



WMO Integrated Strategic Planning Guide

**June 17, 2016
Version 6.0 (Adapted to Africa)**

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ACRONYMS

| Acronym | Definition |
|----------------|---|
| BSC | Balance Scorecard |
| LFA | Logical Framework Analysis |
| M&E | Monitoring and Evaluation |
| NMHS | National Meteorological and Hydrological Services |
| NOAA | National Oceanic and Atmospheric Administration |
| PESTLE | Political, Economical, Socio-Cultural, Technological, Legal and Environmental |
| PMF | Performance Measurement Framework |
| RA | Regional Associations |
| RBM | Result Based Management |
| SDG | Sustainable Development Goals |
| SWOT | Strengths, Weaknesses, Opportunities, Threats |
| TC | Technical Commissions |
| TOC | Theory of Change |
| TOR | Terms of Reference |
| WMO | World Meteorological Organization |

GLOSSARY

| TERMS | DEFINITIONS |
|-------------------------------|--|
| Action plan | An action plan is a planning document that provides detail on the steps that will be followed to achieve a desired outcome, and most importantly, how each step will be implemented (who and when), how the achievement of the desired outcome will be assessed and the resources needed to carry out the action plan |
| Action planning | Action planning is the process that guides the day-to-day activities of an organization of project. It is the process of planning what needs to be done, when it needs to be done, by whom it needs to be done, and what resources or inputs are needed to do it |
| Activities | Actions taken or work performed through which inputs, such as funds, technical assistance and other types of resources, are mobilized to produce specific outputs. |
| Balanced Scorecard | The Balanced Scorecard is a strategic planning model that was designed to measure the performance of an organization in four perspectives namely financial, customer, internal business process and learning and growth |
| Baseline data | Baseline data refer to the existing situation, or 'starting point' of an expected result project or program area prior to intervention against which 'change' can be measured over time through the use of indicators |
| Data collection method | Data collection methods indicate the way in which information is collected. There exist various data collection methods representing different ways to collect the required data (e.g. census, observation, surveys, etc.). |
| Data sources | "Data sources" refers to 'where' data can be found or 'who' should be contacted to access data to inform each indicator. Data sources can include individuals, organizations, institutions, but can also include specific documentation. |
| Evaluation | Evaluation is the comparison of actual project impacts against the agreed strategic plans. It looks at what you set out to do, at what you have accomplished, and how you accomplished it. More specifically, evaluation focuses on the relevance, efficiency, effectiveness, impact, and sustainability. |
| Goals | Describe the results that your organization is working to accomplish over a long-term period in order to solve an identified problem or challenge. |
| Indicator | A performance indicator is a variable that allows the verification of changes in the development intervention. |
| Inputs | The financial, human, material, technological and information resources used for development interventions |
| Impact | A sustainable change of state that can be attributed to the accomplishment of intermediate outcomes. An actual or <i>intended change</i> in human development as measured by people's well-being |
| Logical Framework | The logical framework is a management tool used to facilitate planning, execution and evaluation of a development intervention. It is an approach to project management that on a single paper, organizes project components into a <i>hierarchy of logically linked objectives</i> ; defines <i>indicators</i> to track accomplishment of those objectives, specifies <i>sources/methods of data</i> to measure indicators and takes into account external <i>assumptions and risks</i> that affect project success |
| Objective statements | Objective statements express the progress that is hoped to be achieved and are written in present tense. |
| Mission | The organization's purpose; what the organization does and why |
| Monitoring | Monitoring is " <i>The systematic and continuous collection of information to assess progress and demonstrate results</i> ". It is the systematic collection and analysis of information as a project progresses. It is aimed at improving the efficiency and effectiveness of a project |

| | |
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| Monitoring system | A monitoring system is a system used to monitor performance and organize data in a way that allows users to report on these results |
| Objective | What we plan to accomplish so as to make progress in achieving our goals |
| Outcome | The intended or achieved short-term and medium-term effects of an intervention's outputs |
| Outcomes (Immediate) | Change that is directly attributable to the outputs of an initiative: changes in skills, awareness, knowledge, access or ability among beneficiaries |
| Outcomes (Intermediate) | Changes that generally occur once one or more immediate outcomes have been achieved: a change in behaviour or practice among beneficiaries |
| Outputs | Direct products or services stemming from the activities of an organization, policy, program or initiative. |
| Performance measurement framework | The PMF is an RBM tool that guides planning of the systematic compilation of data on the progress of a project or program based on expected and obtained results. In addition, the PMF outlines the main elements of the monitoring system and ensures that performance information is collected regularly and on time |
| Result | A result is a change which is describable, measurable or calculable as a consequence of a cause and effect relationship |
| Results-based management (RBM) | RBM is a management approach that considers strategies, people, processes and measurement for improving decision-making, such as transparency and accountability. It is based on results production, performance measurement, learning, adaptation and the production of performance reports |
| Results based report | Results based report is a document which demonstrates progress towards achieving your results and CHANGE that has occurred because of your interventions |
| Results chain | A results chain illustrates a relationship of influence from inputs/activities to outputs, from outputs to outcomes, and from outcomes to impact, all of which are linked by causal relationships (cause and effect) and sustained by some assumptions/hypotheses about the development context or factors that can influence the causal relationship. |
| Result statement | A result statement state the achievements expected at the end of a project or program at the end of a specific period and is written in past tense |
| Risk | The risk is the possibility of a critical condition or occurrence that could impede the realization of expected results |
| Risk management | Risk management consists in identifying risks, classifying risks in a risk analysis matrix, developing a risk management strategy, and developing a risk management plan |
| Residual risk | Risk or part of the risk that remain after the implementation of the chosen response strategy are referred to as "residual risks" |
| Theory of Change | Theory of change is a causal model. It defines all building blocks required to bring about a given long-term goal. It explains <i>how</i> and <i>why</i> the desired change is expected to come about. |
| Strategic Plan | A strategic plan is a document used to communicate within the organization and to its stakeholders the organizations goals, the actions needed to achieve those goals and all of the other critical elements developed during the planning exercise. |
| Strategic Planning | A disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future. Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful. (— Balanced Scorecard Institute) |
| | Strategic planning is a process by which leaders of an organization determine what it intends to be in the future and how it will get there. It outlines a process that includes the development of a vision for the organization's future, the determination of the necessary priorities, procedures, and operations (strategies) to achieve the vision. Included also are measurable goals which are realistic and attainable, but also challenging; emphasis is on long-term goals and strategies, rather than short term (such as annual) objectives. (World Bank) |

| | |
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| Strategy | What we will do to meet the objectives (short term) and to play our part in making a difference (long-term) |
| Targets | Targets are explicit statements of the desired and measurable results expected for an indicator at a specified point in time. They have to be set based on realism and based on the planned activities |
| Vision | The vision is a futuristic view regarding the ideal state or conditions that the organization aspires to change or create. |
| Values | The values refer to the principles, beliefs and underlying assumptions that guide the organization. |

1. INTRODUCTION

This document is the Integrated Strategic Planning Guide prepared by Baastel for the World Meteorological Organization (WMO) and is meant to provide a step by step approach to conduct strategic planning.

