WORKING FOR WATER

EXTERNAL EVALUATION

SYNTHESIS REPORT

undertaken by

commonground

in association with:

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[1] A Summary Report is available under separate cover.

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LIST OF ACRONYMS USED IN THE REPORT

APO(s)	Annual Plans of Operation (s)
ARC	Agricultural Research Council
BMP(s)	Business Management Plan (s)
CAPAM	Commonwealth Association for the Public Administration and Management
CAPE	Cape Action Plan for People and the Environment
CARA	Conservation of Agricultural Resources Act
CD	Chief Director
CMA(s)	Catchment Management Agency (ies)
COIDA	Compensation for Occupational Injuries and Diseases Act
CSIR	Council for Scientific and Industrial Research
DDG	Deputy Director General
DEAT	Department of Environmental Affairs and Tourism
DWAF	Department of Water Affairs and Forestry
ECA	Environmental Conservation Act
EIA(s)	Environmental Impact Assessment (s)
EIS	Ecological Importance and Sensitivity
EU	European Union
ExCo	Executive Committee
FNB	First National Bank
GEAR	Growth, Employment and Redistribution
GIS	Geographic Information System (s)
HIV/AIDS	Human Immuno-deficiency Virus / Acquired Immune Deficiency Syndrome
IAP	Invasive Alien Plant (s)
IAPs	Invasive Alien Plant species
IDP(s)	Integrated Development Plan (s)
Khanya MRC	Khanya - Managing Rural Change
KPI(s)	Key Performance Indicator (s)
KZN	KwaZulu-Natal
M&E	Monitoring and Evaluation
Manco	Management Committee
MAP	Mean Annual Precipitate
MAR	Mean Annual Run-off
MUCP(s)	Management Unit Clearing Plans
MPA(s)	Management Plan Areas
NBALS	Natural Biological Aliens
NBI	National Biodiversity Institute
NDA	Department of Agriculture (National)
NEMA	National Environmental Management Act
NGO(s)	Non-Governmental Organisation (s)
NICRO	National Institute for Crime Prevention and Reintegration of Offenders
NOSA	National Occupational Safety Association
NWA	National Water Act
P&R	Policy and Regulation
PFMA	Public Finance Management Act
PLAAS	Programme for Land and Agrarian Studies
PPA	Participatory Poverty Assessment
RDP	Reconstruction and Development Programme

RPL'(s)	Regional Programme Leader (s)
SA	South Africa
SANA	South African Nurseries Association
SANP	South African National Parks
SFR(s)	Stream Flow Requirement (s)
SI(s)	Secondary Industries
SIU	Secondary Industries Unit
SKEP	Succulent Karoo Environmental Plan
SPRA	Special Poverty Relief Allocation
SPWP	Special Public Works Programme
STEP	Succulent Thicket Environmental Plan
TOR	Terms of Reference
UCT	University of Cape Town
USA	United States of America
WESSA	Wildlife and Environment Society of South Africa
WfW	Working for Water
WIMS	WfW Information Management System
WMA(s)	Water Management Area (s)
WRC	Water Research Commission
WWF-SA	World Wide Fund for Nature (South Africa)

1 INTRODUCTION

1.1 Background

The Working for Water (WfW) Programme was initiated in 1995 with a grant of R25 million from the Reconstruction and Development Programme fund. The aim of the Programme from the outset was to control invading alien plants to optimise the potential use of natural resources, through a process of economic empowerment and transformation. In so doing it is intended to leave a legacy of social equity and legislative, institutional and technical capacity[2]. An external evaluation of the Programme was conducted in 1997 on behalf of the European Union[3]. Towards the end of 2000, a second external evaluation (using the first as a benchmark) was proposed to investigate the extent to which the Programme is meeting its key objectives, and its principal strategies in achieving these objectives. An initial call for proposals to undertake the evaluation was advertised and then later withdrawn. Following an extended process of developing a Terms of Reference and calling for tenders, Common Ground (Pty) Ltd and a team of specialists were appointed to undertake the evaluation. This appointment was confirmed in January 2002 and a revised budget agreed on the basis of the development of specialist methodologies in July 2002.

It is important to note that the draft Synthesis Report (April 2003), meetings with Programme Partners (June 2003) and the interventions of the National Treasury Technical Assistance Team (since April 2003) have resulted in ongoing changes in the Programme. It has not been possible to reflect all of these changes in this final report because of their 'in progress' status, and the need to bring closure to the evaluation process.

1.2 Terms of Reference

The Terms of Reference for the evaluation sketches a brief background to the Programme, presents the Programme's Mission Statement and outlines the three core objectives of the Programme. The evaluation is required to give a broad review to the following components:

a) Achieving Programme objectives in the following aspects:

i) The extent to which the Programme is enhancing, sustaining or negatively impacting on significant, useful, water resources and the ability to meet the ecological reserve.

ii) The importance and achievements of the Programme in terms of the ecological integrity of natural systems as well as negative impacts in this regard.

iii) The importance and achievements of the Programme in terms of the conservation of biological diversity as well as negative impacts in this regard.

iv) The importance and achievements of the Programme in terms of the intensity of veld-fires as well as potential negative impacts in this regard.

v) The importance and achievements of the Programme in terms of the intensity of flooding as well as negative impacts in this regard.

vi) The importance and achievements of the Programme in terms of the productive use of land that was, is or could be impacted by invading alien plants as well as negative impacts in this regard.

vii) The analysis should also consider impacts related to access to fuel wood, private land prices and soil erosion.

[2] WfW Proposal (1995)

[3] Commission of the European Communities Brussels and Government of South Africa DWAF, Pretoria. December 1997. Working for Water Programme - Evaluation Report. Volumes 1 and 2.

b) Achieving social objectives:

i) The appropriateness and efficacy of the social development interventions within the *Working for Water* Programme.
ii) The appropriateness and efficacy of training within the Programme.
iii) Whether the Programme has reached the poorest of the poor in the areas in which it is working and whether the recruitment processes select the poor.
iv) To what extent the project has succeeded in creating sustainable income generating opportunities; including an analysis of the budget, goals and performance of the Programme's "Secondary Industry" initiatives.
v) The impact of the Programme's training and empowerment of individuals.
vi) The impacts of the promotion of HIV/AIDS, gender, youth and related policy objectives.
vii) Linkages with other government departments and the developmental strategies of Government at national, provincial and local level.
viii) Percentage of funds spent in poorest provinces, poorest districts and identified poverty nodes.

c) Achieving efficiency objectives:

i) Comparison with other strategies, such as those implemented by other agencies.
ii) Analysis of costs per job, including annual average expenditure and direct payments (particularly to workers) versus other expenditure, including an analysis of trends of such costs over the past five years.
iii) Analysis of costs per hectare of clearing and follow up work, including an analysis of trends regarding such costs over the five years. This analysis must disaggregate costs of clearing public land and costs of clearing private land.
iv) Assessment of the contributions made by the Programme's partners.

d) Identification of options to improve achievement of goals.

e) Identification of risks and strategies to minimise them.

The Terms of Reference explicitly states that no primary research is to be undertaken.

Hydrological studies and institutional and management aspects of the Programme were not included in the Terms of Reference. After appointment, the client and the consultants agreed that a hydrological evaluation be included as part of the water resource component, and the client provided the brief for the institutional and management component, as follows:

> *Assess the efficacy of management structures, systems, capacity and implementation, representative of performance at national, regional and project level.*

1.3 Evaluation Team

The consultant team responsible for conducting the evaluation has included expertise in rural and urban development, poverty reduction and sustainable rural livelihoods; agrarian and land development and management, training; economic and financial analysis, terrestrial and freshwater ecology, management of invasive alien plants and the legal aspects of invasive alien plant control. These specialists, listed in the table below, were drawn from organisations that are leaders in their respective fields.

Table 1.3: Evaluation team members and their respective affiliations.

Theme	Team member	Affiliation
Project Management, Leadership and Synthesis	Marlene Laros	Common Ground
	Kathy Leslie	Common Ground
	Budu Manaka	Common Ground
	Grace Boxoza	Common Ground
	Mandy Barnett	Common Ground
Social Development	Sue Parnell	Environmental and Geographical Science, UCT
	Tsiliso Tamasane	Khanya - MRC
	Penny Urquart	Khanya - MRC
	Challa Moahloli	Botsitso Development Services
	Rick de Satge	Developmental Services/PLAAS
Water resource (Freshwater ecology and hydrology)	Geordie Ractliffe	Freshwater Consulting Group
	Liz Day	Freshwater Consulting Group
	Justine Ewart-Smith	Freshwater Consulting Group
	André Görgens	Ninham Shand
Terrestrial ecology	Patricia Holmes	Cape Ecological Services
	David Richardson	Institute for Plant Conservation, UCT
	Douglas Euston-Brown	Independent
Economic and Financial	Rolfe Eberhard	Palmer Development Group
	Mike Goldblatt	Palmer Development Group
	Julie Middleton	Palmer Development Group
Legal	Nicholas Smith	EnAct International
	Belinda Bowling	EnAct International
Institutional, Organisational & Management	Gemma Paine	Independent
Internal Review	Sue Parnell	Environmental and Geographical Science, UCT

1.4 Approach and Methodology

The consultant team's approach which involved the developing and agreeing of an overarching evaluation framework with the client, incorporating thematic methodologies, had the dual purpose of enabling:

- a systematic approach to the evaluation;
- integration of the thematic approaches; and,
- an agreed framework for the evaluation.

A logical framework approach (also known as objectives orientated planning or objective hierarchy), together with the content of the WfW Strategic Plan 2001-2004 was used to design the evaluation framework. Where possible, specialists presented their thematic methodologies according to the basic hierarchical structure of the framework (see Figure 1.4) and identified detailed criteria/ questions and indicators.

The need for the team to develop its own evaluation framework arose out of the lack of an evaluation framework from the Programme itself, contrary to what was anticipated at the outset. This lack of

evaluation framework, or any plans that provided a sound basis for evaluation, and the subsequent discovery that secondary data were available only in an unprocessed format for the most part[4], meant that the team had to construct a framework and, in many ways, also construct the data to go with it. This has led to some inconsistencies in the frameworks developed by each theme or field of specialisation depending on the availability and 'state' of the data. In spite of the difficulties experience with the data (described in more detail in section 1.7) it is believed that reliable and defendable findings have been drawn. The evaluation is therefore intended to be formative rather than definitive.

The hierarchical approach that was adopted for the evaluation framework (Figure 1.4) includes two basic levels that have assisted in the application of the criteria described below. The two levels include:

- The overall effects/impact of the WfW Programme in achieving the overarching goal. It is important to note that the achievement of the goal is not entirely within the influence of the Programme. The Programme is dependent on the enabling environment and the contribution of the Programme partners.
- The areas of the direct influence and responsibility of the Programme, i.e. the Programme purpose (outcome), outputs, activities and inputs.

The overarching evaluation criteria that are used in the evaluation are as follows:
Relevance: an assessment of whether the intervention supports policy priorities in social development, land management, conservation and water resource management. Does clearing invasive alien plants contribute significantly to the achievement of the goals?
Effectiveness: an assessment of the extent to which the WfW planned objectives are being met, or can be expected to be achieved. Also to assess the extent to which the outputs are adequately contributing to the achievement of the purpose and general objectives.
Efficiency: an assessment of the "productivity" of WfW's intervention. To what degree have the outputs achieved been derived from efficient use of financial, human and material resources (inputs)?
Impact: an assessment of the extent to which the Programme's activities and outputs contributed towards its longer term goals, and the positive and negative consequences of the Programme. Were these or could they have been expected or not and how these can be avoided or mitigated or enhanced?
Sustainability: Will the positive impacts continue after government-funded intervention has ended? Is targeting by the Programme adequate to halt the spread of IAPs?

Some important issues to note on the methodologies presented for the themes are as follows:

WfW Strategic Plan (2001-2004). The evaluation team used the WfW Strategic Plan as a guide to developing a logical framework as a precursor to finalising the evaluation framework. During initial discussions with senior staff of WfW National Office, the team realised that the Strategic Plan was not being used to guide activities of the Programme for various reasons[5], and that the focus remained on the five Programme objectives linked to the Mission Statement. In addition, it was noted that a principle weakness of the strategic plan was that while it identified objectives, activities and persons responsible for those activities, it did not contain any indicators of success or means of verification. However, the majority of staff interviewed did agree with the Goals (objectives), Purpose and Outputs presented to them by the evaluation team as interpreted from the Strategic Plan. These are used to structure the presentation of findings in section 3.

[4] Secondary data sources were lacking in that there were no systematic reports, poor records and document management, raw data with gaps and inconsistencies, limited information systems also with inconsistencies over time and gaps.
5 Reasons cited included: lack of buy-in to the process of developing the Strategic Plan, the complicated nature of the report, ongoing 'crisis management' that prevented staff from following a strategic approach and lack of agreement on the content of the Plan.

Water Resource Management. The hydrological component (originally not included in the proposal as a distinct theme) and the freshwater ecology component have been integrated to deal with water resource management as a single theme. A significant aspect of the combined methodology has been to design a tool to enable ongoing performance management of the Programme with respect to water resource management. This is presented in section 2 and the Addendum of the Water Resource Theme Final Report.

1.5 Evaluation Process

A phased approach to the evaluation was followed, as presented in the original proposal and detailed in the Draft Evaluation Framework and Thematic Methodologies report[6] presented to WfW in April 2002.

1.5.1 Phase One: Detailed project planning and detailed thematic methodology design

This phase of work effectively enabled project set-up. The team finalised the TOR and contract with the client. Detailed methodologies and a work programme were also finalised in consultation with the client. This included an agreement on the evaluation framework to be used as well as the criteria, indicators and the overall structure of interviews. The proposed evaluation methodology and framework were also presented to Manco[7] for comment during a workshop in October 2002.

A process of Programme data and documentation review was undertaken to assess the availability of information, examine the monitoring and evaluation methodologies being used, and to highlight the key trends that they reveal.

1.5.2 Phase Two: Strategic Evaluation

The strategic evaluation involved a desktop review of all available and relevant WfW documentation. On the basis of this review and inputs from key informants, some changes were made to the methodologies to be used in the thematic/specialist areas of review, mainly as a result of the absence of an existing Programme monitoring and evaluation framework and a lack of adequate and accessible secondary data.

The strategic evaluation also focused on the overall objectives and strategies of the Programme within the specific themes and used the evaluation framework to assess the overall Programme. This strategic review relied on a limited set of one-on-one face-to face and telephonic interviews with managers of the WfW Programme at head office and within different provinces. A full list of persons interviewed or with whom discussions were held during the evaluation is provided in Appendix 1.

The interim findings were presented to Manco during a workshop held in October 2002. The workshop was convened by the evaluation team and provided an opportunity for Manco to comment on the reconstructed evaluation framework for each specialist area and the interim strategic level findings.

This Manco review was extremely useful in informing the nature of the sample of projects to be used in Phase Three as well as the design of questionnaires for semi structured interviews and focus group discussions.

[6] Common Ground Consulting, April 2002. External Evaluation for the Working for Water Programme: Phase One – Draft Evaluation Framework and Thematic Methodologies.
[7] This is the Management Committee of the Programme.

Interim specialist reviews were drafted by each evaluation team for internal circulation within the evaluation consultant team prior to the project visits during Phase 3. Large data gaps had presented a major obstacle to the completion of the strategic level evaluation.

1.5.3 Phase Three: Project sample evaluation

This component of the methodology involved a detailed review of a selected sample of WfW projects throughout the country and included site visits, interviews and focus group discussions with individuals and groups from staff of the Programme, stakeholders and beneficiaries. The projects sample evaluation was intended to be a ground-truthing exercise to view issues identified in the strategic evaluation in context.

The sample drawn for further investigations was not statistically significant. Instead the intention was to access detailed information from a broad range of project case studies. Different management arrangements and design of projects, amongst other aspects, helped inform the sample of projects to be selected countrywide. Regional Programme Leaders (RPL's) were asked to present the evaluation team with information on their five 'best' and five 'worst' projects. This information was used in conjunction with the dataset developed by the Water Resource team to select specific projects. It was also decided that the overriding criteria for project selection would be to have a spread of biomes in the selection. Project selection criteria used are presented in the list below and an example of the project selection forms circulated to RPLs can be seen in Appendix 2.

Project selection criteria included a mix of the following variables:

- Biomes;
- Thirty most modified tertiary catchments by MAR;
- DWAF priority catchments;
- Ecological Importance and Sensitivity (EIS) at quarternary catchment level;
- Presence of wetlands;
- Project history i.e. date started and number of years started;
- Spreaders targeted in historic clearing;
- Historical clearing (ha);
- Percentage of project cleared (historical);
- Percentage of cleared areas as spreaders;
- Whether there is a WfW Information Management System (WIMS) / historic overlap;
- Land ownership;
- Project cost (cost per hectare);
- Existence of partnerships for social delivery; and,
- Social co-ordinator present on project.

A pilot project evaluation was held at Assegaaibos, Franschhoek on Wednesday 20th November 2002, attended by ten members of the evaluation team to ensure consistency in methodologies. During the last week of November and first week of December 2002, two teams, of four specialists each, visited a total of 12 projects nationally. Each project evaluation team consisted of two members of the social team, one member of the terrestrial ecology team and one member of the water resource team. In the Northern Cape, contractors were not available at Britstown because of a motor-vehicle accident, so the Strydenburg project was visited instead, although the ecologists had a brief look at Britstown anyway. The following projects were visited:

- Assegaaibos (pilot study), Western Cape, Fynbos;
- Riverlands, Western Cape, Fynbos with wetlands;

- Strydenburg, Northern Cape, Nama-Karoo with wetlands (brief visit to Britstown);
- Postmasburg, Northern Cape, Nama-Karoo;
- Albany, Eastern Cape, Thicket and Fynbos;
- Kat River, Eastern Cape, Thicket, Forest and Grassland;
- Vernon Crookes, KwaZulu-Natal, Forest and Grassland, south;
- Mnweni, KwaZulu-Natal, Grassland, south;
- Hazyview-Sabaan, Mpumalanga, Savanna, Forest, north;
- Upper Sand, Mpumalanga, Savanna, Forest, north;
- Letaba, Limpopo, Savanna, Forest and Grassland, north; and,
- Jukskei, Gauteng, urban (Grassland).

The interview and project evaluation formats are included in the Appendices of the Social, Water Resource and Terrestrial Ecology evaluation reports respectively.

1.5.4 Phase Four: Synthesis, Review and Final Reports

The specialists consolidated their analysis and findings from phases two and three in order to prepare the final specialist reports. This draft Synthesis Evaluation Report has synthesised and integrated the specialist evaluation information. The full set of draft specialist reports and the draft Synthesis Report was circulated to the client body (WfW and DWAF) for comment. These draft findings, conclusions and recommendations were also presented and discussed at a workshop in April 2003 with the client body. Furthermore, these draft findings were discussed with representatives of partnering ministries and departments. Comments on the reports have been incorporated in the final Synthesis Evaluation Report at the consultant team's discretion. In some cases comments have resulted in supplementary analyses being undertaken e.g. Water Resource Theme Final Report, and Financial and Economic Component Addendum to Final Report.

It is believed that although an effective basis for a systematic evaluation did not exist, the team has accessed and analysed sufficient information to contribute usefully to the formative intention of the evaluation process. Recommendations for improvement in the performance of the Working for Water Programme are presented in section 6.

1.6 Structure of this report

This synthesis report is the integration of six specialist reports that were compiled after what is considered a thorough thematic evaluation of the Working for Water Programme (see section 1.7: Assumptions and Limitations). The specialist reports combine a strategic evaluation of the Programme with an evaluation of a selection of projects within each region. They address the institutional, legal, economic, social, ecological (terrestrial) and water resource aspects of the Programme; its design; planning; operations; implementation; and, monitoring. The key findings of the specialist reports have extracted and integrated in this Report. The conclusions and recommendations presented here (sections 5 and 6) incorporate the conclusions and recommendations of each specialist report, as well as presenting overarching conclusions and recommendations agreed by the evaluation team. Sections 5 and 6 are formulated in such a way as to enable the Programme to build on strengths and address weaknesses with a view to maximising the impact of the Programme.

The specialist reports are available separately, as an Appendix to the synthesis report and under separate cover. Because of the volume of information the team has not prepared hard copies of all relevant supporting information - some of the information is available only in electronic format. In addition,

the team has decided not to make public the transcripts and records of the many interviews that were conducted (see Appendix 1 for a list of interviewees).

The results of the evaluation are presented as follows in this report:

- Section 1: Introduction - provides an introduction to the evaluation, background, terms of reference and methodology of the evaluation as well as assumptions and limitations;

- Section 2: Programme History and Contextual Relevance - provides a summary of the Programme history and the context in which the Programme has been implemented;

- Section 3: Findings and Achievements - presents overall summary findings of the study without the detail of the specific achievements, as provided in the specialist evaluation reports. The summary findings are presented in terms of the purpose, objectives, outputs and activities, and in relation to the key criteria for the evaluation;

- Section 4: Enabling Environment - considers the enabling environment from an institutional and legal perspective as a context (or reasons) for the achievements of the Programme;

- Section 5: Conclusions - presents the conclusions of the evaluation team having considered the achievements and the enabling or constraining environment within which the Programme has operated; and,

- Section 6: Recommendations - provides suggestions for improvements and enhancement of the Programme at various levels of detail. Overarching recommendations as key items for immediate action, as well as more detailed specialist recommendations are presented relating more to the operations of the Programme. This section aims to show how the Programme can be improved through addressing key obstacles, emphasising and building on successes. It also presents key options for the future institutional location of the Programme based on the clarification of mandate.

1.7 Assumptions and Limitations

1.7.1 Information

(a) General

The apparent lack of an organised documentation and information management system was a significant limitation to the evaluation, since the study had to rely almost entirely on secondary sources. In addition the staffing of the organisation has recently changed substantially and continues to change. A high proportion of managers interviewed are new to their posts and are not familiar with much of the information that has been sought by the various specialists. For new and old staff, there appears to be a high level of variance in terms of how individual managers or co-ordinators translate WfW business and DWAF policies and procedures in their areas. This high level of inconsistency may impact on the degree to which specific data gathered through interviews can be used to draw general conclusions. This would apply to the institutional and social evaluations, in particular.

It has been difficult to establish the status of various policies, systems and drafts of documents and reports. Documents are largely undated and some staff may indicate that a specific policy has been formally adopted, while others may either be unaware of it or believe that it remains in draft form.

The evaluation team believes it is worth noting that the weakness of the internal monitoring and evaluation systems, document management, information gaps and lack of reliable data at the project level were not known at the outset of the evaluation process. In spite of WfW employing a temporary staff member for three months on behalf of the team to find and catalogue all relevant documentation for the team, the time and effort spent trying to locate and make sense of the available data by specialists was significant.

In addition, at a late stage in the evaluation, when the specialist reports were complete and draft findings were being made known in a few instances, members of the team were alerted to the existence of key documents of which they had no prior knowledge.

(b) Document management

There appears to be no single repository for WfW commissioned reports nor is there a document management system to track the status of policies, plans or guidelines. Furthermore, there is no agreed protocol for duplication or back up of hardcopy or electronic information managed by regional offices. This limitation caused significant delays in the evaluation but is also an important element of the evaluation.

(c) Availability of data and data management

During the course of this evaluation (July 2002 until present) it has proved extremely difficult to obtain accurate information on the extent of IAP infestation, initial areas cleared each year (by various categories of IAP density, species etc.) and areas followed-up for all regions. Accurate information on IAP density and extent is not available countrywide. One reason given was that for some IAP species, the rate of spread is too high to warrant detailed mapping except immediately prior to generating a quotation package. However, a revised dataset is currently being prepared for the Programme.[8] We were thus limited to using the estimates for IAP extent generated in Versfeld *et al*. (1998) for national and regional assessments.

The purpose of the WfW information management system (WIMS), first introduced in 2000 and now implemented in most regions (although only two regions were on-line at the time of data gathering), is to assist in collating spatial information on aliens as well as generating the quotation packages. As yet however, not all regions are able to generate summaries of alien clearing operations from WIMS, and management is not yet on-line, nor is it using the WIMS tools. In addition, there have been some problems entering historical clearing information on WIMS. The team made use of information from project databases and Key Performance Indicator (KPI) spreadsheets where these are available, as well as the amalgamated historically mapped data (1995-1999) and WIMS (2000-2002) data sets.

Where indicators existed – such as training days planned and delivered, the data required to verify them was often unreliable or impossible to meaningfully disaggregate. For example, the social development evaluation identifies substantial problems with the reliability of statistics on training days recorded as part of the Key Performance Indicators (KPIs). Several informants reported that other 'difficult to code' activities are often recorded as training in the KPIs.

[8] Preliminary results show the Versveld data to be weak in terms of providing baseline data. The evaluation team acknowledges the severe limits of the Versveld data but has had no alternative national data on the extent of IAPs to work with. More recently WfW has commissioned a re-evaluation of the IAP species/density cover within South Africa, to update the first estimates by Versveld *et al*. (1998).

The detail and depth of the evaluation and the reliability of findings were influenced by the availability of information, both at national and project level, time and availability of budgets. Considerable time and energy was spent trying to locate and make sense of the available data. As the scope of this study relied on the provision of data in accessible form from the client, the time spent on attempting to access or consolidate data went well beyond the scope of work. Ultimately, the inability of the WfW national office to obtain regional project data meant that much of this extra effort was in vain, except for a limited number of projects.

The Terms of Reference stipulated that no primary data collection was required. The evaluation was limited to a review of secondary sources but all components of the evaluation have found that the data available from such sources were often not adequate.

1.7.2 Gaps

Some gaps in information and inaccuracies have limited the evaluation in some of the key focus areas of investigation. Many of the quantitative indicators required to successfully carry out a conventional evaluation did not exist, could not be identified or were deemed to be unreliable. In many cases use had to be made of external research papers, anecdotal evidence from interviews and subjective opinions of key informants. These data limitations have placed significant constraints on the team's ability to assess the efficiency and sustainability of the project adequately, particularly from an economic and financial perspective. Nevertheless, data (mostly at the Programme level) have been collated and conclusions have been drawn on the basis of these data. In particular the following has not been available:

- Comprehensive **project level data** showing the relationship between actual expenditure (rather than budgeted expenditure), outputs and outcomes (person days or employment, area cleared, estimated water yield, impact on biodiversity). No comprehensive and reliable database exists with project level data for the Programme as a whole. It was not possible to obtain useful project level data within the scope of work for this project. It has also been the team's contention that the use of available data for selected projects would not provide a sound reflection of performance of the Programme as a whole.
- **Historical data** with adequate degree of accuracy and detail on key variables to track trends over time, particularly with respect to costs per unit area cleared (separated between initial clearing and follow-up) and costs per person-day of employment. The reliability of the historical data presented cannot be independently verified as it is not possible to cross-check these data with project level data.

The gaps mentioned here have had an overall effect on the evaluation. The team has tried to mitigate against these, and nevertheless has been able to identify key issues and make useful and relevant recommendations.

1.7.3 Planning

It is acknowledged that the WfW Strategic Plan (2001-2004) does not lay an effective basis for the evaluation of Programme results. Even at the objectives level the Plan does not identify what clearing will be undertaken where, what will be undertaken to achieve the social development objectives in all regions, how many biocontrol projects there will be and where, what number of contractors and teams will be exited to where and with the appropriate skills and equipment; how much of what cleared area will be successfully handed over to private landowners or other agencies to maintain as cleared etc. Nevertheless, the Strategic Plan has been used as a guide in terms of developing outputs and activities that would be necessary to meet the stated purpose and objectives. The overall goal and WfW's objectives, as expressed, have been used by the specialists, focusing on programmatic achievement in the areas of social development, hydrology and ecology.

Regional strategic plans also were not available countrywide and where lacking, the responses of RPLs and other key informants were used to assess progress in regional strategic planning. For much of the period under review evidence of functional operational plans for the social development components could not be found. Key informants interviewed in the National Office and within provincial programmes all attested to the weaknesses of planning throughout the history of the Programme.

During the past two years extensive progress has been made in terms of planning at the project level. The success of various planning interventions has been varied but continues to improve as capacity for their implementation at project level is developed. The Annual Plans of Operation (APOs) and the Management Unit Clearing Plans (MUCPs) could have provided a very useful level of planning information that would have assisted the team greatly. However, these have not been helpful in many cases. APOs which are detailed operational schedules are in some cases meaningless especially for years prior to 2001. APOs were not found to be rooted in any longer term plans, were often incomplete or inaccurate and were not used to draw up budgets as was intended[9]. MUCPs were introduced in 2001 to provide a longer-term plan on which APOs could be based. Ongoing problems experienced, mainly in terms of capacity and poor implementation at the national office, have meant that MUCPs are often incomplete and therefore not always been helpful to the team.

1.7.4 Ownership of the evaluation

The long process leading up to the appointment of the evaluation team saw key staff[10] involved in the original conceptualisation of the evaluation leave WfW. The General Manager resigned, leaving a key gap in terms of an internal driver and champion for the process. This post continued vacant during the majority of the evaluation. This left a critical gap in the linkage between WfW and the evaluation team and raised concerns about the level of engagement and ownership of the evaluation within WfW and DWAF. However, during the evaluation process support for the evaluation from WfW and DWAF improved, particularly following a workshop session with Manco in October 2002.

At the outset of the evaluation process, internal informants characterised Working for Water staff as 'jaded' and 'overloaded' having been through a number of planning and evaluation activities which, in their view, had had limited impact on improving how the Programme worked. There was some scepticism as to whether the evaluation would find anything that people did not already know and that its findings would or could be acted upon. This too appears to have improved with the increased stability resulting from recent key appointments.

The evaluation has taken place against a backdrop of considerable institutional uncertainty about the future of the WfW Programme and where it is best located. There have been restructuring activities within DWAF and WfW which have proceeded in parallel, but largely unconnected with each other and with the evaluation process.

