

# Guide to Performance-based Budgeting

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## I. Introduction to Performance-based Budgeting

### **Traditional and Performance-based approaches to budgeting**

Traditional or line-item budgeting relates to allocation of funds based on line item costs regardless of the ability to meet the goals. Accountability is for use of inputs. The line-item budgeting involves focus on “inputs” – staff, equipment, supplies, etc. The budget justification is based on increase in line item costs – an incremental approach. There is lack of attention to “results” or “impacts” of programmes or “performance.” Managers are encouraged to spend, not to ‘economise’ or ‘innovate’. The accountability criterion involves keeping spending in line with budget. There are detailed controls and rigid appropriation rules.

Performance budgeting, on the other hand, relates to funding linked to expected “results” or “outcomes” – what programmes are able to accomplish. Accountability is for results or performance achieved. Performance budgeting focuses on “results” funding ‘outcomes,’ rather than ‘inputs.’ Assessing “results” by measurable indicators, holding managers responsible for performance, giving flexibility to managers to ‘manage’ and ‘innovate’, and having a medium-term and long-term view of use of resources are some of the significant features of the performance budgeting system which enhance the performance of the departments.

Performance-based budgeting is beneficial in more than one respect. The policy-makers find it advantageous as the system focuses on goals, clear information is available on usefulness of programmes and evidence-based policy choices can be made. Managers work with well-defined expectations, having flexibility for innovation and performance. People understand the connection between tax money spent and services provided. Performance-based budgeting has emerged as a tool for performance management. It integrates resources and objectives – budget and performance, suggests public managers to focus on economy, efficiency and effectiveness and makes performance measurement an integral part of budgeting.

### **More about Performance-based Budgeting (PBB)?**

As a literal reading of the term suggests, PBB is about formulating schemes, projects and budgets that are driven by a number of desired results which are articulated at the outset of the budgetary process. It involves calculating and proposing resource requirements on the basis of pre-determined results, rather than merely on the basis of scheduled outputs or activities. PBB requires project directors to identify objectives and results that involve certain changes or benefits to end-users and subsequently to measure the extent to which these changes or benefits have actually been brought about; or, to give the precise definition for PBB, it is a project/scheme budget process in which (a) project formulation revolves around a set of pre-defined objectives and expected results, (b) resource requirements are derived from and linked to such expected results, and (c) in which actual performance in achieving results is measured by objective performance indicators.

PBB establishes a top-down, logical framework, using a number of strictly defined concepts, such as expected results, performance indicators and outputs. Its central tool is the annual budget which provides a direct link between expected results and resource requirements. Also crucial to PBB is the measurement of performance in achieving results. Performance measurement shows whether the activities of the government departments actually make a difference.

PBB is not a new budget methodology, but involves significant changes in the budget format by placing more demanding standards on project design and planning. By mapping the expected results in advance and by tracking to what extent these have been actually met, this budget format is also a versatile decision-making tool.

PBB is not a weapon to trim down the organisation and to cut spending. While efficiency is certainly to be expected from feedback on performance, PBB does not necessarily sanction a failure to meet targets with resource cuts. Rather, PBB will focus on the question why performance was below expectancy and enable managers to detect deficiencies. Nor does it expose project directors to disproportionate responsibility by penalising them for sub-projects/schemes that have not met desired results. "Expected results" are not to be understood as irrevocable production targets that one would find in commercial enterprises.

### **Why Performance-based Budgeting?**

The current project planning, budgeting, monitoring and evaluation cycle of governments tracks the number of inputs and outputs, showing whether quantitative targets have been met and - at best - whether projects/schemes have been *efficient* in the use of resources. They do not, however, have sufficiently reliable means to determine the *quality* of services. Neither are they able to tell how *effective* the work of the government departments is or what the impact of departmental activities has been. One of the main answers, therefore, to the question of "why introduce performance-based budgeting?" is to see if the projects/schemes and activities of the government departments really make a difference in the lives of people.

PBB also serves as a strategic planning tool, improving the clarity, and consistency of project designs, facilitating a common understanding and better communication between different departments and staff in general of the desired results of projects.

PBB allows the departments to attain a unified sense of purpose and direction. Moreover, through the measurement of performance in achieving defined results, PBB provides feedback to projects on how well they are doing, and creates a strong incentive for adopting best practices and efficiencies in use of resources, as well as improving the quality of services and other outputs.