Governments, institutions and citizens globally are increasingly demanding more useful and reliable weather, climate, water and related environmental information products and services. The WMO and the National Meteorological and Hydrological Services (NMHS) of its Members play a critical role in the provision of these products and services. Indeed, the services provided by NMHSs are of significant benefit for decision-makers addressing global, regional and national challenges in a number of different spheres and sectors.

According to WMO's Strategic Plan 2015-2019, the high demand for quality and timely weather, climate, water and related environmental information products and services is also fuelling growth in the number of private-sector entities who also provide value-added products and services. As such, the WMO and NMHSs are exploring methods to improve efficiencies in the sector through regional collaboration and cooperation, the forging of strategic and cost-effective partnerships amongst themselves, other institutions and private-sector service providers. This is expected to improve the capacity of NMHSs to deliver support in meeting the expectations of governments to save lives, reduce damages, contribute to economic growth and support environmental stewardship.

1.1. Purpose of Guide

The purpose of this Guide is to assist NMHSs agencies in strengthening their capacity in strategic planning which would be helpful in attracting investments to improved operational efficiency and effectiveness in delivering high quality meteorological and hydrological services to citizens all over the world. This document is specifically intended for NMHSs with interest to initiate or improve their strategic planning processes. This resource can be used as a capacity strengthening tool to help senior management and staff better understand the why and how to do strategic planning, and then guide the planning team through the process.

This Guide is to be used in conjunction with the Strategic Plan Template that represents a basic strategic plan model that can be easily completed by a NMHS.

1.2. Structure of Document

This document consists of three sections summarized as follows:

- Section 1 provides the introduction and context for the document.
- Section 2 provides general information on what strategic planning is, why it is done and who normally does it. This section also provides an overview of the various strategic planning models and the steps involved.
- Section 3 details a step by step process of conducting a strategic planning exercise highlighting tips to make the process more efficient and effective.
- A set of **Annexes** provides resources for strategic planning, including templates, checklists and samples containing critical information to aid the process.

2. WHAT IS STRATEGIC PLANNING?

This section presents an overview of strategic planning and the rationale behind the conduct of this process by large and small organizations and across various sectors. Additionally, it provides a summary of the main models of strategic planning.

2.1. Strategic Planning Defined

Strategic planning is an important aspect of governance and strategic management. The research shows that over the past five decades, more organizations have been engaging in strategic planning as they seek to *inter alia*: ensure that stakeholders, in particular staff, are working toward common goals; establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment; set priorities; strengthen operations and focus on value for money.

There are numerous definitions of strategic planning. Strategic planning is integral to organizations in terms of fulfilling its mission and to ensure that, through effective preparation, its programmes and support activities are best positioned to achieve the long-term goals and objectives. Strategic planning will assist the management and staff in setting the long-term directions and policies for the organization and in making decisions on near-term priorities and resource allocations. It will assist those who develop and implement programmes by providing guidance for multi-year programme plans and budgets.

The Balanced Scorecard Institute describes strategic planning as;

"A disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future."

The Institute further notes that;

"Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful."



The World Bank's (2001) Strategic Planning: A Ten-Step Guide remains relevant and provides that strategic planning is;

“A process by which leaders of an organization determine what it intends to be in the future and how it will get there.”

It outlines a process that includes the development of a vision for the organization's future, the determination of the necessary priorities, procedures, and operations (strategies) to achieve the vision. Included also are measurable goals which are realistic and attainable, but also challenging; emphasis is on long-term goals and strategies, rather than short term (such as annual) objectives.

Strategic planning is a collaborative process that brings together diverse stakeholders to reimagine a bolder future for their organization. It's a way for organizations to figure out where they want to go, identify the hurdles that stand in the way of getting there, and then engage in the co-creation of strategies to determine how best to overcome, circumvent, or mitigate those hurdles.¹

At the end of the day, strategic planning responds to following four questions:

- Where are we now?
- Where do we want to be?
- How do we get there?
- How do we gauge progress?

These four questions are critical because they are the basis for the preparation of the content of the strategic plan.

¹ Source: <http://www.thirdplateau.com/are-you-ready-for-strategic-planning-consider/>

The main output of the strategic planning process is the strategic plan. A strategic plan is a document used to communicate within the organization and to its stakeholders the organizations goals, the actions needed to achieve those goals and all of the other critical elements developed during the planning exercise. The process that an organization undertakes to develop a strategic plan is paramount to the actual plan that is developed. The key aspect of strategic planning is the communication involved between and among key stakeholders within the organization to develop and implement a strategic plan.

2.2. Rationale for Strategic Planning

Why do strategic planning? The benefits of strategic planning are many and include:

1. Agreement on a common purpose (amongst internal and external stakeholders in the strategic planning process);
2. Building consensus around organizational goals, objectives, and priorities;
3. Increased effectiveness through implementation of the organization's mandate and mission;
4. Increased efficiency through better results achieved with the use of less resources;
5. Providing the basis for resource allocations and to ensure value for money;
6. Better understanding of and ability to predict and adjust to changing circumstances;
7. Improved decision making;
8. Improved organizational abilities;
9. Improved communication through coordination and cooperation;
10. Development of a higher level of awareness and a better understanding of the operational environment;
11. Enhanced transparency and accountability through the establishment of monitoring, evaluation and reporting frameworks that assess the organization's performance (results).

A good Strategic Plan should . . .

- Address critical performance issues;
- Be visionary – convey a desired future end state;
- Be flexible – allow and accommodate change;
- Guide decision making at all levels – operational, tactical, individual.

