HOW TO DESIGN AND CARRY OUT
DATA COLLECTION STRATEGIES FOR
RESULTS-BASED BUDGETING:
A STEP-BY-STEP GUIDE

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## How to Design and Carry Out Data Collection Strategies for Results-based Budgeting: A Step-by-Step Guide

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Part 1:

Introduction to the Manual
PART 1
INTRODUCTION TO THE MANUAL

PURPOSE

This training manual is intended to guide United Nations (UN) programme managers and staff through the process of planning and implementing data collection strategies.

The planning and implementation process involves similar steps as those used in other data collection purposes, such as self-evaluation. The uses of these data, however, are geared toward results-based management.

Programmes will discover that planning for data collection will involve a series of choices and decisions. This guide will provide the knowledge and tools for making sound decisions throughout this process.

This guide can be used during an interactive skill building training sessions, and can also be used as a stand-alone resource to assist programme managers and staff learn about, and apply, data collection skills.

This guide does not address data analysis and reporting issues. These subjects are beyond the scope of this training manual.
INTENDED OUTCOMES

- **Increased awareness** of the steps involved in designing a data collection system.

- **Increased skills** in making sound data collection design decisions.

- **Increased skills** in conducting data collection using survey or content analysis methods.

- **Increased confidence** in your programme’s capacity to carry out data collection activities.
INTRODUCTORY EXERCISE

Instructions:

1. Divide the full training group into four groups of 6 – 8 people.

2. The assignment for each group is as follows.

   a. **Address** the indicator of achievement selected by the training facilitator (based on subprogrammes involved in the training).

   b. **Discuss** how your group would approach data collection design decisions for measuring this indicator of achievement. Your discussion should address each of the design areas identified in the Data Collection Design Questions listed below. (Limit to 30 minutes)

   c. **Appoint** a presenter for your group. The role of the presenter is to relate how your group responded to the Data Collection Design Questions as well as the key issues raised in addressing these questions. The presenter worksheet provides a place to record a summary of the discussion.

   d. The presenter for each group should **share** your group’s discussion with the full training group. Other group members could assist the presenter as needed. (Limit to 3 – 5 minutes per group)

The trainer will record issues raised in order to connect these issues to training topics addressed in the training workshop.

Data Collection Design Questions

1. What data currently exist about this indicator of achievement?

2. Where (to what people or places) could you go to gather existing or new data?

3. What type of data collection methods would make the most sense for measuring this result?

4. How much data would you gather (all participants or a representative subgroup)?

5. When, and how frequently, would you gather data about this result?
PART 2:

OVERVIEW OF RESULTS-BASED BUDGETING
PART 2

OVERVIEW OF RESULTS-BASED BUDGETING

WHAT ARE RESULTS IN RESULTS-BASED BUDGETING?

- Results are the **programme’s intended benefits** for the end-users of United Nations programmes; namely individuals, populations, communities, organizations, nations and regions.

- Results **address the “so what” question**: *What difference did this programme make to individuals, populations, communities, organizations, nations and/or regions?*

- Results are the **logical expected accomplishment** that occurs during or after the delivery of programme outputs.

There are many types of results:

- Knowledge
- Skills
- Attitude
- Behavior
- Condition
- Policy
- Etc.
DOES RESULTS-BASED BUDGETING PROVE THAT A PROGRAMME IS EFFECTIVE?

Results data does not ‘prove’ that a specific programme ‘caused’ an expected accomplishment. Measurement for results-based budgeting does not usually control all other possible influences on an expected accomplishment. Results typically occur because a number of influences contribute to an expected accomplishment. Results data provide a basis for a ‘plausible’ claim that a specific programme ‘contributed’ to an expected accomplishment.

WHY MEASURE RESULTS?

▸ Results-based management encourages programmes to make mid-course adjustments that are based on how well end-users are benefiting from the selected outputs.

▸ Results-based management focuses performance measurement attention on benefits to end-users rather than counting levels of activity.

▸ Results-based management is a dynamic process, providing feedback throughout the full programme cycle: planning, programming, budgeting, monitoring and evaluation.
WHAT ARE THE PRACTICAL BENEFITS OF RESULTS-BASED MANAGEMENT?

Results-based management can be applied many ways. For example:

- To determine **effectiveness** and continued relevance of activities
- To provide **feedback** to programmes for future actions
- To **focus** Member States on policy issues
- To promote **support** for effective programmes
- To develop and adjust programme budgets
- To **recruit and retain** talented staff
- To identify and celebrate progress being made
WHERE DO RESULTS FIT IN THE LOGICAL FRAMEWORK?

Results provide a critical linkage to the broad objectives of programmes and the implementation process.

Planning

Objectives  Results  Outputs  Activities  Inputs

Performance Measurement

LINK *  LINK *  LINK

Implementation
If our objective – “What do we intend to achieve?” is:

To improve the status of women

Our results – “What happens when we have met our objective?” – might be:

- Less discrimination against women?
- Improved gender mainstreaming in work of United Nations entities?
- More women participating in electoral processes?

Then our indicators – “What will show us that the results have occurred?” – might be:

- Increase in actions taken on complaints about sexual harassment.
- Increase in the number of programmes and projects incorporating gender issues.
- Increase in the number of women registered to vote.

**OUTPUTS**

*What outputs do we deliver to achieve those desired results?*

- Training on gender mainstreaming
- Electoral assistance missions
WHERE DOES THE MEASUREMENT OF RESULTS FIT INTO OTHER UNITED NATIONS EVALUATION PROCESSES?

- Measurement of results is an extension of the periodic ‘self-evaluation’ that programmes currently conduct.

- The past focus of self-evaluation has been primarily on subprogramme outputs and activities.

- Results-based budgeting extends the focus to include subprogramme results.

- This additional data provides more complete management information for strengthening programme effectiveness and impact.

- Results data may also be useful to the more rigorous and extensive ‘in-depth’ evaluations that are selectively undertaken.
HOW DO WE MAKE RESULTS MEASURABLE?

Results are expressed on **two levels:**

1. Expected Accomplishments
2. Indicators of Achievement

EXPECTED ACCOMPLISHMENTS

**Description of an Expected Accomplishment:** a succinct statement about the intended result.

Expected Accomplishments is defined in the “Regulations and Rules Governing Programme Planning, the Programme Aspects of the Budget, the Monitoring of Implementation and the Methods of Evaluation—Secretary General’s Bulletin” as follows:

“...the desired outcome involving benefits to end-users, expressed as a quantitative or qualitative standard, value, or rate. Accomplishments are the direct consequence or effect of the generation of outputs and lead to the fulfillment of a certain objective”
INDICATORS OF ACHIEVEMENT

An expected accomplishment is not always directly observable. It may reflect a broad idea that needs to be further defined before it can be measured. The indicator of achievement provides an opportunity to restate the expected accomplishment in specific and directly observable terms. Typically, an expected accomplishment has several indicators of achievement. It is desirable to limit the number of indicators of achievement to one to three statements in order to keep the results measurement process manageable. Limiting the number of indicators of achievement also facilitates better communication of the programme’s results.

An indicator of achievement is defined in the “Regulations and Rules Governing Programme Planning, the Programme Aspects of the Budget, the Monitoring of Implementation and the Methods of Evaluation—Secretary General’s Bulletin” as follows:

“Indicators of achievement are used to measure whether and/or the extent to which the objectives and/or expected accomplishments have been achieved. Indicators correspond either directly or indirectly to the objective or the expected accomplishment for which they are used to measure performance.”
WHAT ELSE NEEDS TO BE MEASURED?

Other elements of measurement may include:

- Outputs
- External Factors

OUTPUTS

Outputs have been the focus of much of the past measurement activity in the United Nations. Outputs are the product of the inputs and activities. They represent the quantification of the work performed within a programme. Most programmes have developed tracking systems for capturing output data.

An output is defined in the “Regulations and Rules Governing Programme Planning, the Programme Aspects of the Budget, the Monitoring of Implementation and the Methods of Evaluation—Secretary General’s Bulletin” as follows:

“Outputs are the final products or services delivered by a programme or subprogramme to end-users, such as reports, publications, training, servicing of meetings, or advisory, editorial, translation or security services, which an activity is expected to produce in order to achieve its objectives.”
EXTERNAL FACTORS

External factors are the expected and unexpected factors beyond the programme’s control that have a plausible influence on the achievement of the expected accomplishment.

An external factor is defined in the “Regulations and Rules Governing Programme Planning, the Programme Aspects of the Budget, the Monitoring of Implementation and the Methods of Evaluation—Secretary General’s Bulletin” as follows:

“External factors are events and/or conditions that are beyond the control of those responsible for an activity but have an influence on the success or failure of the activity. They may be anticipated in the form of assumptions or they may be unanticipated.”
PART 3:

PREPARING TO COLLECT DATA
SECTION 3.1

PREPARING YOUR INDICATORS OF ACHIEVEMENT FOR MEASUREMENT

Your indicators of achievement need to be directly measurable through sight, verbal communication, and/or written work.

Ask yourself: What can I see, hear or read to indicate the expected accomplishment has been achieved?

Some indicators submitted as part of your programme budget are directly measurable in their current form. For example, indicators of achievement can be observed in meetings, heard in interviews with key stakeholders, or read in public documents. You can even measure some indicators in more than one way.

EXAMPLES OF INDICATOR MEASUREMENT FROM UN BUDGETS

<table>
<thead>
<tr>
<th>INDICATOR OF ACHIEVEMENT</th>
<th>HOW DIRECTLY MEASURED?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of human resources development recommendations adopted by Governments at intergovernmental meetings</td>
<td>Assessment of meeting records at intergovernmental meetings</td>
</tr>
<tr>
<td>The number of arrangements for technical cooperation among developing countries facilitated by ESCAP</td>
<td>Assessment of internal programme records regarding technical cooperation OR Interviews with stakeholders in developing countries regarding the extent and type of technical cooperation in which they are engaged</td>
</tr>
</tbody>
</table>

[Source: ESCAP 2002-2003 Programme Budget]
Other indicators of achievement need one further step to make them measurable.

- These indicators include conceptual language that cannot be directly measured. *For example: quality, coordination, cooperation, etc.*

- Conceptual language needs to be broken down into specific dimensions that are measurable.

A useful strategy for refining your indicators of achievement to make them measurable is to add the phase “as evidenced by.”

