Evaluation

Suddenly, a heated exchange took place between the king and the moat contractor.
Agenda

• What is evaluation?
• Forms
• Approaches
• Methods
• Building evaluation capacity
About you...

What do you want to evaluate (or monitor)?

Why?

Who will use the results?

How?

What do you want to get out of today’s session?
Before we go any further...

When I talk about ‘Program’ today, what I say is usually applicable to projects and processes, and often applicable to policy and organisations.
Evaluation is applied inquiry…

using evidence
to draw conclusions
about the
current situation
worth merit
significance
quality

of a
program project process
policy organisation
Evaluation is different to research
Evaluation is different to research
Approaches

- Needs Analysis (needs-based evaluation)
- Appreciative Inquiry & Action Research
- Utilization-focused Evaluation
- Realistic Evaluation
- Empowerment Evaluation
- Participatory Evaluation
- Goal-free Evaluation
- Developmental Evaluation
- Transformative Evaluation
Evaluation

“what works, for whom and in what contexts”

Ray Pawson
Why evaluate?

• The Government says so?
• The boss went to a seminar?
Why evaluate?

- Assess likelihood of success.
- Identify implementation issues.
- Demonstrate results.
- Understand causation.
- Decide design vs implementation contributions.
- Inform future resource allocation.
- Re-think situation, identify emerging issues.
- Drive improvement.
Why evaluate?

• Right choice of project or program.
• Right use of money.
• Right results.
• Best value for money.
Evaluation purposes

- Summative
- Formative
Forms

• Proactive – identifying the issues
• Clarificative – deciding on the intervention
• Interactive – improving implementation
• Monitoring – managing for accountability
• Impact – assessing results

Proactive Evaluation - identifying issues

**Orientation**
- Synthesis

**Focus**
- Context

**Timing**
- Before program

**Approaches**
- Needs assessment
- Research synthesis
- Project feasibility

**Key questions**
- What do we know?
- What are the needs?
- Should there be a program?/What kind?

Owen (2006)
Proactive Evaluation

• Assumption: what is already known should influence action.
• Typical issues:
  – Is there a need for the programme or project?
  – What do we know about the problem being addressed?
  – What is recognised as best practice?
  – Have there been other attempts to find solutions to this problem?
  – What does the relevant research or accepted body of knowledge tell us about this problem?
Clarificative – deciding the intervention

Orientation
Clarification

Focus
All program elements

Timing
Before program (sometimes during)

Approaches
Program logic mapping
Evaluability assessment
Project appraisal

Key questions
What are the intended results and how will they be achieved by the program/project?
Which aspects can be monitored and evaluated?
Clarificative Evaluation

• Assumption: program rationale and design needs to be laid out
• Typical issues:
  – What are the intended outcomes and how was the programme or project designed to achieve them?
  – What is the underlying rationale for this programme or project?
  – What program elements need to be modified to maximise intended outcomes?
  – Is the program plausible?
  – Which aspects of the program are amenable to subsequent monitoring or impact assessment?
Interactive – improving implementation

Orientation
Improvement

Focus
Implementation

Timing
During program delivery

Approaches
Action research
Quality review
Developmental evaluation

Key questions
How is delivery going?
How could delivery be changed to make it more effective?
How could the organisation, system or processes be changed to be more effective?

www.acig.com.au

Owen (2006)
Monitoring

Orientation
  Program Management / Accountability

Focus
  Implementation and results

Timing
  During program delivery

Approaches
  Performance management

Key questions
  Is the program reaching the target population?
  Is implementation meeting benchmarks and milestones for deliverables, timing, costs?
  How can we fine-tune the program or project to make it more efficient or more effective?
  Is there a program site which needs attention to ensure more effective delivery?
Impact evaluation

Orientation
- Accountability / Learning

Focus
- Outcomes

Timing
- After program

Approaches
- Objectives-based
- Realistic
- Experimental & quasi-experimental designs

Key questions
- Was the program implemented as planned?
- What outcomes were achieved? To what extent can they be attributed to the program?
- How cost-effective was the program?

