MEASURING RESULTS IS PARAMOUNT

If you do not measure results, you cannot tell success from failure;
If you cannot see success, you cannot reward it;
If you cannot reward success, you are probably rewarding failure;
If you cannot see success, you cannot learn from it;
If you cannot recognize failure, you cannot correct it;
If you can demonstrate results, you can win public support.

STATEMENT OF THE PROBLEM

An important source of evidence of achievements, evaluation should be a systematic and impartial assessment of a project, programme, sector or development process at the aggregate level; it should quantify accomplishments by examining the results chain, contextual factors and causality to assess outcomes; it should aim to determine interventions’ relevance, effectiveness, efficiency and sustainability; and it should contribute to knowledge-building and organizational learning. Evaluation is not independent of monitoring, a process of tracking or measuring performance more frequently, and auditing, which addresses financial accountability. Evaluation is necessarily evidence-based. This is the Cambodian Government’s position.

This paper is not about evolving yet another definition of evaluation. Instead, it examines various nuances that Cambodia (or any small developing country) faces in conducting M&E exercises for periodic reporting to senior management in the government and in
development partner organizations. More specifically, the concerns presented are:

- What should be the structure of a results framework that is applicable to macro-level evaluation, a reporting level that is fundamental to national planning?
- How to generate the necessary data required for populating the results framework forms?

These concerns form a part of the debate within the Ministry of Planning while it prepares an M&E framework for the next National 5-year Development Plan 2014–2018. It is believed that other least-developed countries face similar challenges, and that there is a need to address these challenges in a practical and meaningful manner.

COUNTRY CONTEXT

Cambodia, classified as a least-developed country, had a per capita income of about $931 in 2011. It went through war and turmoil between the early 1970s and the mid- to late 1990s, when the country’s institutions of governance, infrastructure, human capital, social fabric and more were severely damaged. Only in the new millennium were substantial activities relating to socio-economic development taken up.

Cambodia pursues a development strategy through planned development in a market framework. Throughout the last 17 years, the Cambodian economy has grown at an average rate of 7 to 8 percent annually; if the 2009 downturn is deleted from the trend, the rate is yet higher. In the recent four to five years, the global economic downturn and commodity/petroleum-led inflation have resulted in global economic turmoil, leaving few countries unaffected. The Cambodian economy, however, has shown the capacity to bounce back after facing a severe setback, though the turmoil has left its scars: many development programmes have had to be rescheduled or staggered.

International development assistance plays an important role in funding and providing technical assistance. In 2011, international assistance was estimated at about 8.5 percent of the gross domestic product. More than 60 percent of total developmental expenditure in the public sector (typically, agricultural extension, irrigation, education, health and infrastructure) is funded by grants and soft loans from development partners. In this regard, a strong M&E framework takes on increased importance.

THE RESULTS FRAMEWORK FOR M&E

The conventional wisdom

The government adopted a results framework to account for and evaluate all developmental activities in order to provide vital direction at different stages in project/programme management. This allows senior government staff to answer four key questions:

1. Is the plan being effective?
2. How does one know whether one is on the right path?
3. If not, where is the deviation?

4. How does one use this information continuously for regular corrective action?

The framework assumes that expenditures need tracking in order to ensure that they get translated into outcomes. Consider the education sector, for example:

- The school should have actually been constructed, as per specifications, and on time, and have its hardware, trained and qualified personnel, teaching curricula, etc. (activity/output)
- Additionally, the school attracts children from the catchment-area (outcome)
- Finally, children attend schools, pass and become literate and educated, and the society moves towards becoming more productive, more jobs are created, poverty reduces, etc. (impact)

Generally, development partners have endorsed this framework. A more generalized form of a results framework can be seen in Figure 1.

**Practical considerations in using the results framework at the macro level**

*Measuring outcomes and impacts*

In practice, there are issues in identifying and measuring variables at different stages in the results framework. In national planning, impacts (and in most cases, outcomes) are macro-level phenomena, while interventions could be policy or launching projects. Three examples illustrate the macro-micro disjoint.

**Case 1: Poverty**

Most development projects mention the outcome to be ‘poverty reduction’, irrespective of whether the projects are of infrastructure, potable water, health, sanitation or education.