PBB has also been proposed as a means to release project directors from overly restrictive input and/or central controls and to accord them more discretion in determining the right mix of resources to meet expected results. In PBB, the increase of the accountability and responsibility of concerned officials (a consequence of holding them responsible for achieving results) is designed to go hand in hand with an amplified authority for managing financial and human resources.

In the first - **preparatory** - stage, establishing objectives, results as well as performance indicators and linking these to resource requirements in one logical framework constitute the basis for the project/scheme budget proposals.

The project directors need to have identified and established sources of information and methods of collecting data to measure the values of performance indicators that have been incorporated in the project budget. This is considered as the start of the second - **measurement** - stage. Where necessary, baseline measures need to be taken at the beginning of the comparison. Throughout this stage, mid-term measurements provide feedback on the usefulness of the performance indicators and the progress of the projects. Moreover, throughout this measurement stage, mechanisms for linking the expected results of the subprojects to those of the relevant departmental units and to the performance assessment of individual staff need to be developed.

In the final - **evaluation** - stage immediately following the collection of data, measurements are used to establish the actual results of the projects and to determine their success and, where necessary, to analyse shortcomings in performance or project design.

## II. The PBB Framework

### Setting up a logical framework for the project

The setting up of the framework includes defining the objectives, define the expected results, specifying outputs, identifying significant external factors, and determining required resources.

The existing planning, budgeting, monitoring and evaluation process involves establishing links between inputs, activities and outputs. Objectives are defined in the medium-term plan and the project/scheme/department budget, but are not strictly tied in to the budgetary process. Project/scheme/department budgets and evaluation of performance both focus on activities, outputs and the resources that are required to deliver these. As discussed in Part I, such a model is not capable of providing meaningful information about the desired results or the accomplishments of a project in terms of bringing about benefits to end-users or other changes.

A performance-based model links inputs, activities and outputs, as well as expected results and objectives. In order to allow project planning and decision-making that is based on such a performance-based model, PBB uses the logical framework approach which is set out as under:

Step 1: Set up a logical framework

1.1: Describe Vision 2020

1.2: Describe Long-term Perspective Plan – Broad Strategy – comparison with best 5 States

1.3: Define Objectives

### Defining the objectives for the department/project/scheme

Project planners are required to start out by defining their objectives. **The objective expresses what the department wishes to accomplish within the specified time period.** In particular, objectives are defined as the expression of an overall desired achievement, involving a process of change and aimed at meeting certain needs of identified end-users or clients. They describe the underlying or overall rationale for implementing a project/scheme by representing a meaningful benefit or change. Officials and planners should therefore begin the formulation of their objective by addressing the following questions: what is the problem we are trying to address? What do we intend to accomplish? Who are the intended end-users/beneficiaries?

**Objectives represent what** we want to accomplish, not how we should do it. In other words, objectives are not equivalent to strategies, activities, processes or outputs. Thus, activities such as: to study, to provide support, to advise, to cooperate with etc, are not proper objectives. Rather, objectives should be formulated along the following lines: to reduce/increase; to change; to make progress towards; to strengthen, etc. (Note that objectives are expressed in the infinitive form of a verb).

1.4: Define Expected Results you desire

**Defining the expected results of the project**

As the term results-based budgeting suggests, expected results are its core elements. Not only are they the link between the outputs and the objective of a project, they also provide the basis on which performance will be measured. Considerable attention should therefore be given to a proper formulation of results. The formulation of the result should answer the question "**What benefit will accrue to the end-user?**"

Expected results are the desired outcomes of a project, involving benefits to end-users and, after gaining experience in measuring results, should be expressed as a qualitative or quantitative value or rate. For example, an expected result at the initial stage could be "increased funding for the department". But after gaining experience, the expected result could be "increased funding for the organisation by 5%". Results are the direct and often tangible effect or consequence of the delivery of outputs, leading to the fulfillment of a certain objective. Results may relate to knowledge, skills, attitude, behaviour, condition, or status.