2.3. Overview of Strategic Planning Models

There are various models of strategic planning and numerous iterations of these models. The strategic planning process that is used is contingent upon the type and size of the organization and the people involved. The model or variation of the model that is selected is largely based on the discretion of the stakeholders involved in the strategic planning process.

2.3.1. Basic Strategic Planning

The Basic Strategic Planning model is often used by organizations that are small, busy and have limited experience in strategic planning. It can be used at the initial stages of adopting strategic planning to enable an organization to gain experience in the strategic planning processes. This approach requires top management to provide leadership.

This model uses the following steps:

1. Define or update your mission, vision and values.
2. Assess the external and internal factors and identify the Strengths, Weaknesses, Opportunities and Threats (SWOT) to your organization.
3. Articulate the organization's goals.
4. Identify specific approaches, tactics or strategies to be implemented to achieve the goals or expected results.
5. Document the mission, vision, goals or expected results, and strategies into a Strategic Plan.
6. Develop an operating plan or action plan to translate the strategies into the specific actions that will be implemented to achieve the goals or expected results.
7. Develop a monitoring, evaluation and reporting system.



2.3.2. Issue-Based (or Goal-Based) Planning

The Issue-Based (or Goal-Based) Planning model is considered to be more comprehensive and more effective than the aforementioned Basic Strategic Planning model. Organizations that have some amount of experience in strategic planning are likely to engage this model.

The following steps represent the relevant activities associated with this model.

1. Define or update your mission, vision and values.
2. Assess the external and internal factors and identify the Strengths, Weaknesses, Opportunities, Threats (SWOT) of your organization.
3. **Conduct a strategic analysis to identify and prioritize major issues to be addressed.**
4. Define your goals or expected results to be achieved in addressing those issues so as to realize the vision within your mission.



5. Select appropriate strategies to address the issues to achieve the goals or expected results.
6. Document the mission, vision, issues, goals or expected results, and strategies into a Strategic Plan.
7. Develop operating or action plans to translate strategies into specific actions, indicating specific timelines and assigning responsibilities.
8. Develop a budget.
9. Develop a monitoring, evaluation and reporting system.

2.3.3. Alignment Model

The thinking behind this model is to align the resources with the mission to ensure effective operations. It is relevant for fine tuning the strategies if they are not working. It can also be appropriate for an Organization experiencing extensive internal inefficiencies.



The steps involving this model include to:

1. Define or update your mission, vision and values.
2. Assess the external and internal factors and identify the SWOT of your organization.
3. **Identify what's working well and what needs adjustment.**
4. **Identify how these adjustments should be made.**
5. **Include the adjustments as strategies in the strategic plan.**
6. Develop operating plans or action plans translating strategies into specific actions, indicate specific timelines and assign responsibilities.
7. Develop a budget.
8. Developing a monitoring, evaluation and reporting system.

2.3.4. Scenario Planning Model

The scenario approach provides a process for thinking clearly about the complex factors that influence decision-making. It provides the management with a common language to talk about the future by answering several "What if" questions. Based on the discussions and answers to the "what if" questions, stories or scenarios of the future that they need to address are developed. This model can be combined with other models to support strategic thinking and to identify strategic issues and goals.



The steps involved in carrying out this model are:

1. Define or update your mission, vision and values.
2. **Select several external forces and imagine related changes which might influence the organization**, e.g. change in regulations, demographic changes, etc. Scanning the newspaper for key headlines often suggests potential changes that might affect the organization.
3. **Select the most likely external changes to affect the Organization.**

4. **Discuss three different future Organizational scenarios** (including best case, worst case, and ok/reasonable case) associated with each change. It is advisable to review the worst-case scenario to provoke strong motivation to change to the Organization.
5. **Suggest what the organization might do or potential strategies to respond the three categories of scenarios.**
6. Consider strategies that should be implemented to respond to possible external changes.
7. Identify the most reasonable strategies the organization should implement to respond to the changes.
8. Develop operating plans or action plans translating strategies into specific actions, indicate specific timelines and assign responsibilities.
9. Develop a budget.
10. Monitor, evaluate and report performance progress.

2.3.5. Organic (Self-Organizing) Planning

This is a non-linear strategic planning model that uses values as the centre for dialoguing and comparable to a process of developing an organism. The Organization reflects on its operating systems and processes to identify what needs to be aligned with the strategic direction.

The steps include:

1. Define or update your mission, vision and values.
2. **Dialoguing regularly to identify the systems or processes needed to realize the vision and what needs to be done about those processes.**
3. **Keeping in mind that this approach is a continuous process**, without an end, and that each group has to learn to conduct its own values clarification, dialogue/reflection, and process updates.
4. One has to be patient, and to focus more on learning than on the method. Each group should reflect on how the strategic plan will be communicated to the stakeholders, develop Operating Plans or action plans that translate strategies into specific actions, indicate specific timelines and assign responsibilities.
5. Develop a budget.
6. Develop a monitoring, evaluation and reporting system.



2.3.6. Real Time Planning

Real-Time Strategic Planning is similar to the organic model of planning. This model is particularly suited for those who believe that the rapidly changing and dynamic nature of organizations make long-term and detailed planning irrelevant. These experts might assert that planning for an organization should be done continuously, or in "real time." The real-time planning model is best suited, especially to organizations with very rapidly changing external environments.



The steps involved in this model are:

1. Define or update your mission, vision and values.
2. Assign planners to research the external environment and, as a result, to suggest a list of opportunities and of threats facing the organization.
3. Present the lists to the Board and other members of the organization for strategic thinking and discussions.
4. Soon after (perhaps during the next month) assign planners to evaluate the internal workings of the organization and, as a result, to suggest a list of strengths and of weaknesses in the organization.
5. **Present these lists to the Board and other members of the organization for strategic thinking and discussions**, perhaps using a SWOT analysis to analyze all four lists.
6. **Repeat steps 2-5 regularly, for example, every six months or year and document the results in a Strategic Plan.**

2.3.7. Theory of Change Model

An important component of the results-based approach that the WMO embraces is the Theory of Change (TOC). In practical terms results-based management (RBM) means developing a TOC for a specific intervention or an organization for a given time frame. TOC is a causal model. It defines all building blocks required to bring about a given long-term goal. It explains HOW and WHY the desired change is expected to come about. This set of connected building blocks shows a pathway of change or a change framework, which clearly explains the causal link between different levels results. Assumptions about how these changes might happen are critical to the TOC model.