- “As evidenced by” permits your programme to further specify one or more dimensions that are directly measurable.
EXAMPLES OF USING “AS EVIDENCED BY” AS A USEFUL STRATEGY

EXAMPLE A

Current Indicator of Achievement Statement
The number of countries in which the government, or private sector officials, or NGOS and community-based organizations indicate that participation in transport programmes helped in promoting coordinated policy development.

Revised Statement Adding “As Evidenced By”
The number of countries in which the government, private sector officials, or NGOS and community-based organizations indicate that participation in transport programmes helped in promoting coordinated policy development as evidenced by policies that reference and address specific issues of coordination identified in public documents, training publications, or meeting records based on UN programmes regarding transport operations.

EXAMPLE B

Current Indicator of Achievement Statement
The volume of quality data, especially those of contemporary concern, produced by countries in the region.

Revised Statement Adding “As Evidenced By”
The volume of quality data, especially those of contemporary concern, produced by countries in the region as evidenced by the number of data sources that meet standards for reliability and validity established by social science disciplines.

[Source: ESCAP 2002-2003 Programme Budget]
EXERCISE: USING “AS EVIDENCED BY” AS A USEFUL STRATEGY

Instructions:

1. Review your indicators of achievement.
2. Select one indicator that includes a concept that has multiple dimensions, such as ‘quality’ or ‘coordination’.
3. Create a revised indicator of achievement statement that adds “as evidenced by” to make it directly measurable.

Current Indicator of Achievement Statement:

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

Revised Statement Adding “As Evidenced By:”

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________
SECTION 3.2
TAKING STOCK OF YOUR MEASUREMENT ELEMENTS

Measurement elements include:

- Expected Accomplishments
- Indicators of Achievement
- Outputs
- External Factors

Review programme budget

- Identify expected accomplishments, indicators of achievement, and external factors for each subprogramme.
- Note that data collection system for outputs has already been established through ongoing monitoring, auditing, and evaluation processes and will not be addressed in this training guide.
## CASE EXAMPLE: TAKING STOCK OF MEASUREMENT ELEMENTS FOR POLITICAL AFFAIRS/PREVENTION, CONTROL AND RESOLUTION OF CONFLICT

<table>
<thead>
<tr>
<th>Section Name</th>
<th>Political Affairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subprogramme Name</td>
<td>Prevention, Control and Resolution of Conflicts</td>
</tr>
<tr>
<td>Expected Accomplishment 1</td>
<td>Improved capability of the international community in the prevention, control and resolution of conflicts through preventive diplomacy, peacemaking and post-conflict peace-building activities</td>
</tr>
<tr>
<td>Indicators of Achievement</td>
<td>(i) Identification of potential, new and ongoing conflicts addressed and/or settled through peaceful means</td>
</tr>
<tr>
<td></td>
<td>(ii) An increase in the level and effectiveness of post-conflict peace-building activities</td>
</tr>
<tr>
<td>Expected Accomplishment 2</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Indicators of Achievement</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Expected Accomplishment 3</td>
<td>Not applicable</td>
</tr>
<tr>
<td>(NOTE: if more than 3, attach additional form)</td>
<td></td>
</tr>
<tr>
<td>External Factors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. There is political determination and will on the part of Member States to cooperate in the full implementation of the subprogramme</td>
</tr>
<tr>
<td></td>
<td>b. There is no sudden and unforeseen political, economic and social developments, whether at the local, regional, or global levels, that could have an adverse impact on the successful implementation of the subprogramme</td>
</tr>
<tr>
<td>Indicators of Achievement</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
SECTION 3.3
IDENTIFYING CURRENT AND POTENTIAL SOURCES OF DATA

CONSIDER THE FULL ARRAY OF PLACES OR PEOPLE FROM WHICH DATA CAN BE GATHERED

▸ Informal and Official Records
  ▷ Governments and government organizations
  ▷ Intergovernmental organizations
  ▷ Business organizations
  ▷ Non-governmental organizations
  ▷ Organizations of the United Nations system
  ▷ Your own programme records
  ▷ Other sources of records

▸ Individuals
  ▷ Residents of Member States
  ▷ Policy makers and staff of Member States, intergovernmental organizations, non-governmental organizations, businesses and other organizations in the United Nations system
  ▷ Expert observers
  ▷ End-users/beneficiaries
  ▷ Other individuals
Section 3.3: Identifying Current and Potential Sources of Data

- **Documents**
  - Commercial media
  - Publications of Governments and government organizations, intergovernmental organizations, business organizations, non-governmental organizations, organizations of the United Nations system
  - Other documents, including websites, databases, etc.

**FOCUS THE SUBJECTS FOR YOUR DATA COLLECTION ON THE FOLLOWING TWO MEASUREMENT ELEMENTS**

1. **Indicators of Achievement**
2. **External Factors**

*Why measure these elements?*

1. **Indicators of achievement** represent your expected accomplishments. They are more concrete and observable than the expected accomplishment.

2. **External factors** provide important context for interpreting your findings about the indicators of achievement.

**DETERMINE WHAT DATA ARE CURRENTLY AVAILABLE TO YOUR PROGRAMME REGARDING THE SUBJECTS YOU PLAN TO MEASURE**

- Your own programme records are the best place to start.

*What information do you regularly collect on a systematic basis?*
Is it possible to modify your processes to collect this information more regularly or more systematically?

Are there any steps you can take to enhance the validity and reliability of this information?

**CONSIDER WHAT OTHER RECORDS OR PUBLICATIONS ARE AVAILABLE REGARDING THE SUBJECTS YOU PLAN TO MEASURE**

Are there published reports, regularly printed articles, databases, or other records or publications?

**CONSIDER WHAT INFORMATION YOU CURRENTLY COLLECT FROM INDIVIDUALS ABOUT THE SUBJECTS YOU PLAN TO MEASURE**

Are there survey data, convenings of experts, facilitated discussions, opinion polls, or other information regularly or systematically collected from end-users and other informed individuals?
EXERCISE: IDENTIFYING SOURCES OF DATA

Instructions:

1. Select a programme and subprogramme and list them above the table below.
2. Select one Indicator of Achievement and one External Factor and list them in the table below.
3. For both the Indicator of Achievement and the External Factor you listed, consider whether there are any current sources of regularly and systematically collected data that address these subjects. State these sources in the second column of the table below.
4. Next, consider sources where data could potentially be collected on a regular and systematic basis for both the Indicator of Achievement and the External Factor. State these in the third column of the table below.

Section/Programme Name: ________________________________

Subprogramme Name: ________________________________

<table>
<thead>
<tr>
<th>Measurement Element</th>
<th>Data Currently Available From This Source</th>
<th>Data That Could Potentially Be Collected From This Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator of Achievement:</td>
<td>Records:</td>
<td>Records:</td>
</tr>
<tr>
<td></td>
<td>Individuals:</td>
<td>Individuals:</td>
</tr>
<tr>
<td></td>
<td>Documents:</td>
<td>Documents:</td>
</tr>
<tr>
<td>External Factor:</td>
<td>Records:</td>
<td>Records:</td>
</tr>
<tr>
<td></td>
<td>Individuals:</td>
<td>Individuals:</td>
</tr>
<tr>
<td></td>
<td>Documents:</td>
<td>Documents:</td>
</tr>
</tbody>
</table>
CASE EXAMPLE: IDENTIFYING CURRENT AND POTENTIAL SOURCES OF DATA FOR POLITICAL AFFAIRS/PREVENTION, CONTROL AND RESOLUTION OF CONFLICT

Instructions:

1. Select a programme and subprogramme and list them above the table below.
2. Select one Indicator of Achievement and one External Factor and list them in the table below.
3. For both the Indicator of Achievement and the External Factor you listed, consider whether there are any current sources of regularly and systematically collected data that address these subjects. State these sources in the second column of the table below.
4. Next, consider sources where data could potentially be collected on a regular and systematic basis for both the Indicator of Achievement and the External Factor. State these in the third column of the table below.

<table>
<thead>
<tr>
<th>Measurement Element</th>
<th>Data Currently Available From This Source</th>
<th>Data That Could Potentially Be Collected From This Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator of Achievement: Identification of potential, new and ongoing conflicts addressed and/or settled through peaceful means</td>
<td>Records: Government statements, statements of intergovernmental bodies, proceedings and statements of the organizations of the UN, programme staff notes to file</td>
<td>Records: Same</td>
</tr>
<tr>
<td></td>
<td>Individuals: none currently</td>
<td>Individuals: Expert observers, residents of Member States</td>
</tr>
<tr>
<td></td>
<td>Documents: newspaper articles, NGO publications</td>
<td>Documents: Same</td>
</tr>
<tr>
<td>External Factor: There is political determination and will on the part of Members States to cooperate in the full implementation of the subprogramme</td>
<td>Records: General Assembly proceedings, governmental statements, statements of intergovernmental bodies, programme staff notes to file</td>
<td>Records: Same</td>
</tr>
<tr>
<td></td>
<td>Individuals: none currently</td>
<td>Individuals: Expert observers</td>
</tr>
<tr>
<td></td>
<td>Documents: newspaper articles, NGO publications</td>
<td>Documents: Same</td>
</tr>
</tbody>
</table>
Once data sources have been identified, your programme may choose from several methods for gathering the data from each source.

**Typical methods include:**

- Review of official records
- Review of internal records
- Survey administration
- Interview administration
- Content analysis of audio, visual and/or written communication material

There are **three** main considerations in identifying your method:

1. **Availability of the Data**—*How hard is it to obtain? How much financial and human resources are involved in obtaining the data?*

2. **Validity of the Data**—*How accurate is this method for measuring the Indicator of Achievement?*  
   Validity addresses the question: *Is X really X?*

3. **Reliability of the Data**—*How much would you believe in the results gathered from this method? How consistent would the data be from one time period to the next? From one data collector to the next?*  
   Reliability addresses the question: *Will X remain X if collected under different circumstances?*
OFFICIAL RECORDS

**Description of Official Records:** Official accounts of formal institutions such as governments, businesses, multinational organizations, or NGOs.

**Advantages of Use:**

- Frequently available
  
  Records might be publicly accessible.

- Low resource cost
  
  Eliminates need for creating new data collection processes.

- Reliable
  
  Conclusions you reach from reviewing the records can be reviewed by others to confirm or modify your own conclusions.

**Disadvantages of Use:**

- Validity
  
  Data reflect what institutions choose to report and may not be comprehensive or impartial.
INTERNAL RECORDS

Description of Internal Records: Your own programme records, such as data available for research and analysis, workload statistics, notes to file, structured checklists, and meeting minutes or logs. These typically are developed for internal communication but could potentially be regarded as a source of data as well.