1.5: Specify Outputs – fix realistic targets

1.6: Identify significant external factors

1.7: Clarify resources available

Step 2: Establish correct performance indicators

Step 3: Determine the method of measurement

Step 4: Collect data

Step 5: Measure and monitor results using Online Performance Tracking System (OLPTS)

Step 6: Report and analyse measured results: monthly, quarterly, half-yearly and annually

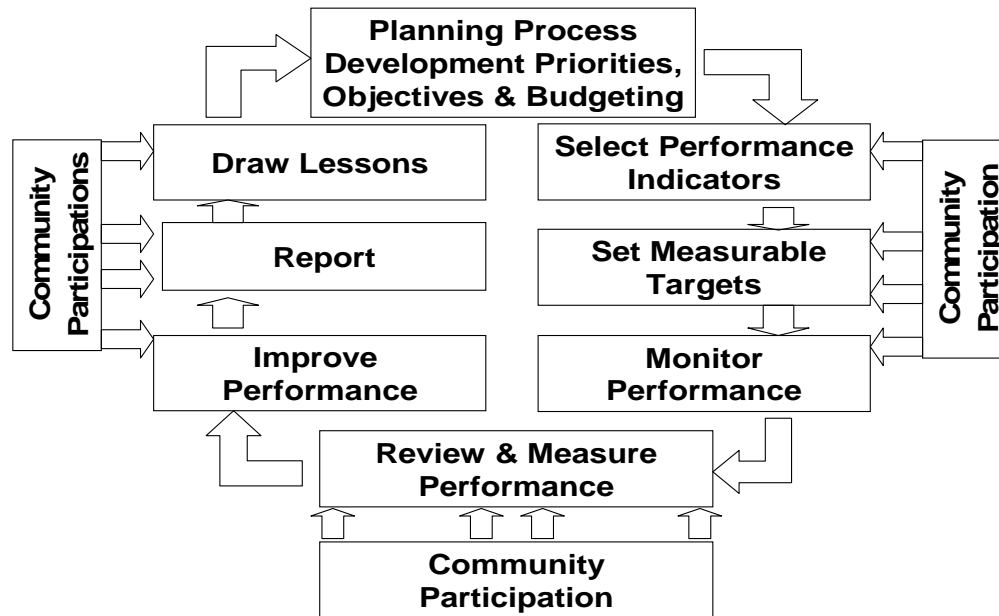
Step 7: Use findings for performance management and budgeting  
(Involve People and stakeholders in all stages from Village to District to State)

**III. Performance Management System: The Case of Andhra Pradesh**

The Government of Andhra Pradesh has been focusing on performance management as a key instrument for improving the delivery of services and infrastructure to the people. Performance management is a strategic approach, which equips leaders, managers, workers and stakeholders at different levels with a set of tools and techniques to regularly plan, continuously monitor, periodically measure and review performance of organisations, territorial jurisdictions and functionaries in terms of indicators and targets for economy, efficiency, effectiveness and impact. The performance management system model adopted by the state is depicted in Figure 1.

Figure 1

## Performance Management Model



The performance management system links development goals, policies, priorities, plans, programmes, projects, budgets, action plans and performance towards achieving the desired objectives. The system involves performance indicators, performance monitoring, performance measurement, performance-based evaluation, performance-based review and evidence-based policy-making. Performance monitoring is a continuous process of collecting and analysing data to compare how well a project, programme or policy is being implemented with reference to expected results. It is an ongoing process to assess whether targets are met and broader development objectives are achieved. Performance measurement refers to analysis and measurement of results in terms of performance indicators and targets. Performance-based evaluation is an assessment, as systematic and objective as possible, of a planned, ongoing, or completed intervention. The aim of evaluation is to determine the relevance of objectives, economy (minimising cost of obtaining resources), efficiency (using resources efficiently), effectiveness (achieving the desired socio-economic impacts), and sustainability so as to incorporate lessons learnt into the decision-making process. Performance-based review involves periodic review to identify broad trends and assess the likelihood of outcomes being achieved – whether the programmes or projects are “on track”. It aims at effecting correction mechanisms to ensure that programmes or projects do not deviate from the central goals and objectives for which they were created.

The strategic objectives behind performance management are:

- To create a performance culture and ethos across public service in terms of “shared” values, “outcome” orientation and “best” practices;
- To promote accountability of employees and organisations in using resources and ensuring that implementation objectives are met;
- To empower citizens to generate pressure for change and transformation;
- To guide capacity building development for better governance;
- To contribute to overall development agenda;

The performance management cycle involves policy-making, planning and budgeting leading to programme implementation followed by assessment and feedback and then going to the policy-making.