“A TOC is an excellent basis for a strategic plan because it works methodically through the path from the need you are trying to address to the change you want to achieve.” A *logic model* is a tool that helps to express an organization’s TOC.

This is a robust and flexible model that once developed can be used to plan, evaluate and communicate the change or results journey for the organization’s work.

Articulating the TOC as strategy includes the following steps:

1. Define or update your mission, vision and values.
2. Analyze the context/Identify the Problem/ Needs assessment/SWOT
3. Identify goals
4. **Develop the logic model/results chain**
5. Plan for monitoring and evaluation
6. Develop operational/action plan
7. **Develop results based budget**



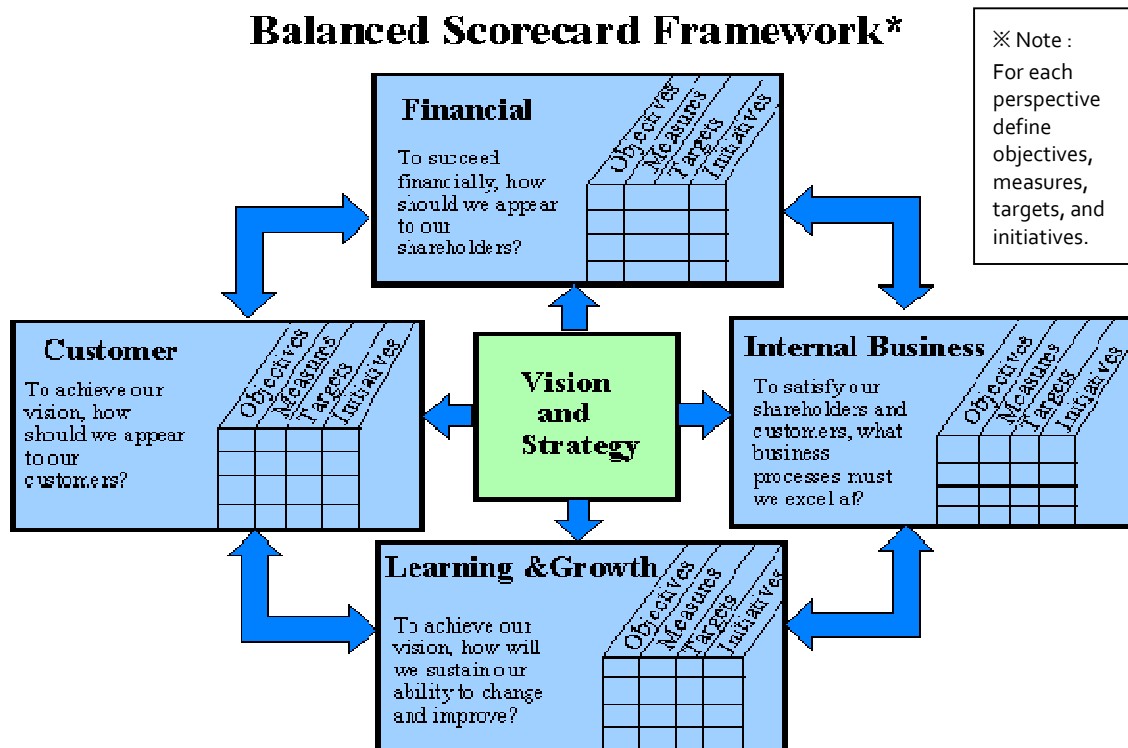
2.3.8. Balanced Scorecard Model

The Balanced Scorecard (BSC) was introduced to the business world more than 20 years ago and is still in use today in varied forms. The BSC was designed to measure the performance of an organization in four perspectives namely financial, customer, internal business process and learning and growth.

- *The Customer Perspective* – this refers to customer concerns about time, quality, performance, service, and cost.
- *The Internal Business Process Perspective* – this refers to those business processes that have the greatest impact on customer satisfaction.
- *The Innovation and Learning Perspective* – this refers to innovation, as well as improvements to existing products and processes.
- *The Financial Perspective* – this refers to the extent to which the company strategy contributes to profitability, growth and shareholder value.

For each perspective, the objectives, measures, targets and initiatives are defined as relates to the vision, mission and strategy to enable performance monitoring.

Figure 1: Template of Balance Scorecard



* Adapted from Kaplan & Norton 1996. *The Balanced Scorecard*. Harvard Business School Press: 9. Original from HER, Jan/Feb 1996, p 76.

It is used extensively in business and industry, government, and nonprofit organizations worldwide to align business activities with the vision and strategy of the organization; to improve internal and external communications; and to monitor organization performance against strategic goals.

It has evolved into a second-generation strategic management system due to its widespread use.

The BSC Model as strategy includes the following steps:

1. Define or update your mission, vision and values.
2. Conduct SWOT Analysis
3. **Build a Strategy Map**
4. **Define the Strategic Themes**
5. Identify Strategic Objectives and Performance Indicators

See **Annex 1** for an example of a scorecard tailored to an NMHS.

2.4. Strategic Planning Phases

Strategic planning is a cycle. The cycle represents a continuous process in which each stage provides the foundation for the next. Typically, the strategic planning cycle comprises at least three phases. Those who refer to three phases identify them as **diagnosis, design and implementation phases**. Operational planning, and monitoring and evaluation (M&E) are often considered as part of implementation phase.

Given the importance that this Guide places on M&E and the fact that M&E answers one of the fundamental questions of strategic planning --- "How do we gauge progress?", it is treated as a phase in its own right.

This Guide therefore sets out **six** strategic planning phases as follows:

1. Preparatory Phase: establishing the strategic planning process
2. Assessment and Analysis Phase: looking inside and outside the organization
3. Design/Define Phase: developing your Strategic Plan
4. Implement Phase: making the Strategic Plan a reality
5. Performance Measurement Phase
6. Review and Modify Phase

Preparatory Phase: Adequate and appropriate preparation is important if the strategic planning process is to be efficient and the end product effective. This phase involves the preplanning course of action to be undertaken ahead of the actual strategic planning process. Justification for embarking on the strategic planning process is also considered during this organizing phase.