1.7.5 Projects evaluation

It was never the intention of the evaluation team to conduct a statistical survey and analysis of WfW projects, because of the restriction to secondary data sources as well as time and budget constraints. Initially, it was suggested that two projects in each region should be visited, and information linked to analyses of projects data in order to assess the validity of any extrapolation. Lack of data at project level

[9] The team's assessment of APOs and MUCPs is verified by the overview report compiled by Jacqui Coetzee, February 2003.
[10] The evaluation was originally mooted by former Working for Water General Manager Jacqui Boulle

meant that this was not possible. Projects were selected using a combination of inputs from a variety of sources, as mentioned in section 1.5.3.

It should be noted that a number of the project visits were subject to serious time constraints. The teams went out of their way to try and accommodate the availability of various key personnel, and likewise many WfW staff members went to great lengths to assist the teams, however a number of interviews were not possible or cut short. In addition, on a few occasions, language was a problem when meeting with worker focus groups. In spite of the various constraints experienced, the teams felt that they had obtained extremely valuable information from the visits that enabled them to add the necessary texture, and verify information that was collected during the Strategic Evaluation (Phase 2) in order to compile their specialist evaluations.

1.7.6 Extent of recommendations

The efforts to mitigate the effects of these limitations on the evaluation have resulted in the team being able to make recommendations in what are perceived as the most important intervention areas. The report has drawn a number of general conclusions that indicate the need for further and more systematic assessment, design and planning once prior issues have been resolved. In addition, given the need for integrated and consistent design, decisions may need to be made on “higher order” questions before detailed recommendations can be made on questions at the next level. For example, the hierarchy of enablers presented in the Institutional, Organisational and Management Component Report requires the mandate to be established prior to strategic planning, detailed recommendations on structure will only be appropriate if key strategic issues have been resolved, and likewise, roles and responsibilities must be clarified and defined prior to the determination and allocation of resources. It has been the intention of the evaluation team to place WfW on a well-considered path toward ongoing and improved achievements.

2 PROGRAMME HISTORY AND CONTEXTUAL RELEVANCE

2.1 History[11]

2.1.1 The beginning

During 1994, as part of an ongoing transformation process, the South African government initiated a number of strategies aimed at addressing economic and social issues that would improve the living conditions of all South Africans. These include the Reconstruction and Development Programme (RDP) and later, the macro-economic policy- Growth, Employment and Redistribution (GEAR). The RDP Programme was the platform via which the Working for Water Programme was initiated and first implemented.

The RDP Programme has since been absorbed into the various implementing government departments and funding is channeled through National Treasury to poverty relief projects and programmes throughout the country as a Special Poverty Relief Allocation (SPRA). The poverty relief (or SPRA) portion of the WfW Programme funds has been channeled through the Department of Water Affairs and Forestry.

The special advisor to the Minister (Prof. Kadar Asmal) at the time (1994), Dr Guy Preston, motivated to the Minister for the development of the Programme, and for funds amounting to R25 million. The Minister endorsed the plan and applied for funds to be allocated from the RDP Poverty Relief budget. Funds for the start of the Programme were made available towards the end of 1995 for spending before the end of the financial year (March 1996).

The original WfW proposal conveyed the Programme as:

> *"Pilot projects for the eradication of invasive alien plants in water catchment areas: A plan to increase the water availability in a way that strongly promotes the goals of the RDP"*

The main aim of the Programme was to rehabilitate South Africa's water catchment areas and storage dams by clearing invasive alien plants. It was envisaged that the Programme would be able to effectively further the aims of the RDP. It is important to note that at that time in the Programme's development, (and subsequently, until the present) there was absence of a useful legal framework, national strategy or institutional mechanism for the management and control of invasive alien species. See section 2.2.1 for further details.

2.1.2 Funding

The sources of funds, particularly the start up funding, shaped the planning and design of the Programme. Funds drawn from the RDP were released against a Business Plan in the format required by the Department of State Expenditure, which was responsible for the allocation of RDP funding in 1995. This format did not require that the usual planning process of the Department of Water Affairs and Forestry be followed. The RDP (and subsequently National Treasury) was not the only source of funds. Funding also has been and continues to be provided from partnering departments such as the Departments of Land Affairs, Social Development, Water Affairs and Forestry, Environmental Affairs and Tourism (including South African National Parks), and Agriculture, as well as local government, the private sector, Rand Water and Foreign Donors.

[11] Unless otherwise stated, all information reported within this section has been sourced from the WfW Proposal (1995) and the WfW Annual Reports (1995/96 – 2001/02).

Once launched, the imperatives of spending the money on time gave the Programme an urgency and impetus in which strategic planning was perceived as a process that would result in delays which could fatally obstruct the momentum of the Programme. The process adopted by Programme management resulted in minimal 'start up' time and in a stream of social benefits (through employment) to the rural poor. Notwithstanding the success, there was widespread concern amongst project managers and implementing agencies with the inadequate level of strategic planning, feasibility assessment and with planning, in project prioritisation and initiation.

The WfW Programme was initially designed in such a way that the RDP, government departments, private companies, foreign donors, NGO's and community structures would provide direct financial and technical support to the Programme. The RDP Office, Regional Offices of DWAF, WfW Steering Committees and Local Authorities, together with the WfW National Office managed these liaisons. A Scientific Advisor, Project Managers for individual projects and the Communications Project reported to the WfW Programme Manager who reported to the Programme Leader. Since then lines of accountability have changed dramatically, not least because of National Treasury's requirements (which are stipulated by Cabinet).

2.1.3 Programme growth

As the Programme was able to show its ability to spend money in the required timeframes, funds were increased and it grew rapidly, with a major increase in funding (and consequently in clearing) in 1997/1998. Figures 2.1.3 a, b and c overleaf, extracted from the Economic and Financial Report, show the increase in project numbers, funding and clearing over the past seven years.

While considerable growth in the Programme has taken place in terms of funding, number of projects, hectares cleared and jobs created, Programme staffing and staff capacity has had to keep up with the expanding Programme.

The Programme grew from a single office in the Western Cape to offices in nine regions each supported by a team of staff. A significant recent change in the Programme's organogram has been at the regional level where Regional Co-ordinators were 'split' into Regional Programme Leaders and Regional Implementation Managers as well as a Regional Support Services Manager. Staff capacity at national office has more than doubled in the past two years with a number of posts yet to be filled. Apart from severe staff shortages the Programme has also lacked the necessary skills for effective implementation from national office, in particular technical and planning skills. Overworked staff and uncertainty about the institutional and general future of the Programme have reduced staff morale and aggravated conditions within the WfW working environment.

Further input on the current Programme structure is presented in section 2.2.2 of this report. Detail of the human resource and structure aspects of the Programme is provided in the Institutional, Organisational and Management Component Report.

2.1.4 Partnerships

Partnerships set up with various different government departments and other organisations, including business and civil society, have aimed toward an integrated development initiative with the intention of creating ecological, social and economic benefits. Key partnerships have existed with DWAF, the

Department of Environmental Affairs and Tourism (DEAT) and the National Department of Agriculture (NDA).

The institutional vehicle created to formalise partnerships is the Board[12]. The Boards key roles are establishing policy and ensuring that the Programme promotes inter-departmental collaboration.

These inter-departmental collaborations include the:

- Department of Agriculture – has worked with the WfW Programme in the Land Care Initiative, through the Save the Sands Rehabilitation Park. This is a rehabilitation project for the Sands River where severe erosion has occurred. This collaboration is far broader with several other joint projects already put in place.

- Department of Environmental Affairs and Tourism (DEAT) - The integrated approach to the WfW Programme is in keeping with both the environmental and tourism components of DEAT. This partnership has extended to wetland rehabilitation where three projects are located at internationally recognised Ramsar sites, while two are still proposed for declaration as Ramsar sites. WfW implements the Working for Wetlands Programme on behalf of DEAT.

- Department of Health - The WfW Programme works with those living in poverty and HIV/AIDS. Focus is on rural and semi-urban areas which are likely to have higher than average levels of health complications/risks. The Programme has introduced "universal precautions" and is working towards role model interventions in pilot projects. Other interventions have been in a form of "peer-educators" where some employees are trained through the "peer-educators programme" (e.g. pilot project in Mpumalanga). The WfW Programme has linked this primary health care programme together with the Department of Health's outreach programme through mobile clinics. Collaboration with the department has initiated a process of spearheading education and awareness of HIV/AIDS, developing practical interventions as well as the associated concerns of sexually transmitted diseases for the WfW employees. Reproductive health and tuberculosis, and safety aspects of water and sanitation training have aimed to promote health issues among workers and their families.

- Department of Land Affairs - has funded WfW projects in communities involved in land reform initiatives. These projects ensure that the land reform process is enhanced by clearing the affected land and offers employment opportunities to assist in the settlement of the land. For example, the partnership between WfW and this department grew out of a suggestion to resolve a crisis in a land restitution case in the Western Cape. People had been settled on land where the Department of Water Affairs and Forestry felt that water-borne sewage was necessary. The cost of this would have used up most of the grant made to the community. It was suggested that, by employing the local community to clear invading alien plants, the sewerage system could be paid for; their land would be more productive, and the water resource would be enhanced.

- Department of Social Development – has jointly run initiatives on reproductive health (with the United Nations Population Fund, Planned Parenthood Association, NICRO and the Compton Foundation); employment of the victims of crime, and of ex-offenders; and, manufacture of clothing by community sewing groups. The Department also provides guidance in the welfare-related efforts of the Programme. The Programme hopes to take a joint approach on the contentious issue of micro-lending (indebtedness to "loan sharks"). Through this partnership WfW has been able to set up child

[12] The Ministers of Water Affairs & Forestry (Chair), Education, Agriculture & Land Affairs, Trade & Industry, Labour, Minerals & Energy, Environmental Affairs & Tourism, Provincial and Local Government, Arts, Culture, Science & Technology, Public Works, Welfare & Population Development, Health, Programme Leader, WfW (Secretary).

care facilities for workers. The partnership has also assisted WfW with the employment of female, youth and disabled workers.

- Department of Trade and Industry – has helped the WfW Programme with the design and launch of secondary industries using biomass that is produced from alien vegetation clearing. This partnership has linked up with the Committee for Private/Public Partnerships within National Treasury and a Spatial Development Initiative Support Programme has been designed.

- Department of Labour - The Programme has collaborated with this department and has in place projects that provide training for individuals who can be placed in the market or start their own micro-businesses. Youth development initiative projects have also been an outcome of this collaboration.

- Department of Public Works - The WfW Programme has developed a policy position for public works programmes, which link up to economic development of communities involved in alien clearing activities and the use of the by-products, derived from alien clearing. The partnership helps in demonstrating the wisdom of investing in labour intensive approaches to sustainable development and management of resources.

- Department of Finance (National Treasury) - provides funds to the Programme from its Special Poverty Relief Allocation by channeling these funds through three core departments: Water Affairs and Forestry, Environmental Affairs and Tourism and Agriculture. This collaboration has helped in ensuring continued financial operations of the Programme.

- Department of Education – 20:20 Vision for Water Programme has been integrated with the Working for Water schools-based programme and is called the Water Education Programme (WEP). Environmental education is now part of the school curriculum which includes water as a component.

Other partnership organisations have included:

- Rand Water: The partnership has led the way in terms of water management institutions investing in their long-term water security with far-sighted investments into the clearing of invading alien plants and the rehabilitation of wetlands in catchments.

- Homeless People’s Federation and People's Dialogue: These NGOs have had links around the Programmes social interventions. These organisations have assisted with alternatives and empowering micro-lending options.

- Chainsaw and herbicide companies: This partnership has provided equipment such as chainsaws and herbicides and related training.

- Forestry Partnership: Collaborative agreements between the Programme and Sappi, Mondi and the Forest Owners Association have strengthened clearing initiatives. It has been agreed that 80% of alien vegetation on river banks and in wetlands on land owned by these organisations will be cleared within five years and the remaining 20% in the next 10 years. These agreements also reinforced the need to provide technical expertise and training of staff involved in the Programme.

- International Funders: These partnerships have been instrumental in providing financial assistance and ensuring that the Programme continues delivering on its intended goals. Some of these funders include the Finnish government (R14 million investment to fund a youth project on secondary

industries in Mpumalanga), the Netherlands government (R6 million in the Kruger National Park and Lake St Lucia with R2 million for a youth programme within the Department of Labour), and the Norwegian government (R3 million investment in the Elim project in the Western Cape). The list also includes the Canadian International Development Research Council providing R1 million for social and economic research and the USA government providing assistance in running the Programme's Best Management Practice symposium.

- Santam/Cape Argus Ukuvuka Campaign: The Programme is also responsible for the development of the SANTAM/Cape Argus Ukuvuka: Operation Firestop Campaign, which was initiated in the wake of the devastating fires along the Table Mountain chain in January 2000.

- The South African Nurseries Association (SANA): This organisation has pledged their support for the Programme where the educational focus on nurseries, national parks and municipalities has been highlighted and addressed.

- Institutions - Collaborative work with institutions and between the different provinces has assisted in establishing monitoring sites where weirs are placed along cleared catchment areas and across riparian zones. These monitoring sites help to measure and predict the increase in streamflow, based on the specifics of the rainfall, topography and the type, size and density of the alien vegetation.

The effectiveness of some of the above partnerships, particularly those within government, is evaluated and discussed later in this report. (see sections 3.6.3 and 6.3.4).

2.1.5 Programme accolades

The Programme has received 35 awards for the work it has carried out since its inception. These include the following:

- Green Trust Best Conservation Project Award 1996 from WWF-SA;
- Corporate Conservation Award 1996 from Wildlife and Environment Society of SA (WESSA);
- Gold Medal for Conservation Award (WESSA)- to Professor Kadar Asmal;
- Masimanyane Best Project Award- The Engineering Association;
- Cape Times Conservation Award- Cape Times Centenary Award 1876-1998;
- AGFA Wildlife Award to Professor Kadar Asmal – AGFA;
- Impumelelo Award for innovation. Its offshoot initiative, the greater Hermanus Water Conservation Programme also received the Impumelelo Award;
- Stockholm Water Prize to Professor Kadar Asmal;
- FNB Vita Award for designers of the WfW crafts made of alien invading wood, 1999;
- Empower Awards, 1999 as a sector winner in both the Social Upliftment category (Government Sector) and the Environmental Care category (Government Sector);
- Commonwealth Association for Public Administration and Management (CAPAM) International Innovations Award 2000 (Silver) - 2nd to India's State Poverty Eradication Mission; and,
- NOSA Award for safety training, 2000/01 and 2001/02.

The Programme's achievements have been further highlighted by the fact that some of its projects have been nominated for awards.

The Programme hosted the Best Management Practices for Preventing and Controlling Invasive Alien Species Symposium at Kirstenbosch in February 2000. This was run under the auspices of SA/USA Bi-

National Commission. It apparently attracted many of the worlds leading experts on invasive alien species, and a full spectrum of South African specialists.

2.2 Context

In order to evaluate the Programme fairly it is important that WfW is assessed in terms of the context in which it is implemented. The legal and institutional context of the Programme is discussed here.

2.2.1 Legal context[13]

The legal mandate of the Programme was not formally recorded at the inception of the Programme in 1995 in either policy or legislation, or any other formal document, and there is no single policy or legislative instrument that provides a clear mandate for WfW, which can be used to clarify what must be achieved, guide the targeting of resources and integrate its work coherently within the range of relevant policy areas. Instead, the mandate of WfW is derived from a variety of policies developed in the various functionally specialised "parent" national departments, like DWAF, DEAT and NDA. Consequently the relevant environmental legislation is very fragmented as summarised below:

- DWAF administers the National Water Act (Act 36 of 1998), the National Veld and Forest Fire Act (Act 101 of 1998) and the waste management provisions of the Environment Conservation Act (ECA) (Act 73 of 1989);
- DEAT administers National Environmental Management Act (NEMA) (Act 107 of 1998) and the ECA, and will also administer the Biodiversity Bill, when it comes into force;
- The NDA administers Conservation of Agricultural Resources Act (CARA) (Act 43 of 1983) and the IAP regulations made under it, the Plant Improvement Act (Act 53 of 1976) and the Agricultural Pests Act (Act 36 of 1983);
- The provinces administer the Environmental Impact Assessment (EIA) regulations and the Mountain Catchment Areas Act (Act 63 of 1970); and,
- The local authorities administer local fire-protection by-laws, as well as aspects of the Veld and Forest Fire Act.

The Legal Evaluation Report presents and explains a comprehensive set of laws applying to WfW (section 3 of the report). These can be divided into laws that regulate the public sector, those regulating environmental issues and those relevant to socio-economic issues that arise from the Programme's operations and objectives. The Constitution (Act 108 of 1996) is relevant to the public sector, biophysical environment and the socio-economic environment, while most others are more specific. Some of the more important laws are listed below:

(a) Public sector laws

The following public sector laws are relevant:

- Division of Revenue Act (Act 5 of 2002);
- Public Finance Management Act (Act 1 of 1999) – requires effective, efficient and transparent financial management and internal control systems; and,
- Various policies (that are not legally enforceable but that may perform certain key functions).

(b) Environmental laws

The following environmental laws are relevant:

- *National Environmental Management Act* – is a framework statute that influences, among other things, the manner in which IAPs must be managed and the way organs of state must govern

[13] Information reported within this section has been extracted from the WfW External Evaluation- Legal Evaluation Report (2003).

environmental issues. Of particular relevance to IAPs are the principles set out in section 2, the chapter on co-operative governance, the chapter on integrated environmental management (which includes the duty of care provision);

- *Environment Conservation Act* – supports a number of provisions which are, or may be, relevant to WfW's activities and which could at least be used as a tool to assess the appropriateness of landowners from cultivating IAPs. Relevant provisions include waste disposal, abatement and rehabilitation notice, access to and rights over land and the environmental impact assessment regulations;
- *National Water Act* - ensures that the nation's water resource is protected, used, developed, conserved, managed and controlled in ways which take into account amongst other factors:
  - meeting the basic human needs of present and future generations;
  - promoting the efficient, sustainable and beneficial use of water in the public interest;
  - facilitating social and economic development;
  - protecting aquatic and associated ecosystems and their biological diversity;
  - reducing and preventing pollution and degradation of the water resource; and,
  - meeting international obligations.

  The provisions of the NWA are the primary source of power to control IAPs in relation to WfW's ultimate objective of protecting the nation's water resource. The related goal of biodiversity and habitat conservation should be dealt with by the lead agent for those topics (DEAT) under separate legislation. In terms of the National Water Act, national monitoring systems must monitor, amongst other things, the health of aquatic ecosystems. These and other data could be used by WfW to improve the impacts of its activities on water resource management;
- *Conservation of Agricultural Resources Act* – focussed mainly on agricultural resources but importantly also the primary regulatory tool for IAPs. Recent regulations promulgated under CARA identify category 1 species (weeds) and category 2 and 3 species (invader plants). Land users are obliged to control at least category 1 and 2 plants;
- *National Environmental Management Act: Biodiversity Bill* – aims to create an enabling regulatory framework for integrated management of the country's biodiversity resources and is administered by DEAT. One of the four objectives of the Bill is to provide for co-operative governance in the management and conservation of biodiversity. Chapter 5 of the Bill deals with the control and eradication of alien and invasive species:
  - to prevent, where possible, the introduction and spread of alien and invasive species, to ecosystems and habitats where they do not naturally occur;
  - to manage and control alien species and invasive species to prevent or minimise harm to the environment and to biodiversity in particular; and,
  - to eradicate alien and invasive species from ecosystems and habitats where they may harm those systems or areas.

  Of key importance is that the provisions regarding alien and invasive species must be implemented in co-operation between DEAT and the NDA. The ministers responsible for those portfolios must conclude an agreement to that effect. The Biodiversity Bill's provisions must be read with those in CARA. The National Biodiversity Institute to be established under the Bill if it becomes law in its present form is another institution that could assist in overseeing alien and invasive species control. The Institute is given, as one of its functions under the Bill, the potential responsibility for co-ordinating "programmes for the prevention, control or eradication of listed invasive species". Although the Bill is currently being considered by Cabinet, it is unlikely to be revised significantly before being promulgated; and,
- National Forests Act (Act 84 of 1998)

(c) Socio-economic laws

The following socio-economic laws are relevant:

- *Labour Relations Act (Act 66 of 1995)* – applies to employees and not to independent contractors;
- *Basic Conditions of Employment Act (Act 75 of 1997)*[14] – defines conditions of employment for Special Public Works Programmes, and excludes contractors from arranging cover for workers under occupational injuries and diseases legislation;
- Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993);
- *Occupational Health and Safety Act (Act 85 of 1993)* – risks arising from accidents and injuries are borne by the contractor, not WfW; and,
- *Interim Protection of Informal Land Rights Act (Act 31 of 1996)* protects the rights of persons living on state land under communal tenure and requires that they be regarded as if they are the owners of the land.

2.2.2 Institutional context[15]

The lead agency for WfW is DWAF, which is the custodian of the nation's water resource[16] and which is headed by its Director-General. To date, WfW has had little institutional independence from DWAF in that:

- there is no contractual or similar agreement that maintains an arms-length relationship between DWAF and WfW;
- WfW has no independent legal status;
- DWAF senior officials have authority over WfW, and WfW's senior management are DWAF employees; and,
- funds from National Treasury's Special Poverty Relief Allocation are managed by DWAF but must be accounted for separately to National Treasury.

Over the past five years the Programme has shown a significant increase in the numbers of staff and in the scope of the Programme. It has also grown from an office in one region to a total of nine regional offices and supports over 300 projects. It is reported that the growth of the Programme was not matched by the required staffing resources leading to difficult working conditions for the existing staff. Many individuals had responsibilities equivalent to more than one employment position, long hours were worked as a result and new appointees sometimes required capacity building before being able to fulfil their responsibilities, which required additional input from the already over-extended staff.

Two structures have been established to facilitate and encourage co-operative governance in relation to the operation of WfW as it has grown:

- The first is the Board, on which is represented the Programme Leader of WfW and various national Ministers, including Water Affairs and Forestry; Education; Agriculture; Land Affairs; Trade and Industry; Labour; Minerals and Energy; Environmental Affairs and Tourism; Provincial and Local Government; Arts, Culture, Science and Technology; Public Works; Health; and Welfare and Population Development. The Board has only met once since its establishment; and,
- The second relevant institutional structure is the Executive Committee (ExCo), on which representatives of various relevant institutions and WfW are represented[17]. The Executive Committee is supposed to meet quarterly.

[14] The Act should be read with the Ministerial Determination for employers and employees engaged in public works programmes, published in February 2002.
[15] Information reported in this section has been extracted from the Institutional, Organisational and Management Component Report.
[16] In terms of section 3 of the National Water Act, 1998.
[17] Representatives of the following institutions: The Departments of Water Affairs & Forestry; Environmental Affairs & Tourism; Agriculture; Social Development; Labour; Trade & Industry; Provincial and Local Government; Education, National Treasury, The

The mandate of WfW was not formally recorded at the inception of the Programme in 1995 in policy, legislation or an agreed planning document. The Minister at the time, Prof Asmal, outlined the key goals of the Programme at its media launch in September 1995 in ways that are consistent with the mission and objectives formalised three or more years after the launch and recorded in the Annual Reports from 1999 onwards. A more specific overall goal is provided in the Strategic Plan for 2001 to 2004 developed in April 2001.

At present the Programme has a mission and five strategic objectives which it aims to meet in order to achieve its purpose. However, there is no mandate or strategy to support these efforts. The ecological and hydrological objectives of the Programme require a complex but systematised knowledge base and decision-making that takes into account a complex range of factors determining what action to take, when and how in terms of these objectives. In addition developmental objectives also require complex capacities. Overall the integration of the objectives has resulted in a complex and dynamic task.

Because WfW is a cross-cutting public sector programme it is subject to a variety of policy and political priorities based on the public interest, and is exposed to multiple stakeholders who could have a significant influence over what can be achieved.

At regional level Steering Committees which were set up as an advisory body, in particular to assist with worker identification and selection, have been transformed into Advisory Committees and in some cases have now invited municipal representation.

The Programme's location in DWAF has meant that a range of administrative areas fall outside WfW's direct control. During the past year the Programme has been re-located within DWAF with insufficient consultation or consideration of the implications this may have for the Programme. At the same time, senior management within the Programme have stated preferences for the location of WfW elsewhere. There have been positive and negative reactions at national and regional level to the location of the Programme within DWAF.

From the DWAF point of view, the decision appears to have been driven primarily by the need to enhance coherence between its work and that of WfW, strengthen accountability and resolve problems arising from a lack of alignment of systems and processes. The Institutional, Organisational and Management Component Report provides a summary of some of the main provisions of the proposals regarding WfW (see section 2.2.3 of that report). It is envisaged that, in the longer term, all DWAF operations will fall under the CMAs and the activities of WfW Regions will be directed by these agencies. DWAF will then play a policy and regulatory role at national and regional levels.

Figure 2.2.2a shows the relationship between DWAF and WfW.

In spite of varying opinions regarding WfW's location within DWAF, the Programme has recently restructured and has proposed new structural arrangements and establishments at national and regional levels. Some changes include:

- The appointment of the Programme Leader as the Chairperson of the ExCo and Strategic Advisor to the Deputy Director General: Policy and Regulation (DDG: P&R) of DWAF;
- Elimination of the post of Regional Co-ordinator based at Head Office;

Presidency, A member each of a provincial department of Agriculture & provincial department of Environment / Conservation, The South African National Parks, The National Botanical Institute, Independent Development Trust, Forestry South Africa, The following executive members: Chairperson of Executive Committee, WfW General Manager and WfW Executive Managers: Scientific Services; Implementation; Corporate Services.

- Creation of high level posts to head Human Resource Management and Finance and Administration;
- Regrouping and subdivision of functions;
- Upgrading of posts; and,
- Significant increase in the numbers of staff focused on social development at national and regional level.

A proposed organogram exists for the National Office (Figure 2.2.2b) and a generic organogram for the nine regions (Figure 2.2.2c). The current situation has not been finalised, and changes are still being introduced. For example, a recent decision has apparently been made to break WfW into four key branches, each under an executive manager, in order to alleviate the anticipated overload of the Implementation Manager. The fourth branch will be headed by a partnership manager and will include the secondary industries unit. These changes have, however, not yet been recorded on the official national organogram shown in Figure 2.2.2b.

The generic regional organogram has been proposed but not yet finalised. Regions wanting to make changes to structures and staffing have been held up by a long delay in the process of finalising proposals on establishments. It is interesting to note that neither the national nor regional organograms indicate any of the governance structures (Board, ExCo – indicated only in terms of staff membership – Steering Committee, regional or project Steering / Advisory Committees) or DWAF linkages and how they relate to WfW.

Many of the changes that have taken place within the Programme have occurred during the past year. This has made it difficult for the evaluation team to assess the current structure of the Programme or its location within DWAF as these changes have been taking place during the evaluation.

3 FINDINGS: PROGRAMME ACHIEVEMENTS

This section presents the findings of the evaluation and the Programme achievements. In this respect, the rationale of the Programme is discussed, WfW is assessed as an alien clearing programme and then assessed as a poverty relief programme. The achievements are then assessed against the overall Programme purpose, Programme objectives, outputs and activities. Finally, the achievements are assessed against the key evaluation criteria. In presenting the findings in such a way, repetition has been unavoidable, in order to give the reader of any one section a good understanding of the findings of the Programme.

It is our submission that in order to have an impact through contributing to the strategic objectives (described in section 3.5 below) WfW needs to be at least an effectively implemented invasive alien plant control programme. As an IAP programme that contributes to all of the stated objectives, a social development programme and an IAP clearing and control strategy need to be implemented. Simultaneously, an appropriate enabling environment for the implementation of the Programme should be created.

As stated in the purpose the intention of the Programme is to control IAPs. Much discussion is centred around clearing targets, areas cleared, best practice for clearing etc., and it is acknowledge by the evaluation team and by the Programme that clearing takes place with the aim to control IAPs.

3.1 The Rationale for the WfW Programme

3.1.1 Ecological rationale

The ecological rationale for the WfW Programme is considered sound. The scientific literature reviewed as part of this evaluation supports the link between alien infestations and reduced aquatic and terrestrial ecosystem integrity and hydrological yield. It is estimated that in South Africa 9.6 million ha of DWAF priority licensing catchments, 4.2 million ha within catchments of high Ecological Importance and Sensitivity (EIS) (aquatic ecosystems) and 7.5 million ha of areas of conservation priority (terrestrial ecosystems) are infested with invasive alien species which thereby have a negative impact on biodiversity and water yield[18]. The water yield implications of not clearing IAPs are particularly significant (see section 3.7.2(a)). There are 29 species considered to be aggressive transformer species i.e. those that change the character, condition, form or nature of ecosystems over a substantial area relative to the extent of that ecosystem[19]. Many of the transformer species are labelled as spreaders due to their nature of seed dispersal and regeneration. A programme that aims to control the spread of such alien species, and which will eventually make significant inroads to the eradication of alien plant species has been long overdue,

Supplementary analysis undertaken by the Water Resource specialist team[20] reveals that, had the Programme not undertaken clearing over the past seven years, the opportunity cost and negative effect on the water resource would have been significant.

[18] Water Resource Theme Final Report, sections 3.2.1 and 3.4.2.
[19] This is discussed in greater detail in section 3.1 of the Terrestrial Ecology Evaluation Report. A list of transformer species is provided in Table 2 of the Water Resource Theme Final Report.
[20] Water Resource Theme Final Report, section 3.4.2.

The main purpose of the Working for Water (WfW) Programme is to control invasive alien species. The underlying motivations for this Programme are that:

- Invasive aliens reduce natural run-off and hence reduce the available yield of water systems in South Africa;
- Invasive aliens threaten biodiversity and the ecological integrity of natural ecosystems;
- Invasive aliens reduce the productivity of land; and,
- Invasive aliens increase both the risk of fire and the damage caused by fires.

There is ample evidence that IAPs, if left unchecked, erode ecological integrity and in many cases result in the total degradation of ecosystems. Thus control of IAPs is essential to prevent further degradation of natural ecosystems. The corollary of this is that clearing of IAPs will improve the ecological integrity of natural ecosystems, provided that appropriate methods are employed. However, as yet there has been insufficient monitoring of ecosystem recovery following the clearing of dense stands of IAPs to conclude that ecological integrity will be improved at all such sites. Studies reviewed in the Terrestrial Ecology Theme Report indicate that ecological integrity may improve following dense alien clearing in fynbos, but under certain conditions some methods of clearing may exacerbate rather than remedy ecological integrity.