### Performance Tracking

The performance management, monitoring and evaluation experiment undertaken by Andhra Pradesh is based on a performance tracking system which envisages the participation of all stakeholders at all stages, starting from and ultimately feeding into the planning and performance budgeting processes. The entire process begins with the identification of the input-output-outcome linkages. The most important and challenging tasks are the selection of performance indicators, setting measurable targets and monitoring and evaluating performance by the use of composite criteria. The state government has classified government departments into 8 groups depending on the pre-dominant role the government will need to discharge as per Vision 2020. These groups are:

**Table 1**

**Andhra Pradesh: Group-wise Classification of Departments**

Group	Group Description	Role of Government
Group I	Economic Development (Primary Sector)	Facilitator of economic growth
Group II	Economic Development (Secondary & Tertiary Sector)	Facilitator of economic growth
Group III	Human Development	Promoter of human development
Group IV	Welfare	Directly undertaking services for the socially backward and needy
Group V	Local and Urban Bodies	Decentralisation and strengthening of local government to enable them to discharge civic obligations
Group VI	Infrastructure Development	Building economic & social infrastructure
Group VII	Revenue Generation	Mobilisation of resources for development
Group VIII	Governance	Provider of general administration, and regulatory services, maintenance of land records and maintenance of law and order

### Performance Indicators

Performance indicators are measurable factors of extreme importance to any organisation in achieving its strategic goals, objectives, vision and values. These indicators are required to be designed carefully so as to be in a position to:

- Indicate the progress made towards the goal;
- Provide a common framework for gathering data for measurement and reporting;
- Capture complex concepts in simple terms;
- Enable review of goals, objectives and policies;

- Focus the organisation on strategic areas;
- Provide feedback to organisation and staff.

Ideally the selection of performance indicators should be based on the criteria of CREAM:

<b>Clear:</b>	Precise and unambiguous
<b>Relevant:</b>	Appropriate to the set goal
<b>Economic:</b>	Available or computable with reasonable cost
<b>Adequate:</b>	Provides sufficient basis to assess performance
<b>Measurable:</b>	Quantifiable

Performance-related indicators can be classified into (1) input indicators: measures of economy (related to unit cost) and efficiency (related to resource use: time, money or number of people), 2) output indicators: measures of effectiveness (related to programme activities and processes) and 3) outcome indicators: measures of quality (related to set standards) as well as impact (related to achievement of overall objectives) that allow us to check whether our development strategies and policies are working. Indicators can be simple or composite. A composite indicator is a set of different indicators rolled into one index by developing a mathematical relationship between them, e.g. human development index, which takes into account three basic elements: life expectancy, educational attainment (adult literacy combined with primary, secondary and tertiary enrolment) and real gross domestic product per capita. Often baseline indicators are computed to represent status quo or current situation with reference to which performance is measured.

Through a process of rigorous exercise for about two and half years, which involved the time of the Chief Minister of Andhra Pradesh himself for more than 300 hours, different departments in the Government have been able to map their inputs, outputs and outcomes and arrive at a set of performance indicators divided into core, functional and departmental indicators. The total number of indicators currently adopted by various heads of departments and public sector undertakings in Andhra Pradesh (numbering more than 200) are as follows:

**Table 2**  
**Andhra Pradesh: Group-wise Number of Indicators**

<b>Group</b>	<b>Group Description</b>	<b>Number of Indicators</b>
Group I	Economic Development (Primary Sector)	93
Group II	Economic Development (Secondary & Tertiary Sector)	115
Group III	Human Development	176
Group IV	Welfare	126
Group V	Local and Urban Bodies	113
Group VI	Infrastructure Development	211
Group VII	Revenue Generation	55
Group VIII	Governance	91
Total		980

**Table 3**  
**Andhra Pradesh: Process Indicators**

Group	Process Indicators (Per Month)
Tours, Inspections and Reviews	Days toured, Office inspections undertaken, Surprise inspections undertaken, Routine inspections undertaken
File Disposal	File disposal – Disposal of files of Public Importance, Court matters, Service matters, Other
Action on Important Matters	Disposal of action taken in Vigilance cases, ACB cases Commission of enquiry cases, Departmental enquiry cases, Audit reports/paras, Chief Minister’s announcements, Chief Minister’s Office references, Adverse media reports.

### Fixing Measurable Targets

Performance target equals the baseline indicator level plus the desired level of improvement. To set meaningful targets, departments are required to identify their short-term and long-term objectives and align them with the Vision 2020 goals. This involves a collective effort by the policy makers as well as implementation teams in terms of resource planning and prioritising government programmes, schemes and services. Targets are fixed based on discussions and bottom-up feedbacks at various levels of hierarchy beginning at the secretariat and drilling down to the district, mandal and village levels. The Andhra Pradesh Government has adopted the ‘SMART’ criteria for setting targets:

- S:** Specific
- M:** Measurable
- A:** Attainable
- R:** Realistic
- T:** Time-bound

For each function, each functionary and each territorial jurisdiction, annual, quarterly and monthly physical and financial targets are set. The departments have been directed by the Government to study the levels of indicators for five best states and benchmark with the best.

