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Outcomes Focussed Management in New Zealand – A Background Paper

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ABSTRACT

“Outcomes” can be broadly defined as the results of Government interventions. Considerable effort, both in New Zealand and overseas, is focussing on ways in which information on outcomes can be better integrated into public policy decision-making.

This paper outlines the environment for outcomes focussed management in New Zealand and discusses some innovative examples of the use of outcomes in public management. It provides a background for further work focussed on integrating the use of outcomes in public management.

The first part of the paper describes both how outcomes can be used and how outcomes are used to influence decision-making in New Zealand. It traces through the use of outcomes at various stages of the decision-making process, from whole-of-Government strategy setting and the budget process, to departmental planning processes. It also notes where there are opportunities for greater use of outcomes.

The second part describes some innovative examples of the use of outcomes in public management in New Zealand. It examines the use of:

- outcomes by the Department of Corrections to focus expenditure on rehabilitative interventions more effectively;
- outcomes-based funding arrangements for employment programmes by the Department of Work and Income;
- an outcomes-based model by the Land Transport Safety Authority that predicts the road-safety outcomes of various combinations of interventions;
- outcomes measures in the Biodiversity Strategy to monitor progress halting the decline of New Zealand’s indigenous biodiversity; and
- outcomes targets in the Maori Education Strategy.

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Section 1: Overall Approach to Outcomes Focused Management

Introduction

1. New Zealand's public sector management system has been in place for over a decade. The intent of the reforms of the late 1980s and early 1990s was to shift the focus from how much was spent, to what it was spent on and why. An explicit part of the reforms was to outline the separate responsibilities of Ministers and Chief Executives. Scott, Bushnell and Sallee state:

The approach taken in the New Zealand financial management reforms is to require chief executives to be directly responsible for the outputs produced by the departments, while the ministers choose which outputs should be produced and should therefore have to answer directly themselves for the outcomes.

2. This vision has not been realised in the way that was originally envisaged. It does illustrate, however, the central role that outcomes played in the financial management reforms. Conceptually, the New Zealand system focuses on outcomes. There have, however, been significant implementation difficulties for a variety of reasons and work continues to address those.

Strategy Setting

Whole of Government Strategy

3. The Government sets the highest level outcome goals. The Fiscal Responsibility Act (1994) requires the Government, in the Budget Policy Statement, to:

specify the broad strategic priorities by which the Government will be guided in preparing the Budget for that financial year.

4. Since the mid-1990s this requirement has been met by various sets of goals under various names. There have been "Strategic Result Areas", "Strategic Priorities and Overarching Goals", and currently, "Key Government Goals to Guide Public Sector Policy and Performance" (which are attached as an annex).

5. In general, these goals are not so much goals as statements of broad direction. They are not tightly specified, and no targets or quantifiable measures have been developed to measure progress against them.

Outcomes in the Budget Process

6. The high-level goals have been used to varying degrees as a prioritisation tool in the budget process. The Public Finance Act requires Ministers to identify in the Estimates (Ministers' requests to Parliament for appropriations):

the link between the classes of outputs to be purchased by the Crown and the Government's desired outcomes.

7. Current practice is variable, although, for the most part, this has been done in a cursory fashion merely by asserting that output *a* contributes to outcome goal *b*. Ministers are not required to produce measures to demonstrate this or to provide a gauge for future performance. Also, because there is a relatively high number of Ministerial portfolios and departments, few key goals are the responsibility of a single Minister or department. This is one reason why it tends not to be possible to hold individual Ministers or agencies responsible for achieving outcome goals.

8. This requirement to link outputs to outcomes in the Estimates is not the only way outcomes feature in the budget process though. The greater part of Ministerial scrutiny of expenditure in the budget process is of new spending proposals, even though this constitutes less than 5% of total expenditure.

9. A key tool in managing the prioritisation of new spending proposals is through a fiscal management tool called the fiscal provisions. As part of being transparent about its short-term fiscal objectives, each year the Government must outline how much it intends to spend that year and the two following. Informally, this statement of fiscal intentions is built upon a fiscal provisions framework that sets the level of additional discretionary Government expenditure (there are separate provisions for capital and operating expenditure). The Government commits to fiscal provisions that effectively limit the amount it can spend on new policy decisions.

10. The fiscal provisions, in combination with the Key Government Goals, make for a powerful prioritisation tool. They set a transparent budget constraint, and outline what the highest priorities are within that constraint. Because demand for funding exceeds supply, there are incentives for Ministers to demonstrate that proposed new expenditure is worthwhile and will contribute to the Government's outcomes. Ministers are not required to provide outcome measures in support of the new proposals, but they are required to indicate how the intervention would be evaluated. This is a new requirement, and so can be expected to yield more useful information as time passes. Although Treasury may negotiate evaluation criteria with the department, it is less likely to negotiate outcome measures, although there are no systems barriers to stop it doing so.

11. Few formal processes exist to assess the value for money of baseline expenditure (as opposed to new spending proposals), although that is slowly changing.