The scientific literature reviewed as part of the water resource evaluation supports the link between alien infestations and reduced aquatic ecosystem integrity and hydrological yield[21]. These effects vary depending on catchment conditions and the nature of the IAPs, but include:

- Reduction in mean annual runoff and particularly dry season low flows;
- Reduction in utilisable yield from dams;
- Alteration of these key hydrological cues that define the nature of stream biota;
- Increases in catchment sediment supply, through the effects of “hot fires”;
- Reach- and biome-specific alteration in geomorphological processes, with resulting effects on channel geometry and instream habitat quality;
- Reduction in riparian and wetland plant biodiversity, through competitive displacement, shading and changes in fire regime;
- Changes in the supply and timing of food sources, water chemistry and fire regime in aquatic ecosystems; and,
- Threats to aquatic fauna and biodiversity through the combined effects of the above on the extent, distribution and quality of micro and macro habitats comprising freshwater ecosystems.

It must be stressed that the relative importance of IAP impacts depends on the specific location and characteristics of a catchment and the water ecosystems within it, as well as the extent of anthropogenic impacts such as exploitation of the resource, landuse and land care practices, and so on. Given these, the potential (positive) impact of an IAP control programme will differ on a catchment basis.

It is the opinion of this review that Working for Water has not adequately recognised the need to address IAP control within the context of integrated catchment management. Indeed, whilst DWAF policy documents (and the Water Act) recognise that water security is threatened by ecosystem degradation, and hence there is a direct link between resource protection and water security, the full potential of IAP clearing in the context of a catchment management strategy may not have been fully developed by DWAF and responsible partners. DWAF has the legal responsibility, as the custodian of the water resource, to ensure integrated catchment management, of which alien plant control should form a key component.

[21] See Addendum of the Water resource Evaluation Report.

3.1.2 Social rationale

Invasive aliens can be cleared and controlled using labour intensive methods and using unskilled labour. Because WfW draws its major funding from the Special Poverty Relief Allocation (SPRA), these methods of clearing IAPs have been adopted. WfW cites social development goals, including the provision of temporary jobs, as core project goals in line with the requirements of the National Treasury SPRA set by Cabinet.

Although the bulk of funding continues to come from the SPRA, the possible cessation of the Special Allocation, and the subsequent dedication of funds to DWAF for the Programme may result in the role played by WfW in achieving the social rationale of the Programme being reconceptualised. Such reconceptualisation is also likely to flow from the clarification of the mandate that guides the Programme as a whole, possibly abandoning the labour intensive public works approach adopted under the SPRA.

At a minimum the Programme would need to ensure that people from chronically poor households are employed within ecologically sensitive catchments where the Programme operates and take measures to maximise the benefits and poverty relief impacts created by employment and related skills development. At the same time opportunities could be created for other government departments, NGOs and other role-players to contribute to broader social development objectives and the creation of an enabling environment for exit. Such an approach in turn requires that there is a more coherent national poverty reduction strategy which clearly locates programmes like Working for Water and the obligations of other departments to achieve the integration necessary for meaningful and sustained impacts on poverty. Alternatively, following the Growth Summit decision to expand national public works programmes, the labour intensive mandate of WfW might be not only reinforced, but also extended.

3.1.3 Economic rationale

The economic rationale would need to show that the economic benefits arising from the Programme exceeds the economic costs. Even though the EU evaluation specifically recommended that an economic cost-benefit analysis of the Programme be undertaken, no such evaluation has taken place to date. Unfortunately, the evaluation of the economic rationale for the Programme is also beyond the scope of work of this evaluation due to the fact that a cost-benefit analysis of the Programme was specifically excluded from the terms of reference. Nevertheless, in broad terms the economic rationale could be framed as follows:

The economic benefits derive *inter alia* from the value of the increase in mean annual run-off arising from the IAP cleaning activities, the restoration of ecological diversity, the restoration of productive land, the training of people, the benefits arising from secondary industries, the cash injection into poor households and the education of people in HIV/Aids awareness. The economic costs of the Programme are made up of direct financial costs (total Programme costs plus negative impact costs) adjusted for economic factors. For example, the economic cost of the labour component of the Programme would be adjusted down due to the high level of unemployment in South Africa, which justifies the use of a low shadow wage rate in an economic benefit-cost analysis.

The validity of the economic rationale was not tested for the reasons stated above.

3.2 Achieving the Purpose

The stated purpose of the Programme is to *implement an IAP control programme through which WfW aims to contribute to its strategic objectives*. The purpose is in keeping with the Mission Statement:

> *'The* Working for Water Programme *will sustainably control invading alien species, to optimise the potential use of natural resources, through a process of economic empowerment and transformation. In doing this, the Programme will leave a legacy of social equity and legislative, institutional and technical capacity'.*

The long-term goal of the Programme is to:

> *'By the year 2020 the* Working for Water *Programme will have contributed to a South Africa in which invasive alien species are sustainably controlled, in order to contribute to economic empowerment, social equity and ecological integrity'.*

The Programme is carrying out its purpose to the extent that it is implementing a labour intensive IAP clearing programme with the aim of meeting its strategic objectives. However, achievement can only be optimised within the appropriately designed institutional, management and organisational arrangements. The institutional requirements for achieving the purpose include a sound mandate, agreed purpose (with parent and partner departments and organisations), strategy, plans and monitoring of key indicators. An effective organisational structure is required with well-defined roles and responsibilities against which staff are evaluated.

The general finding is that the design of WfW does not appear to provide an effective, integrated and consistent framework to support the achievement of the purpose to control IAPs. This is a different purpose from one that seeks to clear IAPs; the latter does not necessarily contribute to the effective containment of IAPs. The design of WfW is not strategically aligned to control IAPs. Skills, information, finances, staff numbers and structures have not been adequately developed to support a clear and consistent strategic approach to achieving the objectives, and thereby the purpose. WfW often has not allocated or developed the appropriate resources (primarily people, finances and information) needed to fulfil the expectations of achievement that are either explicit or implicit in existing strategy which is in itself unclear. The most explicit targets have in effect been set by the meeting of National Treasury's SPRA goals (set by Cabinet), so that the only consistent national focus has been on the on-time spending of allocated budgets, the areas to be cleared and the numbers of jobs and training days that relate to this. No integrated, coherent and clear strategy currently guides resource allocation to optimise achievement of objectives or provides a basis for consistent assessment of achievement in relation to the objectives. Furthermore, although an IAP control programme is being implemented, there is inadequate focus on IAP control that is sustainable rather than simply IAP clearing.

3.2.1 Mandate for control and management of invasive alien species

The Programme has no mandate for the control of invasive alien species. The lack of mandate is one of four key institutional issues that have affected the achievements of the Programme. The other three are a) the extent to which the responsibilities for the co-operative management and control of invasive alien species have been embraced and acted on by the Departments of Agriculture, Environmental Affairs and Tourism and Water Affairs and Forestry; b) the lack of adequate planning and monitoring against objectives; and, c) constraints in management and staffing imposed by the conditions of the SPRA.

The lack of a clear strategy, planning and reporting for the implementation and performance of the Programme should be seen as having a direct bearing on the implementation of the legal mandates of the partnering departments. The Programme and its partners are therefore seen as being collectively responsible for the achievement of the purpose and the accountability for achievements of the Programme in general.

Given the fact that the WfW Programme is the most important national intervention undertaken to control and manage invasive alien species, and given the current developing legislative context (Biodiversity Bill[22]), the partnering departments should have exercised a greater level of oversight in policy, planning and monitoring for the effective implementation of the Programme.

These issues are discussed further under Section 3.6.3 (Enabling environment created) and in sections 4 and 5, and in more detail within the Legal Evaluation and Institutional, Organisational and Management Component Reports.

3.2.2 Planning to achieve the Programme purpose

A significant consideration in the achievement of purpose is the extent to which there has been systematic planning in order to achieve the stated purpose of the Programme. The evaluation has found strategic and operational planning to be inadequate as a foundation to achieving the purpose of the Programme.

The hand-over report from Jacqui Coetzee (GIS and Mapping Co-ordinator, and Acting Planning Manager until October 2002) provides a useful history of planning within the Programme[23]. Ms Coetzee explains that prior to new annual plans of operation (2000) and Management Unit Clearing Plans being introduced in 2001, planning "*was based on the budget allocated to the project and how many people had been employed in the past, generally at peak operations, and not how many hectares of alien plants needed to be treated. The number of hectares of alien plants that need to be cleared, the followup commitment and how long it would take to complete the project were never quantified effectively. It was commonplace for projects to run out of budget in the middle of year and request further funding, alternatively, the project would have sufficient budget but not enough work to keep teams busy for the year"*.

In previous years, the CSIR had developed management plans for the certain pilot tertiary catchments that identified and mapped alien infestations. These plans took months to complete and cost up to R150 000. Project managers report that these plans were never in an accessible format for implementing clearing operations.

Significant progress has been made in terms of planning at the project level during the past two years. However, Annual Plans of Operation (APOs) and Management Unit Clearing Plans (MCUPs) have yet to reach their full potential. MUCPs were introduced in 2001 to provide a longer term plan on which APOs could be based. Ongoing problems are being experienced, mainly in terms of capacity. This means that MUCPs are often incomplete. The resignation of the GIS and Mapping Co-ordinator in 2002 has set back the advances made in project level planning. Many of the suggestions and recommendations made in this report should serve to improve the implementation and effectiveness of the MUCPs and APOs in the long term especially if concurrent strategic planning takes place at national and regional levels. This matter is first raised in section 1.7.3 and further discussed in section 3.6.3 and sections 4.1.2 and 5.5.

In addition to the above, the Programme has been consistently underfunded in terms of having the resources required to implement an alien control programme. Hence, the resources have never been available for the achievement of the stated Programme goal.

[22] The Biodiversity Bill and its relevance in terms of invasive alien species is outlined in the Legal Evaluation Report, section 3.2.10.
[23] J. Coetzee, February 2003. Six years In Working for Water: An overview of Planning, Reporting, Monitoring and Wetland rehabilitation.

3.2.3 Balancing or prioritising objectives in achieving the purpose

The Programme has grown rapidly, expanding from a small office in the Western Cape to a national organisation operating in nine regions. At times throughout its history it has been understaffed to an extent that some individuals have held more than one post at a time, and its survival is largely due to the dedication and passion of key staff members who have believed, and continue to believe that the five objectives of the Programme are achievable. It is conceded that the multiple objectives may have allowed for achievement in a wide range of aspects that would not have been achieved had any one of the objectives been agreed to be elevated above the rest in terms of importance. However, had the objectives rather been integrated effectively into concrete programmes of activity, the lack of focus would have been avoided and achievement would have been measured in terms of outcomes that are more likely to be sustained post-WfW rather than outputs as has been the case.

The WfW Programme has tried to balance rather than integrate its multiple objectives in clearing invasive alien plants. This may have further contributed to the extent to which the clearing targets have or have not been met as well as the prioritisation of important water catchments and biodiversity hotspots. As a primary focus, the evaluation team believes that the targeting of spreader species should have driven the spatial focus of the Programme, with priority water catchments, biodiversity hotspots and high potential productive land being the most important next informants to spatial planning of the Programme as a whole. Recommendations relating to the setting of objectives in order to achieve Programme goals are provided in section 6.2.2.

The ongoing development of regional strategic plans and Management Unit Clearing Plans will improve the current and future achievement of purpose. The objectives of the WfW Programme can only be achieved through he appropriate targeting of species and areas. For the purposes of this evaluation the relationship between the objectives (hydrological, ecological and social) of the Programme must be examined.

In order to contribute to the strategic objectives through the implementation of an IAP control programme, three required outputs have been identified (see Figure 3.5). They are 1) Design and implement IAP control strategy, 2) Social development programme implemented, and 3) Enabling environment created. Each output requires a number of activities to be met. The achievements of the Programme with respect to the required outputs and activities are outlined in section 3.6 below.

3.3 WfW as an Alien Control Programme

As an alien clearing programme WfW has made significant achievements given the limitations of resources and constraints on the Programme (see Section 1.7) It is estimated that between 927 000 and 1 million hectares[24] of invasive alien plants have been cleared over seven years. The only target that the evaluation team found for alien control was one set by WfW[25] to have controlled IAPs by the year 2020 by clearing an average of 750 000 ha per year. The total area cleared to date (over a period of seven years) is therefore equivalent to 1.5 years of clearing required in order to reach the WfW clearing target. . Rather than an indictment on the operational practice of WfW, this simply underscores the gap between

[24] The water resource evaluation team has found that the total area that has received "initial clear" is 962 000 ha, while that estimated by the economic evaluation team, using national data only, is 927 000 ha. The annual reports were based on summaries from the regions, but there is no record of exactly which regional reports were used to compile these national figures. In cross-checking these estimates the total area of mapping undertaken by WfW was examined and shows an area of about 1.02 million ha. A reason for these discrepancies may be that not all areas worked on in the early years of the Programme were mapped ("historical mapping"), suggesting this may be underestimate. However, much of the historical mapping was undertaken coarsely off maps, and reflect a much larger area than was actually worked, suggesting an overestimate. The Synthesis Report therefore reports a range when discussing the total area cleared, although the specialist reports are more specific when referring to total hectares cleared.

[25] Stated in the Strategic Plan (2001-2004)

the strategic targets and the level of resourcing that the Programme has enjoyed - even had effective plans been in place. The WfW target of 750 000 ha per annum could never have been reached at any stage within those seven years because of budget and other resource constraints.

In some regions there are improving trends in the ratio of initial to follow-up clearing, which may lead to sustained control of IAPs in cleared areas. The extent and frequency of follow-up clearing that would be optimally required for any one project is extremely variable, and depends on the species of IAP, weather patterns and the incidence of fire. Because of this variability, the performance of WFW with regard to actual clearing achieved can only really therefore be evaluated at project level. For the majority of areas, however, follow up needs to take place more than once and more frequently than five year intervals. Ratios achieved to date are in most instances not seen as adequate to achieving sustained results. Because of the lack of project-level data, it is also not possible to confirm that areas that have been cleared remain clear or have received the required level of ongoing follow-up required to secure the historical investment. This is a vital consideration in the evaluation of the effectiveness and sustainability of the Programme.

The most invasive alien plant species (category 1 plants[26]) that are considered aggressive spreaders are not being specifically targeted. Only 51% of clearing has targeted these species, and this proportion of the total has declined over time. However, this finding is affected by the definition of "spreader species" used for this evaluation: in the Western cape, for example, alien clearing has focussed on *Acacia* species that have been excluded from this list of "spreaders" because of the introduction of effective biocontrol. Before this introduction, such species would have been included on this list, and the performance of the Programme would appear better.

Water stressed catchments are not consistently targeted with only 55% of clearing taking place within these catchments (see Figure 2 and Figures 4a-d of the Water Resource Theme Final Report). It is important to note that this percent has increased to 60% recently. However, there has been a decline in the targeting of ecologically sensitive catchments over time with 50% of clearing taking place here. Another trend noted over the past five years is the targeting of threatened terrestrial conservation areas where only 36% of clearing takes place (see figures referred to above in the Water Resource Theme Final Report). Only 5% of terrestrial conservation priority areas have actually been cleared.

Although we can conclude here that targets can not be reached to an extent that will ensure IAPs will be sustainably controlled by 2020, achievements in clearing have been made. As mentioned previously, a distinction needs to be made between alien clearing and alien control, the latter being represented in the Programme purpose. While the achievements in terms of clearing are acknowledged, as an alien control programme achievements are less certain.

The Programme has also achieved significant improvements in awareness relating to the impacts of invasive alien plants within all sectors, and in fact it has been leading the implementation of CARA[27] to combat the spread of IAPs. Much of the awareness has been the result of ongoing effective and well-targeted public relations. WfW is a South African government brand and has been very effectively marketed since its inception. This high profile has benefited the Programme in a number of ways, but has also brought it criticism from various stakeholders.

[26] Category 1 plants are defined in the Conservation of Agricultural Resources Act (CARA). See Legal Evaluation, section 3.2.5
[27] Conservation of Agricultural Resources Act (Act 43 of 1983)

3.4 WfW as a Poverty Relief Programme

From a Treasury perspective WfW has achieved admirably as a poverty relief programme, more than what might be reasonably expected judging by the relative performance of other poverty relief programmes[28]. WfW has met all the requirements of a poverty relief programme as defined by National Treasury and Cabinet. It has employed tens of thousands of people (women and youth focused), ensured that millions of Rands have reached the poorest of the poor, provided these people with training they would not otherwise have had, successfully cleared thousands of hectares of alien vegetation, and successfully spent nearly 100% of their budget for seven years. However, the evaluation found that the criteria of who participates in the Programme and for how long (i.e. the poor wage selection criteria for poverty targeting) has been poorly applied. Furthermore, the evaluation found that the Programme was ineffectual in monitoring the target group of poor unemployed people, specifically failing to monitor the extent to which short term job opportunities for poverty relief had become *defacto* permanent positions.

The Programme has created in excess of 12 000 person years of employment per year[29]. Again, this number is significant given the limitations of resources and constraints on the Programme. Costs per "job" created are also the most efficient of all of the poverty relief programmes of national government. Gender targeting has been successful with more than 50% of workers being female. Some projects have had success in meeting disability targets.

In recent months there has been considerable progress in clarifying training requirements and in improving training delivery. However overall training which is a requirement of National Treasury and of the employment conditions of a Special Public Works Programme (SPWP), has not been delivered within targets that are set by SPWPs. Effective training delivery has been hampered by the fact that the average employment period for a worker in the Programme is four to eight months in every year. This combined with poor planning and limited capacity has meant that adequate training has not been delivered. Reporting on training is also weak and its effectiveness is inadequately evaluated.

People employed in poverty relief programmes are particularly vulnerable to delays in payment and approval of contracts. In the case of the WfW Programme this is especially relevant as many workers reported that late payment for work undertaken and unpredictable work opportunities forced them to borrow from informal moneylenders at high rates of interest. For some workers this has created a debt spiral that has undermined Programme benefits and increased household vulnerability.

3.5 Achievements against the Objectives of the Programme

The Working for Water Programme has five strategic objectives (below) that it strives to achieve and that are reflected in the WfW Strategic Plan (2001-2004). The evaluation team has loosely reinterpreted the five objectives in the Objectives Tree (hierarchical framework) that was developed with the evaluation framework for the purposes of this evaluation[30] (see Figure 3.5).

***Strategic* Objectives**:

Through the control of invading alien plants, we shall:

- ***Hydrological***: Enhance water security *through regaining control over invading alien plants in South Africa and to promote the quest for equity, efficiency and sustainability in the supply and use of water*.

[28] Pers comm: Julia de Bruyn.
[29] Reported by WfW as approximately 20 000 jobs created per year with a peak of over 40 000 jobs in 1997/1998)
[30] The Objectives Tree is also described in section 1.4 and Figure 1 of this report.

- ***Ecological***: Improve the ecological integrity of natural systems *through the removal of invading alien plats, thereby countering abnormal fires, soil erosion, flooding, scouring of rivers, prevention of siltation of rivers, dams and estuaries, and to protect and restore biological diversity.*
- ***Natural Resources:*** Restore the productive potential of the land, *in partnership with the 'Land Care' and 'Combating of Desertification' initiatives, and to promote the sustainable use of natural resources.*
- ***Social***: *Optimise the social benefits that are possible as a community-based, public works programme by* investing in the most marginalised sectors in South Africa and enhancing their quality of life (through job creation).
- ***Economic***: Develop economic benefits from clearing *these plants* (i.e. from wood, land, water and trained people), *by facilitating economic empowerment and the development of secondary industries, and to help to protect the economic integrity of the productive potential of the country*.

This section reflects on the achievements of the Programme against the objectives, outputs and activities as interpreted in Figure 3.5.

The achievements of the objectives are presented in the following order:
1. Water security and aquatic ecological integrity enhanced;
2. Enhanced ecological integrity and biodiversity;
3. Productive potential of the land restored;
4. Potential for hazardous, unnatural fires reduced;
5. Social development through poverty alleviation, empowering individuals, building communities; and,
6. Economic benefits derived.

Whereas the Programme has five strategic objectives, the evaluation team's systematic approach to the evaluation, as decribed in section 1.4, led to the development of six objectives. The team has separated the 'reduced unnatural fires' from the WfW ecological integrity objective, and refers to the WfW natural resource objective as 'productive potential of the land restored'.

3.5.1 Objective: Water security and aquatic ecological integrity enhanced

Based on the historical and WIMS spatial clearing data, as well as the Key Performance Indicator (KPI) project data, the total area cleared is somewhere between 927 000 and 1 million hectares, with even the largest annual totals (1997/8 and 2001/2) reflecting only a third of the annual target[31] set to achieve IAP control by 2020 (see discussion in section 3.3 regarding IAP control by 2020).

Large areas of initial clearing appear to have been "lost" – either neglected to revert to alien stands, or not followed up timeously, so that they require the same level of resources to clear as would an "initial clear". This is evident from the ratio of initial: follow up clearing in some provinces and among individual projects, where these data were compiled, as well as from regional visits, The total area lost in this way could not be quantified as data are not available, but, for example, it is reported that all cleared areas in the Northern Cape at least have reverted to "initial clear".

The most harmful IAPs have not been specifically targeted nationally[32]. They have been targeted in only about 50 % of projects. If the goal of the Programme is alien control, then the spread of these species must be contained as a first priority. The fact that these IAPs have not been specifically targeted nationally (although in a few instances they explicitly have been the reason for starting a project) reflects

[31] The annual target is 750 000 ha
[32] A list of these species is provided in the Water resource Evaluation Report, Table 2.

the fact that a strategic approach to, and concrete plans for, achieving the overall goal and the general objectives was not adopted, and the relationship between Programme objectives has not been clarified.

In achieving the objective of enhanced water security and aquatic ecological integrity, the following findings and achievements apply:

- The targeting of strategic areas for clearing linked to water resource objectives has been low.
- The WfW Programme has mapped or cleared 0.57 million ha or 6 % of the approximately 9.6 million invaded hectares within DWAF priority licensing catchments. Whilst this appears to be a poor performance, even if 100 % of the Natural Biological Aliens (NBALS) were focussed on DWAF priority areas, this proportion would increase to some 10 % of the infested areas within DWAF priority catchments being targeted[33].
- As mentioned in the rationale above, the full potential of IAP clearing as a key strategy in catchment management may not have been adequately considered by DWAF and partnering departments. The legal responsibility to ensure integrated catchment management rests with DWAF.
- In some projects, where alien clearing and wetland rehabilitation goals are integrated into broader catchment management objectives, WfW provides the only real basis for execution of management strategies.
- In evaluating the water yield perspective of achievements at this level a number of assumptions had to be made because of data gaps or inadequate data, for example, none of the mapping included indications of whether or not particular "cleared" areas were riparian or upland[34]. Other assumptions are described in section 3.4.2 of the Water Resource Theme Final Report.
- Streamflow gain estimates are provided in Table 3 of the Water Resource Theme Final Report. The unit values aggregated volumes for the whole country are as follows:
  - WR90 Weighted Average Natural MAR of all WMAs – 37 mm/a
  - WR90 Natural MAR of "cleared" areas – 128 mm/a
  - "Cleared" areas streamflow gain: assuming all upland (pessimistic) – 22 mm/a (4% local natural MAR of cleared areas)
  - "Cleared" areas streamflow gain: assuming all riparian (optimistic) – 55 mm/a (10% local natural MAR of cleared areas)

  For comparison, a previous model study of afforestation-related streamflow reductions (SFRs) in 843 quaternary catchments with mean annual precipitate levels (MAPs) above 650mm, determined a weighted average SFR across the three genera of pines, eucalypts and wattles of 70 mm/a.
- It is important to note that the estimates provided above are for naturalised conditions, while in many situations clearing is taking place downstream of or in catchment zones experiencing many forms of human impacts. The actual streamflow gains in absolute terms will therefore be less than the numbers indicated above and in Table 3 of the Water Resource Theme Final Report.
- In addition, in semi-arid quaternaries, streams and rivers are not perennial and, therefore, there will be less opportunity for riparian IAP utilisation of flows from upstream sub-catchments, which reduces the overall streamflow gain, as estimated with the highly generalised CSIR biomass-based SFR curves. This effect is not accounted for in the values in Table 3.
- The national extent of the potentially increased streamflow is directly related to the national area cleared, as well as the category of IAP and position in the landscape. WIMS has not up till now differentiated between riparian and upland areas, making these estimates less accurate than they could be with a small amount of additional data.

[33] This is discussed further in Section 3.2.1 of the Water Resource Theme Final Report.
[34] As indicated in the Water Resource Theme Final Report, IAPs in riparian locations have been shown to cause much more severe SFRs than equivalent species and densities in upland positions.

- The "no clearing" scenario[35] presented in the section 3.4.2 and Table 4 of the Water Resource Theme Final Report shows that the potential loss in average annual streamflow for the cleared areas alone could have ranged from 200 to 500 m^3x10^6 equivalent to between one and four Skuifraam Dams.
- From an ecological integrity perspective, the most successful projects tend to be those where catchment management strategies, or at least a catchment vision, are in place. No indicators for monitoring of ecosystem enhancement have been developed, for example within the self-assessment standards.
- An overview assessment of the ecosystem-level consequences (short and longer-term) of the WfW Programme can only be produced by collecting and synthesising biological or geomorphological data. Without these, no statement can be made about the overall achievement of the Programme at this level.
- Management of the field-based implementation is very difficult to achieve in this sort of programme, and a legacy of poor management has detracted from the performance of the Programme (e.g. clearing targets). However, a system that will provide for better control (WIMS) is becoming implemented in all provinces and bodes well for the future.

3.5.2 Objective: Enhanced ecological integrity and biodiversity

In achieving the objective of enhanced ecological integrity and biodiversity many of the findings outlined in section 3.5.1 above apply. In addition, the following also apply:

- Support has been given to provincial nature conservation authorities for IAP control by WfW and has greatly assisted the conservation of biodiversity in existing nature reserves. Often, WfW's intervention has been the sole provider of resources to address invasive alien species;
- Catchment stability may be enhanced and erosion risk reduced following alien control provided that appropriate methods are employed. No comprehensive monitoring of soil erosion has been undertaken, but there are recorded instances of control operations exacerbating erosion in the Western Cape and Eastern Cape;
- Available information indicates that clearing of lower density stands of IAPs results in good recovery of indigenous vegetation. The clearing of dense alien stands may also result in good recovery of indigenous vegetation provided that the invasion is of recent origin and the resulting fuel loads are minimised;
- Aggressive IAP (as presented in Table 2 of the Water resource Evaluation Report) species may not have not been sufficiently prioritised (this needs to be checked against comprehensive national maps of alien species, e.g. the Agricultural Research Council aliens atlas);
- Only 36.6% of areas cleared correspond with conservation priority areas[36]. All in all it is concluded that IAP species, threatened vegetation types and biodiversity hotspots are not adequately explicitly considered in the selection of Management Plan Areas;
- In some regions dense riparian stands are cleared before outlier populations; other regions prioritise lower density stands. A valid reason should be established for first clearing dense alien stands (e.g. the removal of the primary stressor from a sensitive habitat) before planning contrary to the accepted best practice of first clearing the lower density alien stands;
- Flexibility is possible within projects, but seldom outside project boundaries, thus limiting the potential to maximise ecological returns on clearing. For example, if a fire occurs within a project boundary, the project manager may take advantage of the situation and clear after the fire, thereby improving ecological returns and efficiency of operations. However, if the fire occurs outside the project

[35] i.e. WfW had not undertaken alien clearing in the past seven years
[36] Further discussion can be found in the Terrestrial Ecology Evaluation Report, section 3.6.2.

boundary, project managers are not able to take advantage of the situation for the sake of some fortuitous clearing and facilitated clearing;

- Based on the best available information, insufficient initial clearing – an estimated 9.6% of invaded land over seven years - is being undertaken to halt the spread of IAPs. The rate of clearing needs to increase in all regions (ranging from three times in Mpumulanga to sixteen times in the Free State) to bring IAPs under control by the target date of 2020. This has significant financial and resource implications;
- During 1995-2000 cumulative follow-up control totals were lower than those for initial control except for KwaZulu-Natal, suggesting that insufficient follow-up work was undertaken. Some initial projects have now reverted to initial clearing densities and have been discontinued. During 2000-2002 follow-up control exceeded initial control, except in the Northern Cape, indicating a general improvement in continuation through follow-up;
- There is no active restoration programme (outside wetland rehabilitation) except for some projects in the Eastern Cape and a few nature reserves. A restoration framework is needed for all vegetation types in which WfW will be active;
- A system to screen for new potentially invasive species is required so that such species may be brought under rapid control before spreading to become an expensive or an intractable problem and before restoration interventions are required;
- Biological control offers very high returns on investment for alien plant control. Although WfW has increased funding to this sector in recent years, an even greater emphasis on biocontrol seems justified to reduce the invasion of the most aggressive alien species and improve ecological integrity in the long-term;
- A worthy initiative of WfW has been leading the implementation of new legislation (CARA) to combat the spread of IAPs. However, if the legislation is to become a strong supporting arm of WfW it needs to be firmly implemented; and,
- Negotiations between WfW and the forestry and nursery industries have increased awareness of the problems and costs of IAPs. Already this has led to partnerships to reduce current and potential new invader species being distributed via these prominent sources.

3.5.3 Objective: Productive potential of the land restored

No monitoring of the impact of IAP control on the natural resource base has been undertaken. Information from key informants indicates that in some cleared grassland areas, grazing for game animals has improved, arable land has been recovered and wild edible green plants are more readily available. However, the lack of scientific evidence to support these contentions is a problem, as this would greatly strengthen the case for intervention.

3.5.4 Objective: Potential for hazardous, unnatural fires reduced

It is too early to assess whether WfW has reduced the potential for hazardous, unnatural fires, although it follows that once invasive trees and shrubs are brought under control the risks of unplanned high intensity fires should be greatly reduced. However, it is felt that in some fire-prone areas the risk of fire is increased due to the high fuel loads from cleared vegetation that is stockpiled. More could be done to reduce these fuel loads, especially in high-risk areas.