Advantages of Use:

- Readily available

  Your programme has a large degree of control over the frequency, structure and content of internal records.

- Low resource cost

  Low level of direct financial cost is involved; however, there are human resource expectations for maintaining files regularly and systematically.

  Eliminates need for creating new data collection processes.

- Validity

  Your programme can design record keeping processes that directly address the Indicators of Achievement.

Disadvantages of Use:

- Reliability

  Programmes do not typically expect staff to capture meeting information and other staff activities in structured reporting formats. These variations in format lead to inconsistencies and irregular frequencies in data gathering. Programmes might address this threat to reliability by creating standardized approaches to maintaining internal records.

  For example: areas to standardize include type of information captured, frequency for recording information, format of records.
SURVEY ADMINISTRATION

**Description of Survey Administration:** Standardized written instruments that contain several questions. The questions can have various formats, such as fixed-choice questions, scales, and open-ended questions. Surveys can be administered in many ways, such as through the mail, over the telephone, in-person, or via the Internet.

### Advantages of Use:

- **Low resource cost**
  
  Surveys are an efficient way to gather data.

- **Reliability**
  
  Surveys request the same information from each respondent. This standardization provides consistency in the type of information gathered.

### Disadvantages of Use:

- **Validity**
  
  Survey respondents may understand questions differently based on their different backgrounds related to language, culture, and other factors. The different interpretation of questions weakens the accuracy of the responses.

  Surveys can seem impersonal, and respondents may not be completely candid in their responses. This can contribute to a “threat” to the accuracy of the responses.
INTERVIEW ADMINISTRATION

Description of Interview Administration: A set of questions, typically semi-structured or unstructured, asked in-person or over the telephone. Interviews are designed to gather in-depth information and can be conducted one-on-one or in a group format. Group interviews, typically regarded as ‘focus groups’, take advantage of small group dynamics to gather in-depth information.

Advantages of Use:

- Validity

  Interviews permit the opportunity to clarify questions in order to improve the accuracy of responses. Interviews also provide an opportunity to probe in order to obtain more complete or accurate responses.

  Persistent interviewers can achieve high cooperation rates for responding to the interview. This allows for a more representative sample of participants, which lends itself to greater trust in the accuracy of the results.

Disadvantages of Use:

- Moderate to high cost

  Interviews take longer than do surveys for gathering the data and interpreting the responses.

- Reliability

  Interview questions tend to be flexible, which causes less standardization and/or consistency in the type of information gathered.


**CONTENT ANALYSIS**

**Description of Content Analysis:** A systematic approach to analyzing themes in audio, visual or print communication. Selected material is reviewed and assessed along the lines of predetermined criteria, such as reflection of key messages, accuracy, prominence, and reference to sponsoring organizations.

**Advantages of Use:**

- **Available resources**
  
  Communication materials are typically publicly available. This provides a low-cost source of data.

- **Reliability**
  
  Predetermined criteria permit the opportunity to standardize a coding scheme and thus provide consistent interpretations of the communication material.

**Disadvantages of Use:**

- **Validity**
  
  The communication material is a selected representation of the actual events or interactions. They usually provide only partial coverage and there is subjectivity involved in what is selected for coverage. As such, they may not be fully representative of what actually happened which, in turn, presents a threat to the accuracy of your analysis.
### TABLE 3.4: DATA COLLECTION METHODS CHOICES: SOME GOOD CHOICES AND SOME BAD CHOICES

<table>
<thead>
<tr>
<th>TYPE OF INDICATOR</th>
<th>GOOD CHOICE</th>
<th>BAD CHOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Change</td>
<td>Official records review of Member States policies and laws. Why? These data are publicly available, low cost to gather, and consistently recorded.</td>
<td>Survey of Member States lawmakers. Why? This depends on recall and interpretation by the Member States. It is less consistent information and more costly.</td>
</tr>
<tr>
<td>Increased Awareness</td>
<td>Interview of a sample of end-users. Why? Awareness is a cognitive process and end-users are the most accurate source for indicating how they think about an issue.</td>
<td>Content analysis of television news coverage. Why? Television news coverage provides selective reporting. Newsmakers may be aware of an issue but choose not to cover it.</td>
</tr>
<tr>
<td>Increased Interest</td>
<td>Review of internal records of requests for information and participation in meetings. Why? Programmes can develop standardized internal record keeping procedures for consistently capturing these data. They are also a direct representation of interest.</td>
<td>Interviews of programme end-users. Why? This is a far more costly method for gauging interest than is the case for internal records. The sample would also be more limited in size and scope.</td>
</tr>
</tbody>
</table>
EXERCISE: SELECTING YOUR DATA COLLECTION METHOD

Instructions:

1. Consider the expected Accomplishments and Indicators of Achievement identified in the table below. Alternatively, select an expected accomplishment from your programme and list it in the bottom row of the table below.

2. Select one of the indicators and determine two potential methods of data collection for this indicator. Record your responses on the worksheet provided.

3. Discuss the advantages and disadvantages of each approach, and summarize these issues on the worksheet provided.

4. Select one data collection method and record your rationale for this decision on the worksheet provided.

Programme/Subprogramme: Political Affairs/Peaceful Uses of Outer Space

<table>
<thead>
<tr>
<th>EXPECTED ACCOMPLISHMENT</th>
<th>INDICATOR OF ACHIEVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Integration of the strategy contained in the Vienna Declaration into policy decisions by Member States and the execution of space-related activities at the regional, national and international levels.</td>
<td>(a) Increased reference, in the national plans and policies of Member States and in recommendations and decisions made by intergovernmental bodies dealing with economic, social and cultural developments, to the Vienna declaration.</td>
</tr>
<tr>
<td>(b) Increased application by the international community, including Member States, space-related national and international organizations, as well as industry, of the international legal regime established by the United Nations to govern outer space activities.</td>
<td>(b) An increase in the number of States establishing national legislation and regulations concerning their space-related activities in conformity with the international legal framework governing outer space activities established by the United Nations.</td>
</tr>
<tr>
<td>(c) Increased use of outer space technologies by developing countries in their efforts to promote sustainable development.</td>
<td>(c) An increase in the number of projects and activities carried out by developing countries to promote sustainable development with the use of space technologies.</td>
</tr>
<tr>
<td>(d) Your programme’s expected accomplishment:</td>
<td>(d) Your programme’s indicator of achievement:</td>
</tr>
</tbody>
</table>
WORKSHEET: SELECTING YOUR DATA COLLECTION METHOD

Indicator:

Potential Data Collection Method 1:

Advantages:

Disadvantages:

Potential Data Collection Method 2:

Advantages:

Disadvantages:

Selected Data Collection Method:

Rationale:
SECTION 3.5
IDENTIFYING YOUR SAMPLE

WHAT IS SAMPLING?

Description of Sampling: A subgroup of your target population (individuals or entities) from whom you collect data.

WHY WOULD YOU CHOOSE TO SAMPLE?

When the group of people or entities that comprise your target population is large, sampling provides a more efficient alternative to gathering information from every individual or entity. Samples are frequently used in surveys, interviews, and content analysis methods. They are less frequently used in official record reviews and internal record reviews.

HOW DO YOU SAMPLE?

There are five steps to sampling:

1. Clarifying your ‘target population’ and ‘unit of analysis’.
2. Deciding whether to include your complete target population or to select a sample.
3. Determining a sample size.
4. Selecting a sampling method.
5. For surveys and interviews: estimating how much data to gather in order to result in the desired sample size.
CLARIFYING YOUR ‘TARGET POPULATION’

**Description of Target Population:** the largest group about which you want to learn and be able to generalize your findings.

Your target population consists of a number of individuals, groups, organizations, communities or nations.

Create a clear definition of ‘who or what’ is included and ‘who or what’ is excluded from your data collection process.

The key question to ask is: *Which people or entities associated with this programme do we want to know about?*

CLARIFYING YOUR ‘UNIT OF ANALYSIS’

**Description of Unit of Analysis:** the single case within your target population

Your unit of analysis is the ‘what or whom’ from which you collect data.
### TABLE 3.5.1: EXAMPLES OF TARGET POPULATION AND UNIT OF ANALYSIS

<table>
<thead>
<tr>
<th>TYPE OF INDICATOR</th>
<th>TARGET POPULATION</th>
<th>UNIT OF ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of regional human rights strategies adopted</td>
<td>Global regions consisting of several nations</td>
<td>Individual nations that comprise specific regions</td>
</tr>
<tr>
<td>An increased number of actions initiated or implemented to strengthen coordination for human rights across the United Nations system</td>
<td>The United Nations system</td>
<td>Individual organs, bodies, and specialized agencies whose activities deal with human rights</td>
</tr>
<tr>
<td>Satisfaction of donors with the use of their contributions (to NGOs for assisting victims and communities)</td>
<td>Donors/grantmakers that support victim and community assistance programs provided by NGOs and administered by the United Nations</td>
<td>Individual donors/grantmakers that support victim and community assistance programs provided by NGOs and administered by the United Nations</td>
</tr>
</tbody>
</table>

[Examples Based on Measurements of Achievement for Human Rights and Humanitarian Affairs]
TO SAMPLE OR NOT TO SAMPLE? DECIDING WHETHER TO INCLUDE EVERYONE OR TO SELECT A SAMPLE

Once your programme has defined its target population and unit of analysis, you must decide whether to include all individuals or entities, or whether to sample.

As a general rule:

- Only consider sampling if there are more than 100 individuals or entities in your target population.
- Otherwise, gather data from your entire target population.

Your programme may still want to gather data from your entire target population even if it includes more than 100 individuals or entities.

Sampling is primarily recommended for reasons of efficiency. This would apply to those situations wherein data collection would be labor intensive and/or costly to gather large amounts of data, such as telephone interviews or mail surveys.

Examples of methods in which you would be more likely to sample include surveys, interviews, and content analysis.

Examples of methods in which you would be less likely to sample include review of official records and review of internal records.
DETERMINING YOUR SAMPLE SIZE

There are no magic answers in determining a sample size.

Considerations for choosing your sample size include:

- Size of the target population
- Variation in the characteristics of the target population
- Need for assessing subgroups within the larger target population
- Amount of sampling error that can be tolerated

The question is: How many individuals or entities should your programme sample in order to be reasonably confident your findings are representative of the entire target population?

Sampling charts provide an estimate of the number of individuals or entities to include in order to be confident your sample is representative of the target population.