Owen (2006)
Multiple outcomes
Multiple outcomes
Multiple outcomes
Multiple outcomes
‘Theory’ as a basis for evaluation design

Causation analysis

Program logic

‘Purposeful program theory’
Theory of Change/Theory of Action

- Theory of Change is the underlying logic of how cause–effect works in the focus area: “if we do this, then that will happen...”
- Often tacit knowledge & may be based on assumptions or ideas unsupported by evidence.
- Theory of Action is the explicit program logic: “in this program, when we do this, we expect that to happen...”
- Need to consider assumptions and risks.

www.acig.com.au
Identifying logic flaws & evaluability
Program logic models

- A logic model is a representation of the linkages between design elements – a picture of how a program is intended to work.
- Useful monitoring and evaluation frameworks depend on a clear understanding of the underlying logic.
The scope of Monitoring

Policy & Plans → Inputs → Programs, Projects, Initiatives → Outputs → Results

- Short term outcomes
- Medium term outcomes
- Long term impact
The scope of Evaluation

- Policy
- Strategies & Plans
- Inputs
- Programs, Projects, Initiatives
- Outputs
- Results
  - Short term outcomes
  - Medium term outcomes
  - Long term impact

Assumptions & Risks

External Factors: Context

Evaluation
<table>
<thead>
<tr>
<th></th>
<th>Monitoring</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Tells you whether things are going right or wrong.</td>
<td>Tells you why things are right or wrong.</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Continuous/Intermittent.</td>
<td>Episodic.</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td>Indicators – KPIs (strategic) &amp; KPMs (project); assess against targets.</td>
<td>Mixed methods (quantitative &amp; qualitative); assess Relevance, Efficiency, Effectiveness, Sustainability, Improvement.</td>
</tr>
<tr>
<td><strong>Resourcing</strong></td>
<td>Mostly internally.</td>
<td>Mix of internal and external resources.</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>Relatively inexpensive.</td>
<td>Relatively expensive.</td>
</tr>
</tbody>
</table>

www.acig.com.au

34
Evaluation

Policy → Strategy & Plans → Inputs → Programs, Projects, Processes → Outputs → Results

Evidence:
- Documents & Literature
- Quantitative data
  - KPI data
  - Surveys
  - Market data
- Qualitative data
  - Interviews
  - Surveys
  - Observations
  - Market intelligence

www.acig.com.au
Evidence

“synthesized empirical knowledge that can be understood and used by practitioners”

William Trochim

www.acig.com.au
### Evidence

<table>
<thead>
<tr>
<th>Crazy Phenomenon</th>
<th>If it worked, companies would be using it to make a killing in...</th>
<th>Are they?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Viewing</td>
<td>Oil Prospecting</td>
<td></td>
</tr>
<tr>
<td>Dowsing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auras</td>
<td>Health Care Cost Reduction</td>
<td></td>
</tr>
<tr>
<td>Homeopathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote Prayer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astrology</td>
<td>Financial/Business Planning</td>
<td></td>
</tr>
<tr>
<td>Tarot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crystal Energy</td>
<td>Regular Energy</td>
<td></td>
</tr>
<tr>
<td>Curses, Hexes</td>
<td>The Military</td>
<td></td>
</tr>
<tr>
<td>Relativity</td>
<td>GPS Devices</td>
<td>✓</td>
</tr>
<tr>
<td>Quantum Electrodynamics</td>
<td>Semiconductor Circuit Design</td>
<td>✓</td>
</tr>
</tbody>
</table>
Evidence-based…

• ... medicine
• ... education
• ... policy
• ... practice
• ... research
• ... management
• ... life, the universe & everything?

‘Evidence-informed’?
‘... while there appears to be strong consensus that evidence is our “magic bullet”, there ironically appears to be much less agreement, even heated disagreements, about what counts as evidence.’