3.5.5 Objective: Social development through poverty alleviation, empowering individuals and building communities

Working for Water has attempted to put in place an integrated programme for the clearing of invasive alien plants using a combination of labour intensive, chemical and biological control methods. The Programme aims to simultaneously relieve poverty, develop skills and abilities of the contractors and workers who participate in the Programme and provide social and livelihood benefits to the communities in which they live.

The Programme's guidelines for the employment of women and youth, the creation of 10,000 – 12,000 person years of employment annually at the lowest, (if escalating cost per job) compared to other programmes receiving a SPRA, the development of independent contractors, the employment created in areas where there are very few opportunities, the injection of cash into local economies, the provision of training, peer education and information on HIV/AIDS, the formation of partnerships to deliver improved healthcare and reintegrate offenders, the sponsorship of crèches and the opportunities created by secondary industries all contribute significantly to the achievement of the above objective.

However, there have not been clear plans to ensure that the maximum poverty relief benefits possible are derived. Training programmes and other initiatives do not appear to have been based on an analysis of needs or to have been implemented effectively and consistently where plans existed.

The evaluation team found that social development is understood to mean different things by different people within the Programme which means that emphasis is placed inconsistently in the following areas:

- the creation of short term jobs – 'public workfare' for poverty relief;
- the promotion of gender equity;
- the training and competency development aspects;
- the health information and life skills provided;
- the active integration of HIV/AIDS prevention and policies that do not discriminate against HIV-positive persons;
- the support for local childcare facilities and the training of carers;
- the recognition given to the importance of strengthening 'social capital' and community cohesion, and having a positive and more sustainable impact on household livelihoods;
- development of independent contractors; and,
- maximising benefits for ordinary workers.

This inconsistent emphasis has resulted in a large range in the levels of achievement between and within regions.

A key area of confusion has been between the poverty relief targeting and reporting requirements of National Treasury and the social development intentions of the Programme. For simplification the achievements of the Programme with respect to the social development objective presented below have been separated into those achievements contributing towards poverty relief (as required by National Treasury) and those contributing towards social development.

(a) Achievements towards poverty relief

In general terms, the WfW Programme has been relatively successful in fulfilling its role as a poverty relief programme. In terms of effectiveness, it fulfils many of the criteria of a Special Poverty Relief Allocation Programme and also those identified by the World Bank for a 'good' public workfare programme.

- WfW has provided approximately 12 000 person years of employment per year for the past seven years.
- The Programme operates mainly in rural areas. It also provides significant short-term employment in poor provinces. The three provinces with the highest rates of unemployment (Eastern Cape, Limpopo and KwaZulu-Natal) are within the top four WfW provinces by budget allocation (with the Western Cape receiving a share of budget, sourced from the trading account, disproportionate to the unemployment rate in the province).
- The Programme has provided training through its contractor and worker training programmes, although the effectiveness of the training is questioned.
- WfW provides short-term jobs with the result that much needed revenue is finding its way into poor communities. On average, about 30% of total budget goes directly to unskilled workers in the form of wages. This proportion of the total Programme cost has decreased in recent years as described in the Financial and Economic Evaluation Report, Section 3.7.
- Women and workers from women-headed households are targeted by the Programme. As many as 60% of workers are female, although the proportion of women employed in the more skilled roles is much lower.

(b) Achievements towards social development

The Programme has expanded rapidly since its inception and now operates throughout the country. The combination of rapid expansion, technical and social complexity, a very narrow base of social development staff coupled with pressure to spend large amounts of money in very short periods of time have put the attainment of its social development goals under serious pressure.

Achievements relevant to social development have been detailed in discussions on the Output: Social Development Programme Implemented, and its relevant activities in section 3.6.2 below.

3.5.6 Objective: Economic benefits derived

It is unclear as to the extent of the economic benefits of the Programme. The main potential areas for economic benefits researched in this evaluation are increased water yield and the development of secondary industries.

On the basis of lack of available information it is not possible to assess the economic benefit of reduced wildfire or flooding, or benefits arising from the clearing of productive agricultural land. Furthermore, a full cost benefit analysis, including resource economics has not been undertaken. The analysis therefore excludes the value of ecosystem goods and services as a significant part of managing the 'water resource' ultimately enabling 'water supply'.

(a) Increased water yield:

- To date, the impact of the Programme on mean annual run-off is estimated to be between about 0.1% and 0.3% (53.7 and 132.1 m^3x10^6) of total mean annual run-off in SA (= 44 890 m^3x10^6) (see Water Resource Theme Final Report, Table 3);
- The present day cost of these run-off gains is estimated to be between R1.25 and R3.11 per kl (thousand litres);
- These values are based on increased stream-flow not on increases in economically useful water yields; and,
- The Water Resource evaluation team was unable to quantify water security impacts in the sense of reservoir yield or river system yield or run-of-river yield. These water security gains are the yield values that should be used in assessing the cost of (non ecosystem related) water gains. This is

discussed further in the Water Resource Theme Final Report (Section 3.4.2) and the Financial and Economic Component Final Report.

(b) Secondary industries:

The secondary industries (SIs) project was initiated by WfW to try to develop additional benefits of extracting biomass. This project has three stated objectives:

- minimising the net cost of clearing;
- maximising economic impacts (jobs creation addressing the "poorest of the poor"); and,
- minimising biomass to optimise environmental impacts.

The SI Unit (SIU) of WfW undertakes and supports efforts to manufacture products from the wood and plant material being cleared. Amongst the products currently manufactured are indoor and garden furnishings, charcoal and firewood.

The data provided to the team on secondary industries shows that 138 direct jobs created and an equivalent annual gross revenue of less than R750 000 per annum. By any standards of evaluation, this is an insignificant amount relative to the size of the Programme (in which about 12 000 jobs are provided annually in the direct work of alien plant clearing and with an annual expenditure of the order of R400 million per annum).

In terms of the secondary industry business plan, there is a target to provide 3500 jobs and planned contracts are expected to generate an income of the order of 5% to 6% of the current annual total WfW expenditure. These plans relate primarily to a large charcoal generation project and organic fertiliser production. Whilst these are not insignificant, they are yet to be realised. Even if the plans are achieved, their contribution will not have a very significant impact on the overall sustainability of the Programme.

Working for Water has recently developed a more strategic and organised approach to secondary industries which could have a material impact on a large number of potential beneficiaries.

The achievements in the development of secondary industries are presented in Section 3.6.2(i) below.

3.6 Achievements against the Outputs and Activities

The outputs and respective activities, for which achievements are described below, are listed here:

Output: **Design and implement IAP control strategy**

Activities:
a. Develop and implement a training programme;
b. Establish good understanding of best management practice;
c. Develop information management systems, undertake strategic planning and set project selection criteria; and,
d. Implement dedicated research programme.

Output: **Social development programme implemented** (Note our initial framework does not support the distinction between poverty relief and social development which was drawn above)

Activities:
a. Develop and apply beneficiary selection criteria;
b. Create jobs;
c. Create a safe working environment;
d. Develop contractors;
e. Develop and implement a training programme;

f. Develop a system for prioritisation and assessment of social development objectives;
g. Undertake research;
h. Develop and Implement an exit strategy; and,
i. Develop secondary industries.

Output: **Enabling environment created**
Activities: a. Establish mandate;
b. Undertake strategic planning;
c. Secure resources;
d. Create management structures;
e. Develop systems and processes;
f. Build capacity;
g. Build partnerships; and,
h. Create enabling legislative environment.

3.6.1 Output: Design and implement IAP control strategy

In general:

- Planning at all levels (national strategic plan, regional strategic plans, annual plans of operation (APOs) and management unit clearing plans (MUCP's)) has been weak, lacking in support and poorly aligned to adequate capacity for the implementation of an IAP control strategy. Section 3.2.2 provides some history to the planning efforts within the Programme;
- Strategic planning should have been a focal point for collaboration with the three government department partners to the Programme (DEAT, DWAF and NDA), based on their identified resource management priorities and the overlap of these with IAP control. The poor performance of the Programme regarding strategic planning is at least in part a reflection of the lack of development of strategies at the level of these three government departments and of the limitations of the parameters of the SPRA. For example, DWAF's move to establish CMAs is at a very early stage, and priorities for integrated catchment management from a water resource management perspective are non-existent. Whilst DWAF has incorporated knowledge of the hydrological response to IAP clearing into methodologies for assessing water resource development, it has not recognised the ecological implications of alien infestation for water resource management, or translated this into strategic planning;
- In spite of this lack of departmental strategic support, more attention should have been given to national strategic planning by the WfW Programme than has been the case. Regions are currently leading the way (e.g. KwaZulu-Natal), and regional strategic plans having been drafted by five WfW regions (Mpumulanga, North West/ Gauteng, Limpopo, Eastern Cape and KwaZulu-Natal) and SANP, with other regions currently in the process of developing them. However, in many instances strategic planning is informal, certainly insofar as it incorporates the priorities of other players;
- The evaluation of national spatial information on the distribution and densities of IAPs is recognised in the WfW 2001-4 Strategic Plan as the basis for strategic planning;
- Strategic planning, whether at regional or national level, requires information pertaining to the priorities of the Programme. Such priorities would include transformer or invader species, conservation areas, water stressed or key water supply catchments, high importance catchments and the presence of key biodiversity hotspots. Following on, either within these ecological priorities or at the within-project level, socio-economic information and priorities would allow better integration of social development objectives into ecological objectives, and better achievement of social

development objectives. The most appropriate basis for planning therefore would be the provision of spatial information defining these priority areas (ecological and socio-economic);

- The failure to integrate Programme activities with higher order objectives in a quantifiable way, at the level of planning, reflects the extraordinary assumption that removal of IAPs on its own will automatically contribute to meeting these objectives;
- Sufficient information on the ecology and impacts of IAPs is available at present to design an effective IAP control strategy, but this information base should be continuously updated from research and monitoring results. Currently the main limitation to designing a control strategy is the lack of comprehensive mapping of aliens at national, regional and quaternary catchment scales. The potential use of the ARC alien plants atlas spatial database should be explored; and,
- The WfW mapping standards are adequate for capturing information on aliens, but for strategic planning purposes these need to be over-laid on maps with other biophysical information. Direct links need to be set in place with the conservation priorities generated by CAPE, SKEP, STEP projects[37], and other regional databases, as is being undertaken in KwaZulu-Natal. Furthermore, there is good potential for developing objective risk assessment protocols using the available information.

More specifically, at the activity level the following has been found:

(a) Activity: Develop and implement a training programme

This section refers specifically to training with respect to the implementation of an IAP control programme. Section 3.6.2(e) below outlines achievements in training.

- Overall, employees and workers[38] have spent insufficient time in training and workers have not had adequate job-related training.
- Many workers and contractors felt that they needed more training (e.g. in herbicide use) and some had not completed the induction course.
- Ongoing training should be provided, as for example, contractors may have to deal with up to 90 IAP species, some of which resemble indigenous species (e.g. in Limpopo and Mpumulanga).
- High turnover of workers has meant that maintaining a consistently adequate level of training in teams has been an ongoing and significant problem.
- Several project managers indicated that they were over-stretched, possibly as a result of lack of training in certain necessary skills. The ecological evaluation team found an extreme variability in the understanding and competency of Project Managers, and this is considered one of the key factors determining successful implementation. The new catchment management course based at Saasveld should help to better equip managers for their job, even though during the project visits some project managers expressed concern that the course was too difficult.
- There does not appear to be a pre-qualification requirement, such as the Saasveld course or an identified equivalent, prior to the appointment of a project manager. Such a requirement should be introduced.
- Recently, and with the appointment of the new National Training Manager, potentially significant improvements have been made to training systems for workers and contractors.
- There has been inadequate management training at all levels of regional management, based on lack of clarity about the demands of jobs.

[37] CAPE: Cape Action Plan for People and the Environment; SKEP: Succulent Karoo Ecosystem Plan; STEP: Succulent Thicket Environmental Plan

[38] A distinction is made between employees and workers because, as the Legal Evaluation Report explains (section 2.2.2), Programme workers are employees of the independent contractors and not of the Programme

(b) Activity: Establish good understanding of best management practice

Despite the difficulties experienced in creating a stable organisational structure, and the lack of adequate national planning, the achievements since inception of the Programme, regarding best implementation methods offer much to be proud of. Even though large knowledge gaps still exist, particularly on the ecological aspects of IAP control, the research conducted has been highly relevant to the Programme. The central problems surrounding implementation (but not development) of best practice relate to a) poor management from regional and national level to ensure that checks and balances are in place (with exceptions in some regions); b) the development (or lack of development) in South Africa as a whole, of appropriate and integrated resource management strategies; and c) the lack of buy-in to the WfW Programme objectives by the relevant government departments.

- Standards for clearing practices exist, which indicate that the Programme has been able to standardise knowledge gained into clear protocols, thus facilitating the monitoring of Programme execution on a range of issues. The Programme has had the flexibility to allow for some experimentation and innovation with regard to clearing methods, which are reflected in changes in strategic approaches to clearing (e.g. the shift from clearing the most dense stands to recognising the need to control spread first).
- Guidelines also exist for rehabilitation, which were drawn up with the inclusion of knowledge developed by regional managers and technical experts in the WfW Programme.
- A partnership with DEAT in wetland rehabilitation, including IAP clearing (the Working for Wetlands Programme) has extended the reach of previous wetland management initiatives.
- The recently produced WfW ecology research strategy has prioritised the most important projects for future research[39]. If implemented, this strategy will greatly contribute towards fulfilling the goal of informing best practice.
- Research studies have also identified potential negative impacts of clearing, and some project visits revealed poor clearing practices. Impacts of clearing need to be monitored and contingency plans put in place to deal with potential negative impacts.
- WfW has provided the impetus for highlighting the importance of and conducting research on biocontrol of both woody alien invaders and aquatic weeds. From an ecological perspective, the biocontrol approach to waterweed control has been an advance on the chemical spraying approaches up till now favoured by DWAF.
- The Programme has not adequately identified the catchment as the basis for defining a) the extent of the problem and b) the response required for management, including IAP control.
- Clearing protocols are unevenly implemented. In many cases rehabilitation is not implemented where it is needed, or is inappropriate. The failure of the national office to undertake project level analysis has allowed these errors to be perpetuated.
- Currently no ecological aspects are monitored by WfW projects. This is a shortcoming of the Programme that should be addressed, as the current emphasis is on achieving alien-clearing targets alone.
- Information that informs the rate of clearing (e.g. IAP density and terrain factors) is used to generate quotation packages. As yet, the ecological impacts of different methods are not factored into this process, although WIMS would be capable of handling this information.
- Communications between national and regional staff and between regional staff and project managers should be strengthened so that relevant research is used to inform best practice, and newly identified problems are relayed to the research unit.
- Besides waterweeds, there is currently very little scientifically based research of the ecological impacts of alien removal that is used to inform the knowledge base, or on riverine rehabilitation strategies.

[39] Key research topics and priority projects of the research strategy are presented in Table 3.8.1 of the Terrestrial Ecology Evaluation Report.

(c) Activities: Develop information management systems, undertake project planning and set project selection criteria

- A major achievement of the WfW Programme has been the development and implementation over the past three years of a project-based planning system, based on GIS mapping (WIMS). Given the *ad hoc* nature of clearing in the past, and the massive growth in the operation, this has been (and still is) a difficult goal to achieve. It allows, in theory, for the tracking of clearing activities and expenditure within projects (management units, which correspond to quaternary catchments), and for comparison of these against targets (annual plans of operation) drawn up according to national clearing norms and standards. Furthermore, extension of mapping to each management unit allows for medium-term planning within each project. Such a system is essential for ensuring appropriate planning, and in establishing checks and balances for management of the Programme. However, the inadequacy of training, particularly at project manager level, threatens the implementation of the system. Furthermore, insufficient resources are allocated at a national level to assessment and monitoring of project performance. It is surprising that the national office was unable to provide project level performance data on simple clearing statistics, even for the past two years, when WIMS has been implemented.
- Whilst WIMS emphasises the catchment as a unit for the implementation of IAP control, the reality is that many, if not most, projects are not defined on a natural catchment (e.g. quaternary catchment) basis. In addition, for most projects there has been no attempt to provide or collate existing material that defines the broader context in the catchment and resulting priorities for integrated catchment management.
- Project selection to date has not been based on any overarching strategic plan. Different projects may be selected for different reasons which are often not explicit. Reasons for selection may include ability or potential to spend money, location in terms of poverty node, stressed catchment, conservation priority area, amongst others.
- It is important to note that the social criteria in terms of land ownership (i.e., state land, communal land, and private land) should be used as further management unit clearing prioritisation criteria within an overall catchment clearing strategy that ensures the best return on investment.

(d) Implement dedicated research programme

- A well developed research programme exists, co-ordinated with other institutions (e.g. WRC), aimed at improving understanding of the long term impacts of IAPs on hydrological functioning of the water resource, as well as conceptual knowledge transfer and technology transfer to the sphere of DWAF water resource assessments and development planning.
- WfW has also recently produced an ecology research strategy prioritising the most important projects for future research.
- Even though large knowledge gaps still exist, particularly on the ecological aspects of IAP control, the research conducted has been highly relevant to the Programme, and the above mentioned research strategy will begin to address some of these gaps.
- Further research required to address some gaps not identified in the research strategy have been identified in the Recommendations.

Research specific to Social Development is reported on in the section below.

3.6.2 Output: Social development programme implemented

- The elements of a social development programme are falling into place. However many informants continue to describe social development as the weak leg of the Programme.

- The Programme has placed important emphasis on HIV/AIDS awareness and the promotion of universal precautions. Workplace policies have been developed and peer educators have been trained. Emphasis is also being placed on adequate nutrition for people living with the virus.
- In certain provinces partnerships have been put in place with the Department of Social Services to support crèches which has enabled a sustainable investment in local childcare facilities.
- Partnerships have been developed. However the evaluation found that partnerships were often fairly hastily put in place and experienced problems with respect to roles and responsibilities of the various parties.
- With regard to social development Working for Water has often taken on responsibilities which should be exercised by other agencies. This risks the growth of local dependence on the Programme and of problems once local projects come to an end.
- There have been serious unintended consequences resulting from delayed payment for work undertaken and irregularity of contracts. Workers around the country have spoken about increasing spirals of debt which have served to undermine some of the positive impacts of the Programme.

(a) Activity: Develop and apply beneficiary selection criteria

- Working for Water has developed internal guidelines for selecting workers onto the Programme. In addition to the gender, age and disability targets there are also recommendations on the selection of people from households where there are no persons employed and who fall outside the safety net of social grants. There is also a particular focus on selecting women from single parent households, and households where a member is living with HIV/AIDS.
- Originally the project steering committee, which has now metamorphosed into a project advisory committee, was intended to play an important role in selecting poor households for employment opportunities, however, the evaluation found that over time many of these committees have become dormant or collapsed. Functioning committees have also been criticised for inadequately representing the communities where people live who work on the Programme. In the process there has been something of a breakdown in applying the selection guidelines, particularly where poverty targeting is concerned. The evaluation found that there is currently no agreed methodology for identifying and selecting poor households. In most cases investigated it was apparent that the advisory committees were not effective, played little part in the selection of workers and were unclear as to their roles and responsibilities.
- The low wage level has largely, but not exclusively, become the selection mechanism for the selection of workers.
- The high turnover of workers in certain projects has resulted in replacement workers being selected and hired directly by contractors without reference to anyone other than the project manager.
- The evaluation found that there was fairly widespread dissatisfaction with worker selection processes with allegations that the process was often not transparent and in certain instances open to abuse.

(b) Activity: Create Jobs

- In 2002 the Programme target was to create 18 000 jobs. However what constitutes a job has not been adequately defined. The evaluation has drawn an important distinction between a beneficiary of the Programme who may work a few months in a year and a person year of employment created through it which could be described as a job[40].
- Currently between 10 000 and 12 000 person years of employment are created by the Programme annually. However it is calculated that the Programme reaches between 15 000 and 22 000 beneficiaries each year.

[40] Employment for one year is widely considered to be a permanent job.

- People who are employed through the Programme can only expect to be employed between four and eight months in a year. The evaluation highlighted the high turnover of workers in teams but found wide variations in this from project to project.
- Targets have been set for the employment of women, youth and the disabled by National Treasury (stipulated by Cabinet). Sixty percent of jobs are allocated to women, 20% to youth and 2% to the disabled. Overall Working for Water has had significant success in attaining these targets. Current figures based on employment statistics for the period April – Sept 2002 are as follows: 52.8% of jobs went to women, 22.3% of jobs went to youth and 0.6% to disabled persons. There are however variations from project to project and research shows that although women hold the majority of jobs men tend to dominate the majority of skilled and hence better paid positions.
- The Programme has developed nearly 1000 independent contractors who hire workers on the basis of short-term contracts within a closed contract system.
- The turnover of workers makes it very difficult to meet key social development objectives. It becomes extremely difficult to schedule training to build the competency of individual workers in a coherent way.
- The turnover in teams is due to a variety of factors – the erratic nature of contracts, the low wages, the seasonal nature of alternative employment opportunities (e.g. fruit picking) and widely reported delays in payment.

(c) Activity: Create a safe working environment

- On balance the health and safety record of the Programme has been very poor. As late as April 2000 it was acknowledged that there was no formal Health and Safety system in place. At this time the Programme was declared to be a high-risk employer. The number of people who have been killed on the Programme currently stands at 54 and there have been 15 disabling injuries. In the process of rapidly expanding the Programme Working for Water failed in its duty of care as an employer.
- In addition to the high fatality and injury rate in the first five years of the Programme there was poor compliance with the requirement of the Compensation for Occupational Injuries and Diseases Act (Act 13 of 1993). There was inadequate follow up by the Programme to report injuries and present claims to ensure that workers and their families received compensation.
- Since April 2000 the Programme has placed a major emphasis on Health and Safety. WfW took action to address this situation in consultation with NOSA. They appointed a Central Administrator, centralised claims, designed a COIDA (Compensation for Occupational Injuries and Diseases Act[41]) manual and trained staff in procedures and developed a database of claims. In June 2002 Working for Water launched a two-phase programme to improve its health and safety record.
- Field visits and key informant interviews continued to surface concerns about health and safety and it appears that there remain uneven levels of compliance, as reported in the results of the Self Assessment evaluations during the second half of 2002.
- It is not clear whether Working for Water is aware of the responsibilities of its independent contractors with regard to health and safety compliance and the relevant Acts mentioned above. It is widely reported that the independent contractors, themselves, are not aware of their responsibilities as employers of the workers.

(d) Activity: Develop contractors

- Working for Water has developed a programme to develop, train and mentor contractors. There are currently about 1000 contractors countrywide.
- Progress has been made in developing a contractor development manual.

[41] Act 130 of 1993

- Working for Water has opted in the main for the development of individual contractors. However, research studies have recommended that group contracting models be explored in an attempt to spread Programme benefits more widely.
- Many regard contractors as the principal beneficiaries of the Working for Water Programme – people for whom the Programme has made a substantial difference.
- The evaluation found a number of contractor success stories where people had substantially broadened their asset base, acquired equipment and skills, been provided with business and tax advice and had been able operate independently of the Programme.
- The evaluation also found that many contractors had not received adequate training, did not get adequate business and tax advice and who would be unable to operate independently outside of the Programme.
- The evaluation also surfaced concerns about the responsibility of contractors as employers and the limited options that workers have if contractors default on their obligations.

(e) Activity: Develop and implement a training programme

- Until fairly recently training for workers and contractors has been described as uncoordinated, fragmented and lacking strategy.
- The former General Manager acknowledged in her handover report in May 2001 that Working for Water had been slow in developing a framework and a coherent training programme.
- However, since the appointment of the current National Training Manager late in 2001 progress has been made in developing a clear training matrix, and identifying a sequence of training for workers and contractors. Each of the courses on the matrix now has Unit Standards registered by the Department of Labour.
- Service provider pools for each of the courses are also now being generated through a process of assessing service providers and certifying their quality of training
- A target has been set that every worker receives a minimum average of two days of training per month and that every worker receives an hour of HIV-AIDS awareness training per quarter.
- Currently the Programme still falls short of delivering training against targets. There are also concerns about the accuracy of training days recorded as informants spoke about the category being used as a catch-all for hard-to-code activities.
- At all levels there was an acknowledgement that workers and contractors had not received all the training to which they were entitled.
- The evaluation has highlighted concerns about the inadequacy of training evaluation to date while acknowledging the difficulty in monitoring the diversity of training delivered in projects across the country.

(f) Activity: Develop a system for prioritisation and assessment of social development objectives

- At present there does not appear to be a coherent system or adequate capacity to prioritise and develop local social development objectives.
- The Programme has identified a need for the employment of local 'barefoot' social development officers to increase social development capacity, however the briefs that have been developed for these employees appear to be unrealistic in the context of a lack of clear definition and objectives of the social objective of the Programme, and in the context of the current support capacity that can be provided from national office.
- The social development evaluation has identified some specific concerns about the capacity to induct, manage and support a rapidly expanding social development staff.

(g) Activity: Undertake research

- Limited social research has been commissioned during the life of the Programme
- There has been no research into the challenges faced by clearing in communal areas where resource values of invasive aliens, and resource tenure need to be taken into account which is considered a current weakness in the Programme.
- There have been concerns expressed by research co-ordinators and senior management that research findings do not adequately shape changes in strategy and practice.
- Social research capability has been boosted by the appointment of a social research panel and the development of a social research strategy.
- Recently commissioned research and priority areas identified in a social research strategy are seen as fulfilling a long-overdue research need of the Programme.

(h) Activity: Develop and implement an exit strategy

- The evaluation findings are that this has been one of the weakest areas of the Programme. Although the concept of exit has been around for several years there has been very little practical activity to develop a coherent exit strategy and link other activities such as training to it.
- The concept of exit has also been poorly communicated to workers and is likely to be a source of conflict in the Programme if this is not addressed.
- Currently the Programme falls under the Special Public Works Programme Ministerial Determination which states that people may not work longer than two years in a five-year period. Therefore, workers, in theory, must be exited from the Programme after two years of employment.
- The evaluation found that there was confusion about how this determination was to be applied.
- Many workers interviewed have worked in the Programme for much longer than this already – it is reported that some workers have been with the Programme for up to seven years, although the average length of employment for workers in any one year ranges from four to eight months.
- There has been little progress in enabling post-exit opportunities through, for example, the utilisation of regulations under CARA which could provide opportunities for clearing on private land.
- It is of great concern that there has been no attempt to date to have the conditions of the Ministerial Determination reviewed, especially in the light of the legal risks faced both by the Programme and the Department of Water Affairs and Forestry.
- The evaluation proposes that the applicability of the two-year time frame for Working for Water be urgently reviewed at the highest level, and an explicit statement made in this regard as to the policy of the Programme.

(i) Activity: Develop secondary industries

- At present it appears as if there are a small number of successful small businesses which have been established and show clear future promise given the right support. Given the data limitations the contribution of these enterprises to overall job creation and poverty alleviation is hard to assess. However, it is likely that at this stage these enterprises are not yet of a scale to meaningfully contribute to the overall employment benefits of WfW.
- There are potential “industrial initiatives” at a larger scale that may provide both revenue and some job creation. These include sales of charcoal and woodchips with potential gains of about R28 million per year (approximately 7% of the WfW 2001/2 budget). These are not yet in the implementation stage.
- The development of secondary industries has not provided opportunities for exit strategies and alternative livelihoods for workers to the extent that was anticipated or which would improve the sustainability of the Programme.

3.6.3 Output: Enabling environment created

The following section covers issues of mandate, institutional arrangements and management, planning, resources, and the legal environment.

The general finding is that the design of WfW does not appear to provide an effective, integrated and consistent framework to support achievement. As the following summary of each area of design below will attempt to show, the design of WfW is not strategically aligned. Skills, information, finances, staff numbers and structures have not been adequately developed to support a clear and consistent strategic approach to achieving the objectives. WfW often has not allocated or developed the appropriate resources (primarily people, finances and information) needed to fulfil the expectations of achievement that are either explicit or implicit in existing strategy. Strategy itself has been unclear. The only consistent national focus has been on the spending of allocated budgets, the areas to be cleared and the numbers of jobs and training days that relate to this. No integrated, coherent and clear strategy currently guides resource allocation to optimise achievement of objectives or provides a basis for consistent assessment of achievement in relation to the objectives.

(a) Activity: Establish mandate

- WfW's legal mandate was not formally recorded at the inception of the Programme in 1995 in either policy or legislation, or any other formal document.
- There is still no single policy or legislative instrument that provides a clear and integrated mandate for WfW, which can be used to clarify what must be achieved, guide the targeting of resources and integrate its work coherently within the range of relevant policy areas. Instead, the mandate of WfW is derived from a variety of policies developed in the various functionally specialised "parent" national departments, like DWAF and DEAT.
- It is believed that the lack of mandate has allowed WfW to "take on all problems" and as a result lacks focus.
- The weak accountability framework does not provide clear basis for focused strategy development, evaluation, learning and improvement.
- Governance structures through which co-operative governance could be achieved to address, for example all relevant fresh water resource management issues, that might have a bearing on WfW's work, are weak.
- The partner organisations have not met consistently during the course of the Programme.
- It is alleged that these issues have significantly impacted on WfW's accountability, strategic clarity and the longer-term sustainability of gains.
- Governance at national level is weak – those who can make significant difference to effectiveness and sustainability are not adequately actively involved in shaping the Programme and creating the conditions for effectiveness and accountability. This would seem to apply generally at regional level although important efforts are being made to improve this in specific regions, areas and projects.

(b) Activity: Undertake strategic planning

Aspects related to strategic planning have been discussed above in Section 3.6.1.

- National level strategy is weak and does not provide a clear framework for targeting resources strategically or co-ordinating the work of regions.
- There are no clear programmatic and generally accepted and implemented objectives, targets or clear and agreed basis for assessing efficiency, effectiveness and progress towards achieving the overall goal.
- Internal development objectives are not based on a strategic assessment of capacity needs or the current situation within the Programme.

- Regions are largely left to deal with strategic challenges on their own, including those arising from inconsistent policy and regulatory frameworks.
- Regional, area and project planning suffers from lack of clear national framework and capacity and resource (information) constraints.