12. Thus, from a macro, planning perspective, outcome goals do inform the budget, at least at the margin of new expenditure. These outcome goals tend not to be accompanied by outcome measures, however.

Departmental Strategic Planning

13. The Government's high level goals are translated into departments' planning in various ways, including through "key priorities" (previously know as "key result areas"). Since the high-level goals have generally been so broadly defined, most departments can tie many of their activities back to at least one of them. Departments choose their key priorities, although central agencies have some input, both to perform a quality assurance role, and to get an overview of the government-wide picture.

14. Key priorities usually form a key part of the Chief Executive's Performance Agreement and for the most part are driven down into the department's business relatively effectively. Key priorities are supposed to be SMART - Specific, Measurable, Achievable, Results-focussed and Time bound. Since Chief Executives are held accountable for delivering on these key priorities, they tend to be outputs rather than outcomes. As such, it would be desirable if there were accompanying outcome goals and targets that could indicate how progress was being made achieving the goal the key priority contributes to. These have often been lacking.

15. Initiatives are underway to improve the quality of departmental strategic planning and to make it more outcome focussed. This should be reflected in improved ex ante reporting to Parliament.

Translating Strategy into Action

Outputs, Outcomes and Accountability

16. Both the budget and departmental planning documents translate strategy into action, at varying levels of specificity. The budget contains general output information, but more specific information is contained in a Purchase Agreement (soon to be changed and called an "Output Agreement"). This agreement contains detailed information about all the outputs a department is producing that year. The purchase agreement generally contains relatively little information on the outcomes an output contributes to. This reflects its status as an agreement between the Minister and the Chief Executive on what the department will do, rather than as a public document explaining why the Government is purchasing those particular outputs.

17. This apparent focus on outputs at the departmental level has to be understood in the context of the sharp distinction made between the responsibilities of chief executives and Ministers. The distinction is closely linked with the way accountability is thought of in the New Zealand system. In an accountability relationship, performance may attract rewards and sanctions. The external parties to whom chief executives report have a power to act on that performance information. Hence it is critical that managers have control over the performance dimensions for which they are held accountable.

18. In general, it is more difficult to hold managers to account for outcomes than outputs for a number of reasons, including problems of:

- determining causality accurately;
- significant time-lags;
- lack of information and information asymmetries.

19. The notion of controllability is central to our thinking about accountability and this is why Chief executives are not held accountable for outcomes that are beyond their reasonable control. Of course, decision-makers can be held accountable for the decisions they make, and they can be held accountable for managing risks that arise to the extent of their management authority. In the same way, policy managers can be held accountable for the quality for policy advice they provide, which includes appropriate consideration of risks and externalities. Operational managers can be held accountable for managing processes to mitigate adverse

externalities and risks, and to do all they can to produce the desired outcomes. (For further information on management of outcome risks see the section dealing with that, below.)

20. Because chief executives are explicitly accountable for outputs, considerably more effort has gone into describing and measuring outputs than outcomes. As a result, we are much better at output specification than outcome specification. However, we can still do better at output specification, so that managers can genuinely be held accountable for those things that, intuitively, are within their reasonable span of control.

21. None of this is to say, of course, that there are not areas where managers can be held accountable for outcomes. There are some areas of Government activity where experience shows it is possible to hold managers accountable for outcomes. For example the Governor of the Reserve Bank has authority to set monetary policy and is held accountable for holding inflation within a specified target. Other examples of outcome management included later in this report suggest more sophisticated measurement and analytical systems can bring outcomes to the fore as an instrument of accountability. In some circumstances, in other words, output quality measures can be specified in such a way that the Chief Executive can effectively be held accountable for the desired outcome. Our approach to outcomes has to be situation sensitive though, so that managers' accountabilities are pitched at an appropriate level for the tasks they are asked to perform.

22. In practice, the focus on outputs at the accountability end of the system, has seen less work put into thinking about outcomes than is desirable. As a result, there is a wide divergence in the way that outcomes are used in departmental management. Outcome measures tend not to influence chief executive performance assessment unless it is clear that the chief executive can be held accountable for the outcomes.

23. However, just because outcomes have been underdone in practice does not mean that a focus on outputs is not both important and appropriate. One of the key benefits of keeping a focus on outputs within formal management systems is that this ensures a better understanding of what is done by the Public Service and this is a prerequisite for assessing value for money. Other parts of that puzzle include good information about what those outputs cost and outcome information indicating whether the outputs had the desired effect. In other words, good outcome information is an addition, not a replacement, for good output information.

24. A key focus for improving outcome information is the policy advice process. After all, the key function of policy advice is to identify what the problem is, and how to solve or mitigate it. This involves making judgments, based on evidence and sound reasoning, of how outputs contribute to desired outcomes. This can go hand-in-hand with a more sophisticated understanding of risk management as part of output specification. The biggest contribution to improved Government performance in achieving outcomes is likely to come from improved policy advice, based on better information.