Stewart Donaldson

What Constitutes Credible Evidence in Applied Research and Evaluation Practice
Donaldson, Christie & Mark (Eds.) Sage 2009

www.acig.com.au
Methods

“Method is always the servant of substance, never the master”

J.C. Greene
Quantitative
Qualitative
Data Collection Methods

- Conversation with concerned individuals
- Community interviews
- Field visits
- Reviews of official records
- Key informant interviews
- Participant observation
- Focus group interviews
- Direct observation
- Questionnaires
- One-time survey
- Panel surveys
- Census
- Field experiments

Informal & less structured  |  Formal & more structured


www.acig.com.au
Performance Measurement

Assembly and use of information for:

• Accountability – reporting up and out.
• Managing – improving performance and results.

Measurement for monitoring

• Quantitative indicators, to tell what outputs and results were achieved.
• Qualitative information and a narrative of what happened, to explain the situation.
• Interpretation of all the information.
• Recommendations for the future.
Performance Measurement

A data based means of measuring both outputs and outcomes with the intention to monitor the progress of an ‘object’ of interest to management. (Wholey)

Objects may be:
  i. policies,
  ii. programs,
  iii. processes,
  iv. projects, or
  v. organisations.

Separation of cause and effect: performance measurement measures effects, managers make implementation changes.
Performance Measurement

Aspects to measure
- Quantity
- Cost
- Quality
- Timeliness
- Accessibility
- Equity
- Customer satisfaction

Types of data
- Quantitative
- Qualitative
Performance Measurement

• “What gets measured gets done.”
• “What you can’t measure you can’t control.”
• Supports accountability and demonstrates contribution.
• Supports learning and improvement.
Performance Measurement

- Simple in concept, difficult in practice.
- Indicators may be badly chosen or defined.
- Often assumes attribution linkages – is face validity enough?

"Norman, please - just tell us, are we doing good or are we doing bad?"
For Management & Improvement

Integrate measurement and reporting to:
• check progress towards defined objectives;
• better understand causation;
• improve decision-making; and
• drive change.
Performance Measurement Pain

- Goal displacement
- Data gaming
- Perverse incentives
- Ambiguity
- Weak data methods
- Measuring what’s easy to measure
- Waste
Performance Measurement Pleasures

Successful uses to:

• learn (about unit’s performance);
• motivate (staff);
• control (check what is done);
• celebrate (achievements);
• check (budgets);
• report (up and out);
• change (structures, programs and processes).
Contributions to Management Decision-making

- Data based evidence is one source (performance measurement and evaluation).
- How does performance measurement compare with other sources of information for decision-making?
- What sources of information do you use in making decisions?
What has been learnt

• Performance management systems have often been mandated by governments but have seldom achieved expected results.
• The requirements of performance measurement for accountability are not the same as those for management and improvement.
• The ‘ideal’ performance measurement system is a destination never reached.
• Judge by utilisation: better usable today than perfect tomorrow.
Responding to outcome indicator data

- Outcomes monitoring is less common than outputs monitoring.
- Frequency of monitoring outcomes relates to management’s capacity to modify the operation.
- Ability to modify operation depends on the nature of the project or program, the service offered, and the nature of the outcome being measured.
Western Ring Road

- First five years operation: 669 casualty accidents, 9 deaths.
- $20 million modification package:
  - safety barriers;
  - fixed speed cameras;
  - variable speed limits and use of advanced technology (Intelligent Transport Systems);
  - bridge widening;
  - exit ramp and intersection modifications.
Steps in a typical program evaluation

**Plan**
- Review documents, research literature
- Consult key stakeholders,
- Draft program logic model, evaluation framework
- Draft key evaluation questions
- Determine data sources

**Collect data**
- Interview &/or survey stakeholders, program ‘owners’, delivery personnel, beneficiaries /clients, etc.
- Collect performance data
- Analyse qualitative and quantitative data
- Synthesise findings & recommendations
- Present initial findings

