned that the understanding being built is informed by the context in which the whole case exists. Case studies take as their subject one or more selected examples of social entities – social groups, communities, organizations, work teams, events, roles or relationships – which are studied using a variety of data collection techniques (Bryman 2001; Hakim 2000). The theory-building nature of case studies will help understand, develop and refine the propositions (what can be done) and generalizations (what is going on) on ways to develop the PPE model.

The following are the strengths and weaknesses of case studies:

**Strengths of case studies**

- At a minimum, case studies provide a richly detailed ‘portrait’ of a particular phenomenon or social structure (Hakim 2000).
- The flexible character of the case study design makes a diverse type of a study, with a variety of data collection methods (De Vaus 2001; Hakim 2000).
- It is appropriate when it is necessary to understand parts of the case within the context of the whole (De Vaus 2001).
- Case studies are a powerful tool to develop research hypotheses to be examined in future studies (Bouma 1993; Dane 1990; George and Bennet 2005).
- Case studies achieve high levels of conceptual validity through identification and measuring indicators that best represent the theoretical concepts of the evaluand, contextualizing the issue being addressed. (George and Bennett 2004).

**Weaknesses of case studies**

- The principal weakness of case studies is that results have the potential to be shaped by the interests or perspective of the researchers (Hakim 2000; George and Bennett 2004).
- Cases in the study are selected without random assignment (no representativity to a larger population, and therefore lack external validity). Therefore, the conclusions are limited to that specific individual case, although generalization is possible (Dane 1990; De Vaus 2001; George and Bennett 2004). It is important to note that the shortfall is only on statistical generalization, not theoretical generalization.
6. Thesis Frame

This thesis is organized into five parts in addition to the general introduction and the integrative conclusion. The thesis starts with a General Introduction. The General Introduction covers the study background and justification, a preliminary literature analysis exploring the evaluation concept, the study context and point of departure, the research study, the organization of the thesis, and the benefits of the study. The majority of the thesis is a set of self-contained research papers classified into five parts related to the evaluation topics, as in Figure 4, comprising of six steps. In these steps, nine self-contained papers are presented. Five of the papers are based on a conceptual analysis of the literature for the purpose of identifying gaps, providing context or suggesting best practice. The other three papers provide empirical evidence in the form of case studies. The remaining paper synthesises the entire work to build a PPE model.
The first step is to establish the theoretical grounding for the study. In this step we present gaps, context and best practice in the field and practice of evaluation from the literature in general and
in South Africa in particular. The step includes the first three papers of the thesis providing the basis for the development of a PPE model that could be used for agricultural RD&E and its influence on social betterment. Papers 1 to 3 achieve their objective by reviewing published literature. These three conceptual papers provide insights into the status and need for evaluation in South Africa, the historical trend on the theory of program evaluation and the five elements that underpin practical program evaluation.

**Paper 1** describes how evaluation started in South Africa, how it is developing and who the key players are in its development. The paper also contains a discussion of the issues affecting the demand for and supply of evaluation services in the public sector. The paper takes stock of where evaluation is as a new practice and profession in South Africa to reveal current shortfalls and gaps after the introduction of the GWM&ES. The literature analysis approach concentrated on a comprehensive review of policy frameworks, published and unpublished reports, and peer-reviewed and ‘grey’ literature with regard to GWM&ES; e.g., the PSC state of public service monitoring and evaluation reports from 2000 to 2008 (The PSC 2005, 2006a, 2007a, 2007d, 2008a). The context explored is monitoring and evaluation systems in the South African public service.

**Paper 2** explores the literature in the field of evaluation. A conceptual framework is developed based on the contributions of different theories on evaluation. The placement is based on the stage in history when the evaluation approach was developed, who the original contributor(s) or theorist(s) was, and what the contribution was (i.e. its major differentiating characteristics). The materials used to construct the framework are theories or approaches that have been widely acknowledged in the literature as original contributions. The inclusion in the framework is based on the originality of the contribution; therefore, the data omits theorists who elaborate position or contribution already made by earlier theorists. The framework allows depiction of the trend in the development of an evaluation theory, and also portrays the differences in approaches.

**Paper 3** is a formal literature analysis, pooling and summarizing popular and scholarly literature on the issues surrounding the five recognized elements that underpin practical program evaluation. Data to establish literature gaps, context and best practice are gathered with regard to program evaluation by adopting the five epistemic fundamental bases of practical program evaluation as defined by Shadish et al. (1991). They are social betterment programming, knowledge construction, valuing, knowledge use and evaluation practice. Social betterment programming is concerned with the ways that social programs and policies develop; knowledge
construction with the ways researchers learn about social action; valuing with the ways value judgments can be attached to program descriptions; knowledge use with the ways social science information is used to modify programs and policies; and evaluation practice with the tactics and strategies evaluators follow in their professional work, given the constraints they face. For practical reasons, the third paper is presented in five mini-papers. Even though presented separately, this study attempts to take a further step towards enabling greater coherence of these components.

Paper 3a – social betterment programming: To achieve its aim, the paper (1) discusses social betterment programming theory, i.e., (i) internal program structure and functioning; (ii) external factors that shape and constrain programs; and (iii) how social betterment change occurs, how programs change, and how program change contributes to social betterment; (2) presents a case on how the logic models and program theories can be used as a heuristic tool in agricultural RD&E; and (3) describes the benefits of social betterment programming in evaluation. The paper will provide the conclusions on using and applying programming in program evaluation.

Paper 3b – knowledge construction: The paper contains a description of two interrelated trends in knowledge construction. First, the field is breaking away from an objectivist stance towards inclusion of multiple stakeholders (subjectivist stance) in their data collection designs and methods. Second, and more recent, the paper contains observations on a move away from the acrimonious debates on the quantitative-qualitative dichotomy to a dialogue and accommodation between the two (i.e. the use of mixed methods). However, intrinsic in the observed trends are problems of the: (i) lack of awareness about the fundamental issues around the knowledge construction debates; and (ii) confusion about which designs and methods to choose when constructing knowledge, and why. This paper attempts to explore how knowledge construction contributes to a PPE model to address these identified gaps.

Paper 3c – valuing: In this paper, it is contended that social betterment programs have values embedded in them, since decisions to allocate or distribute social resources are based on values. As such, values are central to evaluations. However, there are few clear agreed-upon criteria and little attention paid to judging the value of social betterment programs. This paper is concerned with developing value judgment criteria based on valuing theories. To achieve that, focus falls on the role of values and the process of valuing in a practical program evaluation by touching on: (i) valuing theories with regard to the role of values and the valuing process; (ii)
some underlying differences on valuing; (iii) how a values inquiry can be conducted, and (iv) which stakeholder groups that have emerged from literature ought to be represented in an evaluation.

**Paper 3d** – knowledge use: The contention of this paper is that knowledge use is a central outcome of any evaluation; without it, evaluation cannot contribute to its primary aim of social betterment. However, the paper identifies a problem of the under-utilization of evaluation process and its results. As such, evaluation does not wield influence on practice, program planning and decision making, and policy making. Identified problems contributing to under-utilization include: (i) a narrow definition of use; (ii) evaluators not taking an active role in encouraging evaluation use; and (iii) a low level of knowledge on pathways or mediators responsible for use (and subsequent influence). To achieve its purpose, the paper contains a discussion of theoretical issues, factors affecting use (and influence), influence pathways, and strategies that can be embraced to enhance use, and the conclusions thereof.

**Paper 3e** – evaluation practice: It is posited in this paper that it is rare to see a good fit between evaluation theory and practice. Following an exposition of practical program evaluation, this paper presents evaluation practice knowledge bases. Exploring the literature, six questions are answered: (i) what are the decisions to commission an evaluation? (ii) what is the purpose of an evaluation? (iii) what is the role of an evaluator? (iv) what questions should be asked? (v) what are the strategies to construct knowledge? (vi) what are the activities to facilitate use? The answers to these questions are intended to serve as the basis for designing a practical program evaluation for the LDA.

Secondary research question 1 is answered in papers 1 and 2 and secondary research question 2 is answered in the five sub-papers of paper 3. The aspiration is to reconcile context and evaluation theory with the designing of a PPE model.

The **second step** is an assessment of the current situation (programs and evaluation system) at the LDA. The step comprises two case studies. **Paper 4** highlights how program theory is employed to establish how development interventions yield impact. It includes studying the context and mechanisms of current LDA programs and their results indicators. This is what Pawson and Tilley (1997) call realistic evaluation. After exploring relevant documents (policy documents, strategy documents and reports) the CMO of the programs is presented, answering
research question 3. To perform the analysis, these documents were subjected to Leximancer™. This is an effort to contextualize the design of the PPE model.

In **Paper 5** we observe the evaluation configuration and gather perceptions, through interviews and focus group sessions, of LDA personnel with reference to program evaluation. The data-gathering framework used for this case study is based on the framework to evaluate evaluations in state organizations developed by Segerholm (2003). We critically examine evaluation itself as a system and practice. The framework, whether observing or conducting interviews and focus group sessions, is meant to capture forces – political, organizational and program evaluation process – that shape an evaluation system and the knowledge claims that result. These are forces that can restrict evaluation or enable it. The aim is to present the current evaluation situation in the LDA setting in order to gain a more comprehensive understanding of such a system. Paper 5 answers secondary research question 4.

In the **third step**, the evaluation model is designed and is presented as **Paper 6**. Here we synthesise the literature and available empirical evidence to build a PPE model for evaluating social betterment initiatives at LDA. Evidence from Papers 1 to 5 is synthesised to lay the foundation for the model. Before undertaking an evaluation, it is imperative to establish the context and then follow 10 practical steps to evaluate the initiative, while taking note of the critical factors for success of the model. However, each social betterment initiative does not require all the steps and activities to be undertaken. Rather, which steps and activities to include depends on the context of the initiative that generates the evaluation, and the degree of effort the organization is prepared to commit. A PPE model with its common benefits is proposed for LDA. Paper 6 is an attempt to address secondary research question 5.

The **fourth step** summarizes what we have learned from the literature on the intra-organization implementation of innovations – an idea or behaviour that is new to an organization. The focus of **Paper 7** is placed on some of the conceptual and methodological issues raised. We identify and use lessons in the innovation literature (or earlier contributions of prescriptions already developed). We do this with the intention to shed light on these issues with regard to implementation of a practical evaluation model proposed for LDA. The paper summarizes an extensive literature addressing the question: how can LDA take on board, spread and sustain evaluation conduct and practice within its structures? Toward this end, the paper begins with a description of an innovation, evaluation culture, and intra-organizational implementation. Next, it provides a discourse on the intra-organization implementation process, i.e. stages and
prescriptions. This is followed by a discussion on practical issues to be considered when ensuring successful implementation. Finally, based on this literature analysis, some conclusions are offered. This paper answers secondary research question 6.

In the fifth step, even though the accompanying paper is not presented here, we gather understanding on different perspectives from which contemporary change management strategies emerge to enrich our discourse. The analysis is born from the notion that change events transform the organization’s life. The change event of interest is the introduction of a PPE model. We explore the literature which describes the meaning of change (successful change), a pattern for change process (organizationally and individually), the types of change that can be achieved, the prerequisites to successfully manage change, and the theoretical frame to provide a basis for our argument. We achieve this by reviewing the organizational change literature. The analysis attempts to answer secondary research question number 7, covering issues on how the LDA can cope with its change management.

In the sixth and last step, the best practice with regard to conducting meta-evaluation is proposed using the Agricultural Centre for International Agricultural Research (ACIAR) as a case study example. In Paper 8, we draw on impact assessment work of the ACIAR to present a case study example of meta-evaluation in an agricultural RD&E setting. We explore quality issues relating to evaluation studies in the context of government institutions. The program evaluation standards (PES) – divided into categories of utility, feasibility, propriety and accuracy – are sometimes argued not to provide a universal framework for basing a meta-evaluation. After judging their adequacy as a universal quality measure of a meta-evaluation, the paper observed that even for an organization with a long history of evaluation, it is difficult to consider equally and emphasize all the PES. How organizations rate the value of each standard rests on the context (who they are) and the purpose of each evaluation they undertake. Although the standards do not dictate what to do in different contexts, they highlight the necessary expectations (standards) and pitfalls of evaluation practice in the modern world. Therefore, using contextualized standards to guide an evaluation at LDA will add extra legitimacy to evaluation quality.

The thesis is concluded by an Integrative Conclusion. The integrative conclusion summarizes findings and draws conclusions. This part of the thesis also includes implications from the study, recommendations, and suggestions for further research. It underscores the impact the PPE model will have on the LDA as it strives to give the social betterment initiatives at the best price
to the taxpayer. In short, the model is contextualized through investigating the status of GWM&ES in South African public service and through establishing current trends in the development of evaluation theory in relation to suggested best practices with regard to social betterment programming, knowledge construction, valuing, evaluation knowledge use and evaluation practice. The LDA current program theories and evaluation system were investigated using the Pawson and Tilley (1997) CMO configuration and the Segerholm (2003) framework to investigate evaluation systems in State (or Federal) organizations respectively. The building of a systematic PPE model is a primary interest of this thesis. Post model propositions include ways to intra-organizationally implement, manage change intrinsic in implementation and ensuring evaluation quality accompanied the model.