- Poverty, a macro-level phenomenon, is reduced by a number of factors that range from individual attributes to performance of the economy. It is difficult to link
poverty reduction with one intervention; a full identification of the influencing factors is required. The results framework is thus required to be made significantly more complicated.

- Next, the relationship between poverty alleviation and its determinants could change in time. A typical case is of potable water, which, when provided, improves health, which in turn is expected to improve educational attainments and incomes. However, after everyone has been provided with clean water, other factors influence poverty reduction, not safe water *per se*.

- Finally, as outcomes (poverty, inequality) are macro-level variables, they are not easy to link to a results framework drawn-up for individual projects or sectoral programmes: the typical macro-micro disjoint.

**Case 2: Agriculture**

Consider crop yield rate in the agricultural sector. Government inputs, such as agricultural extension work and irrigation facilities, certainly help. But yield rates also increase because farmers adopt scientific agricultural practices, seeing profits. When a new scientific method emerges, farmers learn and then draw upon services that an emerging group of private providers offer, often because government services do not reach everywhere. For example, farmers sink irrigation wells independently of government-created large dams. In many western areas of the country, yield rates began to increase much earlier than dams were completed, thus warping causality.

**Case 3: Education**

In school education, the government provides buildings, teachers and other means that have a definitive impact on the enrolment rate. However, in Cambodia it is seen that children are sent to schools not only because the government has built schools, but also because parents want their offspring to be educated. If government schools are not available, the private sector would provide services. Recent reports on school enrolments suggest that in Cambodia, even poor households prefer expensive private schools, because children get some quality education there, often scarce in government schools.

To empirically validate this point, a regression equation was estimated to determine whether the supply- or demand-side variables are more important in explaining the portion of children aged 6-17 years in schools, using village-level data for all villages in Cambodia for which data was available. The estimates (given in Table 1) amply demonstrate that supply-side variables, namely the distance of government schools (primary, junior secondary or senior secondary) from villages, are statistically insignificant in explaining school attendance. Instead, it is the demand side variables that are statistically significant (measured by level of affluence, for which the proxy variables include: possession of assets such as motorbikes and cycles, not having to live in thatch houses, accessing potable drinking water and having access to sanitary latrines).

There is evidence that a conventional results framework could be flawed if it is applied in
its generic form to macro-level evaluations. There is need to bring about significant sophistication in the models. Further, one type of model will not fit all situations.

**SPECIFICATION PROBLEMS**

A second type of problem arises when outputs stand for outcomes (i.e. the output variable, ‘increased visits to health centres’, is often taken to depict outcomes). This is because outcomes of health interventions are slow and captured in large surveys carried out once in five to ten years. The only tangible indicator for an annual reporting is the number of visits (or other process variables, such as malaria/tuberculosis cases treated). In a conventional results framework, the following hazards emerge:

- Health outputs taken for outcomes could result in moral hazard (i.e. overuse, such as counting the free visits of patients to health centres); and
- Conversely, there could be an underutilization of outputs owing to reasons such as location, access by users, etc. (schools constructed, but children do not go).

<table>
<thead>
<tr>
<th>DEPENDENT VARIABLE: PERCENT CHILDREN 6 TO 17 YEARS IN SCHOOL</th>
<th>COEFFICIENT</th>
<th>T-STATISTIC</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>73.073</td>
<td>99.406</td>
<td>0.000</td>
</tr>
<tr>
<td>Distance primary school (Km)</td>
<td>.002</td>
<td>.302</td>
<td>.763</td>
</tr>
<tr>
<td>Distance Junior secondary school (Km)</td>
<td>-.002</td>
<td>-1.127</td>
<td>.260</td>
</tr>
<tr>
<td>Distance Senior secondary school (Km)</td>
<td>-.002</td>
<td>-.997</td>
<td>.319</td>
</tr>
<tr>
<td>Wet season paddy yield</td>
<td>1.290</td>
<td>5.850</td>
<td>.000</td>
</tr>
<tr>
<td>Distance of village to province town</td>
<td>-.035</td>
<td>-6.528</td>
<td>.000</td>
</tr>
<tr>
<td>[(Total motorcycles)/(Total families)]X100</td>
<td>.011</td>
<td>1.798</td>
<td>.072</td>
</tr>
<tr>
<td>[(Total cycles)/(Total families)]X100</td>
<td>.055</td>
<td>15.664</td>
<td>.000</td>
</tr>
<tr>
<td>Percent families living in thatch houses to total houses</td>
<td>-.138</td>
<td>-15.785</td>
<td>.000</td>
</tr>
<tr>
<td>[(Number of toilets)/(Total families)]X100</td>
<td>.085</td>
<td>14.778</td>
<td>.000</td>
</tr>
<tr>
<td>[(Number of families accessing clean water)/(Total families)]X100</td>
<td>.051</td>
<td>14.257</td>
<td>.000</td>
</tr>
<tr>
<td>Percent families farming less than 1 ha land</td>
<td>-.003</td>
<td>-2.683</td>
<td>.007</td>
</tr>
</tbody>
</table>