**Report**
- Draft report
- Final report
Purposes of evaluation

• To assess relevance, design and implementation.
• To determine outcomes and impact:
  – effects on financial, economic, social and environmental indicators;
  – including both intended and unintended impacts.
• To assess sustainability:
  – are achievements sustainable into the future?
• To learn for the future:
  – alternatives to consider
  – lessons learnt
Planning an evaluation

• The subject ("evaluand")
• Purpose
• Clients & audiences
• Resources
• Key questions
• Data strategy
• Dissemination
• Ethics
• Budget & timetable
Planning an evaluation

• Specify what is to be evaluated:
  – Nature: program, project, policy, service...
  – Focus: specific scope & boundaries for the evaluation.

• Clarify the purpose of the evaluation.
  – Why is the evaluation being done?

• Define clients & audiences for the evaluation.
  – Who has commissioned the evaluation?
  – Who will receive and use the information?

• Determine resources to be allocated to the evaluation.
  – What personnel, funds, materials are available for the evaluation?
Planning an evaluation

• Key questions to be answered by the evaluation.
  – To what extent does...? 
  – Is there...? 
  – In what ways does...? 

• Evidence collection and data management strategy.
  – What evidence is important? 
  – How will data be collected? 
  – Is sampling an issue? 
  – What is known from other sources? 
  – How will data be analysed to answer the key evaluation questions?
Planning an evaluation

• Dissemination of findings & report.
  – What strategies will be used for reporting to the client and key audiences?
  – When will reporting be done?
  – What kinds of information will be included – e.g. findings, conclusions, recommendations?

• Ethical considerations.
  – Applicable codes of behaviour and ethical standards?
  – What ethical clearances will be required?

• Budget & timetable.
  – Given the budget and work plan, what will be available at various stages of the evaluation (milestone outputs)?
Designing an Evaluation

- During project identification and preparation
  - Determine whether to carry out an evaluation
  - Clarify the objectives of the evaluation
  - Investigate data availability
  - Select the evaluation method
  - Form the evaluation team
  - If data collection is needed, then
    - design and select samples
    - develop questionnaires
    - staff and train for fieldwork
    - pretest survey
- During and after project implementation
  - Conduct baseline and repeat surveys
  - Analyze data
  - Report the findings and discuss with stakeholders
  - Incorporate the findings in future project design
### Evaluation criteria - REEIS

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relevance</strong></td>
<td>A measure of whether a program is suitable, in terms of working in its given context and likelihood of achieving its desired effect.</td>
</tr>
<tr>
<td><strong>Effectiveness</strong></td>
<td>The extent to which the program’s objectives have been achieved, or are expected to be achieved, taking into account their relative importance.</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>A measure of how economically resources or inputs (funds, people’s expertise, time, etc.) are converted to results.</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td>Longer-term effects, positive and negative, intended or unintended, produced directly or indirectly by a program, particularly at a structural or systemic level.</td>
</tr>
<tr>
<td><strong>Sustainability</strong></td>
<td>The likelihood that a program’s benefits can be sustained into the future.</td>
</tr>
</tbody>
</table>
Resources

“Good, quick, cheap... Pick two.”
Impact Evaluation: analyzing the effects of a program

• Analysis is required to reveal the ‘true’ effects of a program or project.
• Comparison of:
  – “before” against “after”
  – “achieved” against “target”
  – “with program” against “without program”.
• Two types:
  – Quantitative
  – Qualitative
Before/After

<table>
<thead>
<tr>
<th>Time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program implementation</td>
<td></td>
</tr>
<tr>
<td>Life of program outputs</td>
<td>67</td>
</tr>
</tbody>
</table>

Difference
The “counterfactual”

- Program implementation
- Life of outputs
- "with program" group
- "without program" group
- Difference due to program
- Difference due to other factors

68
Effect of other factors

<table>
<thead>
<tr>
<th>Program implementation</th>
<th>Life of outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference due to program</td>
<td>Difference due to other factors</td>
</tr>
</tbody>
</table>