(c) Activity: Secure resources

The initial grant to initiate WfW (of R25 million) came from the RDP fund. The bulk of the annual funding now comes from the National Treasury SPRA (R315 million), and the DWAF budget (R82 million).[42] Both sources of funding are managed by DWAF. There is also funding from the private sector, donors and other partners R1.2million). The strong link to the SPRA influences how and where money may be spent.

- There is no dedicated budget provided for the Programme.
- Excellent public relations have ensured that the Programme has generally good profile and steady increases in funding, including unplanned budgets for spending at short notice.
- Budgets at national and regional level are not clearly and consistently based on strategy and plans.
- There is no evidence of clear and explicit analysis of strategic resource requirements.
- The Special Allocation will be closed at the end of the 2004 fiscal year. As a result of WfW's relatively good performance in spending a large proportion of its annual budget in each year of allocation, the evaluation team has been advised that it is likely that the National Treasury will continue to fund the Programme after the closure of the SPRA.

(d) Activity: Create management structures

- WfW's general design does not appear to be optimally appropriate to WfW's situation.
- Although most of the Programme's financing currently comes from the National Treasury (which manages the SPRA), WfW appears to have little institutional independence from DWAF. Factors supporting this conclusion include the following observations:
  - the SPRA is simply a separate Treasury budget. The day to day management of the funds, and the purposes for which the funds are used, are managed by the government departments to which the funds have been transferred, in this case DWAF;
  - WfW's senior management are DWAF employees, although they are contract, not permanent staff;
  - WfW has no independent legal status;[43]
  - there is no contractual or similar agreement that maintains an arms-length relationship between DWAF and WfW; and,
  - DWAF senior officials have authority over WfW.
- On the ground, there is confusion regarding the different roles played by both parties. This has been clarified to some extent by the establishment of regular meetings between DWAF and WfW and the granting of signing powers to various WfW staff.
- The lead agency for WfW is DWAF, which is the custodian of the nation's water resource[44] and which is headed by its Director-General. However, the weaknesses in regard to mandate and governance have led to blurring and differences of opinion in regard to whether WfW is a cross-cutting programme hosted by DWAF, or a programme within DWAF.
- Two structures have been established to facilitate and encourage co-operative governance in relation to the operation of WfW.
  - The first is the Board, on which is represented by the Programme Leader of WfW, Dr Guy Preston, and various national Ministers, including Water Affairs and Forestry; Education;

[42] These data are as reported in the WfW Annual Report 2001/2.
[43] i.e. as a trust, foundation, association, section 21 company etc. It cannot therefore sue or be sued, among other things.
[44] In terms of section 3 of the National Water Act, 1998.

Agriculture; Land Affairs; Trade and Industry; Labour; Minerals and Energy; Environmental Affairs and Tourism; Provincial and Local Government; Arts, Culture, Science and Technology; Public Works; Health; and Welfare and Population Development. The Board has only met once since its establishment.

  - The second relevant institutional structure is the Executive Committee, on which representatives of various relevant institutions and WfW are represented[45]. The Executive Committee is supposed to meet quarterly.

- The Programme Leader, who formerly held a consultancy position as a special advisor to the Minister of Water Affairs and Forestry, has been appointed as the Chairperson of the Executive Committee and the Strategic Advisor to the Deputy Director-General: Policy and Regulation. The Programme Leader is accordingly now a DWAF official and, presumably, is now empowered to exercise statutory powers vested in, assigned or delegated to him. The Legal Evaluation team suggests that the fact that he previously held a consultancy position was legally problematic in that he had no authority in law to exercise any powers under any relevant laws, notwithstanding that he was de facto the most senior manager of the Programme. His role was limited to an advisory one. The team has been advised that his appointment as Strategic Advisor to the Deputy Director-General: Policy and Regulation has rectified this issue.[46]
- WfW's General Manager has certain managerial responsibilities, although it has not always been clear how the General Manager's role differs from the Programme Leader's role. It is understood that a document detailing the roles and responsibilities of both posts has been developed.
- All other WfW employees were previously either seconded from DWAF or appointed as consultants. The situation has been rectified, and all WfW employees are now employed by DWAF.
- The persons responsible for actually undertaking the clearing work (i.e. the "poorest of the poor") are not WfW employees. On the contrary, independent contractors, appointed by WfW in terms of an arms-length agreement, employ them. The employment relationship is therefore between the relevant independent contractor(s) (as employer(s)) and the workers they employ (as employees).
- The steps taken by WfW to regularise its contractual and employment relationships are to be commended.
- The organisational structure is not explicitly based on strategy and strategic assessment of experience.
- Re-structuring by both WfW and DWAF are seen by many as arbitrary and piecemeal but having long-term consequences.
- High levels of uncertainty about roles and relationships appear to persist because of both internal WfW and DWAF restructuring and the uncertain status of the SPRA.

(e) Activity: Develop systems and processes

- There has been marked improvement in information systems but overall the weak systems and processes and improvements have not been adequately formalised and institutionalised.
- Systems and processes have not been adequately designed based on strategic requirements and have not been reviewed and adapted on the basis of experience.

[45] Representatives of the following institutions: The Departments of Water Affairs & Forestry; Environmental Affairs & Tourism; Agriculture; Social Development; Labour; Trade & Industry; Provincial and Local Government; Education, National Treasury, The Presidency, A member each of a provincial department of Agriculture & provincial department of Environment / Conservation, The South African National Parks, The National Botanical Institute, Independent Development Trust, Forestry South Africa, The following executive members: Chairperson of Executive Committee, WfW General Manager and WfW Executive Managers: Scientific Services; Implementation; Corporate Services.

[46] We have only been furnished with a motivation for the creation of the post (undated letter from Ms B Schreiner to the Chief Director: Human Resources under reference S4/4/B/4), and not with Dr Preston's letter of appointment. The Draft Institutional Report refers on page 36 to this appointment, hence we presume that he was appointed and that his terms of reference accord with those annexed to Ms Schreiner's aforesaid letter.

- Overall the systems for monitoring organisational and individual performance are weak – current focus appears to be on indicators related to spending, clearing and person-days without linking to indicators of impact. This is having significant negative unintended consequences.
- This and the lack of effective systems and processes for involving staff and stakeholders at all levels in planning and evaluating impact have impacted negatively on learning, development and improvement.
- Consistent compliance with applicable regulations is not enforced or adequately supported by staff training. In particular this refers to areas of human resource and financial management and administration.

(f) Activity: Build capacity

- Exceptional levels of commitment have been witnessed from most management and staff.
- Roles and responsibilities are not clear and are not anchored in clearly understood strategy.
- High levels of frustration and insecurity are reported and are reportedly contributing to high staff turnover (including among workers on projects).
- The high turnover of staff has had, and continues to have a significant impact on "institutional memory".
- In August 2002 staffing at National Office was as follows: Female 34 (60%), Male 23 (40%), (Temp 9, Vacant 17) and Black 19 (33%) Coloured 23 (40%) Indian 2 (4%) White 13 (23%).[47]
- There is apparent regular undermining of staff in order to "get the job done" quickly, rather than commitment to capacity building and empowerment, which tends to be more time consuming. It is reported that this is especially relevant in the light of appointments that have supported the transformation process at National Office.

(g) Activity: Build partnerships

- WfW has three core "parent" partners, namely DWAF, the Department of Environmental Affairs and Tourism (DEAT), and the Department of Agriculture (NDA). It also has partnerships with the Departments of Trade and Industry; Education; Land Affairs; Labour; Minerals and Energy; Provincial and Local Government; Public Works; Social Development; Health; and Arts, Culture, Science and Technology.
- There has been a significant break in linkages to "parent" departments over time, to the extent that no departments, other than DWAF, have been part of the process of decision-making in relation to the integration of WfW into DWAF, despite the fact that this has reached an advanced stage.
- Some strong and effective partnerships have been built but are not based on clear and comprehensive identification and analysis of key strategic partners.
- There is little evidence of systematic evaluation and development of partnerships based on strategic priorities at regional and national level.
- WfW appears sometimes to take on responsibilities when there is inadequate capacity to achieve or sustain what is required, rather than developing a strategy for influencing and involving agencies that should take this on more appropriately.
- The risks and assumptions associated with the high levels of interdependency with other organisations / agencies have not been explicitly analysed or strategies put in place to manage and mitigate risks.

(h) Activity: Create enabling legislative environment

The following findings are relevant to the enabling legislative environment:

[47] As reported in the Institutional, organisational and management evaluation report.

- Due to the lack of a clearly stated mandate WfW has effectively borne the responsibility of the partner departments for control and management of invasive alien plants while having no legal authority to be effective in its endeavour;
- There is a lack of an integrated statutory tool for the management of IAPs in South Africa. The existing framework is fragmented and allocated institutionally, rather than ecologically;
- DWAF, DEAT and NDA, which each have different prerogatives, all administer separate pieces of legislation that directly or indirectly regulate IAPs;
- Partner Departments and the Programme have not undertaken the expected effort to enable co-operative governance; and,
- The National Environmental Management: Biodiversity Bill[48] could assist in solidifying the mandate and achieving a more appropriate institutional alignment over time. Changes to the legal context in the development of the Biodiversity Bill have been discussed in Section 2.2.1 above.

Irrespective of the findings outlined above, the following findings demonstrate how the above may have affected the Programme:

- Lack of an appropriate institutional framework, leading to lack of accountability and *ad hoc* strategic development, which in turn leads to breaches of reporting and accounting statutory duties and, possibly, the exercise of powers by individuals in whom such powers are not vested;
- Lack of an updated and relevant strategic plan to guide the work that WfW is required to perform;
- Non-compliance with some of the requirements of the *Conditions of Employment for Special Public Works Programmes*, published by way of a Ministerial Determination for the Special Public Works Programme.[49];
- Health and safety risks caused in different cases by *inter alia,* high turnover of staff, inadequate training, transport risks, management and use of herbicide and so on;
- Lack of compliance with various occupational health and safety obligations, including the Compensation for Occupational Injuries and Diseases Act.[50] This resulted in WfW being declared a "high risk" employer;
- Lack of understanding regarding the legal nature of the various relationships between WfW, independent contractors, workers and private landowners; and,
- Generally, a lack of awareness of the complex totality of a sometimes fragmented legislative regime for environmental custodianship and management generally and IAP control in particular.

3.7 Assessment of Achievements against Key Evaluation Criteria

The evaluation approach outlined five key criteria against which the Programme would be evaluated. These are described in section 1.4 and include rationale, impact, effectiveness, efficiency and sustainability. The achievements are now assessed in more detail related to these key criteria.

3.7.1 Rationale

The rationale of the Programme has been discussed in some detail above. Please refer to section 3.1.

[48] Considered in more detail in section 3.2.10 of the Legal Evaluation.
[49] Which was published in Government Notice R63 in *Government Gazette* 23045 dated 4 February 2002 in terms of the Basic Conditions of Employment Act.
[50] Act 130 of 1993.

3.7.2 Impact

This section summarises the achievements at the strategic objective level. Some aspects of the impact of the Programme are within the influence of the Programme and some are not.

The Programme's adherence to multiple objectives without any priority has diluted its impact in clearing IAPs, and as a poverty relief programme.

(a) Water resource

The impact of the Programme on aquatic resources relates to the extent to which the Programme has met its targets for IAP control, and the extent to which the Programme has focussed clearing on priority aquatic resources and the magnitude of its impact in these fields.

The total area cleared after seven years is a tenth of the area invaded in South Africa, and is dramatically short of the targets set in the 2001-2004 Strategic Plan. Similarly, the Programme has only targeted 6% of the area covered by critical aquatic resources (as represented by DWAF priority catchments and those with high EIS). Add to this the probability that many of the areas mapped in historical and WIMS mapping exercises are either not being followed up rapidly enough to alter their ecological status, or have simply been neglected, and the impact of the Programme on aquatic ecosystems appears to be even smaller than these numbers suggest.

The significance of the water yield achievements of the Programme for the country was discussed above in sections 3.5.1 and 3.5.6. Estimates of streamflow are provided as a range, designating all IAPs as upland (low yield) or riparian (high yield). In summary, streamflow gain is equivalent to between 53 and 132 million cubic meters of water annually which amounts to between 4 and 10% of the Mean Annual Runoff of those areas cleared. In relation to the country as a whole, this saving is between 0.1 and 0.3% of South Africa's total MAR, assuming there is effective follow up.

The performance of the WfW Programme in relation to streamflow gain was also evaluated against a consideration of the streamflow loss in the event of the Programme not having cleared any IAPs. This was undertaken by the Water Resource team using a density of 100%, and assuming that the consequences of not clearing IAPs would be their total densification over time. The Water Resource Theme Final Report (section 3.4.2 and Table 4) shows that the potential loss in average annual streamflow (SFR) for the cleared areas alone could eventually have extended to between 207.7 m^3x10^6 (if all is assumed to be upland) and 513.2m^3 x 10^6 (if all is assumed to be riparian).

To illustrate the streamflow gain provided by the Programme, and the streamflow loss that would have occurred in the absence of the Programme, the Water Resource team explain that the gain could, every second year, on average, fill an impoundment the size of Skuifraam Dam.[51] In contrast, each year between one and four Skuifraam Dam equivalents could have been filled (emptied) with the streamflow loss resulting from a “no clearing” scenario.

The impact of the Programme could also be assessed based on empirical studies, i.e. monitoring, which could track ecosystem change to provide evidence of the ecological impact of the Programme. The WfW Programme has made no provision for routine project monitoring or evaluation, in relation to ecological responses to alien clearing. Even research in this regard is scant (see section 2 of the Water resource Evaluation Report). Some anecdotal evidence, both of enhanced ecological functioning and of degradation in ecosystem condition, was highlighted during the project visits. Many of the assessments

[51] The full supply capacity of the new Skuifraam Dam under construction in the Berg River in the Western Cape, is 130 m^3 x 10^6.

are (necessarily) highly subjective and do not take into account broader processes / annual or seasonal variability that might equally explain the observed change (e.g. streamflow has visibly increased).

The success of any clearing activity can only be assessed in relation to a) the ecological objectives or goals established at the start of a project, which in turn depend on b) the extent to which stated ecological goals are contingent on other management interventions within the catchment. A typical example is the degradation observed after removal of alien vegetation from river banks within agricultural areas, frequently blamed on lack of stabilisation procedures. However, where a river channel has been artificially narrowed by "infilling" and creation of berms so as to extend agricultural lands, then erosion will take place until the channel reaches a new equilibrium in relation to the flows it carries. Artificial stabilisation of the banks would cause down-cutting and an alteration in stream habitat. In such an instance alien removal on its own would be insufficient to return the river to more natural conditions.

From an ecological integrity perspective, the most successful projects tend to be those where catchment management strategies, or at least a vision, is in place (e.g. nature reserves, nature conservation land). A good example of this is the Upper Sand WfW project, where a range of partners have worked together to achieve social and ecological goals. Alien clearing has been integrated with the overall goals. Wetland rehabilitation strategies respond both to biodiversity imperatives as well as social utilisation of wetland resources. The role of WfW within this has been critical, according to the co-ordinator of that project.

On the other hand, many projects have no impact on ecosystem integrity, or may even cause degradation, where poor clearing practices are employed. Dumping of cut material in the stream channel is a common cause of severe lateral erosion (e.g. Katberg River, Eastern Cape; Silvermine River, Western Cape).

An overview assessment of the ecosystem-level consequences (short and longer-term) of the WfW Programme can only be produced by collecting and synthesising biological or geomorphological data. Without these, no statement can be made about the achievement of the Programme at this level. There appears to be an assumption within the Programme that there are generally automatically positive benefits associated with removing alien plants.

(b) Terrestrial

In order to improve ecological integrity, not only should an effective alien control programme halt further spread and densification of IAPs, but it should also steadily decrease their extent over time.

- From an analysis of the available data, it is clear that WfW will not meet its national target of bringing IAPs under control by 2020 at the current rate of clearing and with the current financial and other resources. During the two-year period 2000-2, four percent of the estimated extent of IAPs[52] was cleared. This calculation does not account for the continuing dispersal and range extension of IAPs, so it is likely that overall, a clearing rate of three times this will be required to bring aliens under control by 2020.
- It is suggested that additional funding urgently is required to appoint more staff and initiate more projects and contracts if aliens are to be brought under control by 2020.
- In addition, all government departments and private landowners need to meet their responsibilities towards controlling IAPs, and should be encouraged to participate, as WfW cannot achieve this alone.

[52] Versfeld et al. 1998, see Terrestrial Ecology Evaluation Report

- Biological control offers the highest return on investment for alien control, and in addition, may be the only sustainable way to control certain aggressive IAP species in the long-term. The recent increase in funding to biocontrol research and implementation by WfW is to be commended, but we suggest that an even higher level of investment is required.

The ecological goals of WfW are integrally linked to alien control. Without alien control there would be no enhancement of ecological integrity. However, controlling aliens in a piecemeal way or applying methods that damage soils and indigenous seed banks could counter the ecological goals of the Programme.

- An analysis of the species targeted by WfW projects indicated that since the Programme's inception only 51% of areas cleared targeted at least one aggressive IAP species.
- Future strategic planning should ensure that a higher proportion of projects target the most aggressive IAP species if WfW is to meet its ecological goals. Regions with the greatest extent of aggressive IAP species should be prioritised.
- An analysis of the proportion of threatened vegetation types (42% of invaded land) targeted by WfW projects indicated that to date, 36.6% of areas cleared targeted the most threatened vegetation types.
- Recent developments at WfW suggest that some of the above shortcomings are currently being addressed.
- The effectiveness of past alien clearing in terms of enhancing ecological integrity was difficult to assess, as no ecological monitoring has been undertaken. Currently performance is measured on alien clearing efficiency (hectares cleared) rather than on degree of vegetation recovery. The lack of comprehensive ecological monitoring of the WfW clearing projects has major implications for meeting the goal of improved ecological integrity. Without measuring the impacts of clearing, managers have no idea whether they are using the optimal approach, degrading or improving ecological integrity. Project visits yielded the full spectrum of outcomes from improved ecological integrity through no change to reduced ecological integrity. In most cases where low to medium-density stands were cleared, indigenous vegetation recovered rapidly.
- Rehabilitation or restoration may be required following alien plant removal to enhance ecological integrity in areas with a long history of infestation. The lack of a restoration framework that identifies areas where restoration may be needed and outlines protocols for different vegetation types and to prevent secondary invasions will limit progress in this area.
- Training at all levels has been insufficient in the past, although the RPLs generally felt that they were doing as much as was feasible. The initiation of the Saasveld course on "Catchment Management", to be attended by all managers lacking an environmental background, is a positive development by WfW.

(c) Economic

- It has not been possible to ascertain the likely economic impacts of clearing productive land, beyond the water resource benefits, within the scope of work of the evaluation. (Primary data collection and an assessment of economic benefits and costs were outside of the scope of work and no data on this topic were found.)
- It has been reported that in some cases where private landowners have had access to alien clearing by WfW projects the productivity of their land has been improved. As an example, in Mpumalanga, a landowner had his land cleared of aliens by WfW, at no cost to himself. The landowner would not otherwise have cleared his own land as it was considered not worth his while. However, the cleared land was then planted with macadamia nuts by the landowner and therefore rendered productive again. The economic advantage being direct to the landowner. However, in other instances, where the land has not been planted with crops subsequent to clearing by WfW, landowners have neglected to carry out follow up clearing and land has reverted to initial clearing status.

- Secondary industries have created 138 direct jobs and an equivalent annual gross revenue of less than R750 000 per annum. By any standards of evaluation, this is an insignificant amount relative to the size of the Programme (in which about 12 000 jobs are provided annually in the direct work of alien plant clearing and with an annual expenditure of the order of R400 million per annum). In terms of the secondary industry business plan, there is a target to provide 3500 jobs and planned contracts are expected to generate an income of the order of 5% to 6% of the current annual total working for water expenditure. Even if the plans are achieved, their contribution will not have a very significant impact on the overall sustainability of the Programme.
- Working for Water has recently developed a more strategic and organised approach to secondary industries which could have a material impact on a large number of potential beneficiaries.
- Approximately five successful enterprises have been identified from a larger number of potentially sustainable enterprises which have been established.
- There have been serious unintended consequences resulting from delayed payment for work undertaken and irregularity of contracts. Workers have succumbed to increasing spirals of debt as a result of late payment which have served to undermine many of the positive economic and social impacts of the Programme and increase household vulnerability in many instances[53].

(d) Social

Social development is an elusive concept and is not easily captured by simple quantitative indicators. The original EU evaluation noted that the Programme had released a remarkably good stream of social benefits in a very short space of time. Key informant interviews have indicated a variety of different perspectives concerning the social development dimensions of the Programme.

- The Programme has successfully met the social targets required by National Treasury.
- Clearly the Programme is having an impact on poverty and livelihoods, even if in macro terms the overall impact is small in relation to the size of the problem.
- The guidelines for the employment of women and youth, the creation of 10,000 – 12,000 person years of employment annually at the lowest, (if escalating, cost per job within the SPRA Programme) the development of independent contractors, the employment created in areas where there are very few opportunities, the injection of cash into local economies, the provision of training, peer education and information on HIV/AIDS, the formation of partnerships to deliver improved healthcare and reintegrate offenders, the sponsorship of crèches and the opportunities created by secondary industries have all had their impacts.
- With a clear mandate, an investment in strategic planning, improved systems, better relationships and stronger partnerships it is our view that the Programme has the potential to dramatically expand its social benefits and impact.
- It is these areas that must become the core focus for improvement if the Programme is to meet its social objectives and make an impact on the ground.
- Currently the overall social impact of the Programme is far from optimal assuming that the trends identified from project visits and key informant interviews are representative. Impacts appear highly uneven. In some regions and in some projects the impacts appear far greater than in others.
- No amount of hard work and commitment can substitute for systematic processes of planning and monitoring. Ironically the drive to continually expand the Programme, respond to new opportunities and deliver everything single-handedly can quickly put a programme at risk and undermine its sustainability.

[53] This is discussed in more detail in the Social Development Evaluation.

Fortunately it is clear that many people active in the Programme recognise the need to consolidate, prioritise and invest in meaningful partnerships in order to deepen the quality of the different interventions. Hopefully the issues that we have raised in this report can signpost how such consolidation may be achieved.

(e) Legal

It is understood that the Programme was instrumental in the development of the CARA regulations in which invasive alien plant are addressed. In addition the Programme has played a significant role in raising awareness regarding IAPs and the implementation of CARA.

WfW's failure to fulfil all of its ecological objectives has been exacerbated by factors outside of its control. That being said, WfW has failed properly to apply environmental laws in that few of the powers under those laws have been exercised, and that certain statutory obligations have not been fulfilled. For the most part, these have not involved transgressions of the law. Rather, the reluctance to use the full might of the law is likely to have adversely affected the fulfilment of the Programme's ecological objectives. Using the yardstick of what might reasonably be expected in the circumstances, it is concluded that the Programme has performed relatively satisfactorily within the legal framework, although it could have played a more active and bullish role by exercising powers already within its grasp and by shaping the law reform process.

3.7.3 Effectiveness and Efficiency

Within the evaluation, efficiency has been assessed and measured by the economic and financial specialist team. Their evaluation does not take into account other aspects e.g. ecosystem benefits, as no resouce economic component was included in the evaluation. A summary of their findings, as an assessment of the efficiency of the Programme i.e. an assessment of the "productivity" of the Programme's intervention, is presented here.

- Number of person-years employment created is in the region of 12 000 per annum. This peaked in 1997/8 and has seen a slow decline in recent years.
- The average length of employment per beneficiary per year has ranged from 4 to 8 months.
- The total Programme cost expressed per person-day of employment created has increased from less than R60 in 1995/6 to R150 in 2001/2. Cost increases have been particularly steep in the last two years (42% and 28% respectively).
- The direct wage benefits of R41 on average per person day for unskilled workers has remained more or less constant throughout the Programme and now accounts for about 30% of total Programme expenditure.
- Total expenditure on contracts accounted for about 56% of total Programme expenditure in 2001/2. This includes profit, wage bonuses and other contract related costs (for example, protective clothing etc.).
- Secondary industries data show that 138 direct jobs have been created with equivalent annual gross revenue of less than R750 000 per annum, which is an insignificant amount relative to the size of WfW. A target of 3500 jobs is in place and there are plans to generate up to 6% of the current annual total WfW expenditure.
- The overall approach to secondary industries has become recently more strategic and organised which bodes well for the achieving of targets.
- Estimates of the total area cleared (initial clearing) vary from 927 000 hectares (reported in Annual report) to about 1 000 000 (estimated from team generated analysis of available mapping information). This compared to a target clearing of 750 000 hectares per annum of initial clearing.

(The spread of alien invasive plants (IAP) is estimated to be in the region of 500 000 hectares per annum.)

- The ratio of initial to follow-up clearing is estimated to 0.84 (this is considered to be a coarse and probably inaccurate estimate). This ratio is well below that considered necessary to maintain areas which have had an initial clearing – even the optimal ratio will vary widely, depending on area, IAP species and so on.
- The costs per hectare cleared (initial and follow-up) have declined in the last four years from just over R1000 to R800. However, this trend may be misleading as the type of clearing (initial versus follow-up) as well as the densities of the areas cleared have a significant impact on units clearing costs. The data made available to the evaluation team was not sufficient to enable a more refined assessment of cost trends to be undertaken with any degree of confidence.
- The productivity of clearing has increased significantly during the period 1996/7 to 2001/2 with person-days per area cleared dropping from 18 to 5. This is thought to be largely the result of a change to the contracting model and the increase in the ratio of follow-up clearing to initial clearing. A decrease in the average density of clearing is also likely to be associated with the switch from initial to follow-up clearing.
- To date, the impact of the Programme on mean annual run-off is estimated to be between about 0.1% and 0.3% of total mean annual run-off (MAR) in SA, but between 4 and 10% of the MAR in those areas where clearing has taken place. The low level of achievement nationally demonstrates the inadequate rate and scale at which clearing is taking place relative to the scale of the problem.
- The present day cost of these run-off gains is estimated to be between R1.25 and R3.11 per kl (thousand litres).
- The financial management systems show significant weaknesses. Record keeping leaves much to be desired, particularly with respect to the link between costs (financial records) and outputs (areas cleared – with appropriate detail, person-days worked etc.). Performance against budget has been poor. This is exacerbated by significant additions to the budgeted income late in the financial year. Procurement has not been efficient and payments have often been late.

3.7.4 Sustainability

The findings on the Programmes efficiency and effectiveness, together with an assessment of the reasons for these findings, inform an assessment on the likely sustainability of the Programme. Overall, it may be concluded that the sustainability of the Programme in its present form is in doubt. WfW does not appear to have a clear or adequate strategy for sustaining gains made and, although some of the problems have been recognised, many have not been addressed.

- Overall, the Programme cannot be considered to be performing efficiently and effectively.
- Although costs per hectare cleared have declined in an overall sense, this trend could be highly misleading due to the impact that the type of clearing (initial versus follow-up) and the density of initial infestation have on unit clearing costs.
- The Programme cost per person day of employment has increased markedly in the last two years. This is a concerning trend from a poverty relief point of view as proportionately less money is going directly to the poor in the form of a wage benefit although one could argue that funds have been spent on support systems such as staff, management information systems, training and resources which indirectly benefit workers.
- The cost of the additional annual water run-off is high when viewed from a “supply augmentation” point of view (about six times as high as the average raw water tariff). In addition, although the streamflow gains will have potentially significant benefits in terms of ecosystem functioning, much of the run-off benefit cannot be regarded as available in the sense of an additional and available water supply from a direct human use perspective. (This is not to say in some specific catchments that the

cost of the additional run-off created will not compare favourably with the value of that water. However, this assessment was outside of the scope of this evaluation.)

- The absence of adequate management information systems and controls is very likely to have impacted significantly on Programme performance. There is undoubtedly scope for improvements in Programme efficiency and effectiveness.
- Longstanding problems with, and lack of clarity regarding, the "exit" strategy, for example, have been left unresolved.
- Key strategic issues related to who will carry the long-term responsibility for maintaining cleared areas have been left unresolved although some form of "hand-over" appears to be envisaged.

(a) Clearing of invasive alien plants

Our evaluation indicates that many of the positive impacts achieved by WfW so far will not continue should the Programme halt, as insufficient progress in clearing land of aliens has been made. Sustainability is dependent on the Programme demonstrating that it can make more or less permanent advances towards alien control. The following are preventing the Programme from becoming sustainable:

- Inadequate supportive legal and institutional environment and a lack of national invasive alien species control strategy;
- Poor strategic planning at national & regional levels;
- Insufficient funding and other resources, and general inefficiency, mean that the total area cleared is inadequate;
- Clearing progress relative to rate of spread may not lead to a net reduction in infestation;
- Inadequate follow up of initial clearing and insufficient success rates of follow-up clearing (density of secondary infestation reduced, or of third infestation further reduced and so on);
- Not enough projects or cleared areas that do not require further follow up in the short-medium term i.e. that have been cleared and sustainably maintained;
- Not enough simultaneous actions to prevent new invasions are being initiated;
- Inadequate investment in biocontrol initiatives (research & implementation);
- Legislation is lacking strength (especially regarding enforcement of alien-clearing obligations); and,
- Entrenchment of the dedication to best management practices based on regular scientific evaluation and research should be improved.

(b) Sustainability of gains

- Trends in targeting (species and distribution) and the scale of clearing available indicate that the spread of IAPs will not be controlled at the current rate and in terms of present operations within the 20-year time frame set in the Strategic Plan (2001-4).
- To date the law has not been used sufficiently to prevent landowners from allowing cleared areas to revert to pre-cleared conditions. In terms of NEMA (duty of care provisions), owners of land, whether they are organs of state or private landowners, are legally obliged to manage and control IAPs on their land. Furthermore if DWAF fails to exercise its powers under existing laws to manage and control IAPs and if DWAF fails to take "reasonable measures" to protect the environment it is arguable that it is breaching its duty of care.[54] In terms of CARA, land users are also obliged to maintain the area subjected to stated control measures.
- No monitoring of follow-up areas appears to take place and as a result the Programme is unable at present to show that cleared areas remain clear.