7. Study Benefits

The issues identified in this thesis are a result of recurring themes observed from the broad analyses of literature and case studies. This is appropriate for initial research at LDA, and will hopefully serve as a solid platform for further research. The deeper look at individual case studies illuminates more pointed items that are relevant to this topic.

Even though the study-specific context is for evaluation within agricultural RD&E initiatives, the model application is not confined to this disciplinary area. The provision of LDA as a contextual and specific situation, provided by case studies, will allow other government departments and organizations in the social betterment arena to use this study as a potential reference for their similar situation. However, there will always be specific issues that need to be carefully considered by the appropriate leadership in each unique context of institutionalizing program evaluation to organizations.

The use of systematic evaluation (Fitzpatrick et al. 2004; Newcomer et al. 2004; Rossi et al. 2004; Trochim 1992; Weiss 1998a) using practical models (Gilbert 1997, 2002; Lesh and Doerr 2003; Wand and Weber 2002) in undertaking program evaluation is not a frequent subject of focus of the evaluation literature. Subsequently, few examples of practical evaluation models are available in the formal literature. However, these examples are generic. Further, the LDA does not have a practical guide to monitor and evaluate performance of programs (The PSC 2005, 2006a, 2007a, 2007c, 2007d, 2008a; Zwane and Duwel 2008).
Program evaluations essentially add the fourth leg amongst budget, human resource and auditing systems to the so-called governance chair (Kusek et al. 2005). This missing leg hinders the LDA in providing a feedback system on the outcomes and consequences of its social betterment initiatives. If evaluation deficit problems are addressed, benefits will be realized by the department cascading down to the beneficiaries of implemented interventions (as in Figure 5 below). That is, evaluation information will feed into the decision-making process and practice to influence the actions that people take at the implementation (beneficiary) level, staff level, and management level or in the higher reaches of policy making.

Finally, the thesis will help educate the reader on the issues surrounding the evaluation of social betterment in general. Specifically it illuminates issues that affect the practical program evaluation within the LDA. The intent of this thesis is to provide a framework from which to start the exploration of factors that affect the design of program evaluation and its institutionalization and sustainability within LDA. It provides a springboard from which to develop a practical evaluation model to evaluate RD&E initiatives in an agricultural environment.
Figure 5: A conceptual framework indicating benefits of designing the model
Statement of originality

We, the PhD candidate and the candidate’s Principal Supervisor, certify that the following text, figures and diagrams are the candidate’s original work.

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*Other authors work is properly referenced

Name of Candidate: Tshilidzi Percy Madzivhandila

Name/title of Principal Supervisor: Dr. Garry R. Griffith; Adjunct Professor

Candidate Date

Principal Supervisor Date

12 August 2010
PART A

CONTEXT AND THEORETICAL BACKGROUND
PAPER 1

STATUS AND NEED FOR PROGRAM EVALUATION IN SOUTH AFRICA
Status of and need for program evaluation in the South African public sector:
The Government-wide Monitoring and Evaluation System

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“...effective evidenced-based assessment of governance necessitates the existence of effective public policy planning and, until recently, no coherent system of systematic policy monitoring and evaluation existed in South Africa Public Service”
(Cloete 2009:2)

“Any profession, in order to serve the need of its clients, must evolve in response to changing societal needs and in consideration of theoretical and technical advancement”
(Stufflebeam and Shinkfield 2007:32)

Abstract
The recent Government-wide Monitoring and Evaluation System (GWM&ES) is intended to establish a uniform system of systematic monitoring and evaluation (M&E) across all spheres of government in South Africa. It has only just been implemented. Even though some progress has been made, coherent M&E is still seriously lacking in most of the government departments. Incoherent M&E systems significantly hinder accountability and improvement of current and future social betterment initiatives. Acceleration of the GWM&ES and other complementary efforts are required. If the implementation of these efforts is successful they will have huge potential for the improvement of social betterment service delivery. Against this backdrop, it is clear that the South African public service needs further research on the status of its GWM&ES. The intention is to propose a contextual practical program evaluation model for the Limpopo Department of Agriculture (LDA). This paper provides the background to, and justification for, the model development. The paper focuses on describing how M&E started in South Africa, how it is developing and who the key players are in its development since its emergence. In addition, issues affecting demand for and supply of M&E services in the public service are discussed. As a conclusion, the paper summarizes issues that create needs for further research on the topic.

Key Words
Monitoring and Evaluation System; GWM&ES; Social Betterment; Public Service; South Africa

* The authors are with respectively (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
Statement of authors’ contribution

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Candidate Date: 12 August 2010

Principal Supervisor Date: 12 August 2010
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PAPER 2

THE EVALUATION HISTORY AND THEORY

EVOLUTION
The lessons learned and current developments from program evaluation theory:
The evaluation history and theory evolution

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“To understand where the field of evaluation is today, it is important to revisit the old ideas: the roots…and to see the way they were enhanced over time: the growth.”
(Alkin 2004: 4)

“Unless the members of a profession develop and maintain a historical perspective on their work, they are likely to persevere in using a stagnant conception of their role, not remember valuable lessons of the past, not to stimulate and contribute to innovation in their field, and all too frequently to return to deficient methods of the past”:
(Stufflebeam and Shinkfield 2007:32)

Abstract
Evaluation in South Africa is still a new practice that was legislated after 2004/05. If it is to contribute to social betterment, lessons from the past and current developments are very important for improvement. Further, theory should underpin practice. The contribution of this paper is to synthesize theoretical approaches in the literature to develop a sound framework capturing history; to contextualize the lessons learned and current developments to be applied in South African agricultural research, development and extension (RD&E) context; and further extend the reach of evaluation literature to readers in the South Africa and elsewhere. The study identified twenty five theoretical contributions in four stages, starting from the early 1960s. Results were discussed based on what has happened with regard to knowledge construction methods, valuing and evaluation use; the three main branches of evaluation.

Key Words
Program Evaluation; Evaluation History; Evaluation Theory; Social Betterment, Agricultural RD&E

* The authors are with respectively (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
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Principal Supervisor            Date
Synthesis of Part A

This part answers the question: how does evaluation practice in South Africa and the evaluation field theory affect PPE model design? It provides country (i.e., practice gaps) context (Paper 1) and evaluation field (i.e., theory development and lessons learned) context (Paper 2). The GWM&ES is a policy framework guiding the roll-out of program evaluations across all spheres of government. We noted that the GWM&ES policy infrastructure is in place. However, progress in developing the evaluation system in provincial departments is slow and the system is still underdeveloped. Therefore, the operational infrastructure of program evaluation at the LDA is not in place. We also showed where the field is heading to help prevent mistakes of the past. The prominent gap addressed is with regard to the confusion about which designs and methods to choose when evaluating, and why. After noting the low use of evaluation process and results, the emerging theories (alternatives) are discussed. Our concerns centre on the use of evaluation results and pragmatism, the relevance of context to understand mechanisms responsible for change when evaluating program outcomes, and engaging stakeholders to increase the utility of evaluation and learning. The field’s theory is moving towards subjectivity of evaluations rather than objectivity. We concluded that the argument of objectivism should not replace the use of subjective methods, and vice versa if adopting alternative theories. The insights provided are twofold. First, there is still a need for a PPE model in the LDA RD&E public service. Second, the history and evolution of program evaluation theory provide trends and lessons. The further question is what are the factors – for best practice – that should be considered in designing a PPE model? Part B provides answers to this question.
PART B

PRACTICAL PROGRAM EVALUATION: LITERATURE ANALYSIS
PAPER 3(A)
SOCIAL BETTERMENT PROGRAMMING
The use of programming to improve evaluation influence for social betterment: Practical program evaluation

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“The objective of evaluators should be identical with that of planners and implementers: create sustainable benefits for the target groups of projects, programs and policies.”
(Dale 2004:10)

“Most program evaluators agree that quality program evaluation begins with sound program planning.”
(Arnold 2006: 260)

Abstract
Good program evaluation starts with sound program design (here called programming). Yet, in practice programming of social betterment initiatives is disconnected from evaluation. The problem is that evaluation of social betterment programs is a complex task. To solve the disconnection and complexity of social betterment programs, programs require a heuristic approach as an instrument to support and focus thinking. However, its use in evaluation is still abstract. This creates a gap between theoretical evaluation norms and practical best practice. Therefore, the focus is on program logic modelling and program theories to aid social betterment programming, and subsequent evaluation of programs. The aim of this paper is to support social betterment through the use of practical programming to develop a practical program evaluation model. We present logic models and program theories that support the design, implementation and evaluation of agricultural research development and extension (RD&E) programs.

Key Words
Practical Program Evaluation; Programming; Logic Models; Program Theories; Social Betterment; Agricultural RD&E

* The authors are with respectively (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
PAPER 3(B)
KNOWLEDGE CONSTRUCTION
The ways knowledge construction in evaluation can improve evaluation influence for social betterment: Practical program evaluation

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“Researching for change for the better involves us in critical research methodologies, engaging in critical research and evaluation to contribute to changing policy and practice.”
(Everitt 1996:173)

“Gaining knowledge represents analysis and synthesis of increasing one's cognitive skill because it goes beyond previous levels by being able to see the content and structural form of something and being able to formulate new structures based on it”.
(Biery III et al 2000: 599)

Abstract
Two interrelated trends can be observed in the evaluation literature with regard to knowledge construction. First, the field is breaking away from an objectivism stance towards inclusion of a multiplicity of stakeholders in data collection designs and methods. Second, and more recently, there has been a move away from the acrimonious debates of the quantitative-qualitative dichotomy to a dialogue and accommodation between the two. However, intrinsically two problems remain (i) unawareness about the fundamental issues around the knowledge construction debates; and (ii) confusion about which designs and methods to choose when constructing knowledge, and why. This paper explores how knowledge construction theory can contribute to practical program evaluation. Special attention is paid to the theoretical paradigms, elements and strategies. Furthermore, an evaluation design framework with a taxonomy of knowledge construction methods is presented.

Key Words
Evaluation Theory; Practical Program Evaluation; Knowledge Construction; Evaluation Methods; Social Betterment

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PAPER 3(C)
VALUING OF EVALUATION PRODUCTS
The use of valuing in evaluation for improving evaluation use and influence for social betterment: Practical program evaluation

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“Evaluation can draw objective value conclusions by collecting and analysing evidence...such view legitimates professional activities and opens the way to a stronger social role for evaluation. It provides evaluation with more authority in public decision making, a much-needed service in contemporary society.”
(House and Howe 1999:xv)

“What are values then? Values are beliefs, normative beliefs, that is, deeply held about how things should be...values must also be subject to reason and changeable if democracies are to work and betterment is to occur”
(Mark et al. 2000:41)

Abstract
Social betterment programs have values embedded in them. It is argued that a decision to allocate or distribute social resources is based on values. As such, values are central to evaluations. However, there are few clear agreed-upon criteria and little attention paid to judging the merit and worth (value) of social betterment programs. This paper is concerned with developing value judgment criteria based on credible evaluation valuing theories. To achieve that, the paper touches on: (i) valuing theories with regard to the role of values and valuing process; (ii) some underlying differences in the literature on valuing; (iii) how values inquiry can be conducted, and (iv) which stakeholder groups (and their values) ought to be represented in an evaluation. The aspiration is to reconcile evaluation theory, in particular the valuing component, with the practice of designing a practical program evaluation model.

Key Words
Evaluation Theory; Practical Program Evaluation; Valuing Criteria; Merit and Worth; Social Betterment

* The authors are with respectively (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
PAPER 3(D)
EVALUATION KNOWLEDGE USE
Evaluation knowledge use towards improving evaluation influence for social betterment: Practical program evaluation

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“All evaluations have cost but not necessarily value. Their value does not depend on their cost but their use”
(Feinstein 2002:433)

“Evaluation use can be thought of as ways in which the findings of an evaluation influence the programs or policies that are the object of investigation, as well as affecting the organization within which an intervention is located”
(Owen 2006:105)

Abstract
The contention of this paper is that knowledge use is the central outcome of any evaluation. Without use, evaluation cannot contribute to its primary aim of social betterment. Thus knowledge use is a necessary component of practical program evaluation. However, there is under-utilization of the evaluation process and its results for social betterment. As such, evaluations do not wield sufficient influence on practice, program planning and decision making, and policy making. Identified problems contributing to under-utilization include: (i) narrow definition of use; (ii) evaluators not taking an active role in encouraging evaluation use; and (iii) low level of knowledge on pathways or mediators responsible for use (and subsequent influence). In this paper we explore use by discussing its theoretical issues, factors affecting use (and influence), influence pathways and strategies that can be embraced to enhance use.