The **Assessment and Analysis Phase** involves examining the current and past state of an organization from various perspectives to understand the current definition of its business, the trends, and factors that may influence its future. In this phase, factors that influence performance are identified and documented. It provides the information required to design a strategic plan. During this phase, several tools can be used to garner the required information. Some of these include SWOT, 3C's, Porter's five forces, 7S's and PESTLE.

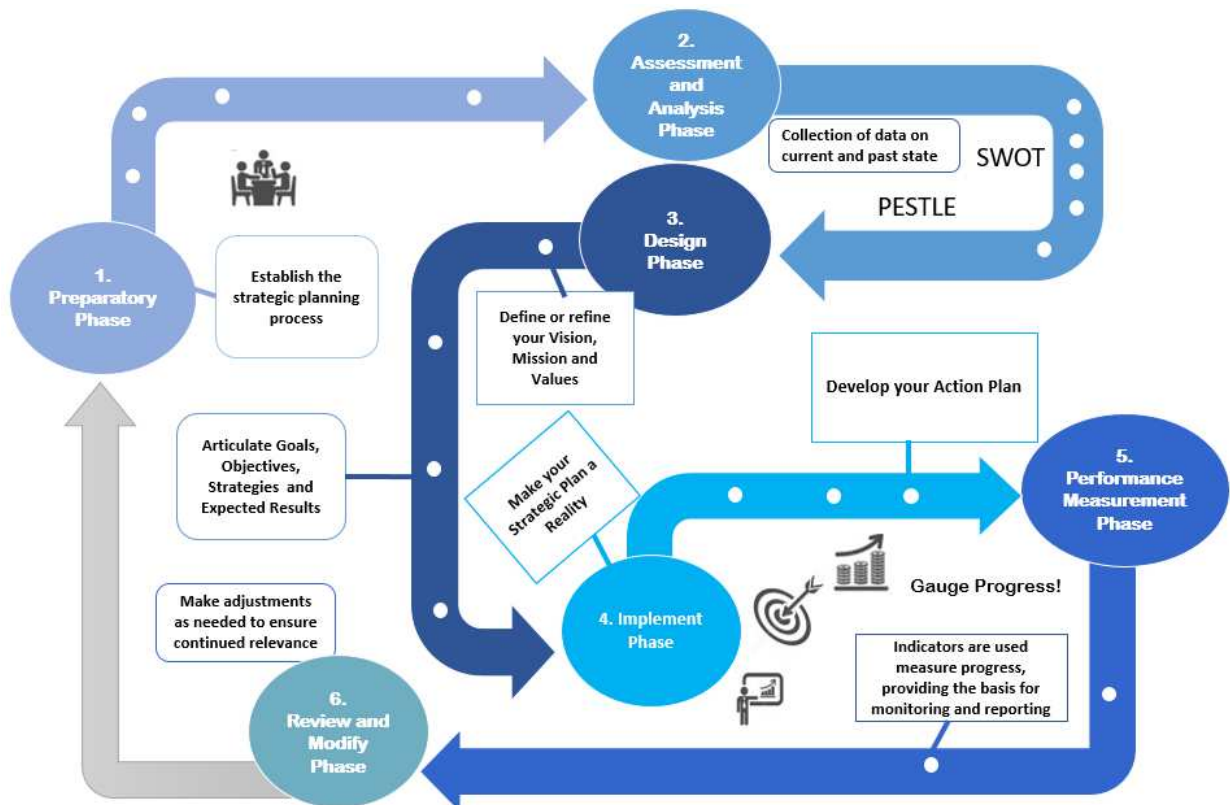
Design/Define Phase, otherwise called the strategy formulation phase includes defining or updating the organization's Vision, Mission and Values Statements, identifying organizational goals, and, identifying strategies and expected results.

Implementation Phase is focused on executing the strategic plan. It includes the development of an action plan or operational plan.

Performance Measurement Phase: The strategic plan will be of no use if you do not measure and report on it. Performance measures play a vital role within a strategic plan in determining how well the organization is progressing toward achievement of each objective or expected results.

Review and Modify Phase: We live in a dynamic and ever changing environment and this phase is to ensure that the plan is adjusted as necessary so that it remains relevant.

Figure 2: Strategic Planning Phases



3. GUIDE TO INTEGRATED STRATEGIC PLANNING

"If you fail to plan.....then you plan to fail....."

No one says strategic planning is easy! In fact, the strategic planning process can be quite overwhelming or even intimidating! Every organization is different and there is no set process or template. It is therefore overconfident and unrealistic to say, this is "how to" do strategic planning in every situation. Nonetheless, if you break it down into phases, strategic planning becomes easier to tackle. This guideline document emphasizes the theory of change (TOC) or results based management (RBM) as strategy.

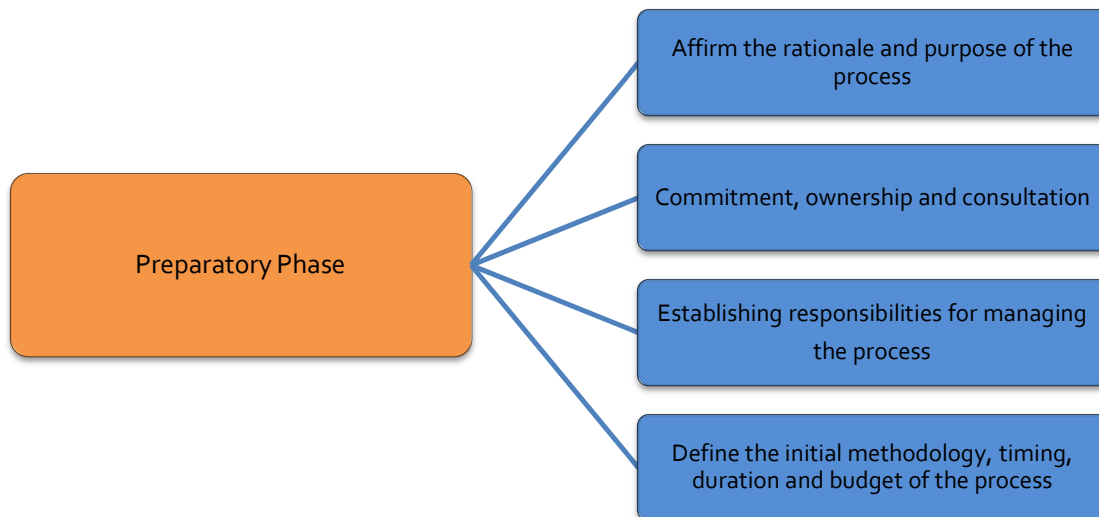
The following sections provide guidance on how to conduct an integrated strategic planning process in line with the phases described earlier.