[54] Failure to comply with duty of care provisions of NEMA must be shown to lead to significant environmental damage.

- The long-term responsibility for maintaining cleared areas has been left unresolved, particularly in the case of private landowners, although some form of "hand-over" has been envisaged.
- The potential for workers being employed by private landowners post-exit has also not been adequately investigated and acted upon.
- Overall, there does appear to be a strategy in place for influencing the key stakeholders and creating the conditions for sustainability.

(c) Financial security and/or independence

Should government funding be withdrawn, the Programme would not be able to continue to operate independently at present. Secondary industries are estimated to be able to provide an income of R28 million per annum, although whether this income is recycled through the Programme or presented to workers as an alternative livelihood in terms of an exit strategy has not been made clear at this stage.

- The Programme would require an annual expenditure of some R1.65 billion per annum to reach its annual target of 750 000 hectares of initial clearing and adequate follow-up clearing. It is unclear where this funding would come from. The National Treasury SPRA window may close at the end of 2003/4 and although an earmarked allocation could continue beyond this, it is unclear for how long such an allocation would be sustained.
- The lack of dedicated budget for the Programme, and consequent unpredictability of annual budgets has compromised the ability of the Programme to plan a more sustainable route forward.
- A levy of some 15 c/kl would be required on all water users (including irrigation) and assuming 100% collection efficiency in order to fund a R1.65 billion per annum programme (assuming water use of 11 000 million kl per annum). This would be a significant levy for irrigation users who account for a large proportion of total water use and is likely to be resisted politically.
- In addition to the risk of the discontinuation of public funding indicated above, the following risks are relevant and need to be addressed: (1) the risk of a large increase in the wage bill if WfW workers are considered to be state employees; (2) the risk of significant decreases in Programme clearing efficiency over time as a result of inadequate management and poor financial controls.

Some of these issues mentioned above are beyond WfW's direct control and would require integrated policies and strategies to ensure effective co-ordination. There does not appear however to be a strategy in place for influencing the other key stakeholders. WfW's strategic plan does not identify risks and mechanisms for managing them.

4 ANALYSIS: REASONS FOR LEVEL OF PERFORMANCE

The following presents further analysis of the achievements of the Programme in the context of the enabling environment with a specific view to reasons for the level of achievements of the WfW Programme. The two most significant aspects of the enabling environment include the legal context as well as the institutional, organisational and management context within which the Programme has operated. The following provides the perspective of what could reasonably have been expected in achievements considering the prevailing context.

Critical reasons for achievement internal and external to the Programme are considered and first briefly reflected on here as an introduction to the section. Thereafter the enabling environment is assessed in greater detail.

External

- Lack of a clear statutory framework that enables better co-operative governance in the control and management of IAPs, and
- Lack of WfW's legal authority to enable action on private land (and everywhere else). DWAF can gain access to private land but the legal authority is located in CARA administered by NDA.

Internal and external

- Lack of a clear mandate;
- Inadequate support and involvement from host and partnering departments – both in accepting their respective roles in the key aspects of IAP control and in general for the Programme;
- External funding drivers, especially the demands of the Special Poverty Relief Allocation, that have placed pressure (supported by the leadership of the Programme) to spend more money within unrealistic time-frames and without adequate accountability for performance in efficiency and effectively in terms of the Programme's purpose;
- Lack of dedicated, predictable budget; and
- Lack of clearly defined roles and responsibilities at all levels – linked to support and capacity building and human resource systems that were not in place in the past.

Internal

- Failure to respond to problems as they have been identified.

4.1 Enabling Environment

4.1.1 Institutional, organisational and management context and the effects on the achievements of the Programme

The enabling institutional environment is presented as a hierarchical set of enablers that allow for the effective achievement of the organisational results[55]. The enablers include:

- Mandate, policy and governance;
- Strategy and plans;
- Structures;
- Processes and systems;
- People;

[55] This framework is broadly in line with the Public Service Regulations.

- Resources; and,
- Partnerships.

The enablers are hierarchical in that decisions at each level inform decisions at the next level. For example, the public mandate needs to inform strategy and plans which in turn will provide the basis for determining appropriate structures. The framework is expanded on in the institutional report (Institutional, Organisational and Management Component Report, section 3) providing an integrated picture of what has been achieved in each component of the system and its effect on subsequent components.

A number of key organisational strengths that have impacted positively on achievement can be extracted and summarised as:

- Capacity of the Programme to attract staff that are generally highly committed to the mission and objectives of WfW, and consequently work long hours, tackle problems as they arise and take on tasks outside of their formal area of work if need be;
- An action orientation, that has been led from the top, and which has enabled WfW to stand out among other poverty relief initiatives, deal decisively with specific problems and seize opportunities that arise; and,
- A very strong capacity to build a profile and effective public relations that has secured WfW international and local recognition, respect and ongoing funding in an area that is notoriously difficult to fundraise in.

The weaknesses in the organisation and management systems, structures and capacity of the Programme have had a very significant effect on limiting what could be achieved at local, regional and national level. It is these weaknesses as well as the substantial lack of support from the partner departments that may have forced senior management of WfW to make choices regarding the design and implementation of the Programme that, in hindsight, seem to have been premature or misguided. According to the Programme Leader, the lack of support from senior government level, in many instances, may have left the Programme no choice but to opt for a certain plan of action in an *ad hoc* manner.

In addition, staff capacity at national office has more than doubled in the past two years with a number of posts yet to be filled. Apart from severe staff shortages the Programme has also lacked the necessary skills for effective implementation from national office, in particular technical and planning skills. Overworked staff and uncertainty about the institutional and general future of the Programme have reduced staff morale and aggravated conditions within the WfW working environment.

Overall weakness of strategic management has had a particularly serious impact, for example:

- **Inadequate outputs to achieve impact required**: The necessary organisational results needed to optimally impact on the achievement of Programme results have not been either adequately recognised in plans or achieved in practice. This relates, amongst others, to patterns of spatial and species targeting, rehabilitation and exit strategy planning. A key problem in this perspective is that there is no clear national plan specifying what impact is expected and the full range of organisational results that need to be achieved in order to achieve the expected impact.
- **Conditions conducive to effective operations have not been developed**: The organisational and management structures, systems and capacities have not been developed based on clarity about the results the organisation needs to achieve in order to ensure that the required Programme results (impact) are achieved.
- **Lack of effective integration of elements of design**: The various elements of the organisational design have not been consistently aligned and integrated so that each element complements the

others coherently. For example, decisions on a training policy were made, without looking at the numbers and capacities of staff required to carry it out. No consistent process or system is in place to ensure that project managers have the required capacity to achieve quantitatively and qualitatively adequate outputs.

- **Lack of adequate ongoing organisation development**: The organisation and management arrangements have not been improved and developed in systematic ways based on an analysis of achievement and what needs to be undertaken to improve performance.

4.1.2 Enablers and barriers at regional and project level

This section has been rearranged…

Major barriers to achievement at regional and project level have been:

- Lack of effective and integrated planning to ensure clearing is carried out in ways that maximise impact in terms of WfW's objectives;
- Lack of capacity of many project managers;
- Lack of clarity about roles and responsibilities; and,
- Failure to adequately recognise and systematically act where problems are being experienced in meeting plans and budgets.

Some of these barriers to achievement are often beyond the direct control of the regions or projects. Examples include:

- Dual line authority (not a matrix structure, as it is referred to in some documents) requiring accountability to DWAF regions and WfW causes confusion and difficulties in systematic planning, management and reporting, particularly in the absence of clear strategy agreed by all key departments and aligned to departmental strategies and of systematic processes for monitoring and developing performance;
- Multiple reporting and communication lines of regional staff to Head Office, now that Regional Co-ordinators have been phased out, create confusion, delays and frustration;
- Dependence on DWAF administrative and financial support services is problematic in a context where no clear national frameworks of agreement between DWAF and WfW have been used to specify what kind of systems would be required to support smooth running of the work;
- Lack of resolution of interdependencies with departments at a national level makes it difficult to ensure effectiveness and sustainability at regional and project level, for example, enforcing landowner's responsibility for maintenance;
- Partnerships are developed and managed from the National Office making it difficult to achieve effective integration at the local level;
- Historical selection of projects chosen because someone was available to manage them or for other non-strategic reasons rather than because they would best be able to contribute to the long-term impact on goal and objectives;
- Inconsistencies between various standardised mechanisms and strategies are not addressed through national strategy processes, for example, the "exit strategy" and individual managers are left to tackle them or their effects however they can;
- The lack of clear planning and review cycles, the limitations of meetings convened by national office and the focus on the quantitative KPIs make it difficult to share and discuss problems and their causes, draw from the experience of other regions and make requests regarding support that would enhance what can be achieved;
- High levels of clearing and spending are incentivised and valued by the KPI system and "state of the nation" reports in ways that make it difficult to get acceptance for more considered approaches that

might entail decreased quantity in order to ensure longer-term improvements in quality and sustainability;[56]
- Directives on new initiatives or additional budget to be spent at short notice coming from National Office undermines attempts to develop more systematic ways of working and disrupts good planning;
- Budgets allocated to regions are not based on regional strategies for controlling the spread of IAPs in the region and plans which have, in turn, been based on, and formally agreed in terms of, a clear and explicit framework and process of determining national strategic priorities; and,
- Staffing levels of regions are not aligned to plans and expectations, either in terms of posts available being filled or allocated establishment.

In spite of the barriers described above, it has been possible for regions and projects to assess situations, analyse information and learn from their own project data. The more successful projects and regions show:
- Skilled and experienced regional and project managers who have been with the Programme for some time and who can overcome the deficiencies of national strategy and systems, collaborate to develop integrated plans, monitor achievement and adapt where appropriate, build team work, develop partnerships for effectiveness, develop long and short term plans;
- Where effective regional and project level governance arrangements exist, the approach of the DWAF Regional Director is facilitative and there is a generally reasonable relationship with DWAF support services;
- Effective strategic planning has occurred where the most aggressive IAPs are targeted first, and an integrated catchment management approach (successful regions), and where low-medium density stands are cleared first and clearing methods promote indigenous vegetation recovery (successful projects);
- Greater success where:
  - Contractors and workers are skilled, experienced and trained effectively;
  - Attention is given to induction and skills training;
  - Support is given to provincial conservation agencies in the control of IAPs;
  - There is improved emphasis on biocontrol (which needs even higher prioritisation); and,
- Results of recent re-prioritisation of ecological research for WfW:[57] highlighting the fields of restoration requirements and issues of relevance to best practices, including strategic planning.

The table below highlights additional obstacles to the achievement of the ecological and social objectives of the Programme.

Table 4.1.2: Additional obstacles to achieving ecological and social objectives

Objectives related to:	Obstacles to achievement
Ecological integrity	• Lack of national biodiversity strategy and action plan or invasive alien species control strategy. • Insufficient information on alien species distributions and density. • Lack of synthesis of progress in clearing at regional and national levels. • Insufficient strategic planning and associated flexibility. • Insufficient trained staff and funding. • Lack of an integrated catchment management approach involving all relevant partners in some projects; • Lack of ecological monitoring;

[56] As discussed in the overview report compiled by Jacqui Coetzee, February 2003.
[57] Fourie et al. 2002. See Terrestrial Ecology Evaluation Report.

	• Lack of a restoration framework; • Insufficient communication of research findings and research needs between various levels.
Social development	• Overly ambitious social objectives relative to budget • Increases in turnover of staff • Erosion of institutional memory • Weak project committees • Inadequate poverty targeting • Irregular nature of contracts • Frequent delays in payment and the debt spiral that it stimulates • High turnover of workers in projects • Erratic delivery of training for workers and contractors • Limited support for social development staff • No coherent and functional exit strategy • Limited integration of social research • No baseline data for qualitative assessment

4.1.3 The Legislative Environment

As mentioned above the legislative and policy mandate for the Programme is inadequate and aggravated by the fact that there are three main pieces of relevant legislation that address invasive alien plants which are the responsibility of the Ministers of Water Affairs and Forestry, Agriculture and Environmental Affairs and Tourism respectively[58]. In general, there is a lack of awareness of the complex totality of a sometimes fragmented legislative regime for environmental custodianship and management generally and IAP control in particular.

The problems with the enabling environment have led to various breaches of reporting and accounting, statutory duties and, possibly, the exercise of powers by individuals in whom such powers are not vested at various times in the Programme's history.

Although the Programme subscribes to the *Conditions of Employment for Special Public Works Programmes*, published by way of a Ministerial Determination for the Special Public Works Programme[59] there has been consistent non-compliance with some of the requirements of the determination. In particular, the prescribed two-year employment period for workers has never been implemented and no workers have been exited from the Programme in accordance with the requirements.

It appears as if the Programme has not understood the legal nature of the various relationships between WfW, independent contractors, workers and private landowners. Although certain relationships have been clarified and 'tightened' in the recent past, others remain loose and open to litigation or other serious legal consequence. An example of this is the responsibility of the independent contractors in term of basic conditions of employment and occupational health and safety (and associated compensation benefits). As pointed out in the legal evaluation report, the Programme needs to ensure that it cannot be held legally responsible for the non-compliance of its independent contractors, and that these contractors should be informed of their obligations and the consequences of legal non-compliance. See also section 3.3.2 of the Legal Evaluation Report.

[58] These are presented in section 2.2.1 and explained in detail in the Legal Evaluation Report
[59] Which was published in GN R.63 in *Government Gazette* 23045 dated 4 February 2002 in terms of the Basic Conditions of Employment Act.

4.2 Programme Development and Learning

The Programme is entering its eighth year. In a programme of this age it would be expected that increasing stability of operations would be found based on institutionalisation and systematisation of learning from past experience. Strong mechanisms should have been developed for monitoring assumptions, outcomes and impact and for institutionalising the learning internally and with partners.

The current level of reliance on external expertise to develop protocols and evaluate results does not appear to be adequately balanced with systematic internal processes to ensure ongoing learning and development based on participative monitoring and evaluation processes through which strategy and plans are reviewed. This may explain the reportedly low level of impact many research reports undertaken by external consultants have had on what is undertaken and how it is undertaken.

Learning, development and improvement have been negatively impacted upon by the lack of effective systems and processes for involving staff and stakeholders at all levels in planning and evaluating impact.

External research needs to be supplemented by the involvement of staff and other primary stakeholders in assessing results in order to ensure that the operational context is understood and effective use is made of learning and experience. This could significantly enhance the formative value of this research by ensuring perceived relevance and enabling full engagement of the results and a commitment to improvement.

WfW has not contributed what it could to improving the policy and knowledge base through the institutionalising of their research and learning. As a “pioneer” programme that was set up to pilot new approaches and assist in ensuring learning was institutionalised, key opportunities to improve understanding and co-ordination across government have been lost. However, the interviews and project visits undertaken by the Evaluation Team indicate that there is a wealth of useful learning that is currently held by individuals and groups but not formalised or institutionalised in the organisation.

The failure of management to deal with the barriers to effectiveness promptly and effectively when they were first identified, and to provide an adequately supportive environment for achievement, learning and improvement, constitutes one of the most significant weaknesses. Problems and challenges were inevitable in the context, specifically given the inception of the Programme, its rapid growth and the requirement for intergovernmental co-operation. The key failure has been in the lack of adequate action taken to develop the capacity of the organisation to improve performance. Too little has been undertaken to ensure the strategic use of resources and to provide a basis for the monitoring and improving of this over the years.

Indeed, the most significant impact of the weak organisation and management arrangements has been the fact that WfW itself has not had a reliable basis for assessing how well it is doing, analysing the results and adapting strategy and operations to improve. It has taken a huge effort by the Evaluation Team to construct a credible framework for assessment and to process raw, inconsistent and sometimes incomplete data into an adequate shape to begin to develop a picture of performance. This lack of effective assessment has severely limited the potential for effective change and ongoing positive development.

4.3 Issues Beyond the Control of the Programme

There appear to have been a set of external factors that impacted on the Programme and the extent to which an enabling environment for achievement, accountability and ongoing development was created. These are related to the lack of clear mandate, effective governance arrangements and allocation of a

dedicated budget that have been outlined in some detail in the sections above. As already mentioned, these were needed to provide a basis and focus for strategy, for accountability, for the ongoing development of the Programme and for an environment conducive to sustainable and effective achievement.

4.3.1 Mandate

The Programme was initiated by the Minister of Water Affairs and Forestry at the time, but a clear written mandate was not developed to ensure accountability and an environment that would support performance and performance improvement by those departments with responsibility for dealing with the problem of invasive alien species and plants. The attraction of the Programme lay in the range of diverse policy issues, located in the mandates of a variety of departments, that it had the potential to address through the clearing of IAPs (from ecological and hydrological concerns to poverty relief). These were not consolidated into a clear and focused mandate for WfW.

4.3.2 Governance

The governance arrangements have never been sufficiently clear. It has always been recognised as a cross-cutting programme, however, it did not originate from a joint decision of the departments charged with the responsibility for co-operative natural resource management. It would appear that the governance arrangements, before and after accountability was transferred to DWAF from the Ministry, were never adequately formalised. This would apply to the Board and Executive Committee.

4.3.3 Budget

No dedicated budget was allocated to WfW. This made secure long term planning difficult. It appears also to have contributed to a situation where the source of funding, more than mandate and strategy drove activity. The majority of the funding was sourced, based on the poverty relief potential of the Programme rather than the central issue of the control of IAPs. This has complicated and clouded the accountability issues and strategic focus even though the funds were located in DWAF. The Treasury responsible for allocating the Special Allocation funds required reporting only against a limited range of output level indicators (as stipulated by Cabinet) relevant to the poverty relief focus. Treasury assumed that these would be aligned to programmatic objectives, impact and outcome measures in the relevant departments. In practice, it appears that the dependence of the Programme on this source of funding may have skewed the attention of the organisation to those areas of performance highlighted in the Treasury's (Cabinet's) accountability requirements to the detriment of a more strategic focus.

4.3.4 Location

These issues have been compounded by a long period of uncertainty about where WfW should be located in the long-term and what form of public organisation it should be. This issue appears to remain unresolved. It would appear that the resolution of this issue would require the clarification of the mandate which in turn would require the revitalisation of the governance arrangements.

5 CONCLUSIONS

5.1 Overall Programme Achievements

In the view of Treasury WfW has achieved admirably as a poverty relief programme, more than what might be reasonably expected given the achievements of other poverty relief programmes, and has met all the requirements of a poverty relief programme in terms of the criteria stipulated by Cabinet and applied by National Treasury. It has employed tens of thousands of people (women and youth focused) (12 000 person years per annum), ensured that millions of rands have reached the poorest of the poor (approximately R570 million in seven years), provided these people with training they would not otherwise have had, successfully cleared thousands of hectares of alien vegetation (between 927 000 and 1.2 million hectares), and successfully spent nearly 100% of their budget for seven years.

The Programme has grown rapidly, expanding from a small office in the Western Cape to a national organisation operating in nine regions. At times throughout its history it has been understaffed to an extent that some individuals have held more than one post at a time, and its survival is largely due to the dedication, commitment and passion of key staff members who have believed in the Programme purpose and its five strategic objectives.

When considering the deficiencies in the enabling environment for the WfW Programme, some might contend that this justified choices made that put practical short-term interventions before coherent planning and prioritisation. The Evaluation Team is of the opinion that these short-term choices may have resulted in long-term consequences, possibly threatening the sustainability of the Programme, but most certainly affecting the accountability of the Programme in terms of achievement against its stated goals and objectives.

Considering the main purpose of the WfW Programme is to control alien plants, it has also achieved significant improvements to awareness relating to the impacts of invasive alien plants within all sectors, and in fact it has been leading the implementation of CARA to combat the spread of IAPs. Much of the awareness has been the result of ongoing effective and well-targeted public relations. WfW is a South African government brand and has been very effectively marketed since its inception. This high profile has benefited the Programme in a number of ways, but has also brought it criticism from various stakeholders who have challenged the effectiveness of the Programme.

For some time WfW has been experiencing a range of problems that the evaluation team believes have been slowly making the Programme less effective. Some of these the Programme has had little control over, while others have been directly related to the activities of the Programme. An evaluation of the Programme was undertaken in 1997 on behalf of the European Union. The outcome of that evaluation highlighted a number of issues, many of which are highlighted again here. The fact that these issues have not been dealt with adequately in the past five years is of concern and raises questions about the ability of the Programme to learn and improve.

The fact that the Programme has achieved what it has is remarkable when considering the lack of some of the cornerstones of an effective organisation (as outlined in the Institutional, Organisational and Management Component Report). Emphasis is placed on the achievement of outputs such as number of jobs created, hectares cleared and monies spent rather than the effective and efficient achievement of the strategic objectives.

In summary, Programme achievements have been constrained overall by a lack of mandate and responsibility by parent departments and to a large extent by weak institutional arrangements and management. The Programme's impact has been diluted by the multiple objectives it has attempted to achieve without appropriate prioritisation. Associated with these have been the lack of strategic planning, inadequate processes and systems, and structures that are not adequately linked to clear strategies with well-defined roles and responsibilities.

5.2 Strategic objectives

The five strategic objectives of the Programme have, to some extent, allowed for achievement in a wide range of aspects that possibly would not have been achieved had any one of the objectives been agreed to be elevated above the rest in terms of importance. However, the relationship between Programme objectives has not been clarified, and the objectives have not been adequately integrated. This has resulted in a lack of focus, lack of clear strategy and planning and consequent underachievement against the stated Programme objectives. The lack of a clearly articulated mandate provided via the departments responsible for the control and management of IAPs, namely DWAF, DEAT and NDA has exacerbated the lack of integration of the objectives. Poor strategic planning and minimal input into developing strategies for integrated catchment management by DWAF, have also limited achievement in relation to the strategic objectives of the Programme.

The objectives of the WfW Programme will not be achieved simply by the physical clearing of alien trees. Appropriate targeting of species and areas at national level, followed by within-project targeting of ecological, hydrological and social identified criteria requires the re-examination of the objectives of the Programme, and of the way in which the objectives relate to each other.

The conclusions of the evaluation with respect to the strategic objectives are summarised below[60].

5.2.1 Water security and aquatic ecological integrity enhanced

- The total area cleared of aliens is approximately 960 000 hectares. Some 6% of the 9.6 million invaded hectares within DWAF priority licensing catchments have been cleared and the most harmful IAPs have been targeted in only about 50% of projects.
- The targeting of strategic areas for clearing linked to water resource objectives has been low.
- Large areas of initial clearing appear to have been “lost” thereby reducing the significance of the areas cleared.
- Gaps in the data and critical data not collected have made it difficult to evaluate the water yield perspective of achievements of the Programme. Without the collection and synthesising of biological or geomorphological data, no statement can be made about the overall achievement of the Programme at this level.
- The outcome of the modeling undertaken during this evaluation indicates that the WfW Programe has resulted in an annual streamflow gain nationally of between 53.7 m^3x10^6 (pessimistic – designating all areas cleared as upland) and 132.1 m^3x10^6 (optimistic – designating all areas cleared as riparian). This is a gain of between 4% and 10% of the MAR of these cleared catchments. The gain would equate to the filling of the Skuifraam Dam about every two years.
- The do nothing scenario shows that with 100% IAP densities in invaded areas, streamflow reductions (SFRs) could eventually have ranged from 207.7 m^3x10^6 (if all upland) and 513.2 m^3x10^6 (if all riparian) - equivalent to between one and four Skuifraam Dams at full supply capacity.

[60] The conclusions have been limited to the evaluation of the six strategic objectives from the evaluation team’s Objective Tree. Additional detail on the outputs and activities related to each of these objectives is given in section 3.6.

- Lack of support from DWAF in achieving this objective and assisting in integrating it with the others has been significant. The full nature and potential of invasive alien clearing in the context of a catchment management strategy may not have been fully developed by DWAF and responsible departments. DWAF also has the legal responsibility to ensure integrated catchment management, a key component of which is alien plant control.
- From an ecological integrity perspective, the most successful projects tend to be those with catchment management strategies, or a catchment vision.
- WfW is the only nationally based organisation that has an operational programme that contributes practically to aspects of catchment management / river rehabilitation.

5.2.2 Enhanced ecological integrity and biodiversity

- Aggressive IAP species have not been sufficiently prioritised for this objective to have been met on a national scale. Localised cases of improved ecological integrity and biodiversity are found such as enhanced catchment stability or reduced erosion risk, particularly where lower density stands are cleared and appropriate methods are used.
- Support given to provincial nature conservation authorities for IAP control by WfW has greatly assisted the conservation of biodiversity in existing nature reserves, particularly since WfW is often the only IAP control activity in these reserves.
- Flexibility is possible within projects, but seldom outside project boundaries, thus limiting the potential to maximise ecological returns on clearing.
- There has been a general improvement recently in continuation through follow-up.
- There is little in the way of an active restoration programme (outside wetland rehabilitation).
- Biological control offers very high returns on investment for alien plant control. Greater emphasis on biocontrol is justified to reduce the invasion of the most aggressive alien species and improve ecological integrity in the long-term.
- A worthy initiative of WfW has been leading the implementation of new legislation (CARA) to combat the spread of IAPs. However, it needs to be firmly implemented. A system to screen for new potentially invasive species is required so that efforts to date are not negated by new infestations
- Negotiations between WfW and the forestry and nursery industries have increased awareness of the impacts and costs of IAPs.
- Insufficient support from Programme partners, notably DLA and DEAT, the departments which are effectively mandated with conservation of terrestrial natural and biodiversity resources.

5.2.3 Productive potential of the land restored

No monitoring of the impact of IAP control on the natural resource base has been undertaken. It is contended that arable land has been recovered, but evidence is lacking.

5.2.4 Potential for hazardous, unnatural fires reduced

It is assumed that the clearing of IAPs will reduce the incidence of unnatural fires. Fuel loads (cleared vegetation) need to be reduced in fire-prone areas.

5.2.5 Social development through poverty alleviation, empowering individuals, building communities

- Although WfW has employed approximately 12 000 person years per year for the past seven years, the proportion of the total Programme cost that goes directly to unskilled workers at projects has dropped significantly over the life of the Programme.
- The Programme operates mainly in rural areas. It is noted that poor households in urban areas may often be poorer than poor rural households, and that in fact wherever you are in South Africa there are poor households. WfW is likely therefore to be able to reach the poorest of the poor irrespective of the areas in which it selects to operate. This approach supports the call for a hierarchy of objectives related to aggressive invaders, conservation areas and within-project criteria discussed previously in this report. It also suggests that to apportion funds per region according to provincial poverty figures would be misleading and inappropriate. Funds should be apportioned according to the problem at hand identified through the three levels of targeting. Is this correct?
- Capacity building for human development has been enhanced through contractor and worker training programmes, although the effectiveness of the training is questioned.
- Women and workers from women-headed households are targeted by the Programme. As many as 60% of workers are female, although many of these are in unskilled jobs. Disabled persons account for 0.6% of workers.

The Programme aims to relieve poverty, develop skills and abilities of the contractors and workers who participate in the Programme and provide social and livelihood benefits to the communities in which they live. The combination of rapid expansion, technical and social complexity, a narrow base of social development staff coupled with pressure to spend large amounts of money in very short periods of time have put the attainment of its social development goals under serious pressure.

Inconsistent emphasis on social development has resulted in a large range in the levels of achievement between and within regions. Social development is defined in different ways by different people within the Programme which means that emphasis is placed inconsistently in a number of key areas such as the creation of short term jobs, training and competency development, health information and life skills, support for local childcare facilities and the training of carers, impacting on household livelihoods, development of independent contractors and maximising worker benefits.

Achievements have included:

- Guidelines for the employment of women and youth;
- Creation of 10,000 – 12,000 person years of employment annually at the lowest, (if escalating cost per job) compared to other public service programmes;
- Development of independent contractors;
- Employment created in areas where there are very few opportunities;
- Injection of cash into local economies;
- Provision of training, peer education and information on HIV/AIDS;
- Formation of partnerships to deliver improved healthcare and reintegrate offenders;
- Sponsorship of crèches; and,
- Opportunities created by secondary industries.

5.2.6 Economic benefits derived

The extent of the economic benefits of the Programme is unclear. The main potential areas for economic benefits are increased water yield and the development of secondary industries.

- To date, the impact of the Programme on mean annual run-off is estimated to be between about 0.1% and 0.3% of total mean annual run-off in SA, although locally within cleared catchments the saving is between 4 and 10% of MAR.
- The present day cost of these run-off gains is estimated to be between R1.25 and R3.11 per kl (thousand litres).
- It was not possible to quantify water security impacts in the sense of reservoir yield or river system yield or run-of-river yield. These water security gains are the yield values that should be used in assessing the cost of water gains.
- The secondary industries unit of WfW undertakes and supports efforts to manufacture products from the wood and plant material being cleared. Amongst the products currently manufactured are indoor and garden furnishings, charcoal and firewood.
- To date 138 direct jobs have been created and an equivalent annual gross revenue of under R750 000 per annum. There is a target to produce 3500 jobs.
- A small number of successful small businesses have been established and show clear future promise given the right support. Given the data limitations the contribution of these enterprises to overall job creation and poverty alleviation is hard to assess. At this stage these enterprises are not yet of a scale to meaningfully contribute to the overall employment benefits of WfW.
- Potential "industrial initiatives" at a larger scale (but not yet in the implementation stage) may provide both revenue and some job creation. These include sales of charcoal and woodchips with potential gains of about R28 million per year (approximately 7% of the WfW 2001/2 budget).
- Secondary industries have not provided opportunities for exit strategies and alternative livelihoods for workers to the extent that was anticipated or which would improve the sustainability of the WfW.

5.3 Key evaluation criteria

The findings of the specialist reports indicate that a clear quantitative basis for knowing how well WfW is doing has not been established by the Programme. Given the weakness of the systems and the consequent lack of complete and fully reliable data from secondary sources, it is not possible to make definitive findings in relation to the key criteria agreed as the basis for the evaluation. However, within the constraints and limitations of the evaluation it is felt that a broad assessment can be made that could inform future development of planning frameworks within WfW.