The table on the next page provides overall guidelines for sample size. It is based on the assumption that the population is heterogeneous (diverse) regarding the characteristics of interest. These guidelines provide a reasonable estimate for selecting your sample size; however, a more precise size can be calculated by a statistician.
## TABLE 3.5.2: RESPONDENTS NEEDED FOR 95 PERCENT CONFIDENCE LEVEL

<table>
<thead>
<tr>
<th>Population Size</th>
<th>± 3% Sampling Error</th>
<th>± 5% Sampling Error</th>
<th>± 10% Sampling Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>92</td>
<td>80</td>
<td>49</td>
</tr>
<tr>
<td>250</td>
<td>203</td>
<td>152</td>
<td>70</td>
</tr>
<tr>
<td>500</td>
<td>341</td>
<td>217</td>
<td>81</td>
</tr>
<tr>
<td>750</td>
<td>441</td>
<td>254</td>
<td>85</td>
</tr>
<tr>
<td>1,000</td>
<td>516</td>
<td>278</td>
<td>88</td>
</tr>
<tr>
<td>2,500</td>
<td>748</td>
<td>333</td>
<td>93</td>
</tr>
<tr>
<td>5,000</td>
<td>880</td>
<td>357</td>
<td>94</td>
</tr>
<tr>
<td>10,000</td>
<td>964</td>
<td>370</td>
<td>95</td>
</tr>
<tr>
<td>25,000</td>
<td>1,023</td>
<td>378</td>
<td>96</td>
</tr>
<tr>
<td>50,000</td>
<td>1,045</td>
<td>381</td>
<td>96</td>
</tr>
<tr>
<td>100,000</td>
<td>1,056</td>
<td>383</td>
<td>96</td>
</tr>
<tr>
<td>1,000,000</td>
<td>1,066</td>
<td>384</td>
<td>96</td>
</tr>
<tr>
<td>100,000,000</td>
<td>1,067</td>
<td>384</td>
<td>96</td>
</tr>
</tbody>
</table>

[Source: “How to Conduct Your Own Survey” by Priscilla Salant & Don Dillman, 1994]

### NOTE: How to read this table

A. Determine the number of people or entities in your target population and find the closest number (rounding up) in column 1, Population Size.

B. Determine the level of sampling error you can tolerate: 3%, 5% or 10%. Sampling error indicates how much confidence you can have that your sample is representative of the larger population. Generally a 5% sampling error is selected. In other words, 95 times out of 100 this sample is representative of the larger population.

C. Find the cell in which your population size and sampling error meet. For example: for 5,000 people or entities, you would need a sample size of 357 in order to be 95% confident in your sample. For 50,000 people or entities, you would need a sample size of 381 in order to be 95% confident in your sample.
### EXAMPLES OF SELECTING YOUR SAMPLE SIZE

#### Case 1: Conference About Global Warming

One hundred-fifty (150) nations participate in a conference about global warming. The conference objectives were to encourage nations to adopt policies that reduce threats to global warming. **How many national policies should be reviewed one year following the conference?**

**Sample Size:** 150

This example requires no sampling. Include all the nations that attended the conference. Their policies are generally publicly available which will facilitate a review of policy statements that address threats to global warming. 150 is a manageable number; therefore, sampling would not be necessary.

#### Case 2: Awareness of the United Nations Mission and Purpose

The United Nations strives to help the world understand why it exists and its purpose in supporting the work of intergovernmental bodies and Member States in addressing their priorities and concerns. **How many people would the United Nations need to survey or interview in order to determine the level of awareness worldwide?**

**Sample Size:** 1920

384 people in each of 5 world regions: Asia, Latin America and the Caribbean, Africa, Middle East, and Europe and North America. The sampling chart indicates that 384 units can represent a total population of over 1 million people at the 95% confidence level. This means you can be confident 95 times out of 100 that the sample is representative of the larger population. This allows for 95% confidence in your programme’s ability to generalize this sample to the larger population. The reason for selecting 384 people in each region is to allow for subgroup analysis by region.
SELECTING A SAMPLING METHOD

The first task in selecting your sampling method is to identify your ‘sampling frame’.

Description of Sampling Frame: the sampling frame is the list reflecting your population from which you will select a sample.

Your list might include the entire target population, but more typically does not because a full list of the target population is not always available.

Examples where lists of the entire target population are reasonable to compile:

- Member States
- NGOs recognized by the United Nations
- Representatives appointed to the General Assembly
- Newspaper publications about disarmament topics

Examples where lists of the entire target population is not likely to be available:

- People living in Latin America and the Caribbean
- Refugees
- ‘Key opinion leaders’ that influence policies of Member States
- People concerned about the status of women

It is important to determine what type of list is available to you, or what list you can reasonably compile for your sampling frame, because this will strongly influence the type of sampling method you choose.
The **second task** is to decide whether to use a sampling method based on *probability* or *non-probability*.

Distinguishing features of *probability* samples include:

- Every unit of analysis has a known chance of being selected because the sample is selected from a comprehensive sampling frame of the target population.

- Sample selection is objective; subjective judgment plays no role. *For example, randomly draw names from a hat containing all of the names from your sampling frame.*

- Sampling designs include random selection, systematic selection and stratified selection. (See next page for definitions of these designs.)

Distinguishing features of *non-probability* samples include:

- Selection is based on subjective judgment. *For example, select all the people that it is convenient to interview or those people that seem to be ‘typical’ of the people in your target population.*

- Non-probability samples are often selected when it is not reasonable or possible to compile a comprehensive sampling frame, or when the cost of probability sampling would be too expensive.

- Due to the subjectivity involved in selection, every unit of analysis does not have the same chance of being included in the sample. Some have high chances, and some have no chances at all. In many cases, you cannot make a reasonable estimate about the chances of selection because a comprehensive sampling frame cannot reasonably be compiled.
There are three main ways to design a probability sample:

- Simple Random Sampling
- Systematic Sampling
- Stratified Sampling

1. **Simple Random Sampling**: In a simple random sample, each participant has an equal chance of being selected into the sample. One way to construct a simple random sample is to assign a number to each participant in the sampling frame and draw numbers at random.

2. **Systematic Sampling**: This is another way of ensuring that each participant has an equal chance of being selected into the sample. Assign a number to each participant in the sampling frame and select participants at equal intervals from a random starting place. One method for drawing this kind of sample is to compile an alphabetical list of participants and choose, for example, every twentieth (20th) name on the list.

3. **Stratified Sampling**: A stratified sample involves first separating a target population into groups (or strata) of similar characteristics and then drawing a simple random sample from each group. Such a sample is used when characteristics of the target population are diverse and particular characteristics may influence the results. *For example*: geographical distribution, political beliefs, socio-economic indicators. *A simple way to construct a stratified sample is to divide the sampling frame into groups that share one or more characteristics, assign a number to each participant, and draw random samples from each group.*
There are times when it is not possible or feasible to implement a probability sample. This is likely to be the case when sampling frames are not reasonable to compile or when the cost of probability sampling is formidable. Non-probability designs are usually implemented in these situations. There are three main ways to design a non-probability sample:

- **Quota Sampling**: The goal of a quota sample is to select a sample that is as similar as possible in certain characteristics to the target population being sampled. *For example, if it is known that there are 100 NGOs recognized by the United Nations in a particular interest area and 100 NGOs not recognized by the United Nations, the goal of the quota sample is to reflect this composition.* This would mean 50% of each type of NGO. It is a non-probability sample because the NGOs would not be selected at random.

- **Snowball Sampling**: In this method, each sampling frame participant is asked to suggest other participants who might be appropriate for the sample. This approach is often used when collecting information on a sensitive subject where confidentiality is important.

- **Convenience Sampling**: Participants are selected based on their availability and ‘convenience’ such as people at a public event. This method is not recommended unless there are no other options for gathering a sample.
## CASE EXAMPLE: UNSCRAMBLING THE SAMPLING JARGON

<table>
<thead>
<tr>
<th>TERM</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target population</td>
<td>Voters in Europe.</td>
</tr>
<tr>
<td>Sampling frame</td>
<td>All Europeans that are currently registered to vote.</td>
</tr>
<tr>
<td>Unit of analysis</td>
<td>Voter.</td>
</tr>
<tr>
<td>Simple random sample</td>
<td>Gather list of all registered voters among European nations. Assign numbers to each name within each nation. Select numbers at random.</td>
</tr>
<tr>
<td>Systematic sample</td>
<td>Gather list of all registered voters among European nations. Select every 100th name.</td>
</tr>
<tr>
<td>Stratified sample</td>
<td>Gather list of all registered voters among European nations. Separate by nation. Assign numbers to each name within each nation. Select numbers at random.</td>
</tr>
<tr>
<td>Quota sample</td>
<td>Select voters from each European nation based on the percent of voters that it contributes to the total target population of voters.</td>
</tr>
<tr>
<td>Snowball sample</td>
<td>Contact a voter in Europe and ask that person to suggest the name of someone else who votes.</td>
</tr>
<tr>
<td>Convenience sample</td>
<td>Stop people on the streets of various European nations and ask that person if he/she is registered to vote. Include people in the sample who respond 'yes'.</td>
</tr>
</tbody>
</table>
FOR SURVEYS AND INTERVIEWS: ESTIMATING HOW MUCH DATA TO GATHER IN ORDER TO RESULT IN THE DESIRED SAMPLE SIZE

When your program determines that it is appropriate to draw a sample from your target population for administering a survey, it is important to plan on a percentage of individuals that will choose not to cooperate. The percent of people contacted who do respond is called your response rate. It helps to anticipate your response rate in advance to determine how many people to contact in total.

Ask yourself these questions:

- What percent of the contact information is likely to be accurate?
  Based on up-to-date and complete information about mailing addresses, e-mail addresses, phone numbers, etc.

- How many people can realistically be expected to be willing to participate?
  Based on people’s investment in the topic, interest in cooperation, time available to cooperate, belief that their responses will be kept confidential, etc.

- How many of the completed surveys or interviews will be finished and useable?
  Based on the complexity of the questions, carefulness and capability of the respondents.