States of the World Information

25. There are several different types of indicators that are relevant for outcomes focussed management, including (in increasing order of sophistication):

- states of the world indicators, which provide a snapshot of the world or aspects of it - e.g. percentage of children sitting and achieving School Certificate in 5 subjects.
- effectiveness indicators, which attempt to measure the success of particular interventions - e.g. percentage of offenders in a target risk band re-offending within 12 months of release, following a particular intervention, compared with a matched-pair control group;
- risk indicators, which suggest where interventions should be targeted – e.g. risk of imprisonment within 5 years

26. One project currently underway is looking at how we can improve the quality of states of the world information available about the state of New Zealand society. States information differs from effectiveness information as it does not rely on causal inference about the relationship between the intervention and the way the world is. By collecting comparable information across time and across location, policy makers and decision makers can see how the world is changing. States information has at least two key uses:

- ex ante it can guide prioritisation choices, by showing where the serious problems are.
- ex post it can guide evaluations of effectiveness by providing benchmarks of change. Analysts can then use this knowledge about the world to make inductive judgments about the effectiveness of various interventions.

27. Some departments have already developed relatively comprehensive sets of states of the world measures. Fewer departments, however, have specific effectiveness measures that are intended to reflect the success of various interventions. This reflects the complexity of the public policy environment where many outcomes are reflected by a wide variety of interventions and environmental factors.

Evaluation

28. In an outcomes context, evaluation is impact evaluation. Ex ante analysis and assessment of proposed interventions is part of the core policy advice process, but the ex ante analysis needs to be backed up ex post by evaluation of the effectiveness of the intervention, when cost-effective. Impact evaluation may involve more than just setting and monitoring effectiveness indicators. It can also include some more in-depth analysis of causes and effects, and so seek further opportunities for greater value for money.

29. Impact evaluation is probably underdone in the New Zealand public sector. Chief executive and departmental performances are assessed, but outcome measures and evaluations rarely feature in these assessments. The outcomes of policies/programmes/projects tend to be evaluated on an ad hoc basis, with some exceptions. In general:

- there are limited requirements to evaluate existing programmes, and
- in many departments there is not a strong culture of evaluation.

30. The Government has investigated requiring all policy proposals going to Cabinet to have evaluation criteria stated, but this was seen as impractical. In particular, there was a risk that agencies would develop a compliance attitude towards evaluation, rather than focussing on it

when it adds value. Central agencies are focusing on improving evaluation criteria when discussing policy proposals with departments. However, the Government is still determining a systems-wide approach to evaluation.

31. Budget initiative bids are required to include evaluation criteria. Ministers must outline if the proposal has been evaluated, and if so, what the results are. If not, Ministers must outline how they will measure the success of the initiative. This information has only been required since the 2000 Budget so it is not yet clear how effective this will be at increasing the value that evaluation adds to the policy process.

Co-ordination and Outcomes Risks

32. Outcomes are the key focus of Government activity, around which Government co-ordination should be managed. To enable such co-ordination, there need to be shared high-level strategies and shared outcome targets. Shared outcome targets make explicit what the Government is trying to achieve, and allow trade-offs to be made among different means of achieving the target.

33. Co-ordination is required beyond just the planning phase however. Managers also need to be aware of risks that can arise to hinder the achievement of the outcome. In a complex system, an intervention from one department can have a negative effect on the effectiveness of an intervention from another. There are many and varied interrelationships between interventions and outcomes in most social policy areas. For example housing, education, welfare, environment, food safety and economic policies - the responsibilities of a range of Ministers - will impact on public health, which is within the purview of the Minister of Health. Thus being aware what the outcomes risks are, and how they can be managed is critical both at the policy advice phase and the implementation phase.

34. In New Zealand there are some institutional mechanisms for identifying and managing outcome risks, however we do not do enough to be proactive about this at the whole-of-government strategy level. Nor is outcome risk management sufficiently explicit in the way outputs are specified nor in managers' performance agreements. However, Cabinet does have various consultation requirements for Cabinet papers - papers with implications for women, for example, must be discussed with the Ministry for Women's Affairs. In this way, key agencies responsible for various outcomes can ensure that outcomes risks arising across Government can be identified. In fact, a key role of the so-called "population ministries" is to identify and help manage outcome risks.

35. Apart from these institutional arrangements, there are at present few explicit requirements around outcome risks. As a result, departmental practice of identification and management of outcome risks is likely to be variable,

Section 2: Examples

36. These examples illustrate some of the ways that outcome goals, measures and targets are used in New Zealand. Further information is available from the responsible agencies.

Example 1:

Integrated Offender Management (Department of Corrections)

Context

37. New Zealand's Department of Corrections has been developing a set of outcome measures on the effectiveness of rehabilitative programmes delivered to convicted offenders. The Government spends around NZ\$32 million per annum on rehabilitative programmes for convicted offenders both in prison and in the community. The programmes are intended to reduce re-offending and so reduce the future cost of re-offending. This contributes to the Government's goal of building safer communities.

38. The aim of the outcomes management project is to identify the effectiveness of specific rehabilitative programmes at reducing offending among a targeted group of offenders. Prison officers and probation officers will then be able to place offenders on programmes that are statistically most likely to be effective, given the offender's risk profile. Senior Managers will be in a better position to advise the Minister of Corrections which programmes should be offered where and to whom, and, significantly, Ministers will be in a better position to trade-off spending on offender rehabilitation programmes vs. other spending priorities based on robust cost-benefit data.