Key Words
Evaluation Theory; Practical Program Evaluation; Evaluation Use (Utilization); Evaluation Influence; Social Betterment

* The authors are with respectively (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
PAPER 3(E)
EVALUATION PRACTICE
The ways evaluation practice can improve evaluation use and influence for social betterment: Practical program evaluation

Madzivhandila T.P. ¹,3*, Griffith G.R. ²,3, Fleming E. ³ and Nesamvuni A.E. ⁴

“As our profession evaluation has changed and is changing rapidly with the external environment of organizations, I feel that there is a new demand for leadership from evaluators…roles such as change agent, reality shaper, collaborator, facilitator, risk taker, learner, teacher, are inherently part of the transformational and moral leadership style”
(Lorraine Marais in Weiss 1998a:97)

Abstract
Increasingly, people who are affected by an evaluation are asking for more information. Although the demand for this information may be increasing, very little is known about the ways government and public organizations should respond to this demand. It is rare to see a good fit between evaluation theory and practice. Following an exposition of practical program evaluation components, of relevance here being evaluation practice, we present evaluation theory best practice. Six questions are answered: (i) why commission an evaluation? (ii) what is the purpose of an evaluation? (iii) what is the role of an evaluator? (iv) what questions should be asked and how? (v) what are the strategies to construct knowledge? (vi) what are the activities to facilitate use? The answers to these questions are intended to serve as the basis for designing a practical program evaluation for the Limpopo Department of Agriculture (LDA).

Key Words
Evaluation Theory; Practical Program Evaluation; Evaluation Practice; Evaluation Influence; Social Betterment

¹ The authors are with, respectively, (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3) the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
Statement of authors' contribution: Papers 3A to 3E

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**Adapted figure; i.e., it is therefore our own interpretation

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Synthesis of Part B

What are the best practice (elements, principles and factors) that should be considered in designing a PPE model? Examples of lapses from best practice identified in the literature include: lack of knowledge about how social betterment change occurs; lack of awareness about the fundamental issues around the knowledge construction debates; few clear agreed-upon criteria and little attention paid to judging the value of social betterment; a failure of evaluation to contribute to its primary aim of social betterment; and a weak link between theory and practical evaluations. Therefore, PPE is underpinned by five epistemic elements of programming, knowledge construction, valuing, evaluation use (influence) and evaluation practice. It is important to reconcile these five elements when designing a PPE model. Papers 3(A) to 3(E) are addressed to this task.

The frameworks we provide show: (i) internal structure of a program, relevance of program theories, and evaluation criteria with regard to programming; (ii) interconnection of philosophical paradigms, assumptions, strategies, designs and methods to construct knowledge; (iii) values (merit and worth) enquiry and which stakeholders to involve; (iv) conceptualization of evaluation use, use and misuse of evaluations and pathways to evaluation use; and (v) an eight-dimensional tool to make the decision to commission an evaluation, when to conduct internal or external evaluation for formative or summative evaluation for different audiences; and which questions are practical to ask. We concluded that:

- Logic models are a heuristic way to design social betterment initiatives, which in turn simplifies the evaluation and makes it practical.
- We positioned ourselves in the realist paradigm when constructing knowledge – adopting an eclectic view – suggesting a mixed-method approach that is pragmatic, contextual, responsive and consequential.
- After noting that social betterment is value-laden, we suggested that evaluations should be explicit about values; advocating issues of democracy, justice and equality while considering cultural differences.
- The utility of evaluation for social betterment rests on its use and influence. Therefore, tailoring the evaluation to stakeholder needs and involving program staff in the design and implementation of the evaluation remain crucial.

We also suggested (i) ways to commission an evaluation, (ii) the purpose of evaluation, (iii) the role of an evaluator, and (iv) the questions that should be asked and when and how.
PART C
LIMPOPO DEPARTMENT OF AGRICULTURE CASE STUDIES: EMPIRICAL EVIDENCE
PAPER 4

CASE STUDY: SOCIAL BETTERMENT PROGRAM
THEORIES
Realistic evaluation on the current Limpopo Department of Agriculture social betterment programs: Establishing program theories using Leximancer™

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“Theories should be made explicit, and evaluation steps should be built around them...it is expected that theory-orientated evaluations will help build capacities in the public sector, and educate the public to have better understanding – and mastery – of the political process in which a program unfold”. (Stame 2004:60)

“The Leximancer system is relatively new method of transforming lexical co-occurrence information from natural language into semantic patterns in an unsupervised manner”. (Smith and Humphreys 2006:262)

Abstract

The search for increased effectiveness of social betterment initiatives – through improved accountability and learning – requires evaluation systems and practice to place emphasis on program theories. This is to discern what works, when, why and in which circumstances with regard to programs context and results. This paper addresses the issue of a ‘black box’ problem by drawing on the ‘realistic evaluation’ approach. The context of the case study is the Limpopo Department of Agriculture (LDA). Data used consist of the agricultural research, development and extension related documents. The South African government’s program of action and agricultural policy, and the Limpopo Provincial Growth and Development Strategy documents provided information on what programs are expected to achieve. The national Department of Agriculture strategic plan and the LDA annual budget vote speeches and operational plans provided information on how the LDA is expected to achieve its purpose. The annual organizational reports provided insights into what has been achieved. The documents were analysed to identify, clarify and begin to categorize recurring patterns and emerging themes. Leximancer™, an automated textual data mining software was used to analyse the data. The discussion of results followed the context-mechanism-outcome (CMO) configuration. The observed underlying themes are agricultural and total. The importance of understanding the current CMO status is a useful way to begin conceptualizing what the social betterment programs are emphasizing and are achieving given their context. We also present the limitations, implications and future research opportunities that came out of this study. Lastly, the conclusion identified lessons for the proposed LDA practical program evaluation model.

Key Words

Program Theories; Practical Program Evaluation; Context-mechanisms-Outcomes; Limpopo Department of Agriculture; Leximancer™

* The authors are with, respectively, (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
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**Candidate**

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**Principal Supervisor**

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PAPER 5
CASE STUDY: EVALUATION SYSTEM SITUATION ANALYSIS
Situation analysis of the current program evaluation configuration, practice and context in the Limpopo Department of Agriculture: An empirical investigation

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“An improved understanding of a situation is a sound foundation to base decisions about how to identify opportunities that will have impact on improving the system...an appropriate situation analysis can prevent ‘jumping’ to inappropriate solutions.”
(Timms and Clark 2007:87)

Abstract

Describing how evaluation systems and related activities within specific organization settings are addressing social betterment needs can increase evaluation process and products utilization. Even though attention to evaluation within public organizations in South Africa is increasing, an analysis of the evaluation system within the Limpopo Department of Agriculture (LDA) has yet to be carried out. The starting point for this paper is the need for empirical knowledge about monitoring and evaluation configuration, practice and context for societal betterment. We use the Segerholm (2003) theoretical frame to analyze the LDA’s organizational-wide evaluation system. The analysis is based on descriptive content analysis of information from in-depth interviews and focus group discussions with staff, and visual and documents observation. The results indicate an evaluation system that is still emerging. The problem identified is of evaluation deficit. The implications that arise from the patterns identified are considered to be topical and of relevance for the design of a practical program evaluation model at the LDA.

Key Words
Situation Analysis; Limpopo Department of Agriculture; Evaluation System; Social Betterment

* The authors are with, respectively, (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
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Candidate Date: 12 August 2010
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Synthesis of Part C

To contextualize suggested improvement strategies, knowledge of current social betterment initiatives by LDA and its evaluation system is important. First, in Paper 4, we drew on the ‘realistic evaluation’ approach to establishing the context-mechanisms-outcomes of the agricultural RD&E at LDA to address the ‘black box’ problem. Various documents of national, provincial and organizational policy, strategy and annual reports were analyzed using Leximancer™ to allow themes, ideas and patterns to emerge. The mechanism documents are the only misaligned document type. This indicates that the specific mechanisms to achieve outcomes given the context at the LDA are not prominent. Therefore, a proposed PPE model should not only cover context and outcomes, but should also discern what works, when, why and in which circumstances with regard to programs context and results. Second, in Paper 5, an analysis was undertaken of the evaluation system and its adaptation at the LDA using the Segerholm’s (2003) theoretical framework. It was established that the agricultural RD&E programs are important primary components in the national economy, especially for the South African rural community. The LDA operates within a multi-layered and complex arena – inter-organizationally with other organizations and stakeholders and intra-organizationally between branches; and the development of an evaluation process is inadequate. The analysis indicates that the LDA still does not have a well configured evaluation process in place. Therefore, we offered theoretical pathways and a list of opportunities suggested by the LDA staff. This was done to solve the problem of evaluation deficit.
PART D
THE STUDY PRIMARY PRODUCT
PAPER 6
SYSTEMATIC AND PRACTICAL PROGRAM EVALUATION MODEL FOR THE LIMPOPO DEPARTMENT OF AGRICULTURE
A proposed practical program evaluation model for the Limpopo Department of Agriculture

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“Government and organizations are all grappling with internal and external demands and pressures for improvements and reforms in public management.”
(Kusek and Rist 2004:1)

“Program evaluation involves the use of social research methods to systematically investigate the effectiveness of social intervention programs in ways that are adapted to their political and organizational environments and are designed to inform social action to improve social condition.”
(Rossi et al. 2004:16)

Abstract
The demand for systematic data on the performance of social betterment initiatives is on the rise. However, designing and conducting a practical program evaluation is still a confusing experience. This paper provides a conceptual framework, what we call a model, for the systematic evaluation of social betterment initiatives. The context is agricultural research, development and extension in a government setting. The model is proposed for the Limpopo Department of Agriculture, but can be applied broadly in other social betterment environments. It includes three complementary phases and each with a number of steps, activities and critical factors to consider. The model is not prescriptive; each social betterment initiative does not require all the steps and activities to be undertaken. Rather, which steps and activities to include in a particular evaluation depends on the context of the initiative that generated the evaluation, and the degree of effort the organization is prepared to commit.

Key Words
Practical Program Evaluation Model; Social Betterment; Limpopo Department of Agriculture; Systematic Evaluation

* The authors are with, respectively, (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
**Statement of authors’ contribution**

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Synthesis of Part D

Part D is the linchpin of the study. The central aim, achieved in Paper 6, is to propose a systematic PPE model for the LDA. The question we addressed is: in what way should the PPE model be designed for the LDA?

First, using a modelling approach, we described how social betterment programs can be evaluated systematically and practically, summarized in Figures 6.1 and 6.2. Our proposed systematic PPE model, as in Figure 6.1, includes three complementary phases, each with a number of steps, activities and critical factors to consider. PPE should: (i) start by presenting aspects important to consider when establishing the context for the evaluation; (ii) contain the steps that need to be embedded in the evaluation process; and (ii) encompass critical factors that underpin the success of an evaluation.

Second, we showed how our PPE model is different. Practically, it is supported by other elements, as illustrated in Figure 6.2. It is built on the status and need for evaluation in South Africa (Paper 1 in Part A); the historical trend in the theory of program evaluation (Paper 2 in Part B); five elements of practical program evaluation (Mini-Papers 3(A) to 3(B)); and is contextualized with regard to addressing issues related to the evaluation ‘back box’ (Paper 4 in Part C) and evaluation deficit problems (Paper 4 in Part C). Because the PPE model will be embedded in the LDA as a way to conduct the evaluation, three post-model activities are critical for the end-user: (i) intra-organizational implementation steps of the model (Paper 7 in Part E); (ii) 17 critical success factors relevant for a successful management of change brought by the proposed evaluation model (in Madzivhandila et al. 2010b which is not presented here); and (iii) the use of PES as the backbone of the meta-evaluation for model quality assurance (Paper 8 in Part E). These activities support the sustainable use of the PPE model and are to be integrated into it, as presented in Part E.
PART E
POST MODEL DESIGN ACTIVITIES
PAPER 7
MODEL INTRA-ORGANIZATIONAL IMPLEMENTATION
Implementing and sustaining practical program evaluation model intra-organizationally in the Limpopo Department of Agriculture: Ways to achieve evaluation culture

Madzivhandila T.P. ¹,³*, Griffith G.R. ²,³ Fleming, E. ³ and Nesamvuni A.E. ⁴

“The main issue in implementation is how can we create, with a minimum of effort (and cost), the best possible chance that implementation of intended and approved complex innovations will actually take place?”
(Vrakking 1995:31)

“Developing and maintaining an evaluative culture in an organization is often seen as key to building more effective results management and evaluation approaches.”
(Mayne 2008:4)

Abstract
A weak evaluation culture undermines and jeopardizes efforts to build an effective program evaluation. Further, we argue that the creation of an evaluation culture leads to change and improvement. This paper summarizes what we have learned from the literature on implementation of innovations. We focus on some of the conceptual and methodological issues raised with regard to intra-organizational implementation. We do this to understand earlier prescriptions to develop a framework from which an organization can successfully implement and sustain a practical program evaluation model. The context is in a government setting. The literature analysis addresses the question: how can the Limpopo Department of Agriculture take on board, spread and sustain evaluation practice within its structures and members? Towards this end, the paper begins with a description of what an innovation, evaluation culture, and intra-organizational implementation are. Next, it provides a discourse on intra-organizational implementation process, i.e. stages and prescriptions. This is followed with a discussion on practical issues to be considered when ensuring successful implementation. Finally, some conclusions are offered.