Results

Time
Comparison groups may start from different baselines

\[
\text{Difference due to program} = D_2 - D_1
\]
Quantitative methods

- Random experiment design
- Quasi-experimental design
- Non-experimental design
Qualitative analysis

• Many important impacts may not be easily quantifiable, or may be better assessed qualitatively.
• Qualitative information adds depth of understanding to the quantitative data.
• Includes:
  – observation
  – structured interviews
  – surveys (qualitative questions)
  – focus groups
  – diaries and self-reports
  – expert judgment
Qualitative Impact Evaluation

- Does not use counterfactual analysis.
- Draws inferences from studies using qualitative methods such as process reviews, interviews, surveys, and analysis of secondary data.
- Although not as rigorous as quantitative methods, often provides useful information.
- Many in-depth evaluations use qualitative methods to enhance quantitative findings by filling in knowledge of complex situations in the field, i.e. context.
Impact evaluation debates

• “Qual–Quant” (eighties)
• Evidence-based practice, clearinghouses & meta-studies (nineties, current)
• RCT as the “gold standard” vs non-experimental methods (noughties)
• Quantitative analysis often seen as more authoritative but requires more effort and rigor, = time and money. Not always possible in social programs.
• Qualitative analysis supplements and strengthens evaluations even when quantitative data is available.
Performance Audit Evaluations

Performance Audit Evaluations

The Audit Office of NSW 2006.

Heavy patching
Edge break
Rutting
Cracking and pothole repairs

Heavy patching
Edge break
Rutting
Cracking and pothole repairs

The Audit Office of NSW 2006.
London Millennium Dome

• “Visionary” project.
• Delivered within budget, on time, technologically impressive.
• Operated 1 year: 4.5 million visitors, compared to forecast 12 million.
• Success?
• £250 million public subsidy.
• £190,000 per month maintenance and security while closed and unused (1/2001-7/2007).
• Political scandal.
• Major re-development to make it re-usable for different purposes.
• No clear objectives, no clear measurable results or benefits. But some usefulness realised ten years on.
• Success?
M7 Expressway, Sydney, Australia

- Economic benefits measured by independent studies.
- Benefits being achieved even before expressway opened:
  - factories built
  - commercial centres opened
  - jobs created
Best Start Evaluation

- Large program evaluation.
- Complicated program, many partners.
- Mixed methods.
- Rated successful.

www.beststart.vic.gov.au
Hebei Expressway & Local Roads Evaluation

- Logic model
- Field data collection
- Reporting
- Conclusions
# Program Logic

<table>
<thead>
<tr>
<th>Design Summary</th>
<th>Indicators and Targets</th>
<th>Data sources / Reporting Mechanisms</th>
</tr>
</thead>
</table>
| **Impact**  
Per capita incomes in nine designated poverty counties Increase to above the poverty threshold (CNY1,100) by 2005. | Social survey by Operations Evaluation Mission (OEM) and data from Hebei Provincial Communications Department (HPCD). |
| **Outcome**  
1. Improved road infrastructure through the provision of increased capacity for more efficient and safer movement of freight and passengers. | Average travel speed on major routes at peak times increase from 40 kilometers per hour (kph) to 60 kph  
Decrease in deaths per 10,000 vehicle-km travelled by at least 10% by 2005.  
Reduced traffic congestion on existing roads (230 km), as indicated by annual average daily traffic carried on existing roads (AADT) increased by about 30% by 2005.  
Delivery times for agricultural inputs and production within the project area reduced by at least 15% by 2003.  
International pavement roughness index (IRI) reduced to < 3 m/km.  
Improvement in efficiency of public expenditures on roads by at least 5% by 2003.  
Reorganization of Hebei Provincial Communications Department (HPCD) and computerization of expressway management and operational procedures by 2000. | Speed survey by OEM using GPS equipment  
Traffic Police Statistics  
Traffic data from HPCD and OEM traffic surveys.  
Average point-to-point travel times derived from traffic survey and HPCD data.  
Estimated by OEM ride survey – visual inspection & ride quality.  
HPCD budget data.  
HPCD |
| 2. Improved access to officially designated poverty counties and villages |  |  |
| 3. Build capacity in, and corporatize, expressway agencies |  |  |
Documentation review