Answering these questions will help you calculate a response rate for your sample. Your goal is to arrive at a sample size that is guided by the sampling chart provided in this section.
EXERCISE: SELECTING A SAMPLE

Instructions:

Match the following statements with the appropriate sampling terms. Write the letter for each term next to the appropriate statement.

a. Target Population  
   d. Simple Random Sample  
   g. Quota Sample  

b. Unit of Analysis  
   e. Systematic Sample  
   h. Snowball Sample  

c. Sampling Frame  
   f. Stratified Sample  
   i. Convenience Sample

___  Member States  
___  Representatives from Member States available to interview  
___  Every tenth name on the list of members of the United Nations  
___  Representatives from Member States who are in the “Delegates Restaurant” at United Nations Headquarters during data collection  
___  List of the nations that are Members of the United Nations  
___  Member States selected at random  
___  Member States separated by world regions and then names selected at random  
___  Representatives to the General Assembly  
___  Suggested names of representatives from Member States  
___  Proportionate number of male and female representatives from Member States

(See Appendix C for correct answers after completing this exercise)
How often (frequency) and when (schedule) of data collection is important to establish up front.

The first step is to establish a “baseline” period from which you will compare your programme’s progress. This baseline can be a particular point in time, or a particular section of time (For example: 1st quarter). The baseline provides a data period against which you compare progress made in your results area.

The United Nations did not start yesterday, so most programmes have some data available to them already that can be used for a baseline. There are some instances, however, where this is not the case and a baseline will need to be established.

Next, your programme would need to determine when it makes the most sense to compare progress, for example: by quarter, by year, by event. Frequency and schedule are typically determined by the nature of the programme:

- **Type 1:** Is this programme an ongoing effort consisting of various strategies to change conditions? This type of programme lends itself to setting a target and measuring how well you achieved this target.

- **Type 2:** Is this programme a service strategy, campaign, or intervention that has a discrete starting point and end point? This type of programme lends itself to measuring the status at baseline and comparing the achievement level at the conclusion of the service, campaign or intervention.
Most United Nations programmes are ongoing efforts that consist of multiple strategies for changing the conditions of world regions or the world community overall (Type 1).

- These conditions generally relate to the actions of Member States, intergovernmental bodies, United Nations organizations, NGOs and other organizations.

- Examples of actions include treatment of resources, collaborative activities, treatment of people, compliance with treaties, or adoption of new policies.

How does your programme establish frequency and schedule of data collection for changes in conditions?

- Select a baseline period. *For example:*
  - 3rd quarter: July-August.
  - 4th quarter: October through December.
  - Annual period: January through December.

- Establish achievement level at baseline period.

- Establish comparison periods, *for example: quarterly, annually.*

- Determine when data will be collected and reviewed, *for example:*
  - Weekly collection of internal records, and quarterly assessment of progress within one quarter.
  - Monthly review of policy development.
Some United Nations programmes are specific service strategies, campaigns, or interventions that intend to change a condition, behavior, awareness, or attitude within a specific area of the world or the world community overall (Type 2).

- These conditions generally relate to awareness of the conditions of a particular population group (such as the treatment of women) or the improvement of conditions of a particular population (such as the conditions for refugees) or satisfaction level with services (such as translation services).

*How does your programme establish frequency and schedule of data collection for changes that occur after specific service strategies, campaigns, or interventions strategy, in conditions?*

- Conduct a measurement before the service, campaign, or intervention. These are usually regarded as your outputs. The measurement would occur prior to the delivery of your output. *For example:*
  - Satisfaction with translation services prior to the annual meeting of the General Assembly.
  - Attitude about the treatment of women prior to an awareness campaign.

- Conduct a measurement following the service, campaign, or intervention. This would follow the delivery of your outputs. *For example:*
  - Satisfaction with translation services following the annual meeting of the General Assembly.
  - Attitude about the treatment of the treatment of women following an awareness campaign.
AN IMPORTANT NOTE ABOUT BASELINE DATA

Baseline data provides your programme with a realistic assessment of your current level of performance. Improvements in your results need to reflect the reality of your programme’s circumstances, many of which are outside the direct control of your programme. Results measurement provides essential management information for strengthening your programme; however, improvement will be relative to your specific baseline.

Programmes typically will want to claim high levels of success, such as 90 or 95 or 100 percent levels of success. These levels are not always realistic however. Consider an example from United States major league baseball statistics. The best batting average in U.S. baseball history is .424 and this happened back in 1924! Since then, no other U.S. major league player has been able to succeed at above a 42 percent success level. Thirty three percent is very good and 25 percent is average. There are many other examples in life, whether in sports, career achievements, medical breakthroughs, scientific discoveries, or even just getting through daily chores, raising a family, etc.

A good batting average does not require a 100 percent success rate. Neither does contributing to the betterment of world conditions require a 100 percent success rate!

It may help to keep this example in mind as you determine what success realistically looks like for your programme area. In some cases, it is realistic to attain a 90, 95 or 100 percent success level. In other cases, 33 percent may be very good. Your baseline data will guide you in making this determination. Measurement of improvement will be based on improvement over baseline.
Part 4:

Getting Started
SECTION 4.1.1

HOW TO CONDUCT EFFECTIVE SURVEYS

The quality of your survey can be greatly enhanced by following some guidelines for developing questions and considering the best style of administration for your programme’s needs.

CREATING YOUR SURVEY QUESTIONS

HOW TO WRITE VALID AND RELIABLE SURVEY QUESTIONS:
GUIDELINES FOR WORDING QUESTIONS

A number of guidelines help ensure that questions are clear, direct, and readily understandable. The following rules are based on Fink and Kosecoff’s (1985) recommendations:

1. Each Question Should be Meaningful to Respondents

   - The purpose of each question should be obvious to respondents and meaningful to the overall purpose of the survey.

   Example: If you ask about personal characteristics, explain that this information will be used for comparative and statistical purposes only, and that individual responses will be kept confidential.
Each Question Should Include Just One Thought

- Questions should focus on a single piece of information.
- Questions that have two or more parts are called "double-barreled" questions.

**Example:** How would you rate the quality and quantity of this service?

(Note that "quality" and "quantity" could be rated differently and reflect two different thoughts.)

- Keep questions as short as possible.
- Make sure concepts are explained clearly and as simply as possible.

Make Questions Concrete, Rather than Conceptual

- Avoid questions about abstract notions.
- Keep questions as close to the respondents' direct experiences as possible.
- Avoid the need for extensive recall; give specific time frames in questions that ask about past experiences (e.g. "in the last week").

Avoid Biased Words and Questions

- Emotionally-charged words affect people and may unfairly influence responses.
- Avoid wording that may make respondents feel that they "ought" to answer questions in a certain or expected way.

**Example:** "terrorist" is more emotionally charged than "combatant."
5 Check Your Own Biases

Survey developers may inadvertently introduce their own opinions in the questions themselves. Do not "lead" respondents; keep questions neutral and do not indicate the answers you are looking for.

*Example: Consider the bias in the following question:*

*Given that most Member States have no space programs, do you think that retention of this programme on the peaceful use of space is needed?*

6 Cultural Appropriateness

Use questions that will resonate with your respondents.

Determine if the survey should be translated. If so, consider the following:

- Can the questions be translated easily?
- Is the meaning changed in translation?
- Is it translated into the necessary dialects?
GENERAL TYPES OF QUESTIONS: CLOSED-ENDED AND OPEN-ENDED

Questionnaires can include either closed-ended or open-ended questions. You may have to experiment to determine which type of question works best for each indicator or topic you want to cover.

- **Closed-ended questions** provide specific response categories from which the respondent selects an answer. There are several styles of closed-ended questions that will be discussed further below.

  **Example:** If you want to know how satisfied conference participants were with the overall event, you might ask:
  
  How well did the conference meet its goals?
  
  - ☐ Substantially  ☐ Partially  ☐ Insignificantly

- **Open-ended questions** do not provide response choices. Use these only when you think responses will be highly individualized or little is known about the range of likely response categories. These types of questions may inspire a wide variety of responses.

  **Example:** If you want to know more general information about respondents' experiences at a conference, you might ask:
  
  What were the most important results of the conference?
  
  ________________________________________________
  ________________________________________________
  ________________________________________________
  ________________________________________________
  ________________________________________________
  ________________________________________________
Types of Closed-Ended Questions

Depending on your topic and goals, there are four specific types of closed-ended questions that you may want to use in your survey.

1. **Simple direct questions** measure a complete thought and provide a specific list of response categories.

   **Example:** Have you used the services of the Office of Legal Affairs during the past year?
   - Yes
   - No

2. **Checklists** measure multiple thoughts in the same question and allow respondents to check all applicable responses. It is important that response categories listed are mutually exclusive (i.e. that they do not overlap).

   **Example:** Which of the following subprogrammes have you contacted for assistance in the past year? **Check all that apply.**
   - Economic and social council
   - Gender issues and the advancement of women
   - Social policy and development
   - Sustainable development
   - Statistics
   - Population
   - Global development trends, issues and policies
   - Public administration, finance and development
Scales consist of a series of questions (usually four or more) that measure different aspects of a concept. They allow researchers to more comprehensively understand a thought.

- Make choices distinctive, simple, easy to understand and meaningful.

  **Example:** Compared to male attendees, how often do female attendees actively participate in your meetings?

  - More often
  - About the same
  - Less often

- List responses for each individual question to minimize confusion regarding which response to circle.

- Consider the appropriateness of using numbers (e.g., scale of 1-5), letters, words or pictures to designate the scale. Sometimes respondents mentally assign value to numbers and select higher numbers because they view them as "more important."

- Consider whether a neutral category is necessary (e.g., neither agree or disagree), or if you want to force a choice by not including a neutral category.

- The most commonly used format for presenting scale questions is a Likert scale. Typical response choices are as follows: Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, Strongly Agree.

  **Example:** After reading the statements below, please circle the degree to which you agree with each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree (SD)</th>
<th>Disagree (D)</th>
<th>Neither Agree or Disagree (N)</th>
<th>Agree (A)</th>
<th>Strongly Agree (SA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The committee’s work tasks were well –defined</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>The committee members functioned well as a team</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>The committee accomplished its goals</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
</tbody>
</table>

Contingency questions, also called "skip" questions, offer an opportunity to provide follow-up questions to selected respondents based on their responses to prior questions. They are an efficient and user-friendly way to refocus complex questions into simple direct questions or other question formats. Be sure to make directions clear.

Example:

1. Did your committee implement any new initiatives this past year?
   - No (please skip to question 3)
   - Yes (please go on to question 2)

2. Which clients were your new initiatives designed to serve?
   Check all that apply.
   - UN staff at Headquarters
   - UN staff in duty stations away from Headquarters
   - Government delegates at intergovernmental bodies
   - Individuals at the national level
   - Other (please specify): ___________________

3. Question three....
HOW TO KNOW WHAT TYPE OF QUESTION TO USE

Open-ended and closed-ended questions have different uses.