Key Words
Innovation; Intra-organizational Implementation; Practical Program Evaluation (PPE) Model; Limpopo Department of Agriculture (LDA); Social Betterment

¹ The authors are with, respectively, (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
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PAPER 8
MAINTAINING EVALUATION QUALITY:
META-EVALUATION
Meta-evaluations in government and government institutions: A case study example from the Australian Centre for International Agricultural Research

Madzivhandila T.P. 1,3*, Griffith G.R. 2,3, Fleming E. 3 and Nesamvuni A.E. 4

“Implicitly or explicitly, a concern with evaluation quality drives our discussions of evaluation models, methods, and practices… meta-evaluations are systematic reviews of evaluations to determine the quality of their processes and findings”. (Cooksy and Caracelli 2009:2)

“Good evaluation requires that evaluation efforts themselves be evaluated…it is necessary to check evaluations for problems such as bias, technical error, administrative difficulties, and misuse”. (Scriven 1969)

Abstract
In this paper we draw on impact assessment work of the Australian Centre for International Agricultural Research (ACIAR) to present an example of meta-evaluation – an evaluation of evaluations – in an agricultural research, development and extension setting. We explore quality issues relating to evaluation studies in the context of government institutions. Program evaluation standards (PES) are divided into categories of utility, feasibility, propriety and accuracy to provide a framework for the meta-evaluation. The PES are presented as a universal measure of evaluation study quality. The intent of using them here is to judge the adequacy of PES as a universal quality measure or meta-evaluation base and to extract useful insights from ACIAR program evaluation activities when developing a meta-evaluation model for the Limpopo Department of Agriculture (LDA). Our meta-evaluation is undertaken of 63 impact assessment reports. First, the literature guiding the conduct of a meta-evaluation is reviewed. Second, an assessment (the meta-evaluation) of the evaluation studies is carried out for 19 sampled reports from a population of relevant reports fitting the dimension of the analysis, and results are presented and discussed. Also, lessons learned are presented, using the framework provided by the meta-evaluation criteria. Third, taking into account the lessons learned, implications are drawn for a proposed systematic meta-evaluation of the LDA. Finally, we conclude that all the PES cannot be equally emphasized in a meta-evaluation model. At ACIAR, 70% of the standards were at least partially addressed. Therefore, we succeeded in using the PES in judging the ACIAR evaluation quality. As such, they can be an important base when developing an evaluation model but should be applied in a contextualized manner.

Key Words
Meta-evaluation; Evaluation Quality; Program Evaluation Standards; Evaluation Model; Australian Centre for International Agricultural Research; Limpopo Department of Agriculture (South Africa)

* The authors are with, respectively, (1) the Agricultural Research Council, Irene, South Africa; (2) Industry and Investment NSW, Armidale, Australia; (3), the University of New England, Armidale, Australia; and (4) the Limpopo Department of Agriculture, Polokwane, South Africa.
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Synthesis of Part E

Further to building the proposed PPE model, the thesis seeks to make sure that the model is embedded and sustainable and that the program evaluation is of high quality. First, Paper 7 explored how the LDA can take on board, spread and sustain evaluation conduct and practice within its structures. A conceptual framework has been identified as having the potential to ease intra-organizational implementation if PPE is introduced to the LDA. To enhance an evaluation culture, the steps suggested include: determining PPE participants and their roles, justifying and defining its function and status – initiation, adoption, diffusion to bridge the chasm, institutionalization, and tracking and refining the implementation process. We also posit that the LDA must navigate change-confounding issues in order to evolve from its ‘undesirable current state’ to its ‘desired future state’. We present the argument that change cannot be achieved at the organizational and/or governance in the public sector levels without change at the individual level. Second, in Paper 8, evaluation quality issues were suggested for our proposed PPE model. We drew on the impact assessment work of ACIAR to present a case study example of meta-evaluation in an agricultural RD&E setting. We found that the PES – of utility, feasibility, propriety and accuracy – provide a framework for the meta-evaluation. However, there was non-use or low use of some standards at ACIAR suggesting that even for an organization with a long history of evaluation, it is difficult to consider equally and emphasize all the PES. Therefore, the design of a meta-evaluation should be grounded in a set of contextualized standards.
INTEGRATIVE CONCLUSION
Integrative Conclusion
This integrative conclusion contains a summary of the major findings from the papers that shaped the thesis, and a discussion of its major contributions, limitations, implications and applications. To this end, it is divided into five sections. The main research findings that answer the eight secondary research questions are summarized in Section 1, which also provides a synoptic summary to answer the primary research question. Both primary and secondary research questions are identified in subsection 4.2 of the General Introduction. In Section 2, the contributions of the study to the existing body of knowledge on program evaluation are outlined. Sections 3 and 4 capture the limitations intrinsic in the study and the implications for future research, respectively. Section 5 offers concluding remarks with regard to the applicability of the study.

1. Summary of Results

The papers in this thesis revealed the following findings in relation to the eight secondary research questions

**How does conceptual evaluation practice and theory affect PPE model design?**

First, the Government-Wide Monitoring and Evaluation System (GWM&ES) is intended to establish a uniform practice of systematic monitoring and evaluation (M&E) across all spheres of government in South Africa. With regard to the status of, and need for, GWM&ES practice:

- It has only recently been designed and has not been fully implemented, and is still seriously lacking in most government departments.

- Multiple reporting lines still persist (see Figure 1.2); therefore, accountability and improvement of current and future social betterment initiatives is still hindered.

- Acceleration of the implementation of the GWM&ES and other complementary efforts is required to:
  - align government reporting channels (see Figure 1.3)
  - use the national information flow framework (see Figure 1.4) to guide all program performance information flow (or its systems)
- provide equal emphasis on the supply of and demand for program evaluation (see Figure 1.5).

- Different stakeholders are involved with the GWM&ES and should be considered in the roll-out.

- If the implementation of the GWM&ES policy framework is successful, program evaluation will have potential for the improvement of social betterment service delivery.

Second, the history and evolution of evaluation is important and affects the design of the PPE model. The lessons learned together with an extrapolation of current developments, as in Table 2.1, showed that:

- The field of evaluation is often supposed to be fractured, because (i) evaluation has varied roots; (ii) there are disagreements about the definition, purpose and function of evaluation; (iii) it lacks a unifying theory; and (iv) there are disagreements about: knowledge construction, valuing evaluation products, evaluation use, and which stakeholders to engage or serve and how.

- First-stage theories had significant weaknesses in their assumptions about social betterment programs, evaluation and the use of evaluation findings. The main emphasis here was on the elimination of bias. Use was assumed to happen naturally.

- The second stage, explosive growth, was mainly concerned with the use of evaluation results and pragmatism, focusing on how information is used in the design and modification of social betterment programs.

- In the third stage, theorists advanced the relevance of context and an understanding of the mechanisms responsible for change when evaluating program outcomes. The focus was mainly on program theories and elements.

- Recently, the emphasis has been on making evaluation responsive to stakeholders’ needs. In part, it should address issues of empowerment, learning, democracy and social justice principles.

**What are the factors that should be considered for designing a PPE model?**

For factors to be included to a PPE model, our best practice suggestions were based on the five epistemic fundamentals of program evaluation defined by Shadish et al.
They are social betterment programming, knowledge construction, valuing, knowledge use and evaluation practice.

- Good program evaluation starts with sound programming as a heuristic instrument to support and focus thinking (see Figures 3A.2 and 3A.5). Logic models together with program theories should support the design, implementation and evaluation of agricultural research development and extension (RD&E) programs. The results showed that logic models help to:
  - structure evaluation questions (see Figure 3A.6 and Appendix 1)
  - structure evaluation criteria and indicators (see Figure 3A.7)
  - understand program logic, purpose, accountability elements, types of evaluation studies, program theory and systems theory (see Figure 3A.8).

- Two interrelated trends were observed with regard to knowledge construction. First, the field is breaking away from an objectivism stance towards inclusion of a multiplicity of stakeholders in data collection designs and methods. Second, there has been a move away from the acrimonious debates of the quantitative-qualitative dichotomy to a dialogue and accommodation between the two. This requires evaluation designs and methods to be practical, contextual, responsive and consequential. Therefore, a PPE model should reflect an eclectic view in constructing knowledge, as in Figure 3B.1. The eclectic view inter-connects knowledge construction, philosophical paradigms, assumptions (elements), strategies, designs and methods.

- Social betterment programs have values embedded in them because a decision to allocate or distribute social resources is based on values. We found that values, differentiated into merit and worth as in Table 3C.1, are central to evaluations. Therefore, a good PPE model states its priorities concerning which kind of values to study, and justification thereof when choosing between prescriptive and descriptive theory. Issues of democracy, justice, cultural diversity and equality should be salient in the valuing while recognizing the powerless and marginalized people. Further, a multiplicity of stakeholders – Table 3C.3 – should guide efforts to value evaluation products.

- Knowledge use is the central outcome of any evaluation. Without use, evaluation cannot contribute to its primary aim of social betterment. It is a necessary component of a PPE model in order to influence social betterment. We place a high premium on the utility of evaluation use and influence, expecting that
evaluators design and conduct their evaluations so that they are informative and influential. We showed how different types of use occur (Figure 3D.1), advised how to use or avoid misuse of evaluations (Figure 3D.2) and provided mechanisms through which evaluations can produce influence at the individual, interpersonal and collective levels (Figure 3D.3).

• In government and public organizations, there should be a good fit between evaluation theory and practice. Evaluation practice is the most important, and permeates through all other components of program evaluation. The PPE model should make constrained choices with a realistic understanding of losses and gains. It should also set priorities and trade-offs when making decisions about various issues when constrained by time, resources and skills. We:
  o found how to use the eight-dimensional tool when making a decision to or not to evaluate (see Figure 3E.1).
  o indicated when to use internal or external evaluation (see Table 3E.1).
  o determined when to conduct formative and summative evaluations (see Figure 3E.2).
  o presented a four-quadrant framework to use when defining the roles of an evaluator (see Figure 3E.3).

What is going on in terms of LDA social betterment initiatives?

The two tertiary questions that were answered are:

• What are the current CMO program theories in the LDA social betterment initiatives?
• What is the potential of Leximancer™ in establishing credible program theories?

First, a Leximancer™ analysis of the LDA’s CMO documents showed that:

• The two major underpinning themes are the key words “agricultural” and “total” (see Figure 4.1). Indicating that the CMOs are agricultural related and the total of inputs, activities/processes required for producing total of results achieved quarterly and yearly.
• Broadly, the theme agricultural is closely related to: how the department (LDA) is providing its RD&E services to support the sector (i.e., farmers) development each year, even though the theme total is an overall theme at 100% theme size (see Figure 4.2).
• The four quadrants in the concept map showed the agriculture structural setting, achievements or results indicators, the situation with regard to constraints, and what the focus is (see Figure 4.3).
• With regard to where the documents are located, when tagged in the original data, the mechanism documents are the only misaligned document type (see Figure 4.5). This indicates that the specific mechanisms to achieve outcomes given the context at the LDA are not prominent.
• Surprisingly, our analysis gave should as a frequent concept in the documents showing the political obligation of the context documents to social betterment.

Second, the Leximancer™ allowed us to perform content analysis by undertaking:
• a conceptual and thematic analysis which detects concepts within the text
• a semantic analysis which quantifies relationships between identified concepts.

What is the current LDA program evaluation system?
A descriptive content analysis was carried out of the evaluation system and its adaptation at the LDA using the Segerholm (2003) theoretical frame. The results showed that:
• Politically, the agricultural RD&E programs are important primary components in the national economy, especially for the South African rural community. Further, progress in reforming the public administration, specifically evaluation institutionalization, has been slower than anticipated (see Table 5.2).
• The LDA operates within a multi-layered and complex scenario: inter-organizationally, with other organizations and stakeholders (Figure 5.2); and intra-organizationally, between branches (Table 5.3). With regard to current LDA performance against the nine public service Constitutional principles, as in Table 5.4, the LDA performs better than the national average on seven standards, showing that the department is attending to the required administrative practices.
• Development of an evaluation process is inadequate, indicating that the LDA still does not have a well configured evaluation process in place, raising serious concerns given the requirement of performance data on programs (see Table 5.5).
With regard to suggested future opportunities, using impact and influence scores (Table 5.7), regular strategic planning and reporting forums (#4) stood out favourably from the rest of the opportunities, followed by reporting impact at the beneficiary level (#1) and equal emphasis on internal and external evaluations (#8) (see Figures 5.7 and 5.8).