The Outcomes Measurement Model

39. The model is built around a cost-benefit equation that takes into account both the societal costs of crime and the cost-effectiveness of rehabilitative programmes. The basic cost-benefit equation is:

$$BC_i = (CPH_i * RQ_i) / RCPH_i$$

Where:

- BC is the benefit - cost ratio for a specific intervention;
- CPH is the future cost per head of untreated offenders, which is defined as the average direct cost or total seriousness score of all offences committed over the next 5 years by individuals within the primary target group;
- RQ is the actual (or expected) Rehabilitation Quotient of a given intervention, as measured on the primary target group;
- RCPH is the rehabilitation cost per head given a rehabilitative intervention; and
- *i* indicates that the calculation's inputs (and thus output) are specific to a particular intervention and the particular target group it is delivered to.

40. It is relatively easy to determine cost of delivering a rehabilitation programme per head. The more sophisticated measures are the future cost per head (CPH) and the rehabilitation quotient (RQ).

Future Cost per Head

41. This measure takes account both of the direct cost to the police/courts/corrections systems plus an estimate of the cost to society of an offender's re-offending over a five year period. The future cost per head data was determined by following 28000 criminal careers from 1993 to 1998 and counting the total length of sentences and numbers of offences in each offence class. Separate counts are completed for each risk band. Risk of imprisonment (RoI) and risk of reconviction (RoC) rates are determined for each of ten target groups, into which offenders are grouped. A profile is thus established for each of the target groups, which is used to calculate the average future cost per head for individuals within the target group.

Rehabilitation Quotient

42. The rehabilitation quotient (RQ) quantifies the reduction in the re-offending rate, as a percentage, due to rehabilitative interventions delivered to the target group. The RQ is measured by comparing an intervention group with a statistically valid, matched pair control group. Statistical demands mean that identifying RQs has been the most difficult data set to gain, given the relatively small size of New Zealand's offender population. However, the department plans to have robust RQ measures for its current set of programmes by February 2001. The mean RQ for a good adult programme is around 10-15%, while RQs for some youth programmes have approached 40%.

43. When RQs are available, a benefit-cost ratio can be determined that indicates how benefits compare to costs for a given intervention targeted at a given target group of offenders. Benefit-cost ratios of 1.8 to 30 have been obtained using RQ data from separate evaluations and from literature sources.

Applying the model

44. The benefit-cost model gives an accurate picture of the effectiveness of specific interventions targeted at specific groups. When the department has sufficient data to calculate RQs for its current (core) programmes, it will be in a position to calculate the benefit-cost ratios for those core programmes. Thus it will be directly able to prioritise programmes and target programmes better at offenders.

45. The department will also calculate cost-benefit ratios from pilot programme results. Existing CPH and RCPH information, can be combined with RQs based on overseas research or best estimates to determine the likely benefit-cost ratio. The estimated benefit-cost ratio can then be tested in the pilot. If predictions are borne out, the pilot can then become a core programme, competing for core funding on the basis of its cost-benefit score. Pilot information can continually be fed into the core programme prioritisation system to ensure that Ministers get best value for the money they spend.

46. The benefit-cost ratio information has also been used to determine how much expenditure is justified on rehabilitation programmes. Ministers may determine a minimum

benefit-cost threshold and fund everything within that threshold. Since there will always be constraints on Government expenditure, funding limits will see continuous improvement as the best pilots displace programmes in the core.

47. Data will continue to feed into the system through time, so that continuous evaluation can occur. The department will continue to operate matched pair control groups to recalculate RQs.

Governance and Accountability

48. This system will not be fully implemented until February, when risk data is put onto the system and can be computed. Robust RQs are yet to be finalised. The outcomes management project will have a significant effect on the way that the department manages its rehabilitation programmes. Initially it will provide information to aid decision making; managers and case workers will continue to be held accountable for delivering their outputs, rather than outcomes. Continuation of funding will, however, be increasingly dependent on delivering outcomes.

Example 2:

Outcomes Based Funding for Employment Programmes (Department of Work and Income)

49. This example, which is still at the pilot stage, shows the potential use of outcome measures and targets in managing contracts with non-departmental providers. It is an explicit example of accountability for outcomes in the New Zealand public service, which illustrates the value of thinking carefully about output specification.

50. The Department of Work and Income is responsible both for assisting job seekers find work, and for assessing and paying benefits. A significant part of its business is contracting employment programmes and services from third-parties to minimise unemployment.

51. In the past, these programmes have been funded on an activities or outputs basis: the provider is paid based only on the number of programmes they deliver. Because the contracts for services with employment programme providers needed to be specified up front, case managers were constrained over the choice of programmes they could suggest customers enrolled on.