- ADB project documents;
- The project feasibility study (1997, Hebei Communication Programming and Design Institute)
- The project post-evaluation study (2004, China Road Construction Consulting and Management Enterprise)
- Jing Hu Expressway socioeconomic evaluation paper (March, 2005, Hebei Social Academic Institute)
- Cangzhou poverty impact monitoring report (April, 2004, Hebei Social Academic Institute)
- Jing Hu Expressway resettlement monitoring report (Nov. 2003, Hebei Social Academic Institute)
- Project Income statement, Cash flow, Balance sheet (From 1998-2013, Jing Hu Expressway administration office)
- Organization structure (2006, Jing Hu Expressway administration office)
- Annual Traffic volume in the toll station (Expressway administration office)
- Hebei Year book (2005, Hebei Statistic Bureau)
Field data collection

- Vehicle traffic counts in 5 county connector roads;
- 60 questionnaire-based interviews of stakeholders in 9 villages about county connector road impacts;
- Measure the road roughness and inspect roads all through the expressway and the original road;
- Interview project feasibility study author;
- Interview the project operators (the head of the office, the head of finance, maintenance, regulation department, the head of one toll gate, a head of overloading issues department);
- Interview the project owner (the chief engineer of project office, the financial, planning and maintenance department of the project office, Hebei provincial communication department);
- Interview the government officers relating to the rural area development;
- Interview the experts of Hebei Social Academic Institute;
- Interview the county communication department;
- Interview the head of the village;
- Interview the teachers of one local primary school.
## Indicators and Targets

<table>
<thead>
<tr>
<th>Economic growth for impacted cities and counties during 2000–2010 meets government economic growth targets. Per capita incomes in nine designated poverty countiesIncreased to above the poverty threshold (CNY1,100) by 2005.</th>
<th>Economic growth observed but no targets were given at appraisal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita incomes in nine designated poverty counties Increase to above the poverty threshold (CNY1,100) by 2005.</td>
<td>Achieved. Per capita income in nine designated poverty counties rose from CNY212 in 1998 to CNY958.3 in 2004 (average compounded growth of 28.6% per annum).</td>
</tr>
<tr>
<td>Average travel speed on major routes at peak times increase from 40 kilometers per hour (kph) to 60 kph</td>
<td>Achieved. The average speed on G-104 was 40 kph compared with 60 kph after implementation of the expressway component. Traffic on the existing G-104 declined by about 30% due to diversion to the expressway. Thus traffic congestion was reduced.</td>
</tr>
<tr>
<td>Decrease in deaths per 10,000 vehicle-km travelled by at least 10% by 2005.</td>
<td>Achieved. Accident rate declined from 0.00140 per 10,000 veh-km in 2001 to 0.00048 in 2004.</td>
</tr>
<tr>
<td>Reduced traffic congestion on existing roads (230 km), as indicated by annual average daily traffic carried on existing roads (AADT) increased by about 30% by 2005. Delivery times for agricultural inputs and production within the project area reduced by at least 15% by 2003.</td>
<td>Achieved. Improvements in capacity of county connector roads by raising road class from Class IV to Class II, which in effect widens the road from 4 meters to 8 meters. Annual average daily traffic (AADT) increased at the rate of 34% per annum between 2001 and 2005 on the expressway. Travel times have been significantly reduced. For example, between Qingxian to Wuqiao &amp; Nanpi &amp; Haixing the trip time has been reduced by 50%.</td>
</tr>
<tr>
<td>International pavement roughness index (IRI) reduced to &lt; 3 m/km. Improvement in efficiency of public expenditures on roads by at least 5% by 2003.</td>
<td>Achieved. International Roughness Index (IRI) estimated at 2.0 m/km for expressway.</td>
</tr>
<tr>
<td>Reorganization of Hebei Provincial Communications Department (HPCD) and computerization of expressway management and operational procedures by 2000.</td>
<td>In 2005 the budget for maintenance on county connector roads was approximately CNY1.0 billion and the budget estimated for 2006 maintenance is CNY1.5 billion. This level of budget in terms of the length of road it has to maintain amounts to approximately CNY12,900 per km (about $1,600 per km). The budget for maintenance comes from contributions from the national Government, the city finance budget, and the county finance budget. Expressway agency is still not fully corporatized. HPCD has been reorganized and expressway management and operational procedures are computerized.</td>
</tr>
</tbody>
</table>
Evaluation basis