In what way should the PPE model be designed for the LDA?

- The use of a modelling approach is an important aspect of real-life problem solving, building representations of how things (here, program evaluation) should happen in the ‘real world’.

- Our PPE model includes three complementary phases, each with a number of steps, activities and critical factors to consider, as in Figure 6.1.
  
  - It should start by presenting aspects important to consider when establishing the context for the evaluation.
  - It should contain the steps that need to be tailored into the evaluation process.
  - It should encompass critical factors that underpin the successfulness of the evaluation process and results.

- The design of the PPE model involves balancing the probable cost of answering evaluation questions with the likely credibility and usefulness of the evaluation results. Which steps and activities to include in a particular PPE model depends on the context of the initiative that generated the evaluation, and the degree of effort the organization is prepared to commit.

In what way should the proposed PPE model be implemented in the LDA?

The thesis posits that a weak evaluation culture undermines and jeopardizes efforts to build an effective PPE model. Further, we argue that the creation of an evaluation culture leads to learning and improvement. Implementation is the maximization of the degree to which the actual use of an innovation corresponds with its intended use.

- Intra-organizational implementation drives how innovations gain or lose momentum and value within organizations once they are introduced. The six steps we propose in Figure 7.3 are:
Determination of participants: executive management, non-functional (supporting) management, functional management, operating management, operating personnel, evaluation specialists or practitioners.

Initiation, which includes the PPE model justification and defining its function and status within the organization.

Adoption, which involves a decision to make full use of the PPE model as the best course of action available, and rejection as a decision not to adopt.

Diffusion, which is the process by which the PPE model is communicated through certain channels, over time, among the members of the LDA.

Institutionalization, which occurs when the PPE model is used in a routine manner and is accepted as something normal that is expected to continue.

Tracking, which generates a shared agreement on the successes and failures of the implementation process of the PPE model within the organization, and visible assessment which provides a source of learning during implementation and a method of maintenance after implementation.

What are the critical considerations when managing change brought by the proposed PPE model?

The organization must navigate change-confounding issues in order to evolve from its 'undesirable current state' to its 'desired future state'.

- Analysts in the change management literature suggest almost a 70% chance of failure by organizations to change successfully.
- The PPE model can alter the current underlying identity of the LDA and its members' psychology and behaviour.
- We present organizational change as moving from one state to another, specifically from a problem state to a solved state.
- We identified 17 critical success factors (CSFs) that contribute to organizational and individual change stability. These CSFs are: organizational learning and unlearning; transformational leadership; involvement of middle management; trust, motivation and self-efficacy of employees; capable change champions or
agents; involvement of HRM; adaptable structural arrangements; flexible organizational or individual culture; availability of continuous improvement; availability of capacity building; accountability consciousness; communication; dialogues and conversations amongst organization members; sense-making of the change initiative; emotional intelligence; justice and fairness during change; and enough dedicated resources.

- In the public sector, the change levels are individual, group, organizational and governance. We posit that without change at the individual level, change cannot be achieved at the organizational and/or governance in the public sector levels.

What are the characteristics of a high quality evaluation when conducting a meta-evaluation for LDA?

- Program evaluation standards (PES), which are divided into categories of utility, feasibility, propriety and accuracy, provide a framework for the meta-evaluation. Using a 75% satisfactory level, our ACIAR case study example results in Figure 8.1 and Table 8.2 indicated that:
  - 86% of the standards within the utility category were at least partially addressed, proving that the utility standard can apply when designing a meta-evaluation model for LDA.
  - Only one of the three feasibility standards was at least partially addressed. This category of standards did not apply and we suggest their revision for the LDA meta-evaluation.
  - Propriety standards did not apply given that only one-half of the standards within this category were at least partially addressed.
  - Accuracy category results showed that 10 of the 12 standards within this category were at least partially addressed.
  - Only 70% of the overall standards were partially addressed, which falls just short of the nominated satisfactory level of 75%, but some PES standards are not relevant for the ACIAR reporting context. Taking this adjustment into consideration, some 83% of the relevant overall PES standards can be argued to apply in the ACIAR context.
- There is non-use or low use of some standards suggesting that even for an organization with a long history of evaluation, it is difficult to consider equally and emphasize all the PES. They confirm and validate what constitutes a good evaluation practice.
The primary research question: what type of a PPE model can be built in LDA, as shown in subsection 5.4 of the General Introduction, was therefore answered as a summary of the findings. Building a practical program evaluation model could be advanced by an integration of different levels of analysis (see Figure 4), considering elements of evaluation theory and practice. A PPE model in organizations should: be based on the political, organizational and program context; take lesson from evaluation theory history and follow the evolution trends; consider the five epistemic elements; be systematic; be looked after by intra-organizational implementation and change and quality management activities (as in Figure 6.2). If this integration is successful, program evaluation will happen systematically (Figure 6.1) and sustainably in organizations (Figure 6.2).

2. Summary of Contribution

So what have we gained? Despite the design limitations of the case study approach and the other shortcomings described below, the major contributions of the study are as follows.

In the first place, the thesis reports the first comprehensive investigation into how to build, embed and sustain a contextualized PPE model for South African social betterment initiatives. For the first time, a PPE model is proposed as a framework for a credible and usable evaluation findings nexus in agricultural RD&E, specifically at the LDA. The practical 10-step process has activities that are important for the systematic analysis of program impact. Knowing the context is a significant precursor to this PPE model, and it is also underpinned by critical factors to achieve successful evaluation process and use of findings. This proposed PPE model gives the LDA an opportunity to systematically evaluate RD&E initiatives, an activity that had previously been ignored. It provides the possibility of getting to know the initiatives and their impact better.

Second, the thesis provides insights into a broad range of significant contextual matters with regard to evaluation practice in South Africa. It shows that program evaluation in government departments (i.e., GWM&ES) is not yet well configured. Moreover, the thesis provides a theoretical context by summarizing lessons from the history of, and developments emerging from, the evaluation field. Building on other
authors’ work, depicting the history is a comprehensive framework covering evolution stages and the contributions of prominent theorists.

Third, the thesis contributes to existing knowledge by assimilating best practices in the epistemic five elements of PPE: programming, knowledge construction, valuing, knowledge use and evaluation practice. Since the field of evaluation is fractured (Alkin 2004; Greene et al. 2001; Huberty 1988; Levin-Rozalis 2000; Mark et al. 1999; Sencrest 1994; Shadish 1988), rarely are these five elements explored extensively in one single study in an integrated manner. Comprehensive frameworks are presented to show the best practice in program evaluation.

Fourth, the thesis provides a comprehensive description of the LDA emerging themes and concepts. For the first time an unsupervised textual data analysis tool, Leximancer™, was used to configure agricultural RD&E context, mechanisms and outcomes. Further, we established credibility of using the software in analysing large quantities of data; this also provides an alternative avenue for future qualitative studies.

Fifth, the thesis provides an in-depth analysis of the current political and organizational context and evaluation process of the LDA evaluation system. The study was able to confirm a finding by previous studies that program evaluation at the LDA is not optimal. For that reason, the thesis offers theoretical pathways to improve the situation. Moreover, it offers an empirical list of opportunities suggested by the LDA staff. What is new here is that the opportunities were filtered through the influence and impact tool.

Lastly, the thesis provides some useful insights into proposed post-model actions. The first action deals with intra-organizational implementation of the model. A new contribution here is the logical six steps: (i) identification of relevant participants, (ii) initiation activities, employing strategies for (iii) adoption, (iv) diffusion and (v) institutionalization, and (vi) tracking and refining. The second action suggests how change brought by this new innovation can be managed. We recommend a four-step conceptual framework composed of 17 underpinning CSFs that should be used as guidance. Further, we identified four levels of analysis in change management process in the public sector: individual, group, organizational and governance. We posit that without change at the individual level, change cannot be achieved at the organizational and/or governance in the public sector levels. The third action
presents the PES as criteria for evaluation quality. The ACIAR impact assessment studies were meta-evaluated to establish applicability of the PES in agricultural RD&E initiatives. This type of meta-evaluation, applying the PES to assess quality, is the first kind to be used when evaluating the impact assessment studies at ACIAR. It is generating interest for deeper exploration. Further, it laid contextualized foundation on evaluation quality standards for the LDA and it also provides a real-world example of how the PES can be applied.

More broadly, all the elements and frameworks collated in this thesis could be argued to cover most theoretical information that is best in terms of acceptability. Further, the thesis reduces the theoretical information from the literature into practical and simple conceptualization. This conceptualization provides an approach to resolve program and organizational (LDA) evaluation deficit and the ‘black box’ syndrome. As demonstrated, this can be a practical way to build, embed and sustain the PPE model which can be expected in relation to social betterment. We strived to relate social betterment (i.e., agricultural RD&E) to program evaluation.

3. Limitations

The conclusions drawn from this thesis should be viewed with caution because the study design, methods and data used are subject to some limitations. The findings, however, can be interpreted and used appropriately when the following limitations are kept in mind.

The first limitation relates to the use of a case study design. The strengths and weaknesses of the case study design are listed in subsection 5.5 of the General Introduction. This limitation is mainly the consequence of the high level of subjectivity involved in any qualitative method constraining generalizability. The participants in the two focus group discussions were not randomly chosen. Therefore, the methods in case study design were not well suited to testing frameworks and propositions. However, the qualitative methods were still useful approach to identify and describe the LDA CMO configuration and program evaluation current situation.

The second limitation is derived from data used in the three case studies with regard to establishing program theories, current evaluation system and the PES suitable to benchmark evaluation quality.
• Program theories: When analysing the data, Leximancer™ does not: (i) purport to be a complete analysis of the documents; nor does it purport to represent the intentions of the authors of the documents; (ii) identify the extent to which the CMO program theories can be identified with the knowledge of LDA staff and management, or talks and beliefs of politicians at the provincial and national levels; or (iii) extrapolate and/or generalize beyond the current data set.

• Evaluation system: We were studying a phenomenon that is still very much on-going, even though we observed that the evaluation system at LDA is not well configured. No finite conclusion can be drawn due to newness of the GWM&ES. However it was argued in Paper 1 that this limitation is an opportunity as well.

• Meta-evaluation: The initial plan was to use LDA impact assessment studies; unfortunately, reports on such studies were not available. This is symptomatic of the problem when an organization does not have a series of impact assessment studies. A problem we faced when considering measuring evaluation quality was that there is no history on which to base quality parameter estimates. A further limitation was that ACIAR operates in different environments, even though it was a perfect example to use in an agricultural RD&E context.

In the third limitation we noted that the future new directions and concepts not highlighted in this study may gain strength and the conceptual frameworks derived may evolve. Therefore, the collection of frameworks used and subsequent PPE model we proposed are in no way fully exhaustive.

Given these limitations, the main question is whether the proposed PPE model and accompanying frameworks are sufficiently general to be transferred to other organizations. The answer is both yes and no. Yes, because at this point the results are probably valid for the program evaluation literature produced to date. No, because of the limitation of the case study design we used when collecting empirical evidence. Further, the distinctive nature of the LDA casts some doubts on the generalizability of our findings to other organizations in the social betterment arena. Therefore, the results should be interpreted and applied with caution, but may be overcome through future research.
4. Implications for Future Research and Practice

Implications for future research have relevance to research and practice. Some of the more important research implications are now considered.

The South African public service needs further research on the status of its GWM&ES. Paper 1 revealed that: (i) the history of evaluation is too brief, since past and current efforts are devoted to developing policies and procedures, and on establishing the evaluation system; (ii) there are no examples of studies investigating evaluation influence on policy, decision making and practice; and (iii) there are no panel data. Therefore, studies having a potential to measure the performance of GWM&ES are imperative.

Conceptually, the meaning of evaluation is often confusing. The definition of the concept of evaluation and its purpose is still contested. Even though our framework in Paper 2 provides clear tacit knowledge of where the variation comes from and where the current trends are heading, the task of determining what the LDA staff know and understand about the concept of evaluation is an area open for future research.

Shadish et al. (1991) suggested five elements that underpin program evaluation, as we mentioned a few times before. The best practice issues identified in Papers 3A to 3E are only conceptual. There has been no assessment of how knowledge is constructed, valued and used with regard to social program design and evaluation practice at the LDA. Further studies are required to empirically investigate the factors that LDA evaluation stakeholders think should be considered in each of the five elements. This is to capture the views on how best the individual element can be contextually applied.