- They provide different types of information
- Data from closed-ended can be easily quantified
- Data from open-ended questions is more difficult to quantify, and takes more time to compile and analyze later
- Some types of questions are quicker to answer
- Open-ended questions require more writing

<table>
<thead>
<tr>
<th>TYPE OF QUESTION</th>
<th>WHEN TO USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended</td>
<td>Clients are asked to explain their thoughts or opinions so any response may be provided. Use when you are trying to find out what all the possible reasons or answers may be. This type of data can provide rich description.</td>
</tr>
<tr>
<td>Closed-ended</td>
<td>Simple-Direct: Use when it is a clear-cut issue for which further detail is not necessary.</td>
</tr>
<tr>
<td></td>
<td>Checklists: Use when you know the possible answers or there is more than one possible answer for respondents.</td>
</tr>
<tr>
<td></td>
<td>Scales: Use when you want to provide more options for expressing opinions or thoughts or you need a way to measure different progress levels over time.</td>
</tr>
<tr>
<td></td>
<td>Contingency: Use when you want more information from a subset of respondents.</td>
</tr>
</tbody>
</table>
Which Type of Question Best Matches Your Indicators of Achievement?

- Does the concept behind the indicator of achievement naturally match one type of question best?
- How many times will you measure progress? Do you need the ability to show change over time?
- Are some question types more culturally acceptable?
- Do you need to find out the reasons why issues exist?
- How much time do you have to analyze open-ended questions?
HOW SHOULD YOUR PROGRAMME ADMINISTER A SURVEY?

There are many ways to administer a survey. The main styles are:

- Mail
- Telephone
- In-person
- Internet

Each style has strengths and weaknesses.

The following chart compares strengths and weaknesses of various styles of administering your survey.
### COMPARISON OF SURVEY ADMINISTRATION STYLES

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Validity</th>
<th>Cost</th>
<th>Response Rates</th>
<th>Cultural Appropriateness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIL</strong></td>
<td>All surveys delivered in exactly same way, minimizing variance due to interviewers or survey administrators</td>
<td>Cannot be certain that respondents have complete understanding or similar interpretation of survey items; no opportunity for clarification</td>
<td>LOW</td>
<td>Not appropriate for those with language or literacy barriers</td>
</tr>
<tr>
<td></td>
<td>Validity can be low if survey has many write-in answers, missing responses or responses that do not follow given categories/choices</td>
<td>Relatively inexpensive and simple to distribute</td>
<td>Relatively</td>
<td>No way to clarify or aid in the completion of survey to respondents that do not fully understand questions (i.e. address validity concerns)</td>
</tr>
<tr>
<td></td>
<td>No control over conditions in which surveys are completed</td>
<td>Useful if resources are limited</td>
<td>Often have low response rates</td>
<td></td>
</tr>
<tr>
<td><strong>TELEPHONE</strong></td>
<td>Interviewers may intentionally or inadvertently influence responses</td>
<td>Telephone contact improves data quality by decreasing the number of &quot;don't knows,&quot; missing data or insufficient responses</td>
<td>HIGH</td>
<td>Appropriate when language or literacy is an issue</td>
</tr>
<tr>
<td></td>
<td>Recording of responses may differ among interviewers</td>
<td>Provided the sampled individuals have phone and/or time to talk on the phone, response rates are generally higher than mail surveys</td>
<td></td>
<td>Surveys can be administered by those speaking same language as respondents</td>
</tr>
<tr>
<td><strong>IN-PERSON</strong></td>
<td>Survey administrators may intentionally or inadvertently influence responses</td>
<td>If individually and orally administered, will improve data quality by decreasing the number of &quot;don't knows,&quot; missing data or insufficient responses</td>
<td>HIGH</td>
<td>Highest response rates compared to all administration methods</td>
</tr>
<tr>
<td></td>
<td>If survey administrators record responses, recording of responses may vary</td>
<td>If fast turn-around time is needed</td>
<td></td>
<td>Appropriate when language or literacy is an issue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can be more expensive depending on survey administrator time</td>
<td></td>
<td>Have the capacity to address language and literacy concerns with trained interviewers or administrators</td>
</tr>
<tr>
<td><strong>EMAIL/INTERNET</strong></td>
<td>All surveys delivered in same way, minimizing variance due to interviewers or survey administrators</td>
<td>Cannot be certain that respondents have complete understanding or similar interpretation of survey items; no opportunity for clarification</td>
<td>LOW</td>
<td>May facilitate a sense of safety if administered by a trusted person</td>
</tr>
<tr>
<td></td>
<td>Possible variation in survey administration given different e-mail and web-based formats and platforms</td>
<td>No control over conditions in which surveys are completed</td>
<td>Varies - Depends on access to computers and the Internet</td>
<td>May cause distrust if administered by person viewed as &quot;intimidating,&quot; &quot;official,&quot; or biased (i.e. vested in results)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Responses must have regular access to and familiarity with computers, e-mail and the Internet</td>
</tr>
</tbody>
</table>
EXERCISE: QUESTIONNAIRE DEVELOPMENT

Purpose: This activity will help you develop clear and effective questionnaire items.

Instructions:

1. Develop a brief mail survey (about 8 – 12 questions) concerning one of the following topics:
   - An expected accomplishment for a programme with which you work
   - Client/customer satisfaction among programme participants or clients
   - Gender equity issues within your programme

2. The survey content should address the following areas:
   - Relevant respondent background characteristics (e.g. location, nationality)
   - For programme expected accomplishment:
     - Reference to the indicators of achievement identified for the expected accomplishment
     - The work products or services provided by the programme
   - For customer service:
     - Service quality (e.g., helpfulness, responsiveness, respectful treatment, promptness)
     - Service access (e.g., convenience, availability, accessibility)
     - Service products (e.g., clear and complete communication, usefulness of material)
   - For gender equity issues:
     - The gender-related indicator(s) for your programme or general ones applicable to most programmes
     - The attitudes of the respondents toward gender equity

---

1 [Source: *A Field Guide to Outcome-based Program Evaluation* by Reisman and Mockler (1994)]
3. **Before writing questions:**
   - Identify your topic
   - Determine what content items you need to address
   - Identify any indicators that need to be addressed
   - Identify who will complete your questionnaire
   - Determine how and when it will be completed (e.g., handed out after a conference, mailed to participants after 6 months in the program)

4. **Try to include examples of each of these types of questions:**
   - **Simple Direct Questions** – single questions measuring a complete thought.
   - **Scale Items** – series of questions measuring different aspects of one thought. Response choices typically measure intensity of current feeling about the topic (*e.g.*, *Strongly Disagree to Strongly Agree*) and current attitudes, knowledge of behavior compared to earlier time points.
   - **Checklists** – single question measuring multiple thoughts by providing a list of responses. Respondents check all responses that apply to them.
   - **Contingency Questions** – opportunity for follow-up questions to selected respondents based on responses to prior questions.
   - **Open-Ended Questions** – opportunity to probe for information that is likely to be highly individualized but that can be coded and analyzed.

5. **Review the questionnaire in terms of the following guidelines and rewrite questions if necessary.**
   - Do all questions contain just one thought?
   - Are all questions meaningful to respondents?
   - Are all questions concrete?
   - Do all questions contain standard language?
   - Check your own biases.
   - Did you avoid biased words and phrases?
   - Do all questions refrain from being too personal?
6. Try out the survey with another member of the workshop. Use the checklist above to evaluate the survey.

7. Write down any changes you would make in the questionnaire based on the pilot test responses.
QUESTIONNAIRE DEVELOPMENT WORKSHEET

Topic: __________________________________________

Content Areas: __________________________________

Indicators of Achievement: ________________________

Who will complete the questionnaire?__________________________

How and when will it be completed? ______________________________

Sample questions (continue on next page):

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
REVIEW OF QUESTIONNAIRE

QUESTIONNAIRE DEVELOPER CHECKLIST

☐ Do all questions contain just one thought?

☐ Are all questions meaningful to respondents?

☐ Are all questions concrete?

☐ Did you avoid biased words and phrases?

☐ Did you have to reread any questions to understand them?

☐ Was the questionnaire quick to complete, or did you have to think a lot about how to answer?
SECTION 4.1.2

HOW TO CONDUCT A CONTENT ANALYSIS

The following four steps will help you design and conduct a content analysis. They can generally be taken in the order provided, but some side trips may occur in your process.

Identifying and collecting data sources for content analysis

- Identify all of the indicators of achievement on which you plan to use some type of content analysis (e.g., number of annual reports by Member States mentioning a program initiative; positive, neutral or negative references to a program initiative in major newspapers of Member States).

- Identify information sources (i.e., communications) that might contain useful data (i.e. items to count or otherwise analyze). These might be annual reports from participating Member States or organizations; newspaper articles; websites; interviews previously conducted or planned for this assessment; published articles in magazines or journals; laws or other official documents developed by Member States or their sub-national administrative departments or governments; or submissions to conferences. An overview of common sources of content analysis information is provided at the end of this section. Identify where the required documents reside, how they can be assembled, how long it might take to get them, and how much getting them might cost (in fees, purchase prices, copying and staff time). Some may be available on the Internet. Some may be in the programme's files (e.g., past annual reports from Member States). Some may require official letters to government officials or national archives. Some may require library research in many different locations.

- Collect the sources of information. Carefully file all in a way you can go back and find texts when you need to. Copy it before analyzing it in case you need to redo it or have a second analysis that you don't want influenced by the first.
Identifying Coding Procedures

- For each source, determine what data (words or images in the text) indicate that a particular indicator of achievement is present. This could be seeing the name of a new General Assembly resolution mentioned at least one time in at least one article in a major newspaper within one month of its passage (or also recording the date to see how long it takes to disseminate). Alternatively, it could be counting the amount of text devoted to stories about the resolution. If it is a new logo being announced, the number of times (and perhaps sizes) of the images published may be what is collected.

- Determine what unit you will use to measure existence of the data being sought. This could be a count of the number of major daily newspapers in a Member State that give mention to an awareness campaign being conducted by a programme. It could be a measure of the amount of text devoted to articles on the campaign (e.g., in column inches or number of words measured over a two-week time period). It could be a count of the number of times the name of the program is mentioned in articles about the campaign in a specific set of newspapers in a specific region during a specific time frame where impact is anticipated. Alternatively, it could be a count of the number of times editorials in these papers mention the campaign and whether the discussion demonstrates praise, neutrality, negativity or a mixed view. These examples require increasing time and discernment to measure. Any one might be selected depending on the needs of the analysis, the budget, and the other types of data being assembled.