52. The department currently contracts with individual providers for training and/or other programmes (e.g. Work Confidence, ESOL and Industry based training programmes). It is piloting contracts that combine some sort of payment for activity with payment for achieving an outcome or output. If successful, such output contracts, with outcome performance measures, could show that it is possible to incorporate rich outcome measures that matter for accountability into output contracts. There are also, to date, some examples of contracts that are solely outcomes based, although there is obviously a risk here that a provider can be paid for doing nothing, if the contract is not well specified. The long-term success and impact of these approaches is still to be determined.

Progress to date

53. In line with international trends, the department is proposing to extend an outcomes based approach in New Zealand. This approach is one that strengthens the focus on achieving specified employment outcomes, and provides support to this process through increased programme and funding flexibility. This involves, in the medium term, the development of a series of small pilots that will test issues around:

- appropriate target groups for the initiative;
- specification of outcomes that should be achieved;
- costs to the department of specific groups for a set period as a basis for setting a “price”; and
- funding formulae and accountability frameworks that are appropriate to the local delivery environment.

54. If the pilots are successful, they could inform the development of an outcomes based approach in relation to the department’s mainstream delivery of employment programmes. There may also be potential in the longer term for extending this approach to other core services.

55. In some regions, the department has been contracting for services with pay for performance based on achieving the desired outcome. Third-party providers are paid an up-front fee for service, but the bulk of the payment comes later when the customer finds and remains in a job. For example, the provider may get a fee upfront, an incentive or performance payments when the customer gets a job, a further payment if the customer stays in the job for 13 weeks, and a further payment when the customer has stayed in the job for 26 weeks. Research suggests that after 6 months or so, the relationship between the employee and employer assumes greater importance than the relationship between case manager/trainer and customer.

56. There have also been some contracts where providers receive no upfront fee, but are paid only performance payments as the customer successfully finds and remains in a job.

Future directions

57. In line with the aim of devolving responsibility for choosing programmes to the most appropriate level, the department is looking at developing the use of outcomes based funding contracts further. One option is to contract out case management services to local providers. Contracts could focus on the outcomes to be achieved, without limiting the programmes that the funding could be used for. The department would specify an outcome or a hierarchy of outcomes such as:

- The client is placed in stable unsubsidised employment.
- The client has been placed in stable employment for three months.
- The client is in unsubsidised employment.
- The client is in subsidised employment.

58. The provider would be paid as the client achieved each of those outcomes and so funding would not follow programmes, but individual clients. Contestability should see a culture of continuous improvement develop so that the funding goes to the most effective providers and programmes.

59. An outcomes based funding approach will only be effective, however, when:
- There is a clear statement of the desired outcome;
 - Providers have the capability to manage service delivery on an outcome based funding model;
 - Outcome payment is targeted to client risk and need, so that providers are not incentivised to concentrate on short-term temporary unemployed who could find jobs by themselves;
 - There are incentives to ensure that the provider has an interest in the person remaining in the job for a certain period; and
 - There is sufficient demand in the job market.

Evaluation

60. The goal of funding employment assistance on an outcomes basis is to reduce the persistence and incidence of unemployment. Short-term unemployed pose far fewer costs to society than a core of long-term unemployed, who are likely to be the hardest to get into jobs. As a result work is underway to develop better tools to assess risk.

61. An evaluation of the success of the outcomes funding model will need to focus on success at reducing the rate of persistent unemployment among the pilot groups.

Comments

62. It is possible to contract for these services and measure aspects of performance on an outcomes basis. The accountability issues are more complex in an outcomes based approach and require robust measures and monitoring of performance against outcomes. There are risks of providers under-performing or undertaking undesirable activities that are not picked up by an outcomes based performance framework.

63. In order to fund on an outcomes basis though, robust prices are needed to ensure both that the Government is getting value for money and that providers (many of which are not-for-profits) remain viable. In running the pilots, the department will need to determine the cost of specific target groups for specific periods as a basis for setting the “price”. The report collects historical data on length of benefit receipt of its clients, and this can be accessed for particular groups.

Example 3:

Road Safety Strategy (Land Transport Safety Authority, lead)

Context

64. The National Road Safety Committee has recently released “Road Safety Strategy 2010”. The strategy outlines options for reducing the social cost of crashes on New Zealand’s roads, and seeks public feedback on which option to choose.

65. The previous road safety plan - *National Road Safety 1995* - aimed to achieve a level of road safety equivalent to the safest countries in the world. The updated plan has a more

modest target. The goal is to achieve current (i.e. 2000) world's best practice by 2010. At present, New Zealand has around twice as many deaths per 100 000 persons and deaths per 10 000 vehicles as the safest countries in the world.

66. There are three interesting aspects of this work from the perspective of outcomes focussed management. One is the manner in which the actual outcomes targets will be set. The second is how these targets are translated into interventions at minimum cost. The third is how people are held accountable for achieving the targets.

Setting the Targets

67. As noted above, the overall outcome goal is to achieve current world's best practice by 2010. This high level goal, measured in terms of social cost is built upon a hierarchy of targets. Social cost is underpinned by final outcome targets such as the road death toll (target 2010 = 295). Beneath this are intermediate outcome targets - targets like proportion of drunk drivers, the average speeds on various types of roads. Underneath these are output targets such as the number of police traffic patrols, the number of anti-drink driving or anti-speeding advertisements shown or the number of passing lanes. Some of the targets can also be broken down by region and by road user groups - cyclists, pedestrians and older drivers for example.