5.3.1 Rationale

The rationale for the Programme is considered sound from an ecological perspective. The scientific literature reviewed as part of this evaluation supports the link between alien infestations and reduced aquatic and terrestrial ecosystem integrity and hydrological yield. The review also shows that the relative importance of IAP impacts depends on the specific location and characteristics of a catchment and the water ecosystems within it, as well as the extent of anthropogenic impacts such as exploitation of the resource, landuse and land care practices, and so on. Given these, the potential (positive) impact of an IAP control programme is possible but will differ on a catchment basis.

The social rationale is provided by the labour intensive nature of the work required to be undertaken, high unemployment in the country and funding from National Treasury which requires that money is spent on poverty relief.

The economic rationale would need to show that the economic benefits arising from the Programme exceeds the economic costs which can only be shown in a cost-benefit analysis of the Programme, which was not undertaken as part of the evaluation. Economic benefits may be derived from the value of the

increase in mean annual run-off, the restoration of ecological diversity, the restoration of productive land, the training of people, the benefits arising from secondary industries, the cash injection into poor households and the education of people in HIV/Aids awareness. At the same time the economic costs of include direct financial costs (total Programme costs plus negative impact costs) adjusted for economic factors such as the use of low wages for workers justified by high unemployment in the country.

5.3.2 Impact

Without a doubt the Programme has had a considerable impact on the ground. Simply in terms of poverty relief, and in some cases social development, raising awareness with respect to invasive alien plants (and other species) and their impact on the environment has in broad terms made an impact. The Programme has cleared approximately 1 million hectares of IAP infested land. However, more specifically, evidence from project visits suggests that outputs have not been adequate to achieving optimal outcomes and impact in terms the areas listed in WfW's general objectives. Patterns in relation to scale of clearing and targeting in terms of special distribution and species indicate that resources have not been strategically deployed to ensure optimal impact. Analysis of the scale of the problem also suggests that, even had the available resources been optimally utilised, they would not have been adequate to ensure sustainable impact on controlling the spread of IAPs. There is a lack of consistency of the extent of the impact between regions and projects. There is some evidence that, in specific cases, the existing situation may even have been adversely affected. This would particularly apply to the objectives related to social development and ecological integrity.

It is believed that WfW (and DWAF) has not adequately recognised the need to address IAP control within the context of integrated catchment management, and thereby the potential impact of the Programme has been compromised.

Without the co-operation of all key partners (DWAF, Dept. Agriculture, DEAT, Conservation Agencies, Landcare and others) for integrated catchment management it will not be possible to ensure the restoration of ecological integrity and land productivity, and to address other catchment issues such as soil erosion. An integrated catchment management approach to land management (including alien control as only one of the essential activities) will be the only way to sustain and improve ecological integrity in the long-term.

Currently the overall social impact of the Programme is far from optimal assuming that the trends identified from project visits and key informant interviews are representative. Impacts appear highly uneven. In some regions and in some projects the impacts appear far greater than in others. With a clear mandate, an investment in strategic planning, improved systems, better relationships and stronger partnerships it is our view that the Programme has the potential to dramatically expand its social benefits and impact.

5.3.3 Effectiveness and efficiency

There are significant concerns as to the Programme's effectiveness and efficiency. In particular, in enabling social development and economic benefits in beneficiary communities, and in enhancing ecological integrity and improving water security. Reasons for this are largely institutional and relate to Programme planning at all levels. These provide circumstances which may temper the evaluation of achievements at the operational level, however are a major shortcoming of the leadership and management of the Programme as a whole. It is also believed that effectiveness and efficiency have been compromised by the lack of integration of the five objectives. If these objectives were integrated at

the planning level, addressing the level one objectives (those related to targeting aggressive IAPs) would contribute significantly to meeting the other objectives simultaneously.

The achievements in areas cleared (approximately 960 000 ha over the past seven years) must be seen in the context of available resources and enabling legal framework. There are two key issues that relate to achievement in clearing. The first is the setting and achievement of alien plant clearing targets in terms of areas and species for the country and whether this is a key driver in the strategy development and planning for the Programme. Second is the extent to which the Programme is able to prove that areas cleared remain clear. These two issues are at the heart of the effectiveness and sustainability of the Programme.

Questions arising from the above are: Does the Programme plan to arrest alien plant invasion and is this reflected in clearing strategies and methods? What are the most effective ways of measuring delivery against the objectives of the Programme?

5.3.4 Sustainability

The evaluation team believes that the Programme at present is unsustainable. This applies to the inadequate scale of the Programme and consequent rate of clearing, as well as the sustainability of gains and the sustainability of the funding.

(a) Staffing

In terms of formal design and practice, the level of consistency and integration is inadequate to ensure strategic coherence. Structures are developed without a strategic assessment of capacities required, and recruitment takes place before structures have been finalised. This is likely to impact negatively on the extent to which resources of the organisation are allocated and used strategically but will also impact on the extent to which the organisation is able to develop and improve what it is achieving. The apparent reliance of the organisation on the level of commitment of staff to the objectives of WfW in order to mitigate the above limitations is, however, unsustainable and there are indications that the level of frustration of staff is very high.

(b) Scale

In assessing the sustainability of WfW in terms of the effective control of invasive alien plants and the required scale of operations two perspectives have emerged from the evaluation team and stakeholders relating to the future of the Programme. In the first, the Programme needs to be scaled-up significantly (doubled) and focused on achieving national clearing targets within areas of highest threat in order to reach the overarching goal of controlling IAPs by 2020. In addition, the Programme should redirect its investment in invasive alien clearing to ensure the most benefit in meeting the country's clearing target. This would include adopting a more diversified approach to clearing methods, emphasising the use of more cost effective approaches, while at the same time scaling-back or consolidating the size of the Programme to enable the institutional and management issues to be dealt with effectively. Clearly, elements of both of the above perspectives are relevant to the future of the Programme. A dedicated budget would assist the planning and management of the Programme in terms of a sustainable way forward (see also (d) below).

(c) Sustainability of gains

The analysis of trends in the targeting (species and distribution) and scale of clearing available at this point in the evaluation indicate that the spread of IAPs will not be controlled at the current rate and in

terms of present operations within the 20-year time frame set in the Strategic Plan (2001-4). The Programme is unable at present to show that cleared areas remain clear as no monitoring of follow-up areas appears to take place i.e. are there *areas that are cleared and sustainably maintained* through adequate follow-ups? The long-term responsibility for maintaining cleared areas has been left unresolved, particularly in the case of private landowners, although some form of "hand-over" has been envisaged, and some hand-over, albeit limited, has already taken place. Overall, there does appear to be a strategy in place for influencing the key stakeholders and creating the conditions for sustainability.

The recently produced WfW document on regional strategic planning provides a hierarchical spatial framework for operations. It identifies the different Management Plan Areas (MPA) and their boundaries within the region and the Management Units (WfW projects) within each of these. It recommends that MPA boundaries coincide with Water Management Area and Tertiary Catchment boundaries as far as possible. Although there is no ecological relevance to tertiary catchments, they are useful from an overarching (DWAF) management point of view.

The only ecologically relevant catchments are quaternary catchments which should be the basis for Catchment Management Areas (CMAs) (or their sub-units) and for management plans as an integrated catchment management approach to land management (including alien control as only one of the essential activities) will be the only way to sustain and improve ecological integrity in the long-term. Quaternary catchments equate to project or management units within WfW. The Management Units (projects) form the basis for mapping the different alien vegetation units. Poverty relief criteria and partnerships appear to be used to define management unit boundaries rather than to actually select management units in which to operate.

The relevance of prioritising management plan areas (MPAs) is therefore questionable as there is too much variability in both ecological and social conditions within tertiary catchments. The unit of management should be the project.

Biological control offers the highest return on investment for alien control, and in addition, may be the only sustainable way to control aggressive IAP species in the long-term.

Many of the positive impacts achieved by WfW so far will not continue should the Programme halt, as insufficient progress into clearing land and aggressive IAP species has been made. Sustainability is dependent on the Programme demonstrating that it can make more or less permanent advances towards alien control.

(d) Funding

In terms of financial security and funding, the future remains uncertain. The National Treasury SPRA may end in 2004, where after funds may be directed to DWAF and ring-fenced for WfW for a limited period. It is concluded that to control aliens sustainably and reach the goal of 2020, an annual budget of up to R1.65 billion per annum is required. To date the WfW poverty alleviation achievements and social development objectives have secured the SPRA from National Treasury. It is unlikely that this level of funding will be secured for the sake of ecological integrity and biodiversity, and the water yield results do not bode well for increased funding from the trading account.

To sustain the Programme at a level of clearing to control IAPs (750 000 ha – initial clearing - per annum according to the WfW clearing strategy), and assuming a cost of R800 per hectare (the current average cost for initial and follow-up clearing), would require a sustainable funding stream of R1.65 billion per

annum. This is 300% of the 2001/2 WfW budget, and explains to some extent the under-resourcing and underachievement of the Programme with respect to its 2020 target of alien control.

Although the average cost/ha has declined over time (increase in the ratio of follow-up clearing to initial clearing), unit costs for initial clearing are likely to increase over time as more densely infested areas are cleared.

The cost per kl of stream-flow increased is significantly greater than the current raw water tariffs charged by DWAF for industrial and domestic users (a mid-range value of R1.91 for the WfW cost versus the average tariff of R0.31), although the raw water tariff does not take into account the externalised costs of water supply, such as ecosystem degradation and loss of biodiversity and associated secondary effects. It is unclear from the hydrological data whether the yield per hectare cleared will increase or decrease over time.

From the perspective of increased utilisable yield, it is not clear that the benefits from the increase in water yields justify the costs of the Programme. If DWAF is to become the custodian of the Programme, then the sustainability of funding of WfW (at least at the scale necessary to achieve the control of IAPs) is threatened unless more convincing arguments can be made for the cost benefits of WfW stream-flow increases over other mechanisms for increasing water availability. On the other hand, as the custodian of the country's water resources, DWAF is obliged to ensure that the ecological reserve is provided for, for all rivers in the country. Under these circumstances a local increase in MAR of between 4 and 10% as a result of clearing is not insignificant. It should be noted that when costing for the implementation of the Biodiversity Bill, the costs of control and management of invasive alien species would be considered. These findings do not take into account the value of ecosystem services such as the value of areas rehabilitated or protected, erosion effects etc.

Alternative funding could be sought from the water levy. Fifteen cents per thousand litres is likely to be resisted by farmers. This levy would need to increase to 45 c/kl if irrigation agriculture is excluded which is more that the current average raw water tariff.

Costs per person day of employment have increased significantly over time and the direct benefits to unskilled workers as a proportion of total project costs have declined significantly.

Finally, it is suggested the lack of a dedicated budget for the Programme, and consequent unpredictability of annual budgets, has compromised the ability of WfW to plan a more sustainable route forward.

(e) Institutional

The implications of merging WfW into DWAF are not predictable. There is a risk that WfW is not given an adequate budget by DWAF in the longer term.

The efficiency of the Programme may be compromised if it is more tightly integrated into DWAF. This is evidenced in the procurement and financial management inefficiencies already experienced. This will undermine the sustainability of the Programme. However, it should be noted that if appropriate measures were undertaken a better integration into DWAF could improve the Programme efficiency.

WfW cannot achieve effective and sustainable impact on its own.

5.4 Mandate and strategy of the Programme

The clarification of the mandate of the Programme is the key to future improvement in achievements. An important gap is the lack of a coherent enabling legal framework including national policy and strategy on invasive alien species as well as supportive law and regulatory mechanisms. This gap also underlies the lack of definition of roles and responsibilities of national, provincial and local spheres of government. Furthermore, this affects the extent to which partnering departments are involved in and fund invasive alien plant management.

A fundamental issue that continues to challenge the Programme's effectiveness is the *lack of a clear and focused strategy*. This is further compounded by the *multiple objectives* that the Programme has set for itself and the extent to which these are interpreted differently in different regions and even within head office staff. While the multiple objectives of the Programme are a laudable approach to sustainable development, they have never been integrated at the strategic planning level based on a recognised hierarchy and have thus resulted in confusion regarding the core purpose of the Programme. The control of aliens must begin with targeting first the most aggressive species and then identifying the priority catchments. The latter provides the location of operations, which then allows for implementation of identified social development interventions within rural or urban communities within these targeted catchments.

While not suggesting that a technical "blue-print" can be cast for the Programme, it is essential that a *clear and adaptive strategy* be developed together with *effective indicators* to enable monitoring and reviewing the achievement of the objectives set for the Programme.

A key debate that has emerged in discussion with stakeholders is whether or not *social development* can actually be seen as a delivery area for the Programme. It could be argued that the mandate and nature of a programme (transient provision of work opportunities and related benefits) and Special Public Works Programmes in general make this impossible. The Social Team Final Evaluation Report reflects that the Programme needs to provide very clear and specific objectives for achievement in social development or poverty alleviation or poverty relief.

5.5 Planning

After seven years, the allocation of resources to IAP control within WfW (project selection) is still not based on evaluating national spatial information on the distribution and densities of IAPs, which is recognised in the WfW 2001-4 Strategic Plan as the basis for strategic planning. Given the poor state of strategic planning, low level of participation of other government departments in the WfW Programme, and the minimal input into developing strategies for integrated catchment management by DWAF, it is not surprising that achievements in relation to the overall higher-order objectives of the Programme have been limited.

Because strategic planning of necessity requires the key role-players (DEAT, DWAF and NDA) to identify their own strategic priorities in relation to resource management, the poor performance of the Programme in this regard is at least in part a reflection of the lack of development of strategies at government department level. For example, DWAF's move to establish CMAs is at a very early stage, and priorities for integrated catchment management from a water resource management perspective are non-existent. Whilst DWAF has incorporated knowledge of the hydrological response to IAP clearing into methodologies for assessing water resource development, it has not recognised the ecological implications of alien infestation for water resource management, or translated this into strategic planning.

Management of the field-based implementation is very difficult to achieve in this sort of programme, and a legacy of poor management has detracted from the performance of the Programme (e.g. clearing targets). However, a system that will provide for better control (WIMS) is becoming implemented (slowly) in all provinces and bodes well for the future. The national office is lagging the regions in this regard. This should assist other efforts at planning on the ground such as Management Unit Clearing Plans which are not as effective as they should be because of inadequate capacity and draw-down effects of not having higher-order plans in place at regional and national level.

5.6 Monitoring and evaluation

The Programme has not established a clear basis for knowing how well it is doing. This is in spite of new systems to support monitoring and evaluation having been developed and introduced. As mentioned, a management information system, WIMS, intended to support planning, monitoring and evaluation has been developed and has been set up in most regions. A framework of generic standards has been developed to standardise expectations in relation to specific operational procedures and outputs and provide a uniform national framework for self-assessment and external assessment of compliance. In addition a monitoring and evaluation (M&E) framework has recently been developed by the Programme.

However, the M&E systems described above have not been drawn up in the context of a strategic plan, and therefore will still not be able to reflect adequately on how the Programme is doing. An M&E system directly linked to the key indicators of a strategic plan is essential if the Programme is to be effective in implementing the strategic plan. Effective performance management requires a clear linkage between strategic planning and an M&E framework within cycles of ongoing review.

See the recommendations (section 6) for a proposed programmatic performance management system structure that could be applied to the WfW Programme.

5.6.1 Information management

A major achievement of the WfW Programme has been the development and implementation over the past three years of a project-based planning system, based on GIS mapping (WIMS). WIMS allows for the tracking of clearing activities and expenditure within projects (management units, which correspond to quaternary catchments), and for comparison of these against targets (annual plans of operation) drawn up according to national clearing norms and standards. Furthermore, extension of mapping to each management unit allows for medium-term planning within each project.

Such a system is essential for ensuring appropriate planning, and in establishing checks and balances for management of the Programme. However, the inadequacy of training, particularly at project manager level, threatens the implementation of the system. Insufficient resources have been allocated at a national level for the assessment and monitoring of project performance. WfW national office was unable to provide project level performance data on simple clearing statistics, even for the past two years, when WIMS has been in operation. This emphasises that many of the benefits of WIMS are still theoretical. A reason for this may be that, while WIMS emphasises the catchment as a unit for the implementation of IAP control, many, if not most, projects are not defined on a natural catchment (e.g. quaternary catchment) basis. In addition, for most projects there has been no attempt to provide or collate existing material that defines the broader context in the catchment and resulting priorities for integrated catchment management.

5.7 Best Management Practices

Despite the difficulties experienced in creating a stable organisational structure, and the lack of adequate national planning, the achievements since inception of the Programme, regarding best implementation methods are satisfying. Even though large knowledge gaps still exist, particularly on the ecological aspects of IAP control, the research conducted has been highly relevant to the Programme. The central problems surrounding implementation (but not development) of best practice relate to a) poor management from regional and national level to ensure that checks and balances are in place (with exceptions in some regions); b) the development (or lack of development) in South Africa as a whole, of appropriate and integrated resource management strategies; and c) the lack of buy-in to the WfW Programme objectives by the relevant government departments.

6 RECOMMENDATIONS

The following key recommendations have emerged from the strategic evaluation, project level evaluation and specialist evaluation reports as well as from in depth discussions with the evaluation core team. Please note that specific recommendations for effectiveness of implementation are provided in the specialist reports.

Within each of the specialist reports recommendations are made in response to specific findings. Not all of these are presented here. We have chosen to include those recommendations that we believe will have a significant impact on the way the Programme is implemented and on what it achieves. The challenge is for the Programme to meet its overarching goal and its stated objectives. Our recommendations reflect our views on how this might best be achieved.

The Programme has made a number of significant positive achievements. However, it is believed that the shortcomings of the Programme described in this synthesis report, and in more detail and with more qualification in the specialist reports, can virtually all be ascribed to the absence of a clearly articulated mandate from the responsible government departments and effective strategy and plans. Addressing the mandate and lack of strategies and plans are therefore considered by the evaluation team as priorities for action for the Programme.

All other decisions, including those around appropriate governance arrangements, form of organisation and location (separate public entity, unit within a public entity or part of a national or provincial department), need to be taken on the basis of what will best ensure effective accountability and achievement in terms of mandate, strategy and alignment. Furthermore, the agreed strategy must drive the implementation of any recommendations made below.

6.1 Mandate, Legal Enablement and Accountability

6.1.1 Mandate

The immediate goal should be clarifying the legal and policy mandate, articulated in a way that enables co-operative governance between the key responsible departments and provides an effective basis for accountability to the Board. The mandate should also provide a firm foundation for the development of a strategy (five-year) and annual plans and the allocation of a dedicated budget. Systematic monitoring and evaluation and review against mandate, strategy and plans are essential to the ongoing relevance and achievement of the Programme.

It is the team's opinion that an invasive alien plant control programme within a coherent invasive alien species management and control strategy is essential for the sustainable management of South Africa's natural resources. We contend that the primary reason for the need for the Programme's is one of sustainable natural resource management and the concomitant effects on South Africa's economy. The Programme is not seen as an efficient mechanism to achieve poverty relief and social development. The team nevertheless believes that significant social benefits can be achieved without compromising achievement in terms of its primary purpose – the control of invasive alien plants. We must stress however, that these social benefits must be secondary considerations to what will best achieve the purpose. Refer to section 6.2 for further recommendations on developing strategy.

The Board and ExCo should be revived as soon as possible with the first and most important task of clarifying the mandate and setting a firm basis for the development of strategy. A clear plan for an

integrated and consistent process of re-design should be drafted by the General Manager in consultation with Manco and staff for presentation to the Board and ExCo. This should specifically outline key gaps and inconsistencies in WfW's mandate (see specialist reports, specifically the legal evaluation report) that could jeopardise WfW's effectiveness.

6.1.2 Legal enablement and accountability

An enabling legal environment is key to improving the effectiveness of efforts to control IAPs and to developing appropriate institutional, management and organisational arrangements for a programme designed to do this. This will require the urgent strengthening of existing legislation (especially enforcement of alien-clearing obligations). In addition, it is essential that simultaneous efforts be initiated to prevent new invasions and to ensure that the admirable achievements of WfW to date are not wasted.

If appropriate, and depending on the final decisions on the mandate, it is suggested that co-operative governance regulations should be promulgated in order to regulate the relationship between the NDA, DEAT, NDLA and DWAF regarding IAPs and WfW's role in managing and controlling invasive alien plants (IAPs). At present, neither DWAF nor any of the other relevant national departments is fulfilling its co-operative governance obligations to its fullest ability, nor to the extent required by the applicable laws. In this regard, it should be noted that the relevant environmental legislation is very fragmented and places various legal obligations concerning IAPs within the above three departments (as described in section 2.2.1, Legal Context).

For purposes of consolidation, it is recommended that all IAP programmes (including WfW, DEAT's Working for Wetlands, Working on Fire and the NDA's Land Care) are consolidated into one programme. Such institutional integration is necessary in order to achieve a coherent and strategic approach to bringing IAPs under control.

For effective management of IAPs in South Africa, a new statute, which consolidates these fragmented powers and obligations, and creates and regulates the co-operative governance arrangements required to shape and oversee the work of an integrated entity is necessary. The governance structures need to be broadly representative of all governmental stakeholders' interests and objectives. Broadly, the Biodiversity Bill could assist in achieving this imperative, provided that it is promulgated in an appropriate form and further, that the Minister responsible for the administration of the Bill when it becomes law (the national Minister of Environmental Affairs and Tourism) avails himself of the broad powers under the Bill, to make appropriate regulations, in this instance, to regulate alien and invasive species, as they are defined and dealt with in the Biodiversity Bill.

In the absence of such a statute, we recommend that certain legislative amendments be made to CARA, the National Veld and Forest Fire Act, and the Biodiversity Bill. These include:

- introduction of a presumption of negligence if IAPs are present on the land in question in the Veld and Forest Fire Act;
- amendment of CARA to allow for delegation of powers under that Act to DWAF (or future responsible agency);
- amendment of the Draft Biodiversity Bill in order to introduce screening systems for potentially invasive plants; and,
- amendment of the IAP regulations under CARA, and possibly also the Draft Biodiversity Bill, in order to develop further the law relating to biocontrol.[61]

[61] The lack of an adequate biocontrol regulatory framework was identified as an issue by the authors of the Draft Terrestrial Ecology Report undertaken as part of this evaluation.

Furthermore, we recommend that WfW be empowered to make full use of the powers available to it under the relevant environmental legal framework, as outlined in section 3.2 of the Legal Evaluation Report.

While the contractor model needs to be decided on the basis of a strategy best suited to achieve control of invasive alien plants, in assessing its accountability regarding contractors and contracted employees (workers), the Programme needs to confirm[62] that no employment nexus exists between WfW (or DWAF for that matter) and the independent contractors and the workers employed by them. An assessment as to whether the current practices are likely to result in legal risk for WfW and/or DWAF should also be made.

Opinion should also be sought on the current practice of rolling over workers' contracts of employment beyond the prescribed work term as per the Ministerial Determination. A review of the 24 months' ceiling on employment within a five-year cycle should be undertaken with a view to substantially lengthening the period that it is permissible to work under the Programme, if appropriate. This is significant in the context of contributing to sustainability of social benefits and retaining required skills to achieve the Programme purpose.

Within the Programme, the General Manager, as accounting officer should be both responsible for strategy development and accountable for the effectiveness of the organisation and therefore must have final authority over decisions about what will be needed (in terms of budget, human resources, partnerships etc.) to make it effective.

6.2 Strategic planning to achieve purpose

A plan should also be developed by the General Manager in consultation with Manco and staff for a systematic process of strategy development and planning. The initial phase of this process should involve a participative process of analysing past performance and conducting situational analyses. It is hoped that the frameworks for evaluation and the findings outlined in the evaluation report could assist in this but would need, at a minimum, to go through an internal participative process to enable validation and "ownership". It is recommended that the guidelines developed by Treasury on strategic planning[63] be used to guide the process. These processes could be initiated in parallel with the Board and ExCo process (clarification of mandate, mechanisms of accountability, dedicated budget etc, as outlined above), and used to inform it.

The participative review of past performance and future planning should be used to identify key strategic issues that would need to be addressed during the process of strategy development and planning. Examples of some current strategic issues would be: the "exit strategy" and contractor model in the light of the possible incentives the model provides to clear as fast as possible and disincentives to provide time for social development and training initiatives; the tension between the time required by short clearing contracts and the longer time frames needed for capacity building; the high turnover of workers; and, the tension between the SPWP regulations regarding maximum length of employment and the need for a more skilled and experience workforce to ensure effective clearing methods. This process could be used to begin the discussion about what indicators are used to assess effectiveness and impact of ecological, hydrological, social and economic objectives of the Programme. Some useful input on key indicators is provided in the separate specialist evaluation reports.

[62] It is suggested that this is in the form of a written opinion of a senior counsel with labour law expertise.
[63] "Developing and Integrating Strategic Plans into the Budget Process", available at www.treasury.gov.za

If the recommendation on the mandate is accepted, that is, that the mandate is focused on the control of IAPs in order to contribute to effective natural resource management and conservation, all other strategic issues should be examined in terms of this:

- What has been learned from past experience about what would be needed to achieve this mandate (building on the findings of this and the specialist reports)?
- What are the key strategic issues and alternatives for addressing them?
- What would need to change (building on the recommendations of this report)?

It is very important that the primary focus of this process is on what is needed to ensure effective control. The question of how this could be undertaken in ways that maximise social benefits in terms of poverty relief can then be addressed subsequently but will be secondary and subordinate to decisions related to effectively achieving control. The opportunities for significant contributions to poverty relief are clearly there but must not primarily drive the process of strategic assessment or planning.

6.2.1 Suggested approach to the process of strategic planning

We do not wish to make the recommendations on the approach to developing strategy too detailed and specific given the scope of this report and our belief that the current General Manager is very well qualified to decide on an approach that would achieve the kind out outcome we have recommended. The following is therefore offered as an example of the kind of approach that would enable a more systematic process and outcome.

It is further suggested that a logical framework approach is used to ensure systematic planning that explicitly outlines the logic of the intervention and the linkages between different levels of objectives (clear purpose designed to maximise achievement of the goal; Programme results needed to achieve the purpose; organisational results that must be achieved to build the capacity to achieve Programme results; activities needed to achieve each result; and a full analysis of the resources required to do all this including full costing). The following broad questions would need to be addressed in some form during this process as concretely as possible and after a full problem and stakeholder analysis has been undertaken:

- What would need to be achieved over the long term?
- What are the strategic alternatives for doing this and what criteria will we use to assess them?
- Which alternative, or combination of alternatives, is likely to be the most effective?
- What concretely would need to be achieved over the next three or five years? What specific targets must we achieve?
- What structures, capacity, resources, partnerships etc., will we need to achieve this?
- What else that is beyond our control needs to be in place for us to achieve our objectives? What assumptions are we making about what will be in place to ensure we can achieve these things but are not within our direct control? What level of risk does this pose? Are any of these highly unlikely to materialise but also essential to our success? What could we do to manage or mitigate the risks involved? Do we need to look for more realistic alternatives?
- What indicators and criteria of effectiveness will be use to assess effective progress in terms of the mandate and achievement against our objectives;
- What will we use to verify our achievements and what information will we need to do this? Where, how and from what source will we get this information?

An outline of a generic logical framework format is provided below as an example of the kind of outcome needed from the strategic planning process. The numbering indicates broadly the sequence in which each area needs to be addressed:

Table 6.2.1: Proposed format for planning summary

Objectives	**Key Performance Indicators**	**Means of Verification**	**Important Assumptions**
(1) Goal : *(The changed situation in society you aim to contribute to achieving)*	*(8) Indicators are what you will use to measure and assess effective achievement – signs of success.*	(11) *Tell you what you will use to verify your achievement in terms of the indicators and what information you will need.*	(5) *Issues that are outside your control but will affect what you can achieve. Risks you will need to influence or manage.*
(2) Purpose (The result the organisation, programme or project is expected to achieve)	(9)	(12)	(6)
(3) Results (The specific results that must be achieved to achieve the purpose)	(10)	(13)	(7)
(4) Activities *(The actions that must be taken to achieve each objective)*	**(14) Resources** *(The resources that will be needed to achieve the activities - including people, finance, information, specific skills and equipment etc)*		

This type of format should be used for planning at each level in the organisation, based on the specific result that these more detailed plans are designed to achieve.

6.2.2 Suggested focus for strategic planning: clarifying goals and objectives

An hierarchical approach to strategically targeting resources would best support the Programme purpose and dramatically increase the impact of the Programme (see Figure 6.2.2 overleaf). In this strategy the most aggressive IAP species should be the first priority at all levels. Controlling these fast-spreading species will simultaneously prevent further losses to ecological integrity. Secondary priorities are areas of ecological importance and strategic water management areas (include both water stressed catchments and DWAF's identified strategic catchments). These are areas where the greatest ecological and water resource management benefits of clearing would accrue.

The evaluation team also submits that the spatial prioritisation of invasive alien clearing interventions should not be driven by poverty relief based targeting (that is by targeting areas where there is the greatest level of poverty). While we recognise that social development and poverty relief are critical priorities for South Africa as a whole, we believe that this Programme should focus first and foremost on its key purpose. The Programme should, however, consider how clearing in strategically targeted areas may be undertaken in order to maximise social benefits.

For quaternary catchments in which watershed management and nature conservation are not the dominant land uses, an integrated catchment management approach should be adopted in which all relevant partners (DWAF, Dept. Agriculture, DEAT, Conservation Agencies, Landcare etc) co-operate, to ensure restoration of ecological integrity and land productivity.

A detailed recommendation, for a hierarchy of criteria for selection of clearing priorities is provided in the Water Resource Theme Final Report including the types of spatial information that would be required from collaborating departments to implement this (section 3.1.2ii). A brief summary is provided here:

- *Level 1: Containing the spread.* The Programme critically needs to control the spread of IAPs. Given limited resources, relative to the scope of the problem, this implies that species that are the most dangerous invaders (transformers, with the potential for explosive growth in the right conditions) must be targeted as an overriding priority. Information on such species therefore, should be located at the top of a hierarchy of scales at which clearing selection is undertaken at national level with national resources;
- *Level 2: Water resource protection and terrestrial biodiversity.* Water-stressed catchments, quarternary catchments with high or very high Ecological Importance and Sensitivity (EIS) and terrestrial biodiversity or conservation priority areas all have specific locations which need to be identified as the second level in identifying priority areas, also at national level;
- *Level 3: Prioritisation of clearing at the within-project scale.* Considering that WfW projects are generally defined at the scale of quaternary catchments or smaller, specific areas for clearing that are not apparent in the broad scale prioritisation process, need to be identified as the third level in the prioritisation of areas for clearing. For example, in some projects low density stands and woody tree species that are high water consumers may be prioritised for clearing, and species with water-borne seed should be cleared from the top of the catchment down. Other within-project information is required to adequately prioritise clearing for each project.; and,
- It is recommended that a GIS be used in prioritising projects, so that available biome-scale and provincial spatial information, e.g. on conservation priorities or land-use types, may be used to inform decisions.