R² = 0.376; F = 177.40; n= 11,882

**TABLE 1: REGRESSION RESULTS EXPLAINING SCHOOL ATTENDANCE IN A CROSS-SECTION OF 11,882 VILLAGES IN CAMBODIA, 2011**
Once again, the results framework is required to be sufficiently flexible to accommodate such nuances.

These cases do not deny the importance of a conventional results framework, but make the case for a more realistic framework that can become an evaluation tool rather than being a ‘one size fits all’ wand.

Alternatives have been suggested, such as constructing approaches based on a theory of change. Putting these into practice, though, is not easy. The models are extremely complex, requiring a great deal of data and resources that are simply not there. Additionally, there are issues of human capacities; typical government officials do not possess the skills needed to construct or interpret complex models.

**ALTERNATIVES IN RESULTS FRAMEWORK FOR EVALUATION IN CAMBODIA**

Recognizing the issues discussed above, the government has adopted a results framework that matches performance to a stipulated target at the beginning of a five-year plan. These are mainly outcome/impact indicators, though a few output indicators also appear in the list. At the sectoral level though, the government encourages use of the conventional results frameworks with whatever modifications sectoral authorities/ministries prefer to make. At the programme and project levels, it is mandatory for the relevant managers to deploy a near-conventional results framework.

The Ministry of Planning, in consultation with other line ministries and agencies, has identified some 64 core M&E indicators and some 125 auxiliary M&E indicators to assess the annual progress made in the economy (e.g. growth, inflation, trade and balance of payments, debt, government budget), the Millennium Development Goals and other key sectors (e.g. external financial assistance, employment, transport, infrastructure). While the core indicators are mainly multisectoral and cross-cutting (e.g. poverty, growth or child health), the auxiliary indicators are mainly sectoral. The list will expand, depending upon various line departments’ needs and requests. Consultations are continuing with different stakeholders. The indicator list includes all the identified Millennium Development Goal Indicators.

The core indicators are divided into five categories:

1. Aggregate outcome indicators (e.g. gross domestic product [GDP], poverty, inequality, inflation);
2. Aggregate output indicators that stand for outcomes (e.g. balance of payments, import/export, structure of GDP and workforce);
3. Sectoral outcome indicators (e.g. infant mortality rate, maternal mortality rate, school completion rates);
4. Sectoral output indicators that stand for outcomes (e.g. crop yield rates, area under crops, roads made, attended births, enrollment rates); and
5. Proxy indicators (e.g. governance, inclusive growth).

Classification of auxiliary indicators is more complex; the indicators are mainly sector-specific and serve the needs of stakeholders in the concerned sectors. The indicators are a mixture of
outcome, output and process. Even non-governmental organizations draw up their own list of indicators. Additionally, the extent of standardization has been more limited than in the core monitoring indicators. This aspect needs strengthening.

REPORTING

The Ministry of Planning used to bring out macro-level evaluation reports of development activities only every three to five years. In 2010 and 2011, it brought out two successive annual Millennium Development Goals Progress Reports. Starting in 2012, the reporting became annual, and was for both the National Five-Year Plan and the Millennium Development Goals. This should remain the case for the 2014–2018 cycle as well.

At present, only the aggregate country-level indicators are being reported upon. Recognizing regional disparity as a concern; from 2013 onwards some province-level disaggregated data will be presented (particularly on the indicators developed from administrative statistics). Efforts are also being made to bring in some unofficial project data into the official statistics framework.