• Relevance:
  – expert review of documentation on project, government and lender’s strategies and priorities.

• Effectiveness:
  – data on achievement of primary purposes:
    • reducing vehicle operating costs (VOC)
    • reducing traffic congestion;
    • facilitating intercity traffic access;
    • reducing poverty in the project area.

• Efficiency:
  – data demonstrating efficiency:
    • Economic Internal rate of Return (EIRR).

• Sustainability
  – data demonstrating sustainability:
    • assessment of physical sustainability of the assets;
    • financial sustainability (revenues, re-estimated Financial Internal Rate of Return, FIRR);
    • adequacy of maintenance (current and planned).
Evaluation basis (continued)...

• Impact on institutions
  – qualitative assessment about:
    • Provincial Communications Department
    • Expressway Management Organization

• Resettlement impacts:
  – quantitative measures of resettlement and expert review of resettlement process, including monitoring.

• Socioeconomic impacts
  – measurement of economic growth in project-affected counties in comparison with a non-project area;
  – assessment of socioeconomic impacts including household income, quality of life, access to health, education, credit and other services, impact on agriculture and impact on women and minority people.
Report

- **Relevance:** the project was rated highly relevant.
  - All components of the project - expressway component, county connector roads, village roads, equipment, and institutional support were highly relevant.

- **Effectiveness:** the project was rated effective.
  - The primary purpose of improving transport efficiencies, reducing vehicle operating costs, relieving congestion along the existing road, facilitating access for intercity traffic, and reducing poverty in the project area was achieved.

- **Efficiency:** the project was rated as efficient.
  - EIRR and FIRR, significantly high and in line with those obtained at both appraisal and at the PCR.
  - The expressway and connector roads components are both rated efficient.

- **Sustainability:** the project was rated likely to be sustainable.
  - The assessment of sustainability considered both the financial resources as well as the institutional and human resources to maintain the outcomes of the project over its lifetime. The physical and financial sustainability of the expressway components of the expressway is high. The sufficient flow of funds generated from toll revenues can easily cover the operation and maintenance (O & M) and periodic/rehabilitation costs.

- **Overall:** the project was rated highly successful.
• Impact on institutions
  – The project has introduced institutional changes and enhanced capacity.
• Socioeconomic impacts
  – The expressway has provided a catalyst for major economic transformation in key growth centers and social development in the influence areas.
  – The connector and village roads are able to generate significant socioeconomic impacts by improving access for local communities in influence areas.
  – These have resulted in economic growth and increased incomes as well as social development.
• Environmental Impacts.
  – No significant environmental impacts.
Resources

Australasian Evaluation Society
www.aes.asn.au

American Evaluation Association
www.eval.org

Better Evaluation
www.betterevaluation.org
Authors to Follow Up

• Michael Patton
• Michael Scriven
• John Owen
• Sue Funnell & Pat Rogers
• Ray Pawson
• Jane Davidson
• Stewart Donaldson
• Shadish, Cook & Campbell
Questions?

Euan Lockie
Australian Continuous Improvement Group

euan@acig.com.au

www.acig.com.au