The important biophysical criteria required for project selection does not imply that the other goals of the Programme (e.g. social development, improving agricultural land) are not valid or important, but suggests that they should be met within a framework that prioritises effective control of the spread of aliens firstly, and targets the resources most severely threatened by IAPs secondly. Whilst targeting these most threatened areas, the WfW Programme should nevertheless also fit within the management plans developed for each catchment in which the Programme is established. Landcare and social development would be an important component of such management plans, and thus fit into the “within catchment” prioritisation (Level 3 of the proposed selection hierarchy).

No further *ad hoc* changes with long term consequences or significant resource implications should be made to WfW’s structures, policies, systems or processes until a mandate and strategy have been agreed and an analysis made of the operational requirements of these. Once a broad strategic framework is in place structures, policies, systems, processes, resources and organisational and individual capacities need to be reviewed in the light of what would be needed to operationalise the strategy effectively. This may result in the need to review targets and timeframes on the basis of feasibility and realism.

6.3 Planning at regional and local levels (prioritisation and targeting)

In order to achieve alien control targets within a limited budget, while maximising the returns of alien clearing in ecological terms, appropriate strategic planning at national, regional and quaternary catchment levels is essential. Massive effort with respect to planning needs to be expended to improve the operational effectiveness of the Programme.

The recent reprioritisation of projects undertaken by WfW should be reviewed in the light of the following recommendations. It is the view of the team that some of these recent prioritisation processes may undermine the future effectiveness of the Programme's interventions.

6.3.1 Regional planning

The guidelines for regional strategic planning should be amended to include guidelines on doing a situational analysis and collecting data in order to enable effective regional input into the national planning process and to provide reliable baselines. Representatives on regional governance structures should be included in the process of developing regional analyses.

In addition, more flexibility needs to be built into regional and project-level strategic plans in order to respond to events, such as fires, or deal with unforeseen priorities, such as the appearance of a new invasive species.

6.3.2 Project planning and targeting

If the WfW Programme and its governmental partners are to take seriously, not only the control of aliens, but the effective management and conservation of natural resources (end goal of alien removal – i.e. restoration of natural resources), then reference conditions for each clearing project should be established not only for the land use and land cover (vegetation type or agricultural potential) but for all bio-physical aspects of the riverine (and upland) ecosystem. This should explicitly address the extent to which the alien clearing Programme could address catchment problems – in other words, such a project plan would identify the contribution of alien removal to catchment management, as well as the issues that would need to be addressed by other agencies in order to undertake proper catchment management.

This plan should be developed by the partners in the WfW Programme (e.g. DWAF, DEAT, Department of Agriculture, catchment management agencies, local conservation agencies, and local government etc.), as a collaborative undertaking. It is likely that such an approach will increase the chances of the Programme conducting meaningful partnerships with these governmental agencies, rather than the removal of plants being undertaken in isolation, with variable and sometimes negative impacts on natural resources.

Given the recommendations for project selection and for catchment plans, it would be desirable to include the regional strategy for wetland management (Working for Wetlands) into the planning process of WfW, and to ensure that there is a single reporting system for all wetland rehabilitation work conducted by WfW, whether it involves clearing on its own (as the only impact), or involves other stabilisation and restoration techniques.

Project evaluation should be mandatory. Evaluation should be part of an overall integrated project plan that identifies realistic natural resource management and conservation objectives within the framework of

integrated catchment management. Project appraisal protocols need to be compiled, including standardised information gathering, also allowing for the specific characteristics of an ecosystem to inform the assessment. Some of the indicators that may be useful for the evaluation of water resource condition are indicated in the body of the Water Resource Theme Final Report (section 3.4.1).

It is recommended that an inventory of all WfW projects be compiled for the National Office as a start of the process of project-based reporting and auditing. This should include spatial representation, with catchment number (quaternary catchment) and Project's common name, to produce a definitive and spatially referenced set of what is presently deemed to be WfW projects. All NBALS that have been mapped in WIMS should fall within, or should be allocated to one of these projects if they fall outside the spatially defined project area. Project reporting and evaluation should be based linked to an information system designed to provide the information needed to track achievement in relation to all levels of objectives in the strategic plan. Reporting should include both quantitative and qualitative indicators necessary to assess effectiveness.

The Programme must also develop particular strategies for managing clearing operations on state land and in communal areas which recognise resource rights and tenure and integrate with existing resource management systems.

6.3.3 Poverty targeting

At a regional and project (quaternary catchment) level, poverty targeting of the Programme needs to be more effective. It is suggested that a coherent methodology be developed to enable more effective targeting of vulnerable households drawing on Participatory Poverty Assessment (PPA) techniques and broader poverty mapping. At the same time the selection guidelines with respect to the eligibility of people receiving social grants should be clarified as it is believed that to exclude households who are obtaining child support grants would be counter-productive. The worker selection methodology should also address potential clashes that may arise between workers that may be drawn from a database based on poverty targeting and those that a contractor may prefer and may perceive as being best for the team.

It is also important that a clear statement of what workers are entitled to as part of the Programme and what they must have received before they are eligible for exit is developed. This should be in conjunction with suggestions made in section 3.6.2 above regarding the revision of the 24-month employment period as stipulated by the Ministerial Determination.

6.3.4 Partnerships

The Programme needs to place more emphasis on, and make more investment in, partnerships at all levels if the Programme is to meet its goals – particularly where social development and ecological awareness are concerned. In addition, more emphasis should be placed on integrating planning at an intergovernmental level to assist in providing the partners with recognisable benefits, and hence strengthen the Programme as a whole.

From a social perspective linkages with NGOs with social development objectives similar to those of Working for Water need to be strengthened.

Although the practice of Integrated Development Planning is still far from ideal in most local governments, linkages need to be made with municipal Integrated Development Plans (IDPs) as they are designed to integrate developmental initiatives within municipal boundaries. IDP may provide a vehicle identifying and

implementing post-exit opportunities and make connections with other district-based poverty reduction strategies. IDPs may also be an important source of social data to assist to project targeting.

6.4 Organisational location and structure (from Board to CMAs)

Until decisions on appropriate governance arrangements can be reviewed on the basis of agreements on mandate, the existing governance arrangements should be revived and continue to operate in the interim. It is recommended that the relevant ministries and departments should be represented on the Board and ExCo at the highest level in order to facilitate effective decision-making, at least initially. In addition, DWAF administrative, human resource and financial policies and systems should continue to be applied in the interim.

6.4.1 Institutionalising in terms of legislation

Following the establishment of mandate, WfW needs to be institutionalised in terms of legislation. At this stage it is recommended that this is achieved in one of the following ways:

- The first is the promulgation of dedicated legislation (i.e. a Working for Water Act, that formally constitutes WfW and confers rights and imposes obligations on it as an organ of state or at least, as a public entity). An example of similar legislation is the law that constitutes the Greater St. Lucia Wetland Park Authority, which has principal responsibility for the management of the (proclaimed) Greater St. Lucia Wetland Park[64];
- The second is an amendment to the National Water Act, by either the introduction of a new chapter into the NWA, similar to Chapter 2 of the Draft Biodiversity Bill which establishes the National Biodiversity Institute; or by bringing WfW's operational capacity under the umbrella of catchment management agencies ("CMAs"); and,
- Third would be institutionalisation under the Biodiversity Bill.

In view of the institutionally cumbersome and potentially restrictive nature of CMAs, the first option is preferred, although it is acknowledged that all alien species may not be addressed in such an approach. Should the second approach be preferred, it remains legally possible to appoint a member of WfW's senior management on each CMA Board and to establish WfW as a committee that reports to the Board.

6.4.2 Key issues

Decisions on the organisational structure and location will need to be made on the basis of:

- What will be best suited to operationalising the mandate and strategy adopted;
- What will enable effective accountability in terms of mandate and strategy; and
- What will promote the most effective co-ordination within and between strategic and operational levels within WfW and between WfW and the department' whose mandate entails interdependency with WfW.

This report cannot make definitive recommendations in the absence of an agreed, clear and effective mandate and strategy. This is also not the focus of the terms of reference. Our primary recommendation is therefore that these issues are decided based on an analysis of mandate and strategy and taking into account the key decision criteria listed above. Some options and some of their implications are, however,

[64] The relevant overarching legislation is the World Heritage Convention Act, 49 of 1999. The GSLWP was established on 24 November 2000 by virtue of Government Notice R4477 in *Government Gazette* 21778. The same edition of the *Gazette* proclaimed the establishment of the Greater St. Lucia Wetland Park Authority. Regulations that stipulate among other things, the Park Authority's powers necessary to achieve its legal mandate, were promulgated in Government Notice R1193 in *Government Gazette* 21779 dated 24 November 2000.

spelt out below on the assumption that the mandate focused on the control of IAPs in order to contribute to effective management and conservation of natural resources is adopted.

- **WfW is located in one of the relevant national department's as a separate unit**. This would need to be a department with regional level structures able to manage the operations of WfW. This appears to be an awkward arrangement, from the evidence of past experience where accountability for WfW's expenditure was separated from clear authority to determine strategy in line with departmental priorities. In practice, the functional orientation of the department in question might be seen to inevitably limit the scope of the mandate and strategy. The only area where an increasing level of prioritisation of clearing is consistently developing currently, for example, is in terms of priority catchments designated by DWAF. This arrangement would be perfectly suitable, however, if WfW's mandate is focused on the management and conservation of the water resource, rather than more broadly on natural resources as this would facilitate clear alignment of accountability for strategy and budget. The evaluation also raises concerns about the ability of regional level management from the functionally specialised host department being able to develop the capacity to shape, manage and monitor strategy, planning and operations at a regional level.
- **WfW is located as a unit under the proposed SANBI (South African National Biodiversity Institute)**. This would potentially integrate all concerns related to alien species under one umbrella. The concern here would be that some form of co-operative governance would still be required to ensure that WfW's strategy aligns to the programmes of departments with which it is interdependent and to enable effective accountability in terms of mandate. This could create similarly awkward organisational arrangements to the option above.
- **WfW becomes a national public entity in terms of the Public Finance Management Act (Ch 6, Part 2) and is listed in Schedule 3 of that Act.** The Act provides clear accountability arrangements that could accommodate a cross-cutting programme focused on the control of IAPs but directed in terms of priorities for the management and conservation of natural resources determined by specific functionally specialised departments through effective governance structures.

In the interim, a priority for action is that the decision-making structures and processes of the organisation should be revisited and the role and composition of each structure clearly spelt out. This is necessary to lay the ground for effective strategy development and decision-making on urgent and important issues in the interim. A clear and explicit framework outlining who makes what decisions through which structures should be provided to all staff.

6.5 Staffing and individual roles and responsibilities

A systematic analysis of capacity needs will need to be conducted once the operational requirements of strategy are clear. A strategic human resource plan will need to be developed to close the gap between what currently exists and what will be required. Many of the gaps and challenges have been noted in the specialist reports based on the existing unfocused mandate. Many of these may still be relevant once a more focused mandate and clearer strategy are in place.

Once the siting of the organisation has been established and an appropriate organisational structure developed, it is imperative that roles and responsibilities of all components and levels of structure and jobs within the organisation, and those the governance structures at all levels are clearly spelt out. Internal roles and responsibilities of components and jobs must be aligned to the strategic, regional and project plans. Clear job descriptions should state the purpose of the job, key responsibility or performance areas and the capacities required for the job. Individual work plans or performance agreements linked to

strategic objectives should be developed for all staff and used for consistent and fair performance management and development.

Analysis of the performance of the Programme, not only in relation to clearing targets and expenditure, but in relation to higher-order Programme objectives, should be the responsibility of all levels of management but finally rest with the national office. However, this needs to be effectively linked to performance at regional and project level, as the unit of operation and management.

At the outset, the allocation of responsibilities between the General Manager and the Advisor to the DWAF DDG: Policy and Regulation should be revised. As the accounting officer for the Programme, the General Manager's responsibilities should include the responsibility for leading the strategy process, making proposals on strategy and budget and reporting in terms of these to the existing ExCo. It should be recognised that, although s/he may delegate responsibilities in terms of agreed strategy, s/he will be accountable for the effectiveness of the organisation and so must have must final authority over decisions about what will be needed (in terms of budget, human resources, partnerships etc.) to make it effective. The General Manager's performance contract should be based on the key responsibilities outlined above.

The role and responsibilities of all levels of management need to be reviewed. It is likely that the roles and responsibilities of all managers at regional level will need to be enlarged and the need for a higher level of skill and experience recognised as a result. This would likely apply particularly to project managers. Once job descriptions and performance agreements are in place, building the required capacity of these crucial managers should be a priority. In the interim, it is recommended that general management training is undertaken to build common understanding and skills in basic areas of management including those related to effective planning and performance management and development.

6.6 Performance management and development – developing a learning programme

The implementation of policy/mandate through the strategic plan, annual plans and a monitoring and evaluation framework need to be supported by a performance management and development system linked to the management information system. The planning processes outlined above should be contextualised by the establishment of clear and explicit cycles of planning, monitoring, evaluation and review at the level mandate (in the context of a shifting legal and institutional context and continuously improved technical understanding), and at every level in the organisation, from individual to component, to WfW as a whole. The example shown below is based on those being used within parastatal conservation organisations, but versions of it are used throughout the public service. It should be noted that the five-year cycle specified would need to be aligned to the three year cycle entailed by the PFMA. It may also be necessary to do rapid strategic reviews more often initially, probably annually, to test and review strategy, monitor risks and deepen understanding of the strategic objectives and challenges throughout the organisation.

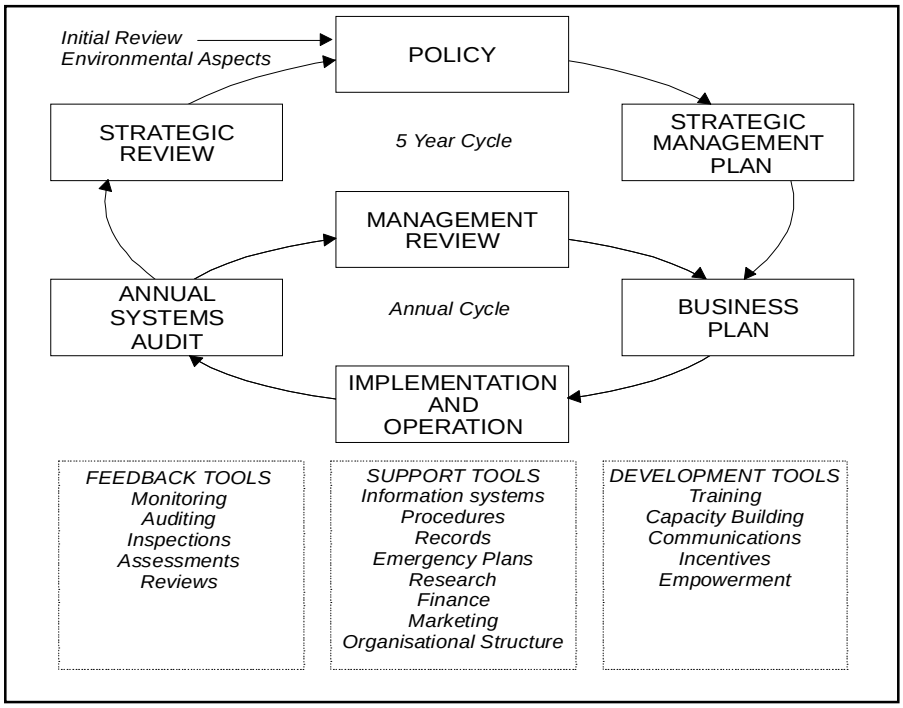

Figure 6.6: An example of a performance management system that could be used by WfW Programme (after SANParks 2000).

The above framework incorporates a five-year (we suggest reducing to a three year cycle) and an annual planning cycle of continual improvement, in which strategic and operational objectives are planned for, implemented and reviewed. The development of strategy is seen as inextricably linked to an effective M&E framework. The following outlines the key system components:

- The Initial Review would review past performance in the light of the evaluation recommendations;
- The Policy/mandate would incorporate the policy and mandate given to the Programme via the responsible departments.;
- Three-year Strategic Management Plan (SMP) would set out the strategic measurable objectives of the organisation and be linked to specific spatial prioritisation at national and provincial levels, time frames, deliverables, indicators and responsibilities. This plan would need to be supported by a financial sustainability strategy for the Programme – an essential part of which is securing a dedicated budget;
- Business plans or annual plans would be developed in a way that links budget and annual objectives to the achievement of the strategic objectives of the Strategic Plan;
- Implementation and monitoring would be given effect through the plans as well as a monitoring and evaluation framework, supported by information and documentation management systems as well as supporting GIS tools. (It is proposed that WIMS be reviewed and upgraded to accommodate these needs);
- Review would be undertaken on an annual basis by management at all levels and by the Board after an annual audit (supported by the information system and M&E framework) which would report on performance against objectives and targets and organisational effectiveness. The report would need to note any performance problems, reasons for these and actions that would need to be taken by the organisation or others to improve levels of achievement; and,
- A review of the enabling government policies/legislation, Programme mandate and strategic plan should be conducted on an annual basis but systematically reviewed every five years.

The performance management system needs to link performance management and development at all levels of the organisation and this to individual performance management and development. Detailed guides for achieving this are available from the Department of Public Service and Administration.

The performance management system should also aim to:

- Improve the monitoring and evaluation of achievement at every level of objectives;
- Enable the identification of ways in which performance levels can be improved by building on key successes or tackling the root of barriers to achievement;
- Identify problems arising through interdependencies and enable agreements on how these may be addressed through the governance structures. For example, in the current circumstances, enable a review of performance standards with DWAF with respect to the processing of order numbers, communication of changes in administrative procedures, the authorisation of training contracts and payment times for completed clearing contracts; (This contract information related to actual expenditure linked to specific outputs should be captured in an accessible and audit-friendly database.);
- Enable a complete audit of all projects: location and recording of all project level data from contracts into a common database, with verification of area cleared (site visit) and include the following key data: (Only on this basis can the real achievement of the Programme be proved and the actual trends in costs and productivity be understood.);
- Exact project location;
- Area cleared;
- Cost;
- Person-days of effort;
- Type of contract;
- Dominant species;
- Initial clearing versus follow-up (and follow-up number); and,
- Source of funds.

Performance management needs to address the lack of confidence in reported areas cleared. Verification of cleared areas that are sustainably maintained and a sustainable management strategy needs to be put in place to prevent re-infestation in such areas if they exist. Ground-truthing may be required as part of this verification.

Overall, an environment that is more friendly to learning, change and development should be created.

6.7 Training and capacity building

An interim assessment of management capacity needs should be made as soon as possible and basic management training provided to all levels of management. Training in approaches to planning and planning skills should be a first priority in order to build a common understanding, vocabulary and approach. This can be supplemented by more specific and targeted training and development programmes once the implications of the strategy are clear. Staff understanding of the synergies between the various Programme objectives needs to be improved.

The induction and support of project level staff is critical in terms of the successful implementation of the Programme. In particular, the ongoing training and capacity building of project managers is seen as a priority. Project managers should be equipped to develop overall clearing plans (annual and medium-term) that relate to the broader context and priorities for the catchment. Mentoring guidelines and training

for project managers is also necessary to clarify what their role is in the induction and support of contractors, and for such support to be then be available to contractors.

For the above expectations of project managers to be realised, it is necessary to raise the status, remuneration and entry-level requirements for project managers. It is also suggested that the Saasveld course should be a pre-condition for appointment, not optional on-the-job training.

WfW should ensure that the independent contractors whom it retains to employ workers to do the necessary work have been adequately trained and are aware of the obligations imposed on them in terms of South African labour legislation. Furthermore, WfW should continue to build capacity and raise awareness at the worker level, by ensuring that contractors comply with induction and training obligations that WfW and/or DWAF has contractually obliged those contractors to undertake. Training delivered must be individually recorded within WIMS.

At present the training matrix envisages that some 40-person days of training are required before contractors start work, which is not realistic. Training should be prioritised from the matrix and this must happen before contractors are appointed. The possibility of compressing core elements of training into a 10-day foundation course for contractors should be considered to provide Programme background and essential contract estimation, technical and safety skills. In addition contractors should get bookkeeping support and tax advice.

At the worker level the alignment of training with worker education levels and language proficiencies needs to be improved.

6.8 Information management (data management and document management)

The Programme urgently needs to solve its data management problems and appoint the necessary staff for data management and planning. A document management system that ensures digital and hardcopy document management must be put in place. Financial management systems need to be improved to streamline procurement and reduce overheads. This can be undertaken as part of an overarching financial strategy, which must be developed.

At project level ecological monitoring must take place and a framework for restoration, including benchmarks for target vegetation and protocols for dealing with secondary invaders, must be developed. Other details such as a description of area (natural vegetation, land-use, etc.), condition of the catchment and subcatchments, the nature of the work being undertaken and other relevant information must be collected to assist in defining specific project goals that can then be evaluated as part of ongoing performance management.

The social evaluation report recommends a number of priorities for information gathering and management.

6.9 Research and enabling the implementation of best practice

The Programme needs to entrench dedication to best management practices based on regular scientific evaluation and research. Research findings and needs must to be effectively communicated among different WfW levels.

6.9.1 Ecological aspects

Based on the literature review of ecological impacts of IAPs on aquatic and terrestrial ecosystems conducted as part of this evaluation, recommendations for setting best practice in the WfW Programme are listed in some detail in the Terrestrial Ecology Theme and Water Resource Theme Final Reports. These cover a range of aspects of IAP control, from strategy to methodologies. Some of these need further research and testing, and this should be integrated into both WfW and DWAF research priorities. Some examples follow:

- The WfW ecological research strategy report identified most of the priority terrestrial ecology research topics. It is recommended by the terrestrial ecology report that further research is needed on the impacts (positive) of alien control on soil erosion, vegetation recovery, biodiversity, land productivity and fire hazard in different vegetation types, to strengthen the case for intervention;

- In addition, the following questions that were raised in the research strategy report need to be addressed in all the different vegetation types if restoration efforts are to be effective and re-invasion is to be minimised:
  - After what stage of invasion are post-clearing restoration interventions required in order to enhance ecological integrity at a site?
  - What level of intervention is required following different invasion histories and for different habitats (e.g. stabilisation, species re-introductions, controlled burn)?
  - What should be the target benchmark plant communities in areas currently densely-invaded by alien plants?
  - What are the optimal methods for restoring ecological functioning and integrity?

- Further work on indigenous species recruitment dynamics is needed for some vegetation types (e.g. riparian woody species) in order to inform the optimal methods of restoration;

- In aquatic systems, it is recommended that research priorities should include a focus on quantifying structural change in stream geometry and physical biotope characteristics, as a result of invasion by different species of alien vegetation of different sorts of riparian vegetation (biome and longitudinal position-specific), and in relation to the disturbance regime (e.g. fire and flood / drought) of the ecosystem, to develop a deeper understanding of the processes involved in these changes. These should be linked with biological response. An investigation of the impacts of IAPs on stream biota that does not quantify these probable physical drivers, which may be more directly affected by IAPs, would not provide an explanation of the ecological processes behind such impacts. Such research is essential to:
- identify which types and/or aspects of aquatic ecosystems are for example, most threatened by IAP invasion, and thus feed into project selection criteria,;
- define the most appropriate clearing practices for riparian zones;
- identify the circumstances in which physical rehabilitation measures would be required, or where, for example, natural flood disturbance and erosion in the short term is required to reset system characteristics; and,
- act as the basis for an evaluation of the impacts of clearing activities.

- In highly variable riverine systems detailed research should be undertaken to identify the short and long-term impacts, and appropriate mitigation measures, associated with alien removal;

- Research is also needed to develop economical ways of removing and utilising fuel; and,

- It is also recommended that WfW develop partnerships with national initiatives such as the River Health Programme whose key objective is to monitor the ecological health of rivers throughout South Africa. Alliances with such a programme could provide valuable information that could be fed back for improving BMP's associated with clearing in aquatic ecosystems.

6.9.2 Socio-economic aspects

There is an overall lack of baseline data which can be used to assess Programme impacts at household level. This could be addressed by a combination of participatory poverty assessment and commissioning household profiles in selected projects to establish baseline data as people enter the Programme which can used as the basis for longitudinal research. Households should be resurveyed as projects proceed to examine impacts on household livelihoods, and again after participants have left the Programme in order to examine the extent to which post-exit opportunities materialised and the overall impacts on the household livelihoods. Such research would need to be accompanied by an assessment of the projects on which people are employed.

Research needs to be undertaken on resource tenure issues in different communal areas and the implications of the Interim Protection of Informal Land Rights Act for clearing operations in these areas. Research needs to examine the extent to which invasive aliens are managed as a local resource and make a contribution to local livelihoods with a view to identifying strategies for the control of invasive aliens.

Research should be conducted to analyse the business performance of a representative sample of contractors and the factors which are contributing to or undermining business success. The findings of this research can then be used to refine training and mentoring support to contractors.

A review of the group contractor model developed in the Ukuvuka Programme should be undertaken building on the report by Sisonke to investigate the extent to which group contracting models can spread benefits within the Programme while simultaneously examining the costs of management support required by such an approach.

Best practice for the social development interventions of the Programme can be improved by rationalising worker pay levels for different jobs as there are currently significant discrepancies even within the same province. At the same time delays in payments must be prevented and irregularities in contracts worked must be addressed. A strategic assessment needs to be undertaken to examine the benefits and limitations of issuing longer contracts and the possibilities of facilitating milestone related payments.

Findings from project visits indicated that several households were forced to skip meals as they ran out of cash towards the end of their contract. Action research is required to investigate the range of measures which could improve household food security. This could involve partnerships to promote food gardens and reduce dependency on retail food sources and the possibility of supplying workers with food coupons as part of their contract package to ensure that households do not go hungry and to reduce the pressures to borrow money which leads to ongoing debt spirals for workers and their families.

6.9.3 Economic cost-benefit analysis

The EU Evaluation recommended in 1997 that WfW undertake a full economic cost-benefit analysis. To date, only a scoping exercise has been undertaken to develop an appropriate methodology for undertaking such an analysis. In view of the substantial scale of the Programme funded out of public

funds and which is premised on public benefit, it is recommended that a full cost-benefit analysis of the Programme be undertaken as a matter of priority. A positive finding would greatly enhance the ability of the Programme to motivate for and secure long term government funding and would also enable to the Programme to attractive significant external grants should it so wish. (For example, it is likely that EU funding of the Programme in future would be conditional on such a study being undertaken.) Thus far the Programme has failed to produce research that can substantiate the costs of not addressing the problem of the spread of invasive alien plants.

6.10 Ensuring sustainability of the Working for Water Programme

In general, the Programme needs to strengthen input-output linkages. Payment should only be on hand over of a minimum requisite set of information which should include a unique project identifier, project name, location, boundary co-ordinates (polygon), area cleared, dominant species, density class, contractor name, unique contract number, person days employed, total cost (and cost breakdown by standard category – management, labour, equipment hire, materials (chemicals), transport, other professional services amongst other information that would promote an improved understanding of implementation at the project level and would contribute to ongoing monitoring and auditing of projects.

If aliens are to be brought under control by 2020 the total area cleared needs to be increased through increasing efficiencies and funding to initiate more projects and contracts. However, as discussed above, WfW is not responsible alone for the control of IAPs, and the relevant government departments should be encouraged to contribute and participate more in controlling invasive aliens. In this regard, funding for biocontrol research and implementation should be increased further.

A realistic assessment of existing post-exit work opportunities should be carried out. Functional partnerships with provincial Departments of Agriculture should be developed in order to explore ways in which the implementation of CARA regulations can stimulate the demand for private sector clearing and create post-exit opportunities. Partnerships with forestry companies should also be considered.

Conduct an appraisal of the Ukuvuka group-based contracting model to assess its efficacy and applicability for contractor development in the Working for Water Programme

Profile prospective contractors, assess their foundation skills and their capacity to benefit from the training provided.

The evaluation has found that the long-term sustainability of the Programme in its present form is significantly in doubt. It is therefore imperative that the Programme adopts measures which would enhance is sustainability. In this light, the following actions are recommended:

Demonstrate that the value of the Programme exceeds its costs:

- Attain a better understanding of the present and potential value of the Programme (see research recommendation related to the economic cost-benefit analysis);
- Improve the value of the Programme (see below); and,
- Reduce the costs of the Programme (see efficiency below).

Improve the value of the Programme:

- Improved targeting (see section on strategic planning);
- Improved methods of clearing (bio-control, skills etc); and.
- More focussed effort on developing sustainable secondary industries.

Improve the efficiency of the Programme:

- Improved planning;
- Improved management;
- Improved systems; and,
- Improved skills.

Ensure gains in ecological integrity are secured:

- Improved clearing methods;
- Improved hand-over to land owners and responsible persons; and,
- Improved legal mechanisms / enforcement.

Improved accountability of the Programme:

- clarified mandate;
- clarified and improved institutional arrangements; and,
- significantly improved management systems and strong accountability for inputs and how there are linked to outputs.

Secure sustainable funding streams:

- Appropriate source of long term funding will depend on the future institutional arrangements;
- If WfW is located within CMAs, then a levy of water may be an appropriate and secure source of funding; and,
- If WfW is located under/within the SANBI, then a secure and dedicated government budget would be most appropriate, supplemented perhaps with a CMA levy and other funding (for example, external donor funds).

6.11 Concluding Remark

In conclusion, the Evaluation Team submits that the implementation of the above key recommendations will improve the performance of the Programme and ensure that the long-term benefits of future allocations of public and private resources are sustainable. Critical to the systematic implementation of these recommendations is the clarification of the Programme mandate within an overall control strategy for invasive alien species within South Africa.