68. The targets are set using a mathematical model that predicts road safety outcomes. The model is built upon a set of assumptions derived from a wealth of historical crash and roading information. This snapshot of New Zealand road safety is the base from which a set of mathematical functions predict how various interventions and other factors should affect road safety outcomes.

69. For each of around 12000 categories of casualty type, the current outcome is taken from the historical datasets. The current outcome is then adjusted to a 2010 baseline level. This adjusted baseline takes account of factors outside road safety agencies' control such as increased traffic volumes. The 2010 baseline outcome provides a benchmark against which predicted improvements can be measured.

70. Interventions are now added to the mix. For each of the 12000 casualty types, the predicted effectiveness of various interventions is calculated. The calculation is based both on the rate of effectiveness for an intervention, and the number of times the intervention is used. Thus we are left with predictions of how using specified amounts of specified interventions would affect the road safety outcomes for each category of casualty type. These results can then be aggregated to produce a full picture of how a mix of interventions can be expected to affect road safety outcomes.

71. The mix of interventions can also be costed to give a robust cost-benefit ratio for any given mix of interventions. Officials are still working to determine appropriate costings for different interventions.

72. Thus policy makers and decision makers have relatively good ex ante information, based on historical data and transparent assumptions, on which to base decisions on future interventions. The information can also be used to set targets. For example, the predictive model may suggest that an extremely costly set of interventions is likely to produce the lowest absolute reduction in the social cost of accidents. An intervention mix such as lowering the open speed limit to 20km/h and policing it strictly would probably lower the social cost of

accidents near to zero. However, given the total costs this poses on society, this is unlikely to be a viable option. Hence a target based on that intervention set is unlikely to be a credible one.

Choosing Interventions

73. When the public consultation process is completed, Ministers will choose the targets. They can then use the cost/benefit information to determine which interventions are most likely to achieve the desired road safety outcomes at least cost. Throughout the life of the strategy, the outcomes predicted by the model can be tested against the outcomes actually achieved and the intervention mix can be altered accordingly. Thus a feedback and evaluation loop is effectively in place. New data will also help modellers refine the functions that predict how interventions affect outcomes.

Accountability

74. These outcomes are the result of the outputs of a group of agencies, especially the road safety agencies and the Police. The aim is for the National Road Safety Committee to take collective responsibility for the overall achievement of the social cost and final outcomes targets. Outcomes performance monitoring will continue on a quarterly basis with annual reviews, while formal reviews will be held every three years.

75. It is likely that the Land Transport Safety Authority, as the lead agency, will continue to be held accountable for these final outcomes, as in its current performance agreement. However, individual agency accountabilities will be more clearly specified within the performance management framework set out by the final strategy.

76. The envisaged accountability arrangements will 'bite' harder than the current ones because they are based on a more rigorous and transparent analytical base. Certain difficulties associated with linking specific outputs to final outcomes will not disappear, but performance expectations will be more clearly defined and tracked across the full suite of road environment, vehicle and road user interventions. Regular review and ex post evaluations will sustain the outcomes focus. Specific output targets will highlight key agency implementation accountabilities.

Example Four:

New Zealand Biodiversity Strategy (Department of Conservation, lead)

Context

77. The New Zealand Biodiversity Strategy (NZBS) was released in March 2000 and aims to halt the decline of New Zealand's indigenous biodiversity. The strategy has a 20-year timeframe and establishes a framework of goals, objectives and actions that are required to halt the decline. Priority actions have been identified and are currently being implemented that will lead to the greatest gains in biodiversity in the next five years. The strategy covers terrestrial, freshwater and marine biodiversity. A key feature of the strategy is that it does not focus solely on biodiversity on the Crown owned Conservation estate, but seeks to halt the decline in biodiversity nationwide, including on private property. Partnerships are needed to ensure that the strategy is successful, allowing the participation of

all New Zealanders, not just Central Government. Other key participants are Local Government, the private sector, iwi and local communities.

78. The strategy includes a wide range of initiatives. Some are designed to halt the decline in biodiversity, while others, such as information gathering programmes, are to ensure that outcomes can be measured. The strategy is still at an early stage, so reporting on outcomes in relation to the strategic goals in the strategy is some years off. The major report after the first year (in October 2001) will focus on auditing the implementation of the priority actions in the strategy. The report after the second year will include some preliminary intermediate outcomes related directly to those actions (e.g. number of possums killed). Only after the third year will there be reporting against outcomes relating to the strategic goals in the strategy (e.g. reduction in rate of deforestation, change in number of key species).

Outcomes Measures in the Strategy

79. Outcomes measures and targets are used in the strategy to determine priorities for funding, and to determine the effectiveness of interventions. There is a wide variety of projects, some involving information gathering for monitoring and evaluation purposes. Outcome measures have been developed for some programmes and are still being developed for others. Nevertheless, it is useful to give some examples.