### Monitoring Performance

Performance monitoring mechanism involves the monitoring of implementation of programmes and projects as well as monitoring of results. Implementation monitoring involves three stages – input, activity and output. Performance monitoring focuses on the outcomes and their impact. A sound monitoring mechanism:

- Needs ownership, management, maintenance and credibility;
- Assesses performance needs at the project, programme and policy levels;
- Enables movement of performance information both horizontally and vertically in the organisation;
- Identifies demand for performance information at each level;
- Has clarity in responsibilities at each level: who, what, when, how, to whom, etc. in data collection, measurement, reporting, etc.

The Government of Andhra Pradesh undertakes both implementation as well as results monitoring every month. Three broad monitoring parameters that are adopted include:



Economy:        minimising cost of securing inputs  
 Efficiency:     using resources efficiently  
 Effectiveness:  achieving the desired social impacts

### **Measuring Performance**

The Government has adopted the 4-F model for tracking and measuring performance: function, functionary, finance and field. Performance achievements are reported by every department every month to the Planning Department which is assisted by the Centre for Good Governance for critical analysis and evaluation. Information is collected in seven formats designed by the Centre for Good Governance. These enable monthly and cumulative tracking of performance and process indicators. Measurement of performance is done deploying the Hexagon Model. This model tracks:

- Where a department or functionary is in a month compared to earlier months – starting from April;
- To what extent a functionary has achieved his annual target;
- How does he compare with the achievement for the corresponding period of last year;
- How far he is from the Vision 2020 or forward target;
- How far he is from the benchmark, fixed, if any; and
- How does he compare with his colleagues of the same level or designation;

### **Performance Reviews**

A thorough review of performance of all departments, public sector undertakings and institutions is held by the Chief Minister and Ministers every month, leading to tracking of progress and recommendations for performance improvement. Reports on action taken for performance improvement (ATPI) by the respective departments /functionaries are reviewed in such meetings. Every quarter conferences of Heads of Departments and Collectors of districts are held at Hyderabad, which are attended by the Chief Minister, all Ministers, all Secretaries and the print and electronic media. These open meetings act as pressure mechanisms to drive performance at various levels. The Government is contemplating a system of performance-based incentives and disincentives.

### **Online Performance Tracking System (OLPTS)**

The Centre for Good Governance has developed a unique Online Performance Tracking System (OLPTS). This provides a robust computer package to measure and grade performance and generates a number of reports. This tool can be easily applied to both public and private sectors. The Centre is contemplating to patent the product, which is based on months of brain-storming and hard work. The OLPTS provides an integrated performance information management and feedback system. The tool is being extended from departments to districts and mandal levels. It will eventually be the backbone of the entire performance evaluation exercise that the state undertakes. It has the following significant features:

- Tracking and grading of performance at different levels;
- Integration and linkages with external assessment – media perception, peoples’ feedback, Call Centre, fulfillment of service standards, etc.;
- Performance evaluation using some or all aspects of the Hexagon Model;
- Comparing performance of various indicators, jurisdictions and functionaries to the last mile;
- Support system for different predictive models to track and improve governance.

OLPTS basically comprises of performance information fed into the system by the respective departments/jurisdictions and a host of reports that are generated for purposes of evaluation, review and feedback. A few of them include reports on:

- Monthly targets and achievement with respect to performance indicators, departments, department groups, territorial jurisdictions, functionaries, institutions, etc.;
- Score and grade reports for performance indicators, departments, department groups, territorial jurisdictions, functionaries, etc.;
- Financial targets and achievements;
- Competitiveness assessment of jurisdictions and functionaries;
- Trends of all indicators and their differentials;
- Exception reports on deviations from expectations;
- Process Indicators;
- Best and Worst Achievers list;
- Best Practice links;
- Links with external evaluations (like ratings based on peoples' feedback, media perception index, etc.);

These reports then form an important part of the overall information set that serves as the information hub for the policy framework for performance management.