In Paper 4, our analysis was constrained by the theoretical CMO framework (Table 4.1) developed for the study. When establishing the LDA outcomes, only organizational reports were used, even though the initial plan was also to explore individual program or project reports. Additionally, two annual reports of the observed period were missing. Future research to strengthen understanding on specific programs or projects, using Leximancer™ or other qualitative methods or software, is
recommended. Also, to deepen insights into the social betterment CMO’s, cases from specific agricultural RD&E sectors should be examined.

Further thought needs to be given to testing our proposed PPE model presented in Paper 6. A next step should be to refine, discuss and correct/add to the model. Further, we suggest studies to compare and integrate this PPE model with the diverse models used in other organizations or government departments. Future research can test the applicability of the PPE model at the organizational and individual use levels. How are RD&E practitioners, and more broadly the LDA, managing with the use of the PPE model? The moderation effect of the model and its sustainability could be assessed, providing quantitative evidence. The assumption here is that practitioners and management would be able to model the use and practice of program evaluation with their programs and, at a high echelon, to modify or design policies.

More empirical research is needed on the aspects mentioned in Paper 7 to shed more light on the complex phenomenon of embedding and sustaining PPE models in organizations. Clearly, given the newness and limited understanding of this topic at the LDA, future research on the success of the intra-organization implementation of the PPE at the LDA is crucial.

In addition (from the change management paper not presented here), organizational characteristics such as size, leadership and diversity have been demonstrated to influence individual and group creativity, as well as other important factors including cultural influences, resource availability, organizational mission and strategy, structure, and technology (see Madzivhandila et al. 2010b). However, all these change confounding variables have not been directly included in the PPE model. Future research should empirically test these relations.

The proposals for the LDA meta-evaluation in Paper 8 are based on the theoretical literature and the ACIAR case study; therefore, future research needs to include empirical evidence that encompasses the South African context. Further, the case study focuses on a government department and statutory authority; future research should explore the influence of the PES in other settings.

This thesis has important implications for practice, even though it provides evidence of the importance of program evaluation. The proposition about the benefits to be
obtained from adopting program evaluation innovation, as in Figure 5, depends on the LDA context. Practical implications encourage executive management at LDA to create the conditions that foster organization-wide program evaluation. We make the following recommendations.

- To start using systematic program evaluation that is underpinned by evaluation best practice theory to address the shortfall in GWM&ES efforts. This can include but is not limited to:
  - randomly assessing impact of their RD&E initiatives.
  - targeting staff in RD&E with the aim of building their evaluation capacity.
  - allocating resources to enable a culture of evaluation.
  - forming a PPE model users support network.
- On-going appraisal on the success of implementing organization-wide program evaluation.
- Standardization of the information management system (a centralized data base).
- Rewarding the use of program evaluation process and results, especially when findings are influencing practice, decision-making and policy-making.
- Establishing an evaluation environment through an autonomous evaluation unit.
- Independent review by outside evaluators is also recommended.

5. Application

We conclude this thesis by offering remarks on its applicability to the broader social betterment arena. The applications of the research findings are potentially far-reaching. The study provides useful insights into the design of a PPE model, specifically for the LDA and broadly for other government departments and organizations in agricultural RD&E and in different social betterment areas. Even though this thesis has sought to propose a PPE model for the LDA, the application of the model to the broader areas of social betterment is possible. Programs in social betterment provided through government departments and public organizations are often geared towards poverty reduction; as a consequence, the environment where the model will operate will be generally similar. However, specific contextual limitations need thorough consideration. Despite the specific focus of this study on the LDA, opportunities for other organization to tap into it are huge. This thesis should help policy makers, organizational and program managers and practitioners – in the LDA and elsewhere – with strategies to design, embed and sustain program
evaluation in their social betterment task. Moreover, the thesis and its findings have potential to facilitate an ongoing quest to improve the quality of public service and subsequent social betterment.

We contend that this study refines and extends the discourse in the evaluation literature to provide a tool for assisting the LDA to improve its evaluation system and practice and subsequent social betterment initiatives. It offers both a prism, to reveal the full spectrum of underpinning principles and concepts, and a lens, to provide focus during evaluation stages and activities. The deeper understanding of the program evaluation provided by the thesis is immense.
APPENDICES

1. Evaluation Questions

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<th>Program level</th>
<th>Questions</th>
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| Need assessment (Questions about nature and magnitude of the problem) | • What are the nature and magnitude of the problem to be addressed?  
  • What are the characteristics of the population in need?  
  • What are the needs the population?  
  • What services are needed?  
  • How much service is needed, over what time period?  
  • What service delivery arrangements are needed to provide? |
| Assessment of program theory (Questions about program conceptualization or design) (see also Weiss 1998a:75) | • What clientele should be served?  
  • What service should be provided?  
  • What are the best delivery systems for services?  
  • How can the program identify, recruit, and sustain the intended clientele?  
  • How should the program be organized?  
  • What resources are necessary and appropriate for the program? |
| Assessment of program process (Questions about program operations and service delivery) (see also Weiss 1998a:75) | • Are the administrative and service objectives being met?  
  • Are the intended services being delivered to the intended persons?  
  • Are there needy but unserved persons the program is not reaching?  
  • Once in service, do sufficient numbers of clients complete service?  
  • Are the clients satisfied with service?  
  • Are administrative, organizational, and personnel functions handled well? |
| Impact assessment (Questions about outcomes) (see also Weiss 1998a:75-76) | • Are the outcome goals and objectives being achieved?  
  • Do the services have beneficial effects on recipients?  
  • Do the services have adverse side effects on the recipients?  
  • Are some recipients affected more by the service than others?  
  • Is the problem or situation the services are intended to address made better? |
| Efficiency assessment (Questions about cost and efficiency) | • Are the resources used efficiently?  
  • Is the cost reasonable in relation to the magnitude of the benefits?  
  • Would alternative approaches yield equivalent benefits or less? |

Source: Rossi et al. (2004)
2. Key National Programs in the South African Agricultural RD&E

The national Department of Agriculture, Forestry and Fisheries (DAFF) – formally Department of Agriculture (DOA) is having key programs for farmers development. The provincial department carries the responsibility of implementation. The following programs discussed below are relevant to the agricultural RD&E. These related programs are:

**Agricultural broad-based black economic empowerment (AgriBEE)**
This program is for equitable access and participation in agriculture by black people including women, workers, youth, and people with disabilities and people living in rural areas through diverse but integrated social or economic strategies, plans, principles, approaches or acts (DoA 2004). This includes, but is not limited to:

- Increasing the number of black people that manage, own and control enterprises and productive assets;
- Facilitating ownership and management of enterprises and productive assets by communities, workers, cooperatives and other collective enterprises;
- Human resource and skills development;
- Achieving equitable representation in all occupational categories and levels in the workforce;
- Preferential procurement; and
- Investment in enterprises that are owned or managed by black people.

**Comprehensive Agricultural Support Program (CASP)**
The aim of the CASP program is to provide post-settlement support to the targeted beneficiaries of land reform and to other producers who have acquired land through private means and are, for example, engaged in value-adding enterprises domestically or involved in export (DoA 2000b online). The program is a core focus for the DoA and makes interventions in six priority areas:

- Information and technology management;
- Technical and advisory assistance, and regulatory services;
- Marketing and business development;
- Training and capacity building;
- On/off farm infrastructure and product inputs; and
- Financial support.

**Land Settlement**

According to (DoA 2000c online), the aim and activities of the settlement program are to:
• Facilitate the strengthening of institutional systems for delivery of land redistribution and agricultural development;
• Facilitate, formulate and coordinate action plans to support projects;
• Facilitate the development of effective farming models;
• Promote the application of viable (developed) models; and
• Assess the impact of the land reform programs (economic, socio-cultural, institutional or environmental changes).

Of importance to the study is the Land Redistribution for Agricultural Development (LRAD) sub-program. LRAD sub-program has two distinct parts (DoA 2001a online). First, there is the part that deals with transfer of agricultural land to specific individuals or groups. Second, there is the part dealing with commonage projects, which aim to improve people’s access to municipal and tribal land primarily for grazing purposes.

The objectives of the LRAD sub-program of land settlement as reflected in the framework document (DoA 2001a online) are to:

• Increase access to agricultural land by black people (Africans, Coloureds, and Indians) and to contribute to the redistribution of approximately 30 percent of the country’s commercial agricultural land (i.e. formerly ‘white commercial farmland’) over the duration of the program;
• Contribute to relieving the congestion in over-crowded former homeland areas;
• Improve nutrition and incomes of the rural poor who want to farm on any scale;
• Overcome the legacy of past racial and gender discrimination in ownership of farmland;
• Facilitate structural change over the long term by assisting black people who want to establish small and medium-sized farms;
• Stimulate growth from agriculture;
• Create stronger linkages between farm and off-farm income-generating activities;
• Expand opportunities for promising young people who stay in rural areas;
• Empower beneficiaries to improve their economic and social well-being;
• Enable those presently accessing agricultural land in communal areas to make better productive use of their land; and
• Promote environmental sustainability of land and other natural resources.

The Land and Agrarian Reform Project (LARP)

The DoA (2008:6-7) asserts that, the LRAP provides a new framework for delivery and collaboration on land reform and agricultural support to accelerate the rate and sustainability of transformation through aligned and joint action by all involved stakeholders. It creates a delivery paradigm for agricultural and other support services based upon the concept of “One-
Stop Shop service centres located close to farming and rural beneficiaries. The objectives of the LARP project are the following (DoA, 2008:7):

• Redistribute 5 million hectares of white-owned agricultural land to 10 000 new agricultural producers;
• Increase Black entrepreneurs in the agribusiness industry by 10 percent;
• Provide universal access to agricultural support services to the target groups;
• Increase agricultural production by 10-15 percent for the target groups, under the LETSEMA-ILIMA Campaign; and
• Increase agricultural trade by 10-15 percent for the target groups.

By redistributing land, increasing tenure security and black entrepreneurship, improving access to support services, and increasing production and trade, LARP will directly contribute to the overall goals of the Agricultural Sector Plan, namely participation, global competitiveness and sustainability, and to the White Paper on South African Land Policy.

National LandCare Program
LandCare is a community based and government supported approach to the sustainable management and use of agricultural natural resources (DoA 2000d online). The overall goal of LandCare is to optimize productivity and sustainability of natural resources so as to result in greater productivity, food security, job creation and better quality of life for all. To achieve this, the government will work towards (DoA, 1998):

• All Land users being able to make well informed decisions based on an understanding of full economic, ecological and social costs and benefits of their land use practices;
• Institutional arrangements which clearly put the responsibility for addressing land degradation with those who cause it;
• A research, development and demonstration effort that promotes a sustainable, internationally competitive and efficient agricultural sector in the long-term;
• All levels of government, community and land users understanding the nature and value of our land resources and working in partnership towards their sustainable use; and
• Reconciling economic, social and ecological concerns in the management of South Africa’s land to best sustain a full range of uses for the benefit of the nation into the future.
3. LDA Evaluation System Situation Analysis Case Study Questionnaire

Focus Group Session: Limpopo Department of Agriculture

Date: _________________

Name (Optional): ________________________________

Designation: ________________________________

Researchers Notes:
Data is collected for Tshilidzi Percy Madzivhandila, student number 220031820, PhD study at the University of New England, School of Business, Economics and Public Policy.

Ethical Considerations
- No anticipated harm (physically and psychologically) that respondents will be subjected to.
- Consideration with regard to taking up only as much time as is essential, 1) using check list of questions as a guide and asking only important and relevant questions; 2) being careful about permission from those the study wish to survey; 3) disclosing the reasons why the study in conducted.
- Confidentiality/Anonymity will be observed.
- Rights of respondents to participate is be respected.
- Research study will not be presented as something other than what it is.
- Results obtained from the research will be reported as accurately as possible and effort will be made to make suggested proposals from the study adopted by the LDA.
LDA wide Monitoring and Evaluation System: Research Branch/Program

1. The importance of monitoring & evaluation

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2. The actuality of monitoring and evaluation (re: what is taking place)

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3. Your knowledge with regard to the purpose & principles of monitoring & evaluation

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4. Views about monitoring & evaluation structure and process (organizationally)

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5. What informs (provide context for) research/program priorities

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6. What inhibits/restricts monitoring & evaluation (process & use)

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7. What enables monitoring & evaluation (process & use)

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8. The design of the current monitoring & evaluation system focus on

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What methods are used to monitor & evaluate

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9. What are the measures/indicators used in the branch/program monitoring & evaluation?

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10. Communication or dissemination of monitoring & evaluation results

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What are the forms of communication/dissemnination used?