Offshore Island Eradications

80. New Zealand has a number of off-shore islands that are sanctuaries for protected species. A project is underway to eradicate pests or to manage them at sustainable levels so that they do not pose a threat to each of the islands' unique environment. This involves both eradicating pests, and ensuring that they do not come back. The key intermediate outcome measure for these projects is the presence or absence of target pests on the islands two years after the operation is completed. This is measured by sophisticated trapping and monitoring programmes. Longer term, the desired outcome is to halt the decline of biodiversity, by ensuring the protection and recovery of at risk species.

Increasing Protected Areas on Private Land

81. The goal of this programme is to purchase, or support the effective management of, private lands with high biodiversity values. The programme aims to apply increased funding to existing mechanisms to ensure that a wider range of natural habitats and ecosystems are protected. Results will be measured using ecological criteria and other appropriate measures. Longer-term measures for assessing the contribution of the programme to the goals in the strategy are still being developed.

Terrestrial and Freshwater Biodiversity Information System

82. The aim of this project is to develop awareness of and access to existing information, as well as gathering and providing new information. The intermediate outcome is to have developed systems for gathering and accessing information, to improve knowledge about biodiversity and to increase public awareness about the state of New Zealand's biodiversity.

83. Initial targets are focussed on the development of appropriate systems to collect, manage and disseminate the information. Longer term targets are still being developed.

Using the Measures

84. The primary purposes of collecting the outcomes information is to increase our understanding of New Zealand's biodiversity and to halt the decline of indigenous biodiversity. The information will be used to assess the effectiveness of various projects, and to determine priorities. It can inform both what the desired outcomes should be and how they should change across time, and which interventions should be used to achieve those outcomes. Measuring the extent to which the desired outcomes have been achieved is also a useful information base for evaluating the overall success of the strategy from a process perspective.

85. The 20 year strategy has a funding plan for the first five years. Reprioritisation can begin when outcome results start to emerge. A major review after five years will assess success and direct new funding to highest priorities.

Accountability

86. As is usual practice in the New Zealand public service, managers are held accountable for managing the particular programmes. This can include assessing their success at managing risks that arise, including outcome risks.

87. The overall strategy is the responsibility of a Ministerial Group responsible for implementing the New Zealand Biodiversity Strategy. This Group is supported by a Central Government Coordinating Group of Chief Executives of the relevant agencies. Accountability for the overall management of the strategy is being bedded down through separate agency's purchase and Chief Executive performance agreements.

Example Five:

Maori Education Strategy (Ministry of Education)

Context

88. One of the Government's key priorities is to reduce the inequalities in society, particularly in relation to the inequalities between Maori and Pacific peoples on the one hand and the rest of the population on the other. Maori and Pacific peoples as a group fare worse, on average, than the population as a whole. A co-ordinated effort is underway to reduce these disparities and to ensure that all New Zealanders have the opportunity to participate fully in society.

89. Three areas, in particular, are being targeted: education, employment and health. Outcome measures and targets have been developed for all of them. The nature of the social inequalities means however that a long-term timeframe is required to see if the desired outcomes are

achieved. Significant educational outcomes especially can only be assessed after 10 or even 15 years of the intervention.

90. This paper focuses on the definition, measurement and use of education outcomes within the Maori education strategy.

Reducing Education Inequalities

91. It is well recognised that educational achievement is a key determinant of achievement later in life. As a result, much of the early focus has been on improving Maori educational performance.

92. The outcome indicators developed do not cover the whole ambit of the education system. Instead, a set of key indicators has been chosen, which research suggests are the best indicators of ongoing improvement and success in Maori educational achievement and reducing inequalities between Maori and non-Maori.

93. The desired outcomes are broken down into participation and achievement goals for early childhood, school and tertiary education. Some of the outcomes, and indicators for them, are outlined below:

Early Childhood Education

Goal	Measure	Target
Increase Maori participation in early childhood education	Percentage of Maori aged 0-4 enrolled	65% by 2006

This target was set by comparison with the rate of participation among non-Maori.

School Education

Goal	Measure	Target
Increase rate of Maori participation in school education	Rate of Maori suspensions per 1000 students	Reduce rate to 5 per 1000 by 2008 and to 3 per 1000 by 2016
Increase the achievement rate of Maori students in senior secondary education	Rate of achievement of A, B and C grades in School Certificate and University Bursary	Increase by 12% by 2010 and to parity by 2020

These goals are derived from the non-Maori participation and achievement rates.

Tertiary Education

Goal	Measure	Target
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Increase participation of Maori students in tertiary education	Percentage of students who are Maori	13.8% by 2002, up to 16.7% by 2006
Increase achievement of Maori students in tertiary education	Percentage of graduates who are Maori	15.1% by 2002, up to 18.2% by 2006

Using the Outcome Measures

94. A variety of products have been developed in addition to the goals, measures and targets. In particular there are regular monitoring reports, which assess progress across the board, and evaluation reports, which assess the effectiveness of specific programmes.