### **District Performance Tracking**

A District Performance Tracking project has been facilitated by the Centre for Good Governance for Ranga Reddy district by applying the OLPTS to practically all aspects of district functioning. It aims to use e-governance as a strategy for good governance at the district level, information technology as a tool for improving performance and transparency as the hallmark of people-centered administration. The district performance tracking system includes the following features: Login accounts for all the field level functionaries in the district, automatic provision of all forms and reports with due permissions, authorisation and rules in effect, provision to set the organisation structure, enter information on employees, institutions, functionaries and department indicators, etc. The organisational structure can be generated at the district, division, mandal and village levels. The system can generate among others, the following reports:

1. Department-wise cumulative achievement and grading reports
2. Department-wise integrated grading comparison report (best and least achievers)
3. Department-wise indicators cumulative report
4. Department-wise performance grading of functionaries report (A-B-C-D analysis)
5. Department-wise monthly performance variation report
6. Department-wise quarterly performance report
7. Department-wise monthly status on pendency of files
8. Department-wise file disposal report (A-B-C-D analysis)
9. Department-wise reviews, tours and inspections report (A-B-C-D analysis)
10. Department-wise action in important matters (A-B-C-D analysis), etc.

The district performance tracking system aims to further enhance its reach through grading of functionaries and jurisdictions to the last mile, grading of all institutions and self-help groups (SHGs) and developing a time series database on the performance of all employees.

## Performance Feedback

A performance feedback mechanism is like exchanging ‘GIFTS’:

- G: Goes both ways – a two-way exchange between the appraiser and the appraisee
- I: Initiative by the person implementing programmes or making policies, who sees the need for gathering feedback
- F: Frequent
- T: Timely
- S: Specific – feedback based mainly on observed behaviour, facts and inferences and not on subjective parameters

The Government of Andhra Pradesh has established a system of managing governance through feedback from multiple channels collected at different intervals. These include:

People:	Monthly survey by an independent agency
Target Groups:	Evaluation through planning/concerned departments
Programme Evaluation:	By the Planning and other departments
Services:	“Report Card” studies by independent agencies
Employees:	Feedback during training programmes
Focus Groups:	Special studies or interviews

## Summing up

Developing a sound performance management system involves the careful designing of several aspects. These include: establishing profile: vision and mission, clarifying and delegating responsibilities, creating internal institutional mechanisms, preparing departments and organisations, facilitating system development, supporting implementation, preparing for management of “change”, developing framework for innovation and accountability, assessing current reality, identifying stakeholders and creating structures for stakeholders’ participation, developing performance monitoring and evaluation system, including performance indicators-baselines-targets-data collection-data analysis-reporting-publishing and adopting the system, implementing the system: gathering data, monitoring, measuring, reviewing, evaluating, reviewing and improving performance, etc. The process involves many challenges. Countries have taken decades to establish a sound performance management system. The Andhra Pradesh experiment is only two and half years old. It is expected that the system will be perfected in a year or so. To measure is to know. There is no alternative to performance measurement if one is serious about improving performance – whether in private sector or in government. The Government of Andhra Pradesh considers the performance management system as a tool for improving performance. It is focusing on how to use this tool effectively. The virtue of simplicity – “Keep It Simple” – is kept foremost in mind by the policy-makers. Future directions include the improvement of indicators, measurement and grading, and linking quantitative measurements to qualitative assessments. All efforts are to usher in an era of good governance in consonance with Vision 2020 goal of Swarna Andhra Pradesh.

## IV. Establishing and Using Performance Indicators

### Performance indicators

Performance indicators do not fit into the logical framework in the same way the other project components do - that is, they do not fulfill the cause-and-effect relationship. Nevertheless, they form an integral part of PBB because of their direct link to expected results. Choosing the right performance indicators is one of the more challenging parts of PBB.

Performance indicators are features or characteristics used to measure the progress of the project in reaching its expected results. The measured values of performance indicators tell us if and to what extent the expected results have been achieved. Indicators provide answers to

questions like: **what characteristic or feature, when measured, will indicate that expected results have been achieved?**

A distinction is to be made between the indicator itself - a characteristic - and its *value*, which is to be obtained by measurement. This distinction allows us to elaborate on the definition: a performance indicator is the answer to the question, "what feature - once it has been measured - will indicate that expected results have been achieved?"

### **Criteria for establishing and selecting performance indicators**

For each expected result, indicators should be selected in a manner that they best represent the characteristics or features which, when measured, will show the achievement of the expected results.