Finally, in the last few years, the government, under its subnational governance programme, has begun to collect administrative data at the village and commune levels. Although validity has yet to be established, it is hoped this data will eventually mainstream and strengthen the database.

DATA-RELATED ISSUES

An evaluation exercise requires the right, high-quality data. In most less developed countries, this is the Achilles’ heel. Sample or census surveys are conducted with external funds and expertise by agencies that both determine the data generation process and define the variables. To a limited extent, government officials have begun to participate in the exercises. As a result, continuity of surveys and comparability of definitions across surveys (and also the same surveys over time) are not guaranteed. To address this, Cambodia has established a Standing National Working Group on M&E, which is in the process of standardizing the definitions of variables and indicators. The government believes that the recommendations of this committee will bring some significant changes in data systems and, consequently, in the M&E system.

It is now recognized that efforts should be made to strengthen administrative statistics in ministries and departments; because of their broader coverage, they could be more regular and less expensive. The United Nations also recommends strengthening administrative statistics. In Cambodia, almost all ministries collect administrative data, but data quality can be questionable. Among the reasons:

- Central offices are somewhat better staffed than provincial and district offices. At the district level, there is only one official belonging to the Planning Department, and s/he has neither a support staff nor the resources to scientifically collect, collate and present data. S/he relies on village and commune chiefs (who are elected
representatives and, as such, have no formal training in statistics, data management or, for that matter, in any field) to collect data by means of a village book or a commune book;

- Some ministries collect data based on rather small and not necessarily scientific surveys;
- In a few ministries, administrative data is not collected every year for want of adequate resources; instead, linear projections from past data are made;
- Many ministries’ data management facilities are weak on many counts (e.g. knowledge of basic statistics, availability of computers and data-storage devices). The situation progressively deteriorates from central to province to district levels. Some communes/villages have no electricity, so no devices work there; and
- Although commune and village chiefs and other local representatives are being trained to an extent, challenges include such stakeholders’ weak initial exposure, their other chores and obligations (they are not dedicated staff), and that they could change every five years due to elections.

Development partners make a great deal of effort to draw up forms for measuring success, but leave aspects related to populating these forms with quality data to national governments. This is particularly true for macro/sectoral data.

**APPROACH**

A key question is how to strengthen M&E statistics? The Ministry of Planning, in its effort to make M&E more useful, is training government staff in line ministries to generate and interpret data, manage Administrative Data Collection Systems (selectively) and conduct small-sample studies/case studies. A standard training module has been developed for this purpose. Several batches of personnel in seven ministries have been trained. Once staff at the centre are trained, it is believed that this knowledge would then be passed on to staff at the provincial and district levels.

The M&E Working Group is central to making the necessary improvements. Following the success of defining a new poverty line in 2012 (a first for the government; previous exercises were conducted by the World Bank), the Ministry of Planning is following the approach of engaging officials from line ministries in task forces. At the central level, it has been possible to change certain definitions, alter/improve the data-collection process (at least in surveys conducted by the Ministry of Planning), and open doors in other ministries for engaging in discussions on their data-collection processes (e.g. agriculture, rural water supply and gender). So far, these processes have been extremely compartmentalized (each ministry is still extremely compartmentalized even now), but a beginning has been made.

Has the government been successful in this effort? It is too early to answer, but preliminary indications suggest that there is positive progress. At the central level, officials are able to devise progress indicators and have taken the initiative to launch a few surveys. It is not
yet evident whether annual reporting has helped, but the dissemination process certainly has; not only are meetings well-attended, there are queries made afterwards as well. At the province and district levels, early results suggest that to a limited extent, officials are able to interpret data and results.

Another question concerns resources. Most governments believe that collecting statistics should be a lower priority than launching ‘mega’ projects. The Ministry of Planning is making efforts to request earmarking at least three to four percent of development resources towards M&E work.

**CONCLUSION**

This short paper put together some practical problems and challenges that least-developed countries like Cambodia face in conducting evaluations. This paper, as such, does not delve into new approaches or definitions; instead, it examined two practical aspects that most governments face:

- Applicability of the results framework in its conventional format to evaluate gains of development at the macro level; and
- Availability of quality data at different levels and problems in generating it.

While no definitive answers were provided, the paper outlined the approaches the government is following in Cambodia.