- Determine whether or not you want to eventually illustrate your analysis with examples. If so, collect good examples as you go.

- Determine whether you want to guarantee anonymity. If so, determine how to insure anonymity (e.g., by not reporting which Member States reacted negatively to suggested reforms but reporting percentages).
Creating a Code Book

- Develop a code book with examples. Show exactly what words or types of articles are being counted. Provide a protocol for other coders to follow. In some cases where value judgments are required, it may be necessary for two or more coders to read the same text and rate them on some scale. Then either a consensus or averaging process may be used to determine the datum for a particular case.

- Create a code sheet and lay it out in a spreadsheet, database form or other format where data will be transferred. This sheet will be used to collect all relevant data at one time during the analysis.

- Test the code book and code sheet with others not involved in the content analysis to see if they interpret the texts in the same way as intended by the analysis.

- Show how the data will be displayed in the aggregate form (i.e. create draft tables with examples of the types of data you will report). This step will insure that you have a logical process and that you know how the data will fit into your summary analysis and report. It will also help you understand your data analysis methods and see if you need to refine your code book or code sheet.

Coding the Data

- Estimate how long it will take to code each particular source of information identified and then estimate the total staff time and staffing budget required. Take a few sample information sources and conduct the content analysis. Do this a few times and disregard the first few since you will improve your efficiency over time.

- Dedicate the staff and time to the content analysis in a fixed and continuous time frame. Results will be more consistent if there is continuity of staff and it is done in a short time where this is the primary focus.
Have the analyzer of the data and/or writer of the assessment conduct some (or if possible, all) of the content analysis. To increase consistency in large data collection efforts it is better to involve fewer people with more time provided by each than to have many part-time staff working on it. At a minimum, it is important that the person responsible for writing the report be involved in determining how the content analysis is designed and how the data are collected and analyzed or summarized. With this knowledge and/or experience, she/he will be better able to integrate the data into the assessment.

If looking for specific text, highlight or underline it to avoid having to repeat steps. Use different colors to highlight different types of information (e.g., pink for positive, blue for negative, green for neutral). (Tip: if you intend to copy documents after highlighting, some colors (especially yellow) don't copy well). Highlighting and counting can be separate steps.

Data can be entered into spreadsheets or other types of programs to make data analysis easier. Track whatever information will be useful (e.g., source, date of publication, author, number of positive times item under study is mentioned in the article, number of negative times item is mentioned). Give some thought to the layout because this could aid or hinder your data analysis. As a general rule, collect data in the simplest units possible and aggregate later.

You are now ready for data analysis and reporting. This will involve summarizing the data using appropriate statistical methods. Usually these will be simple sums, percentages and cross-tabulations.

**COMMON SOURCES OF CONTENT ANALYSIS INFORMATION**

It is useful to think about the various sources of data that might be available for content analysis. Some common ones are records, documents, policies, laws and treaties, publications, broadcast media, meetings and other gatherings.

**Records**

Records are official, internal information sources such as logs of cases, client files, meeting minutes, databases, and other items. When these contain standardized information that can be extracted
and summarized they might be useful sources of data. If the data are kept in digital formats, they can often be easily summarized or extracted for analysis. They may be good sources of countable data or contain text that can be analyzed systematically. Often the keepers of these files require permission to use them and place restrictions on their use but they can be summarized in ways that do not reveal identities of individuals, organizations or States when anonymity is important.

► **Documents**
Documents are internal summaries of data, procedures, plans, meetings or other work products typically used by staff within an organization or with staff from collaborating organizations. They may be produced internally or come from outside sources. Sometimes the numbers of documents produced or containing the type of information that comprises the indicator are what are counted. Other times the text may be searched for the mention of programs, plans, language (e.g., on gender neutrality) or certain themes.

► **Policies, Laws and Treaties**
Official policies, laws and treaties developed by governments or intergovernmental groups are rich sources of information for content analysis. These are generally available and contain information about progress made in achieving various goals.

► **Publications**
Publications are documents produced by your agency or another for general distribution (i.e. not restricted to certain users). They may not have a wide circulation and may be written for a specific audience. They are usually easier to obtain and may very well be archived in libraries.

► **Broadcasts and Other Media**
Television, radio or web Broadcasts and other media such as videos, audiotapes and websites can provide useful data as well. In addition to the verbal messages, using images or types of images from these sources as data is possible.
Meetings and Other Gatherings

Meetings, trainings, speeches and other gatherings can also generate data for content analysis. A principal advantage of using content analysis is that the data sources are generally not moving targets. They are records or documents that can be reviewed without scheduling time with respondents for interviews or calling people to coax them into sending back your questionnaire. But observation can also be used when the indicators can be seen and heard at meetings. If you are going to be present anyway, a simple observation checklist can be developed and used to collect data on outcomes that might be expected. Some can also be collected from meeting notes and sign-in sheets.
### EXAMPLES OF INDICATOR MEASURES FROM OBSERVATIONS

<table>
<thead>
<tr>
<th>Indicator of Achievement</th>
<th>Possible Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percentage of</td>
<td>♦ What were the</td>
</tr>
<tr>
<td>scheduled meetings</td>
<td>scheduled start and</td>
</tr>
<tr>
<td>conducted in a timely,</td>
<td>end times?</td>
</tr>
<tr>
<td>orderly and procedurally</td>
<td>♦ When did the</td>
</tr>
<tr>
<td>correct manner (1)</td>
<td>meeting start and end?</td>
</tr>
<tr>
<td></td>
<td>♦ Did participants</td>
</tr>
<tr>
<td></td>
<td>generally respect</td>
</tr>
<tr>
<td></td>
<td>whoever was speaking</td>
</tr>
<tr>
<td></td>
<td>and avoid interrupting</td>
</tr>
<tr>
<td></td>
<td>him/her (always, most</td>
</tr>
<tr>
<td></td>
<td>of the time, half the</td>
</tr>
<tr>
<td></td>
<td>time, rarely)</td>
</tr>
<tr>
<td></td>
<td>♦ Were all who</td>
</tr>
<tr>
<td></td>
<td>wanted to and were</td>
</tr>
<tr>
<td></td>
<td>acknowledged to have</td>
</tr>
<tr>
<td></td>
<td>a right to participate</td>
</tr>
<tr>
<td></td>
<td>in ways that seemed</td>
</tr>
<tr>
<td></td>
<td>appropriate? (fully,</td>
</tr>
<tr>
<td></td>
<td>substantially, partially, insufficiently)</td>
</tr>
</tbody>
</table>

| Increased level of       | ♦ In trainings of     |
| integration of gender    | law enforcement       |
| sensitivity in all       | personnel, how often  |
| relevant areas of work,  | are references to     |
| particularly demonstrable| women included in     |
| with respect to analysis,| examples and language |
| policy development,      | used? (never, seldom,|
| training, project        | frequently, as often  |
| activities and women as  | as to men)            |
| criminal justice and law |
| enforcement personnel.   | ♦ In meetings, are    |
| (2)                      | women treated with    |
|                          | equal respect and with|
|                          | equal expectations as |
|                          | to their expertise,   |
|                          | roles, and          |
|                          | contributions? (never,|
|                          | seldom, frequently,  |
|                          | as often as to men)  |

[Sources: Proposed Programme Budget of the Biennium 2002-2003:
(1) Programme: Overall Policy Making, Direction and Coordination:
    Subprogramme: General Assembly Affairs and Conference Services
(2) Programme: International Cooperation for Development:
    Subprogramme: Crime Prevention and Criminal Justice]
EXERCISE: CONTENT ANALYSIS PLANNING

Instructions:

1. Pick an indicator of achievement for your programme (or use one of the sample indicators of achievement in the examples provided).

2. Fill out the information on your programme’s expected accomplishment and indicator.

3. Complete the content analysis plan provided.

NOTE: If your programme does not have an indicator of achievement that could be measured through content analysis, two samples are provided for you at the end of this exercise.

Programme / Subprogramme

Background

Example of Expected Accomplishment

Example of Indicator of Achievement
CONTENT ANALYSIS PLAN

Using the content analysis planning steps previously explained, answer the following questions about the indicator of achievement that you selected. Consider this a brainstorming session. Write down any options that come to mind without trying to rank them or evaluate their suitability.

1. What types of information sources/communications (e.g., text, broadcasts, websites) might be readily available in the offices of this programme that could be analyzed to find evidence of this indicator?

2. What types of information sources/communications might be collected from other United Nations offices or other sources that could be included in this analysis?

3. For each information source, determine what data (words or images in the text) indicate that the indicator of achievement is present. There could be multiple options for each source. They could be the same for each source, or different.

4. What units of measurement (e.g., number of times mentioned, number of documents containing mention, types of documents that mention) would be appropriate for the data being collected?

5. Which of the information sources provide the clearest link(s) to what the indicator is attempting to measure?
SAMPLE INDICATORS OF ACHIEVEMENT

SAMPLE I:

Programme
Population Division, Economic and Social Affairs, International Cooperation for Development

Background
[The Division’s objective is] … to increase understanding of the nature of demographic phenomena, in particular the interrelationships between population and development. [The Division creates and disseminates numerous publications.]
[Source: Proposed Programme Budget of the Biennium 2002-2003]

Example of Expected Accomplishment
Increased ability of Member States to formulate national population and related policies and programmes.

Example of Indicator of Achievement
The number of Member States adopting or revising policies or programmes as a result of research findings and other activities carried out under the subprogramme [on population].

SAMPLE II:

Programme
Committee on the Peaceful Uses of Outer Space, Political Affairs

Background
[The Committee’s mission is] … to promote international cooperation in space activities, to organize mutual exchange and dissemination of information on outer space research, to encourage and assist the development of national space programmes and to study the nature of legal problems that might arise from the exploration of outer space…. The scope and importance of space applications [include] weather forecasting; management of land and ocean resources; preparedness, early warning and mitigation of disasters; environmental monitoring; distance education; medical and health services in remote and rural areas; and other social and economic activities in every country…. The programme … will advocate the need for greater efforts to be made at the global level to show clearly how space science and technology can meet the basic needs of people living in poverty and how space applications can improve the living condition of individuals.
[Source: Proposed Programme Budget of the Biennium 2002-2003]

Example of Expected Accomplishment
Integration of the strategy contained in the Vienna Declaration into policy decisions by Member States and the execution of space-related activities at the national, regional and international levels.