95. Each goal is supported by a strategy to achieve it. For example, alongside the goal to increase Maori participation in early childhood education are a number of strategies including:

- examining ways of removing barriers,
- promoting the benefits of early childhood education; and
- expanding the availability of early childhood services.

96. Progress against the goal will be informative, but will not indicate which interventions are effective and which are not. Across time, it will become apparent where progress is being made and where continued efforts should be focused, but the outcome indicators will not show which interventions offer value for money. Hence, evaluation of programmes is critical at the micro level of resource allocation as well as the policy development and planning stages of the cycle. The goal is to ensure that budget decisions and intervention decisions are based on outcome information.

Accountability

97. The outcome goals and targets in the Maori education strategy have considerable political buy-in. Although the eventual goals are often long-term ones, achievable 2-3 year intermediate goals have been included. This enables Ministers to focus on delivering tangible results within the electoral cycle.

98. At a departmental level, departments are required to report in their annual reports on their effectiveness in reducing inequalities. The annual report needs to include information on amount of expenditure spent reducing inequalities, and information on the effectiveness of that expenditure. In addition, departmental material is aggregated into a whole of Government report, which is audited and tabled in the house.

Section 3: Terminology

Outcomes - The Public Finance Act (1989) states:

“Outcomes” means the impacts on, or the consequences for, the community of the outputs or activities of the Government.

Judgments about outcomes depend upon judgments about causal relationships between interventions and the final results.

Outputs - The Public Finance Act (1989) states:

“Outputs” means the goods or services that are produced by a department, Crown entity, Office of Parliament, or other person or body.

For an output to be meaningful as an accountability tool it must be described in ways that enable the producer of the output to be held to account for its delivery. To this end output performance measures have traditionally been thought of in terms of quality, quantity, timeliness and cost. More sophisticated measures of output quality may well make reference to the outcomes the output contributes to. In some cases it may be possible to incorporate genuine outcome indicators, which matter for accountability purposes, as output quality measures. Better specified outputs will also reflect those things which managers can genuinely be held accountable for, including outcome and co-ordination risk management.

Government can also intervene via other activities such as regulation, funding, making grants, or investing.

States of the world

States of the world information is a snapshot of the way the world is. It is basic statistical information that is independent of causal judgments about the relationship between intervention and the world.

Evaluation

An evaluation is a systematic, evidential assessment of a programme or features of it. In the outcomes context, we are generally interested in *impact evaluation* - a systematic attempt to measure the impact of an intervention on the desired outcome.

Accountability

Accountability is a function of a relationship between two parties whereby one party confers a power on the other subject to a condition that the party receiving the power must account as specified for its possession and use.

Section 4: Useful Literature

New Zealand websites:

www.treasury.govt.nz - Treasury website contains general information on public management and budget management

www.ssc.govt.nz - State Services Commission website contains general information on public management

www.dpmc.govt.nz - Department of Prime Minister and Cabinet website contains statement of Key Government Goals

www.mfe.govt.nz - Ministry for the Environment website contains environmental performance indicators

www.ltsa.govt.nz - Land Transport Safety Authority website contains a link to road safety strategy, including outcome measures

Other sources:

Ian Ball. *Outcome Specification*: Paper presented at the 1992 Public Sector Convention, Wellington.

Department of Corrections. *Annual Report 2000*: Wellington, 2000.

National Road Safety Committee. *Road Safety Strategy 2010*: Wellington, 2000.

Graham Scott, Peter Bushnell and Nikitin Sallee. *Reform of the Core Public Sector: New Zealand Experience*: Governance, Volume 3, Number 2, April 1990 pp. 138-167.

Most of this material is sourced from Cabinet papers, internal policy discussion documents and private discussions.

Appendix:

Key Government Goals to Guide Public Sector Policy and Performance

- **Strengthen National Identity and Uphold the Principles of the Treaty of Waitangi**
Celebrate our identity in the world as people who support and defend freedom and fairness, who enjoy arts, music, movement and sport, and who value our cultural heritage; and resolve at all times to endeavour to uphold the principles of the Treaty of Waitangi;
- **Grow an Inclusive, Innovative Economy for the Benefit of All**
Develop an economy that adapts to change, provides opportunities and increases employment, and while closing the gaps, increases incomes for all New Zealanders.
- **Restore Trust in Government and Provide Strong Social Services**
Restore trust in government by working in partnerships with communities, providing strong social services for all, building safe communities and promoting community development, keeping faith with the electorate, working constructively in Parliament and promoting a strong and effective public service.
- **Improve New Zealanders' skills**
Foster education and training to enhance and improve the nation's skills so that all New Zealanders have the best possible future in a changing world.
- **Close the gaps for Maori and Pacific People in Health, Education, Employment and Housing**
Support and strengthen the capacity of Maori and Pacific Island communities, particularly through education, better health, housing and employment, and better co-ordination of strategies across sectors, so that we may reduce the gaps that currently divide our society and offer a good future for all.
- **Protect and Enhance the Environment**
Treasure and nurture our environment with protection for eco-systems so that New Zealand maintains a clean, green environment and rebuilds our reputation as a world leader in environmental issues.