Performance indicators must be **measurable** or **observable**: they must reflect characteristics that are concrete. The extent to which indicators can be measurable will, of course, also depend on the formulation of the expected result. (See further below for a discussion of quantitative and qualitative performance indicators)

Indicators must be **relevant, meaningful, valid and verifiable**: they should answer the central question: what will indicate that the programme has achieved its expected result? Performance indicators should provide meaningful information on the actual performance of the programme relative to its expected results and should be able to measure what they claim to measure. They must not allow subjective interpretations: repeated measurement must yield the same results, and mean the same thing to different people.

Last but not least, performance indicators must be designed in a way that allows their measurement to be **cost-effective**. A reliable system for collecting the data required for performance indicators must be developed. This will require the identification of the sources where information will be taken from and the methods of collecting the data. These data collection issues are discussed in step 3. Relevant here is that the costs associated with the method of gathering information should not be outweighed by the relevance of the information that can be obtained. Planners will therefore need to consider the data collection dimension of indicators during the programme design stage before making a final determination about performance indicators.

In many cases, sources of information may have to be identified or even created for the first time and new methods of data collection set up. The additional efforts and costs of collecting material must be weighed against the value of using the performance indicator in question: the efforts involved in measurement may be inhibitive and may require that the indicator be adapted or even rejected. Performance measurement should always be seen in the context of being a tool in providing feedback and as a basis for improving performance and should not result in the establishment of elaborate measurement processes or bureaucracies.

### **Quantitative and qualitative indicators**

Most performance indicators will be expressed in a quantitative way, that is, they will involve amounts, numbers, ratios, percentages, etc. In all these cases, measurement will yield a certain numerical value that will be indicative of the performance of the programme. Such quantitative performance indicators will correspond to the numerical targets usually contained in the expected result. Quantitative performance indicators are therefore fairly straightforward to formulate.

But not all expected results necessarily contain such numerical targets. Difficulties arise when indicators have to be formulated for expected results that relate to concepts such as behaviour, attitudes, knowledge, awareness, etc., in other words, qualitative aspects that cannot simply be

expressed in terms of numbers. The challenge here is to define indicators that can accommodate such abstract or intangible results. Depending on the circumstances of the case, this can be done using indirect indicators for which any of the following methods, or a combination thereof is discussed below.

### **Qualitative performance indicators**

A seemingly straightforward solution is to use a *qualitative* performance indicator. Qualitative indicators cannot be measured by means of numbers, but examine whether a certain situation or feature is present or not. Has the new policy been implemented? Has the institutional capacity to do x been increased? The measurement of such an indicator will yield either a positive or negative answer: the feature is either present or absent, the criterion either met or not. The disadvantage or risk of purely qualitative performance indicators is that they are considerably more prone to subjective interpretation than numbers: whereas one observer may consider that the new policy is in place, another may find that its application is not yet consistent and conclude that implementation has not been completed (this would mean that the indicator is either not sufficiently measurable or not verifiable). Consequently, qualitative indicators should only be used when none of the other methods described below are practical, and the indicator meets all other requirements, such as being measurable, verifiable and meaningful.

### **Converting qualitative results into quantitative indicators**

A very similar approach involves using indicators that are based on *quantifiable* features that one could expect to arise when the result is actually achieved. This can result in the conversion of a qualitative result into *quantitative* indicators.

### **Measuring efficiency and effectiveness of outputs**

In most cases, performance indicators will relate directly and exclusively to actual results. Sometimes, however, expected results can be defined in terms of the efficiency and effectiveness of the project's outputs. A project's expected result could be the increased the effectiveness of its outputs: the extent to which outputs lead to actual results. Both examples could be valid expected results.

In such cases, performance measurement would require the use of composite performance indicators, combining the measurement of two features. *Effectiveness* indicators - measuring the degree to which outputs have affected the actual results - should be formulated as the *ratio of outputs per unit of results*. For example, in a programme aiming to improve the impact of staff training, the performance indicator would be number of staff members utilising new skills in their work" (or simply "number of staff using new skills / number of staff members who have attended training workshops"). *Efficiency* indicators are represented as the *ratio of inputs used per unit of output produced*. Assuming the same programme of the example above would also strive for a more economic use of resources, the indicator would be "efficient use of funds for training courses" (or simply "funds used / number of course given"). However, caution should be exercised in the use of efficiency indicators as some indicators may fail to be meaningful or valid. Using the preceding example, a reduction of funds used may not necessarily indicate efficiency unless one is measuring the reduction of funds for the same training course.