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10. Utilization of monitoring & evaluation results

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11. Results are used for what purpose of your responsibility

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

For the focus group

12. Use impact-Influence tool to identify monitoring & evaluation opportunities for improvements & rank them according to the tool.
# Observations, Questions, Ideas & Opportunities

(Use during presentations)

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<th>Ideas/Opportunities for improvement</th>
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**Other Comments**

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

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________________________________________________________________________
4. Impact and Influence Tool

Appendix 4 shows a simple grid for assessing opportunities for ‘Impact’ and ‘Ability to Influence’. The idea behind this tool is that if the option will not have significant impact, it is probably not worth taking forward to action. Additionally, even if the option will have significant impact, if you can’t do much about implementing it, then it will be difficult to realise that potential impact. Aim to choose options that will have significant impact and which you can influence. Leave behind those lower impact options or those that you cannot influence.

Source: Timms and Clark (2005; 2007)

Steps in the Impact and Influence Tool

**Step 1**
Write the opportunities for action you have developed in the space provided.

**Step 2**
For each opportunity, ask yourself ‘What level of impact will implementation of this opportunity have on achieving the Focus?’ Score the level of impact from 0 to 10 (0 = no impact, 5 = some impact, 10 = high impact) and record the scores for each opportunity in the ‘Impact’ column.
Step 3
For each opportunity, ask yourself the most relevant of the following questions:

- ‘What is my personal ability to contribute to achieving the opportunity?’
  When thinking about your ability to influence you may consider such things as your current skills and knowledge, your role in the team/organisation and your level of influence within the organisation.

- ‘What is our team’s ability to achieve the opportunity?’
  When thinking about your team’s ability to influence you may consider such things as your team’s core business responsibilities, current skills and knowledge available within the team, and the team’s place within the organisational structure and hierarchy.

Score the level of influence from 0 to 10 (0 = no ability to influence, 5 = some ability to influence, 10 = high ability to influence) and record the scores for each opportunity in the ‘Influence’ column.

Step 4
Plot your scores for each opportunity on the graph provided. Mark the score for each opportunity with a dot or cross and write the number of the opportunity beside it. It is possible that more than one opportunity will have the same scores. If this happens, record the numbers of all the opportunities with that score beside the dot or cross.

Step 5
Consider the opportunities that fall in the top, right hand quadrant of the graph. That is, those opportunities that have scores of greater than 5 for both ‘Impact’ and ‘Influence’. If there are a lot of opportunities in this quadrant draw another set of ‘crosshairs’ through 7 or 8 on the graph and consider those options that fall in this further top, right hand quadrant.

Step 6
Identify and highlight those opportunities with high scores for both ‘Impact’ and ‘Influence’.
## 5. Program Evaluation Categories and Standards

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<th>Utility</th>
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<td><strong>U1</strong>: Stakeholder identification so that their need are addressed</td>
<td><strong>F1</strong>: Practical procedures to minimise disruption when obtaining information</td>
<td><strong>P1</strong>: Service orientation to assist to address and effectively serve the needs of the full range of participants</td>
<td><strong>A1</strong>: Clear and accurate program documentation</td>
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<td><strong>U2</strong>: Evaluator credibility (should be trustworthy and competent)</td>
<td><strong>F2</strong>: Political viability with anticipation of different positions of various interest groups</td>
<td><strong>P2</strong>: Formal agreements agreed to in writing</td>
<td><strong>A2</strong>: Context analyses should be examined in enough detail</td>
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<td><strong>U3</strong>: Information scope and selection should be broad to address pertinent issues</td>
<td><strong>F3</strong>: Cost effectiveness given its cost and benefits justification</td>
<td><strong>P3</strong>: Rights of human subjects designed and conducted to protect their welfare</td>
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<td><strong>U4</strong>: Values identification should be based on rational procedures</td>
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<td><strong>P4</strong>: Human interactions respecting human dignity so that participants are not threatened or harmed</td>
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<td><strong>U5</strong>: Report clarity with essential easy to understand information</td>
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<td><strong>P5</strong>: Complete and fair assessment in its examination and recording strength and weaknesses</td>
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<td><strong>U6</strong>: Report timeliness and dissemination to intended users</td>
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<td><strong>A12</strong>: Meta-evaluation should be formatively and summatively evaluated</td>
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Source: Joint Committee for Program Evaluation (1994)
6. Ranked Concept from Leximancer™ Analysis in the LDA CMO Documents Analysis

6.1. PoA documents

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## 7. An Example showing Leximancer™ Capability Further Exploring Co-occurrence* of Concepts from their Original Location

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<td>A national agricultural policy is necessary and a distinction should therefore be made between national and provincial responsibilities towards agriculture and its different role-players.</td>
<td>Concepts: should AND agricultural</td>
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<td>... the following critical agricultural policy goals must, inter alia, be pursued: (i) Developing a new order of economically viable, market-directed commercial farmers, with the family farm as the basis. (ii) The broadening of access to agriculture via land reform should be enhanced by adequate agricultural policy instruments, and supported by means of the provision of appropriate services.</td>
<td>Concepts: should AND agricultural</td>
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<td>(i) Financial systems should focus on the resource-poor and beginner farmers, enabling them to purchase land and agricultural inputs. (ii) Trade in and the marketing of agricultural products should reflect market tendencies. (iii) Agricultural production should be based on the sustainable use of the natural agricultural and water resources.</td>
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<td>Farming systems and the incentives that drive them change over time, but they should be sustainable, environmentally, economically and scientifically sound, and socially and politically acceptable.</td>
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<td>Context - DoA policy.pdf~1.html#S1_83</td>
<td>Government agricultural programs should contribute to the independence and self-reliance of all participants in the agricultural sector.</td>
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<td>Any involvement in rural development should be participatory, so that the person experiencing the problem as well as outsiders understand the risk of, and develop low-risk alternatives for, envisaged changes, adaptations, and improvements. The agricultural marketing system should ensure equitable access to the market for all participants The South African economy has been subjected to a range of regulatory measures that prevented many producers from fully utilising market opportunities.</td>
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<td>Government intervention in agricultural marketing should never be used to rectify socially unacceptable conditions when targeted nonmarket mechanisms are more appropriate The intention with intervention measures may be to correct a market imperfection which is a socially unacceptable consequence of market performance.</td>
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<td>The Mellor Poverty and Prosperity Report argue that Rural and Agricultural Growth brings a sharp decline in poverty through increased farm production, more employment, and lower food prices. Thus investment in rural and agricultural development presents the best option for poverty reduction. The 2004 Growth and Development Strategy (LPGDS) states that the issue of food security in agriculture should be addressed within the value chain. Concepts: should AND agricultural</td>
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<td>LDA mechanism - org strategies.pdf~5.html#S1_920</td>
<td>For consistent quality production, farmers should have access to tools such as enterprise budgets, market intelligence and information relating to prices, quality standards, grading, packaging as well as branding. For the Department to be in a position to formulate policies that would result in an improvement in the farming sector, statistical information/base line data is very crucial. It is also an important tool in gauging the extent to which the agricultural sector is contributing to the local economy, the state of the emerging farming sector and the pace at which it is catching up with the commercial sector competitiveness. Concepts: should AND agricultural</td>
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<td>LDA mechanism - speeches.pdf~4.html#S1_949</td>
<td>The facility should be in operation from 1 September 2007 or earlier. Honourable Speaker and members of the House, I once again take this opportunity to thank the Premier and Executive Council members for continuing to support matters of agriculture, the Portfolio Committee on Agriculture for the vigilant oversight role they play and the farmers whose challenges allow us to shape and refine policy. Concepts: should AND agricultural</td>
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<td>Results -- reports.pdf~8.html#S1_1822</td>
<td>Over the past two years, the department provided agricultural support to land and agrarian reform projects that contribute towards food security, job creation and poverty alleviation. The focus of the program was expanded, with a decision that 70 % of CASP expenditure should be on land reform projects, 10 % on food security projects, 10 % on training, 5 % on animal health services and 5 % on marketing. Concepts: should AND agricultural</td>
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*the co-occurring concepts we used as an example are should AND agricultural*
8. Glossary of Terms

**Accountability:** Obligation to demonstrate that work has been conducted in compliance with agreed rules and standards or to report fairly and accurately on performance results vis-à-vis mandated roles and/or plans. That is, it deals with responsibility and answerability of program staff to provide evidence to stakeholders and sponsors that program is effective and in conformity with its coverage, service, legal, and fiscal requirements.

**Activities:** Actions taken or work performed through which inputs such as funds, technical assistance and other types of resources are mobilized to produce specific outputs.

**Advocacy to evaluation:** Studies that are directed at increasing social justice through program evaluation, seeking to ensure that all segment of society have equal access to social betterment opportunities and services. This philosophy of evaluation is intertwined with political issues such as, empowerment, inequality, oppression, domination, suppression, and alienation.

**Attribution:** Causal link of one event with another, mostly the observed changes and a specific intervention. The extent to which observed effects can be ascribed to a specific intervention or that which is to be credited for the observed changes or results achieved.

**Baseline:** State of the economic, social or environmental situation relevant in the context of a program, at a given time (at the beginning of the intervention), and against which changes will be measured.

**Beneficiaries:** Individuals, groups or entities whose situation is supposed to improve (the target group), and others whose situation may improve as a result of the development intervention.

**‘Black box’ problem:** Is due to evaluation of program outcomes without the benefit of an articulated program theory to provide insight into what is presumed to be causing those outcomes and why. That is, it pays little attention to what happens during the course of the program or the mechanisms by which change is brought about.

**Capacity:** The knowledge, organization and resources needed to perform a function.

**Capacity development (Building):** A process that encompasses the building of technical abilities, behaviours, relationships and values that enable individuals, groups, organizations and societies to enhance their performance and to achieve their development objectives over time. It includes strengthening the processes, systems and rules that shape collective and individual behaviours and performance in all development endeavours as well as people’s ability and willingness to play new developmental roles and to adapt to new demands and situations.

**Case study:** A research strategy that investigate a phenomenon in its natural setting using multiple sources of evidence. It is qualitative, exploring in depth a program, event, activity, process, or one or more individuals. The case(s) are bound by time and activity.

**Causal analysis:** The study of relations of cause and effect which link a public intervention to its impacts. In this case, it investigates the mechanisms likely to produce impacts, as well as confounding factors likely to have an influence.

**Concept linking map:** Usually comes in the form of some web-like visualization in which the links between extracted concepts are shown based on their co-occurrence and proximity within documents.

**Constructivism:** The philosophical position that truth is contingent and conditional. The paradigm belief is that there is no such thing as ‘reality’. Rather, there are always multiple realities and perspectives, of which are socially constructed. It rejects any aspects of experimental design, while employing a subjectivist epistemology. See also positivism.

**Constructs:** Central themes or ideas on which an initiative is based.
Context: The social betterment environment in which an initiative is implemented. That is, it describes the important features of the environment in which an initiative takes place.

Criterion: Characteristic on which the judgment of an intervention can be based, i.e. the dimension(s) of merit or worth. These are the aspects of an evaluand that define whether it is good or bad and whether it is valuable or not valuable.

Deliberative democratic evaluation: A process that emphasizes a democratic, equitable, and principled approach to program evaluation and strives to produce valid, reliable, and defensible information about the program’s merit or worth.

Design: The plan or structure an evaluator develops to guide the study. The design specifies which groups to study, how many units in a group, by what means units are selected, at what intervals they are studied, and kinds of comparisons that are planned.

Eclectic evaluation: Evaluation that pragmatically draws from and selectively applies principles and procedures from a wide range of methods and concepts to address the questions of designated stakeholders.

Effect: Intended or unintended change due directly or indirectly to an initiative. The related term is results.

Effectiveness: The extent to which the program has achieved, or is expected to achieve, its objectives, taking into account their relative importance. The term is also used as a broader, aggregate measure — encompassing relevance and efficiency as well — of the overall outcome of a development intervention.

Efficiency: The extent to which the program has converted or is expected to convert its resources/inputs (such as funds, expertise, time, etc.) economically into results in order to achieve the maximum possible outputs, outcomes, and impacts with the minimum possible inputs.

Empowerment evaluation: A participatory or collaborative evaluation in which the evaluator’s role includes consultation and facilitation directed towards development of the capabilities of the participating stakeholders to conduct evaluation on their own and to use it effectively for change.

Epistemology: The science of knowing; Systems of knowledge. See also ontology and methodology.

Evaluand: That which is being evaluated (e.g., policy, organization, program, project, product or service). That is the object of an evaluation. In personnel evaluation the term is evaluatee.

Evaluation: A time-bound exercise that attempts to assess systematically and objectively the relevance, performance and success, or the lack thereof, of ongoing and completed programs. Evaluation is undertaken selectively to answer specific questions to guide decision-makers and/or program managers, and to provide information on whether underlying theories and assumptions used in program development were valid, what worked and what did not work and why. Evaluation commonly aims to determine the relevance, validity of design, efficiency, effectiveness, impact and sustainability of a program. Evaluation also refers to the process of determining value (merit or worth) of an initiative.