3.1. Preparatory Phase

Once you have embarked on a strategic planning process, you would have already answered the question "why do we need a strategic planning process?"

Now that there is consensus that a strategic planning process is required or necessary, the next step is to prepare!

Figure 3: Steps in the Preparatory Phase



Here are some of the important preparatory steps to take:

1. Affirm the rationale and purpose of the process – Do we need a strategic planning process?
2. Ensure that there is widespread commitment to and ownership of the process – How much understanding and commitment is there to the process?
3. Identify participants and assign roles and responsibilities – Who will be involved?
4. Design the process, including information gathering and consultation methods, and the models and tools used for analysis, the timeline and budget – How do we want to manage the strategic planning process, do we need an external facilitator? How long will it take?

Critical Success Factors

In order to meaningfully engage in a strategic planning process and realize the benefits, you will need:

- An identified champion for the process and leadership support
- Ability to direct time, energy, and brain capacity to the process
- Open mindedness and willingness to change with a focus on outcomes/impact
- Eagerness to be transparent and collaborative
- A team mentality that strategic planning is an investment, and a commitment to persevere through the inevitable challenges with determination
- Appreciation that the process is just as valuable as the end product
- Regularly communicate on the development of the process

3.2. Assessment and Analysis Phase

3.2.1. Conduct Environmental Scan

In order to develop a meaningful strategic plan for the future, an accurate assessment of the NMHSs internal and external working environments must be made by the strategic planning team. The necessary information can come from statistics, progress reports, evaluations and other documents. Consultation processes with internal and external stakeholders should also inform the analysis. While analysis should happen throughout every step of the planning process, the emphasis on analysis during this step is particularly strong. The planning team may organize public surveys, questionnaires, interviews, focus groups and plenary discussions to achieve this. A confidential interview process with stakeholders is another option that can be used to identify the real issues and to involve those interviewed in the process of planning.

At minimum, the environmental scan should: foster participation of all stakeholders (planning team and other NMHS staff as well as programme beneficiaries); allow room for creativity, to plan the changes needed to improve the situation; and gather both qualitative and quantitative data, as well as objective and subjective information.

The environmental scan is done by gathering facts and analyzing trends that give an objective picture of where the organization stands in the “world” of this business and the external and internal pressures and factors likely to affect its future and achievement of the general goals and objectives.

Specialists, staff and key subordinate managers are normally asked to collect and analyze much of this information.

3.2.2. Tools for Assessment and Analysis Phase

The Environmental Scan (or situational analysis) requires tools to summarize compare, prioritize and organize data. Many different tools can be used however it must be borne in mind that a tool is only useful if used at the right time and in the right way. The same tool can also be used at different times.

This Guide highlights three tools to analyse the situation: SWOT Analysis, PESTLE Analysis and Stakeholder Analysis.

3.2.2.1. SWOT Analysis

The single most familiar tool for developing strategy is the SWOT analysis (the letters represent Strengths, Weaknesses, Opportunities, and Threats). Part of understanding “who we are and where we are” is an assessment of the organization’s internal strengths and weaknesses, and its external opportunities and threats. The SWOT analysis provides this assessment. We can think of strengths and weaknesses as inward-looking, whilst opportunities and threats are often outward-looking.

Figure 4: SWOT Analysis Template

| | Helpful | Harmful |
|--|--|--|
| Internal (Attributes of the Organization that are within your control) | <p>Strengths (<i>List here anything you can think of that makes your organization amazing! What can you rely on to deliver your services?</i>)</p> <ul style="list-style-type: none"> Strengths are the things that you do well Strengths can be tangible for example: loyal customers, very high quality products, excellent financial condition Strengths can be intangible for example good leadership, strategic insights, customer intelligence, solid reputation | <p>Weaknesses (<i>What isn't quite the way it should be yet? What is missing?</i>)</p> <ul style="list-style-type: none"> Weaknesses are those things that prevent you from doing what you really need to do Examples of weaknesses include poor leadership, unskilled workforce, insufficient resources, poor product quality and outdated technologies |
| External (Attributes of the Environment/Society that are outside of your control) | <p>Opportunities (<i>List here any potential opportunities to really push your organization forward that you have not yet taken advantage of.</i>)</p> <ul style="list-style-type: none"> Opportunities are potential areas for growth and higher performance Examples of opportunities include favorable economic conditions, clients' dissatisfaction with competitor's products and services, availability of multiple funding sources for research and development | <p>Threats (<i>List here anything that might get in your way of achieving your goals – such as funding you aren't sure of yet, relationships that might break down, etc.</i>)</p> <ul style="list-style-type: none"> Threats refer to challenges confronting the organization that are external in nature Examples of threats include global economic crisis, bad press coverage, shifts in consumer behavior, influx of substitute products, new regulations |

How to/Guidance

The SWOT is usually completed by a small group or committee based on the data and information gleaned from the data sources (internal and external). Once completed, the output can be shared with additional staff and selected stakeholders for further input as necessary.

Consider the following steps when completing the SWOT:

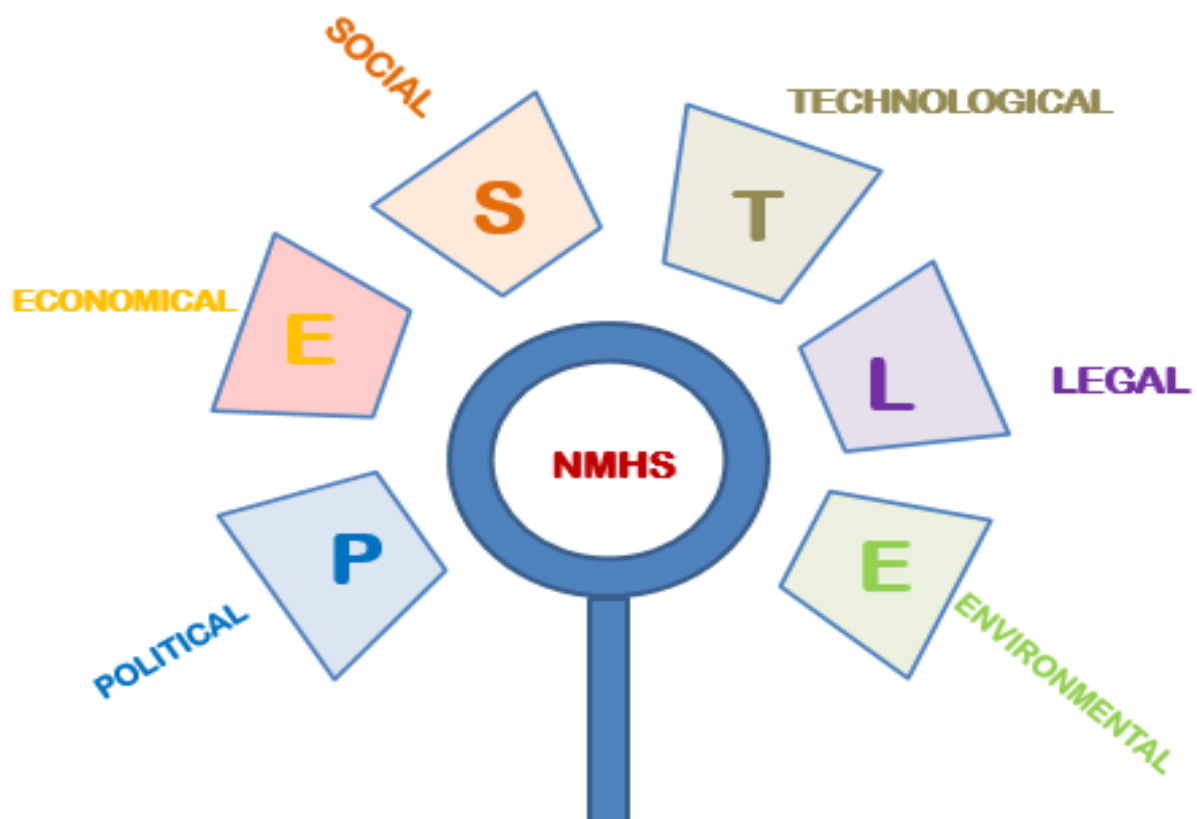
1. Review, analyze and sort data. Comb through all the data amassed from various to identify strengths, weaknesses, opportunities and threats or challenges. Place information into the respective quadrant of the SWOT template.
2. Identify and add anything missing. Once the data and information have been sorted into the four quadrants, participants should add anything that is missing. A brief brainstorming session is an effective way to identify and additional strengths, weaknesses, opportunities or threats/challenges that did not show up in the formal data compilation.
3. Analyze SWOT by identifying any connections between listed items in the quadrants. (i.e. Is there an opportunity that can be taken advantage of to address a particular threat or weakness?)
4. Look for any patterns in the results.
5. Discuss ways strengths can be maintained, enhanced or leveraged.
6. Discuss ways to minimize weaknesses.
7. Discuss options for leveraging or taking advantage of opportunities.
8. Discuss the potential impact of threat/challenges and anything being done to address or prepare for the threat.
9. Identify any potential strategic issues to be addressed.

See sample SWOT Analysis in Annex 2.

3.2.2.2. PESTLE Analysis

This is used to provide an understanding of the organization's external environment. PESTLE stands for political, economic, socio-cultural, technological, legal and environmental (ecological) factors. This analysis is usually conducted during a stakeholder workshop utilizing outputs from research on the six factors highlighted. The PESTLE analysis is regarded as a complementary tool to a SWOT Analysis in that it expands on the analysis of external context by looking in detail at specific types of issues that frequently have an impact on implementation of project/ initiatives. It is usually recommended to use both during the strategic planning process.

Figure 5: PESTLE Revealed!



See Sample PESTLE Analysis in Annex 3.

3.2.2.3. Stakeholders Assessment

This step includes a discussion about who the NMHS serve and in what ways. It also includes an assessment of the needs of the stakeholders that organization needs to address. This section looks at the competition or collaborators, that is, who else is addressing these needs or problem? It also looks at who the NMHS should be serving and its comparative advantage.

Table 1: Stakeholder Analysis Matrix

| Stakeholders | Interests | Expectations | Potential |
|---|---|--|---|
| <i>List Stakeholders (both collaborators and competitors)</i> | <i>Highlight what are their interests in the NMHS</i> | <i>Detail what they expect from their relationship with the NMHS</i> | <i>Enumerate the contributions that they could make to the NMHS</i> |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

See Sample Stakeholder Analysis Matrix in Annex 4.

3.3. Design and Define Phase

During this phase, you decide on the structure or components of the strategic plan and select model(s) to use.