### **Measuring the quality of outputs**

In cases where the expected result of a programme depends on the improvement of the quality of reports, recommendations or other written advice to end-users, measurement of the quality of individual reports could be accomplished against pre-defined quality parameters. The following non-exhaustive list suggests seven quality criteria. Further criteria which are particular to the programme or subject matter could be added. In the list below, all outputs such as recommendations, advice, reports, notes, proposals etc. are collectively referred to as

'report'. Some criteria are, however, more relevant for reports containing specific proposals or policy advice.

1. *Purpose* (is the aim of the report clearly stated and does it answer the questions set or addresses the relevant issues?)
2. *Logic* (are the assumptions behind the report explicit and is the argument logical and supported by facts?)
3. *Accuracy* (are the facts in the report accurate and are all material facts included?)
4. *Options* (is an adequate range of options presented and are the benefits, costs and consequences of each option to the department)
5. *Practicality* (have the problems of implementation, technical feasibility, timing and consistency with other policies/actions been considered?)
6. *Presentation*

### **Measuring timeliness of outputs**

Performance of a programme in achieving an expected result that depends on an improvement of the timeliness of output can be measured as follows.

Timeliness can be defined in terms of the response time - the time between the request for the output and the delivery. This may be relevant, for example, in interoffice policy advice. A possible performance indicator could be: "*average response time to provide policy advice*".

These definitions of timeliness can also be incorporated as a component of, or criterion for, the quality of reports and used in the type of measurement described in the preceding section ("measuring the quality of reports").

### **Methods of collection**

The methods of collecting the data from these sources are more limited. Each method has its own advantages and limitations, and each will require a varying level of effort. These aspects are highlighted below. Choosing a proper performance indicator will require an assessment of these factors against the expected result to which the indicator is to be linked.

#### ***Desk review***

The desk review involves researching (written) material that is already available or easily obtainable. The desk review has the advantage of being cost effective, of not requiring any significant amount of special skills, and of having a response time that is in proportion to the amount of data needed. It is limited, however, in the sense that it focuses exclusively on written material (see the type of documents listed above), that is, it cannot yield more information than obtainable from this material (contrary to the other methods described below, which can be designed or tailored to the requirements of the programme).

The review of records will usually be suitable for performance indicators relating, for example, to economic growth, strengthening of institutional capacity, changes in behaviour and attitudes, the adoption of legislation or policies, compliance with decisions or standards, etc. In principle, this method is less suitable for an assessment of end-user opinions.

#### ***Questionnaire/Survey***

Questionnaires or surveys can cover a large number of end-users, but only a limited amount of data. Relative disadvantages of questionnaires are a longer response time and an unpredictable response rate. In addition, it is difficult and often impossible to verify the validity of responses. Programmes using questionnaires should also allow for sufficient time for recipients to respond and keep the number of questions to a minimum.

Using questionnaires will generally involve higher costs than desk reviews, but less than interviews. Time and skills are required to develop suitable questions. Attached to the Evaluation Manual, however, are a number of pre-designed surveys. With some modifications tailored to the specific programme and its expected results, these model surveys are ready to be used, saving efforts and costs in setting up new questionnaires.

A questionnaire or similar approach will usually be the appropriate method in connection with expected results relating to end-users' opinion of the usefulness or other feedback on the programme's output. Questionnaires can also be a suitable method (but not the only method) for determining the level of knowledge, awareness, etc., of a target audience.

Regardless of the amount and kind of information sought, the design of a questionnaire will have to meet a number of requirements. A draft action plan for the Government of Andhra Pradesh departments and the related questionnaire formats is enclosed.

### ***Collecting data***

Setting up and actually having performance measurement yield meaningful results is one of the demanding aspects of PBB. For many projects/schemes, it may initially be a process of trial and error. It is therefore recommended that "pilot" measurements be undertaken at an early stage. This may give a clearer view of the time required to collect data, the response rate on surveys, etc. Such testing may reveal the need to adjust the collection method or to expand or change the source of information. At worst, initial measurements may indicate that performance indicators that were included in the project budget are unfeasible, too costly to measure, or provide meaningless information. This may be permissible on an exceptional basis if warranted by the particular circumstances. (It is clear, of course, that the expected results which the indicators are supposed to measure cannot be altered without approval by the appropriate legislative bodies).

Information on the performance of projects in achieving is to be presented to the legislative bodies within six months of the end of the period under study. This means that implementing offices should have their measurement facilities operational and yielding information immediately after the close of the specified time period.