Example of Indicator of Achievement
Increased reference, in the national plans and policies of Member States and in recommendations and decisions made by intergovernmental bodies dealing with economic, social and cultural developments, to the Vienna Declaration.
WHO SHOULD BE INVOLVED IN DESIGNING AND CARRYING OUT DATA COLLECTION STRATEGIES?

- Collecting data for results measurement is a systematic activity that necessitates time and attention.

- This time and attention spans a variety of manager and staff roles – those individuals involved in both planning and carrying out programme activities.

- Initiating involvement at the front end of the process is very important for two reasons:

  1. To ensure that data collection is designed to be practical and achievable. Managers can ensure that adequate time is dedicated to the task. Staff can ensure that the system makes sense and would fit with the nature of the activities that occur in the programme.

  2. To create interest in the data as a tool for assisting in keeping on track towards the expected results and decision-making about programme improvement. Involvement in the design and implementation of the data collection system will facilitate greater interest in the results that are produced.
WHAT ROLES AND RESPONSIBILITIES ARE INVOLVED IN THE PROCESS?

Consider **three types** of roles that are key to the success of results measurement:

1. Results Measurement Lead (focal point)
2. Results Measurement Design Team Members
3. Results Measurement Implementation Members

The following chart provides insight into who can best fill these roles and their range of responsibilities.

<table>
<thead>
<tr>
<th>Role</th>
<th>Who?</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| Results Measurement Lead (focal point)    | Managerial role                     | - Promote the vision about the positive contribution of results-based management for fulfilling the mission of the United Nations  
                                           |                                     | - Provide leadership in the design of the data collection system                 |
|                                           |                                     | - Provide leadership in building internal support for the usefulness of results measurement for strengthening United Nations programmes  
                                           |                                     | - Ensure adequate time is devoted to carrying out data collection activities      |
|                                           |                                     | - Ensure that the data collection system is being implemented                     |
|                                           |                                     | - Ensure that the results findings are applied to results-based management including feeding into the preparation of future budgets and medium-term plans  
                                           |                                     |                                                                                  |
| Results Measurement Design Team Members   | Cross-section of programme staff    | - Promote the vision about the positive contribution of results-based management for fulfilling the mission of the United Nations  
                                           |                                     | - Engage in the design of the data collection system                            |
|                                           |                                     | - Communicate with colleagues about the usefulness of results measurement for strengthening United Nations programmes  
                                           |                                     | - Review issues that occur in the data collection system and consider options for addressing them  
                                           |                                     | - Consider results findings and assess the implications for programme activities and outputs  
                                           |                                     |                                                                                  |
| Results Measurement Implementation Members| Programme delivery staff            | - Carry out data collection tasks that have been designated                      |
|                                           |                                     | - Inform the Results Measurement Implementation Members about issues that arise in the data collection system  
                                           |                                     |                                                                                  |
Remember – results-based management is not intended to be yet another exercise that takes time away from the “real work” of United Nations programmes.

Paying systematic attention to your results provides important information to help your programme determine whether the activities that are keeping staff very busy are making a positive difference.

Results measurement is a way to know whether the “real work” is the most effective work or whether the “real work” would benefit from fine-tuning or shifting your programme’s resources and activities to maximize effectiveness.

Results measurement involves everyone in the programme to the extent that everyone has a sharp focus on the intended results and contributes towards that end.

Results measurement also involves everyone in the programme to the extent that they provide an opportunity to recognize the progressive steps of success and to celebrate the positive contributions of United Nations programmes.
SECTION 4.3

PILOT TESTING YOUR DATA COLLECTION STRATEGY

WHAT IS A PILOT TEST?

A pilot test is a trial run of your data collection strategy. Your programme will want to deliberately observe and track the steps in your data collection process. This tracking provides an opportunity to learn about the issues and problems that arise during the data collection process so your programme can address them and make your data collection process smoother.

HOW DO YOU CONDUCT A PILOT TEST?

Your programme can conduct a pilot test on a subset of your end-users or on your complete programme. In either case, your programme should carry out the full set of steps involved in your data collection process. Each step should be observed and tracked to discover whether the step works out as intended. It helps to create a tracking log to provide relevant information such as dates of implementation, extent of participation in the process, time involved, availability of data, and quality of the data. (See Sample Tracking Log on the next page.)
### SAMPLE PILOT TEST TRACKING LOG

Subprogramme Name: ________________________________

Results Measurement Implementation Members/Lead: ________________________________

Data Collection Method: ________________________________

<table>
<thead>
<tr>
<th>Dates Data Collection Initiated and Completed</th>
<th>Estimated Time Involved</th>
<th>Staff Involved</th>
<th>Availability of Data, For Example, Response Rate, Availability of Records</th>
<th>Quality of the Data, For Example, Completeness, Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
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<td></td>
</tr>
</tbody>
</table>

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WHAT DO YOU DO WITH THE RESULTS OF THE PILOT TEST?

The observations gleaned from the pilot test can be used to inform adjustments to your data collection process. Here are some examples of what you learn and how you might address them:

---

**Issue:** Response rate from a survey was low (10%).

*Way to Address Issue:* Review survey techniques for improving response rates. Consider additional mailings, telephone follow-ups, better presentation of the survey, different timing for implementation, and so on.

---

**Issue:** Data were not collected as scheduled. Staff was busy with regular work activities and did not have time to collect data.

*Way to Address Issue:* Reinforce the importance of implementing data collection as scheduled. Consider time conflicts and how additional time or assistance may be made available to key staff involved with data collection tasks.

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**Issue:** Internal records were kept differently by different staff so it was hard to standardize data collection.

*Way to Address Issue:* Consider structured checklist items that address the indicators of achievement. Create ways to provide this standardized checklist as a way to summarize the results of meetings, convenings, field visits and other relevant activities.
PART 5:

BEYOND DATA COLLECTION: NEXT STEPS
WHAT HAPPENS AFTER YOUR PROGRAMME COLLECTS ITS DATA?

The steps after data collection are:

1. Managing your Data
2. Analyzing and Interpreting Your Data
3. Communicating Your Results
4. Using Your Results to Strengthen Your Programme

It is wise to consider these steps and plan for them. Here are some of the tasks to consider for each of these steps.

Managing your Data

- Identifying staff roles involved in compiling your data
- Coding your data
- Setting up a database
- Entering data and conducting quality checks
- Identifying technological resources, for example, computer hardware and software, for storing data for analysis
Analyzing and Interpreting Your Data

- Identifying staff roles involved in sorting, analyzing (quantitatively and/or qualitatively) and interpreting your data
- Identifying technological resources, for example, computer hardware and software, for storing data for analysis

Communicating Your Results

- Identifying staff roles involved in summarizing your results findings and communicating these results to various audiences, for example, internal programme staff, Member States through results/programme performance reports

Using Your Results to Strengthen Your Programme

- Developing internal processes that will ensure that communication is not the last step of results-based management. Instead, new internal processes will create the means for considering the results findings for adjusting programme strategies and internal resource allocations, and raising questions for further inquiry in subsequent data collection efforts.

It is beyond the scope of this manual to address these issues. However, this manual should help your programme design a valid, reliable, and practical data collection process that builds your confidence in using your results findings for making important decisions about your programme.
Results-based management helps managers determine not only what adjustments need to be made during budget implementation, but also what needs to be changed in the future. Results-based management helps managers to better formulate future medium-term plans and programme budgets with respect to clearer and more measurable objectives, expected accomplishments and indicators of achievement. Results-based management also helps managers to make a better determination, rationalization and selection of outputs, or mix of outputs, required to achieve their expected results, and therefore a better assessment of, and justification for, resource requirements. This is the application of the logical framework.

In closing, consider these wise words from Lewis Carroll’s “Alice in Wonderland”


In other words: “If you don’t know where you are going, any road will get you there.”
### APPENDIX A

**SAMPLE INTERNAL RECORD FORM**

**Indicator of Achievement:** Level of collaboration  
**Observer Name and Position:**

**Event** (e.g., meeting, convenings):

**Date(s) of Event:**

**Description of Participants** (e.g. number, type of organization represented):

**Purpose of Event:**

**Background/Context:**

**Level of Collaboration Achieved:**

<table>
<thead>
<tr>
<th>ELEMENT OF COLLABORATION</th>
<th>NO PROGRESS</th>
<th>SOME PROGRESS</th>
<th>GREAT PROGRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared useful information</td>
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<tr>
<td>Common understanding of the issue</td>
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<tr>
<td>Planning and coordination of roles and directions</td>
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<tr>
<td>Communication channels established</td>
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<tr>
<td>Purposeful and deliberate commitment to pursue collaborative approach</td>
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<tr>
<td>Clear policies are created to support collaborative goals</td>
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<tr>
<td>Willingness to commit to collaborative goals</td>
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</tr>
<tr>
<td>Resources are committed to support collaborative goals</td>
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<tr>
<td>Extension or expansion of efforts that are working well</td>
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<td></td>
<td></td>
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<tr>
<td>Creation of new methods, approaches</td>
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<td></td>
</tr>
</tbody>
</table>

**Observer’s Explanation/Comments:**
SAMPLE MEASUREMENT ITEMS FOR ASSESSING “TIMELINESS”  
[Source: “Productivity Project” – Management Policy Office]

- Percent of output received by client within X amount of time (hours or days)
- Reduced number of days for client to receive output from average of X days to average of Y days

SAMPLE MEASUREMENT ITEMS FOR ASSESSING “USEFULNESS”  
[Source: “Productivity Project” – Management Policy Office]

- Outputs address issues identified through gathering systematic feedback from clients (e.g. client satisfaction surveys, focus groups)
- Evidence that output was applied by client
- Clients report that the output was useful
- Reduced number of complaints about output

SAMPLE MEASUREMENT ITEMS FOR ASSESSING PROGRESS IN THE ADOPTION OF NEW PRACTICES

- Agreements reached
- Adoption of common languages
- Shared best practices
- Policies adopted
- Treaties signed
APPENDIX C

ANSWERS TO EXERCISE 3.5 - SELECTING A SAMPLE

a  Member States

b  Representatives from Member States available to interview

e  Every tenth name on the list of members of the United Nations

i  Representatives from Member States who are in the “Delegates Restaurant” at United Nations Headquarters during data collection

c  List of the nations that are Members of the United Nations

d  Member States selected at random

f  Member States separated by world regions and then names selected at random

b  Representatives to the General Assembly

h  Suggested names of representatives from Member States

g  Proportionate number of male and female representatives from Member States