Evaluation client: A person or group that will use the results for some purpose such as program selection, program improvement, or accountability to a sponsor. The client group includes the person who commissioned the evaluation, as well as those who will attend to and use results.

Evaluation questions: A set of questions developed by the evaluator, evaluation sponsor, and other stakeholders; the questions define the issues the evaluation will investigate and are stated in terms such that they can be answered using methods to the evaluator in a way useful to stakeholders.

Evaluation sponsor: An individual, institution, or organization that initiates an evaluation and provides financial and other resources to ensure satisfactory conduct.
**Evaluation stakeholders:** The parties who are interested in or affected, either positively or negatively, by the program. They include the community whose situation the program seeks to change; field staff who implement activities; and program managers who oversee implementation; donors and other decision makers who influence or decide the course of action related to the program; and supporters, critics and other persons who influence the program environment.

**Evaluation standards:** A principle commonly agreed to by experts in the conduct and use of evaluation for the measure of the value or quality of an evaluation. The thirty standards are grouped according to four essential attributes of a sound general framework to guide the study and practice of evaluation.

**Experimental evaluation studies:** Designed to determine the effects of a program or other planned initiatives. They employ random assignments or matching procedures to assign beneficiaries or organizations to experimental or control groups, administer a treatment to the experiment group, contrasts outcomes for the involved groups, and make inference about the intervention's effects.

**Feedback:** The transmission of findings of monitoring and evaluation activities organized and presented in an appropriate form for dissemination to users in order to improve program management, decision making and organizational learning. Feedback is generated through monitoring, evaluation and evaluative activities and may include findings, conclusions, recommendations and lessons learned from experience.

**Finding(s):** A finding uses evidence from one or more evaluations to allow for factual statement. The term used alternatively with evaluation results.

**Focus Group:** A group of usually 7-10 people selected to engage in discussions designed for the purpose of sharing insights and observations, obtaining perceptions or opinions, suggesting ideas, or recommending actions on a topic of concern. A focus group discussion is a method of collecting data.

**Formative evaluation:** An evaluation that is intended to improve performance, which is most often conducted during the implementation phase of programs or projects.

**Goal:** The higher order objective to which a development initiative is intended to contribute. It is the program desired outcome.

**Impact:** Positive and negative long term effects on identifiable population groups produced by a development intervention, directly or indirectly, intended or unintended. These effects can be economic, socio-cultural, institutional, environmental, technological or of other types.

**Implementation:** The act of carrying out or performing activities. Implementation can be characterized in terms of the extent to which it reflects what was intended in a plan.

**Indicator:** A quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor.

**Initiative:** A support instrument to promote social betterment (development). It is organized, planned, and usually ongoing effort designed to ameliorate a social problem or improve social conditions. Examples are policy advice, programs and projects. It is also called intervention.

**Inputs:** The financial, human, material, technological and information resource provided by stakeholders (i.e. donors, program implementers and beneficiaries) that are used to implement a development intervention.

**Internal evaluation:** Work within the organization to address evaluation needs such as conducting studies of the organization’s externally funded projects or assessing merit and worth of planned or operating organizational programs. See also external evaluation.
Judgmental information (statements): Provides evaluative conclusions based on a set of values or standards plus discussions of an evaluand’s strengths and weaknesses, and may include recommendations for improvement.

Learning organization: An organization that acquires, creates, evaluates, and disseminates knowledge – and uses that knowledge to improve itself – more effectively than do most organizations.

Leximancer™: A software package which identifies the key ideas, concepts and themes in text-based documents, allowing researchers to examine the concepts, and the relationships between them, in detail.

Logic model: A diagram that illustrates the cause-and-effects mechanism(s) by which an evaluand meets certain needs or produces certain results. The diagram entails a participatory process to clarify outcomes, outputs, activities and inputs, their causal relationships, the indicators with which to gauge/measure progress towards results, and the assumptions and risks that may influence success and failure of the intervention. It offers a structured logical approach to setting priorities and building consensus around intended results and activities of a program together with stakeholders.

Management: The day-to-day operation of the program within the context of the strategies, policies, processes, and procedures that have been established by the governing body.

Mechanism: It is how system operates, usually consisting of people, procedures, processes and a data bank (often computerized) that routinely gathers quantitative and qualitative information on predetermined indicators to measure program progress and impact. It also informs decision-making for effective program implementation.

Merit: Quality, usually considered independent of the context and cost. See also worth and value.

Meta-evaluation: The evaluation of evaluations. Evaluations should be evaluated on five core dimensions of merit: validity, utility, conduct, credibility, and cost. In other words, evaluations should produce valid justifiable conclusions; be useful to the client and other relevant audiences; be conducted in an ethical, legal, professional, and otherwise appropriate manner; be credible to relevant audiences; and be economical, timely and unobtrusive as possible. It is also designed to aggregate findings from a series of evaluations.

Methods: Involve the forms of data collection, analysis, and interpretation that researchers or evaluators propose for their studies.

Methodology: The science of finding out; procedures for scientific investigation. It is the overall way in which decisions are made to select methods based on different paradigms about what constitutes knowing (ontology); what constitutes knowledge (epistemology). See also ontology and epistemology.

Mixed-methods evaluation studies: Program evaluations that employ a range of quantitative and qualitative paradigms, approaches, and methods.

Monitoring: The continuous assessment of progress achieved during program implementation in order to track compliance with a plan, to identify reasons for non-compliance, and to take necessary actions to improve performance. Monitoring is usually the responsibility of program management and operational staff.

Need(s): Opportunity or difficulty relevant for concerned groups or population, which the public intervention aims to address. That is, they are things without which unsatisfactory functioning occurs.

Objective: An adjective meaning free of inappropriate personal and cultural preferences or bias.

Objectives: Specific measurable goals.

Ontology: It is about what constitutes knowing. See also epistemology and methodology.
**Outcome:** The intended or achieved short and medium-term effects of an intervention’s outputs, usually requiring the collective effort of partners. Outcomes represent changes in development conditions which occur between the completion of outputs and the achievement of impact.

**Outputs:** The products, capital goods and services that result from a development intervention. This may also include changes resulting from the intervention that are relevant to the achievement of outcomes.

**Paradigm:** A model or frame of reference though which to observe and understand. See also worldview.

**Participatory evaluation:** An evaluation organized as a team project in which the evaluator and representatives of one or more stakeholder groups work collaboratively in developing evaluation plan, conducting evaluation, or dissemination and using results.

**Positivism:** The philosophical position that a rational truth exists, that there is a single reality, and that scientific methods can approximate it. The paradigm is grounded on the rational proof/disproof of scientific assertions; assumes the knowable, objective reality. See also constructivism.

**Pragmatism:** Procedural guidelines for conducting evaluations that have been shown to work well in evaluation practice. This philosophy arises out of actions, situations, and consequences rather than antecedent. The main concern is application — what works — and solutions to problems.

**Process:** The content and implementation of an evaluand.

**Professional evaluation:** Undertaken by trained evaluators possessing high level of technical skills, knowledge of evaluation theory and methodology, and commitment to evaluations field’s standards.

**Program:** A time-bound intervention similar to a project but which cuts across sectors, themes or geographic areas, uses a multi-disciplinary approach, involves multiple institutions, and may be supported by several different funding sources.

**Program evaluation:** The use of social research methods to systematically investigate the effectiveness of social betterment initiative programs in ways that are adapted to their political and organizational environments and are designed to inform social betterment action in ways that improve social conditions.

**Program evaluation model:** An evaluation theorist’s idealized conceptualization for conducting program evaluations.

**Program evaluation theory:** A coherent set of conceptual, hypothetical, pragmatic, and ethical principles forming general framework to guide the study and practice of program evaluation.

**Program theory:** A description of the mechanisms by which a program is expected to achieve results. It entails systematic and cumulative study of the links between activities, outputs, outcomes, impact and contexts of interventions. It specifies upfront how activities will lead to outputs, outcomes and longer-term impact and identifies the contextual conditions that may affect the achievement of results. Program theories are a way of making explicit the assumptions underlying an initiative. See also logic models.

**Project:** A time-bound intervention that consists of a set of planned, interrelated activities aimed at achieving defined program outputs. That is, it is a temporary endeavour, with a finite beginning and end.

**Policy:** A written statement intended to guide action and decision making under a particular set of circumstances. A policy broadly outlines an agreed position, point of principle, or preferred response to a particular issue or activity.
**Qualitative evaluation strategy:** Is a means of exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of evaluation involves emerging questions and procedures; collecting information from the participants setting; analyzing the data inductively; and building from particulars to general themes. That is, it is the nonnumerical examination and interpretation of observations.

**Quantitative evaluation strategy:** Is a means for testing objective theories by examining the relationship among variables. These variables can be measured, so that numbered data can be analyzed using statistical procedures. That is, it is the numerical representation and manipulation of observations.

**Quasi-experimental evaluation studies:** Non-rigorous inquiries somewhat resembling controlled experiments. Employed when there is a causal intent to the evaluation but random assignment not feasible.

**Realism:** A paradigm that holds things are real insofar as they produce effects. It develops explanations of why, how, where, and for whom the approach works or fails to work.

**Relativistic evaluation:** Directed toward a pluralistic, interactive, subjective, constructivist, and service-orientated approach. No final, authoritative conclusions are sought. Responsive evaluation is a leading case in point. Beauty is in the eye of the beholder.

**Relevance:** The degree to which the outputs, outcomes or goals of a program remain valid and pertinent as originally planned or as subsequently modified owing to changing circumstances within the immediate context and external environment of that program. Or it is the extent to which the objectives and design of the program are consistent with (a) current global/regional challenges and concerns in a particular development sector and (b) the needs and priorities of beneficiary countries and groups.

**Resources:** The inputs that are used in the activities of a program. Broadly speaking, the term encompasses natural, physical, financial, human, and social resources.

**Responsive evaluation:** A relativistic, social advocacy approach where the evaluator interacts with different stakeholders to support and help develop, administer, and improve programs in nondirective, counselling manner. The approach employs descriptive and judgemental information to examine program's background, rationale, operations, and outcomes.

**Result:** The output, outcome or impact (intended or unintended, positive and/or negative) derived from a cause and effect relationship set in motion by a development intervention.

**Strategy:** Selection of priority actions according to the urgency of needs to be met, the gravity of problems to be solved, and the chances of actions envisaged being successful. It is a systematic plan of action to reach stated goals.

**Subjective:** Inappropriate application of personal or cultural preferences or biases. In this study, it means using informed judgements or experience which are an acceptable forms of subjectivity in evaluation.

**Summative evaluation:** An evaluation study that is conducted at the end of an intervention (or a phase of that intervention) to determine the extent to which anticipated outcomes were produced during the period being evaluated. It is done mainly for reporting and decision-making purposes.

**Sustainability:** When the term is applied to the activities of a program, the extent to which the benefits arising from these activities are likely to continue after the activities have been completed. When the term is applied to organizations or programs themselves, the extent to which the organization or program is likely to continue its operational activities and benefits over time.
**Systematic:** Methodological, thorough, and not haphazard. In evaluation, information is collected with great care also clarifying and providing a defensible rationale for the value perspective used to interpret the findings and reach judgements and in communicating evaluation findings accurately to the client and other audiences.

**Themes:** are collections of concepts whose meanings (represented as synonym lists) are closely associated with the other concepts that are collected into the same theme. Each theme is named by the concept most frequently connected to the other concepts in its respective cluster of concepts.

**Transparency:** As a criterion for assessing governance and management, the extent to which a program’s decision-making, reporting, and evaluation processes are open and freely available to the general public.

**Typology:** The classification of observations in terms of their attribute on two or more variables.

**Unsupervised text mining:** is discovery of new, previously unknown information, by automatically extracting it from different written (text) resources. It includes the steps of processing the input text, deriving patterns within the newly processed data and finally the evaluation and interpretation of the output.

**Utility:** The value of something to someone or to an institution. Evaluation utility is guided by the standards stating that evaluators should issue results that are credible, informative, timely, and influential; the results should improve social betterment.

**Utilization-focused evaluation:** A form of eclectic evaluation – developed by Michael Patton – geared to ensure that evaluations have an impact by guiding the process in collaboration with an identified group of priority users, with focus placed squarely on their intended uses of the evaluation.

**Utilization (use) of evaluation:** The use of the concepts and findings of an evaluation by decision-makers and other stakeholders whether at the day-to-day management level or at broader funding or policy levels.

**Value:** A defensible guiding principle or ideal that should be used to determine the evaluand’s standing. As the root term in evaluation, value is central to the determination of for use in judging programs or other initiatives merit or worth. See also merit and worth.

**Worldview:** Is defined as “a basic set of beliefs that guide action” (Guba and Lincoln 1990:17). See also paradigm.

**Worth:** A program’s combination of excellence and services in an area of clear need, within specified context. See also merit and value.
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