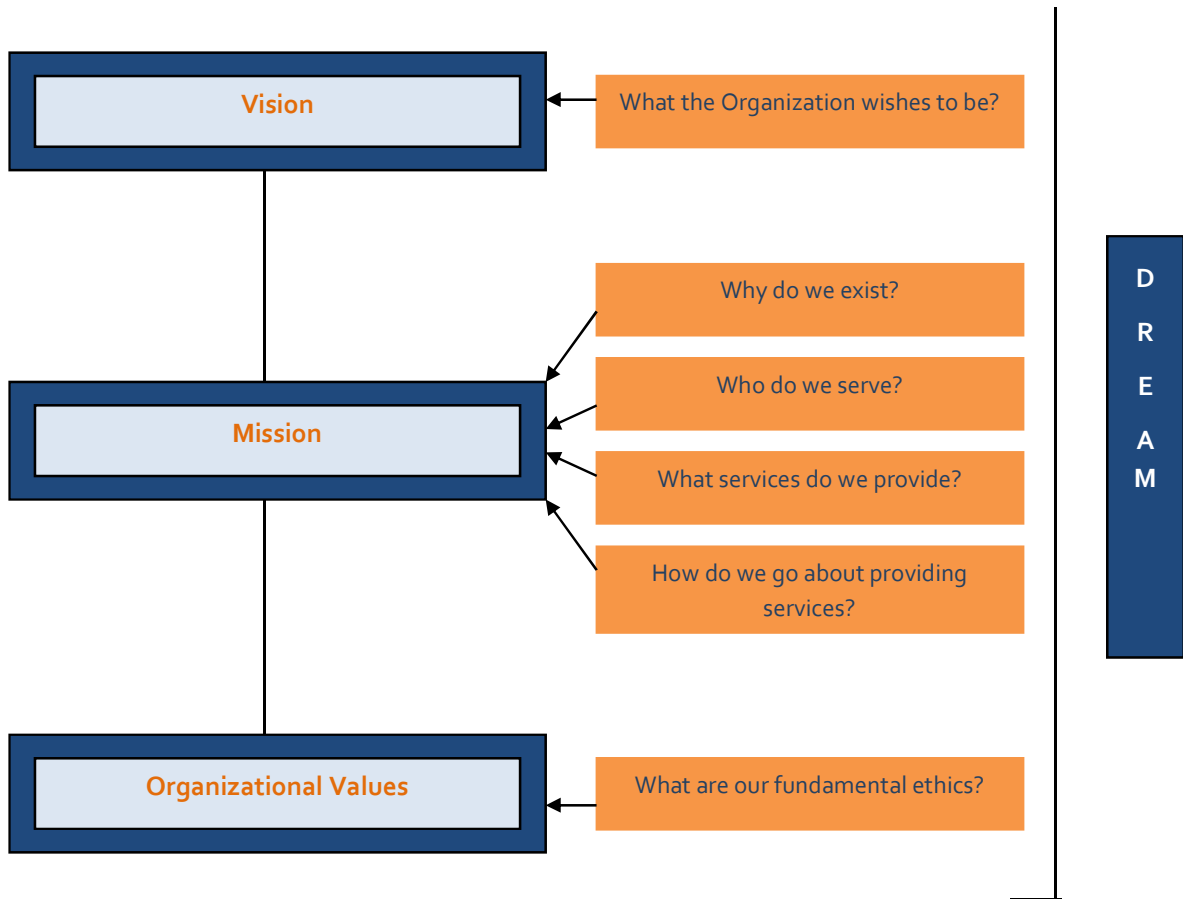
- This is the “Where you want to be?” aspect of the strategic planning process.
- Also called the strategy formulation phase includes defining or updating the organization’s Vision, Mission and Values Statements, identifying organizational goals, objectives and, identifying strategies and expected results.

This is where you dream big! The foundation of a strategic plan is its mission, vision and values statements. These statements succinctly reflect a shared understanding of why your organization exists and its aspirations for the future. Quite often, it is convenient to just dust off and reuse those already in existence. Admittedly, these can be a starting point, but it is important to critically review whether they are ambiguous or outdated. Do they resonate with you and what the organization now represents? Because of their defining nature, and the fact that they will help guide the rest of your work, it is important to invest time to clarify and articulate them on paper (Mittenthal, 2002).

Which goes first, vision or mission? When it comes to creating mission and vision, there is no prescribed order of development. Some strategic planners suggest beginning with the vision or the futuristic view or the ideal state of change/improvement. Mission and vision are often used interchangeably. According to the literature this is not a correct practice. Mission is about what the organization does, that is, its purpose while vision is what the organization aspires to be.

For the purpose of this guidance document, defining the organization’s vision is recommended as a first step in the mission, vision and values process. Since the mission will communicate how the agency will go about achieving the vision, it is important that the two statements be linked to show how the agency’s actions can potentially impact the envisioned state.

Figure 6: Key Questions for Developing NMHS Vision, Mission and Values



Once the mission, vision, and values statements have been developed and adopted by the organization and its management cadre, statements are communicated to all staff and other key stakeholders to ensure a shared understanding by all.

3.3.1. Vision

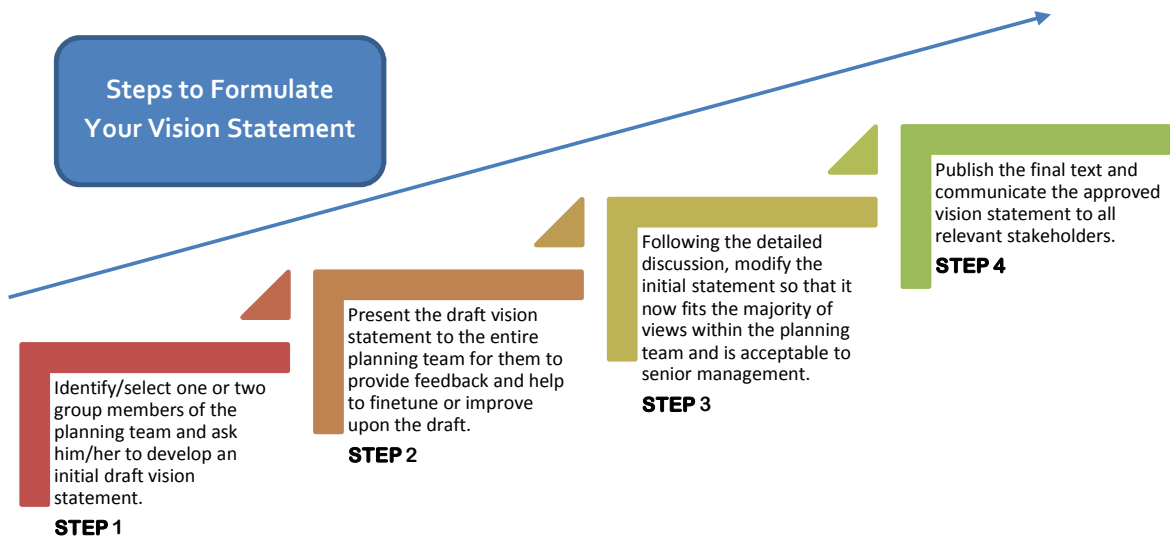
Vision represents a future to which your organization aspires to that is responsive to the needs and concerns. An organization's vision describes how it will appear when it reaches its full potential.

What are the characteristics of a good vision statement?

- A good vision statement is ASPIRATIONAL – It describes what the organization wants to be/how it wants to be seen when it has reached its goals
- A good vision statement is INSPIRATIONAL – It should provide clear motivation and guidance to the organization's staff or members
- A good vision statement is future-based but it is written in the present tense
- A good vision statement is clear and concise
- A good vision statement is memorable
- A good vision statement answers the question 'Where does the organization wish to go?'

How to develop a Vision Statement

It is not easy to develop a vision statement even though they usually consist of only a few sentences or a short paragraph.



In *formulating* your vision statement, the team members should answer the following basic questions:

1. What does the organization do/why does the organization exist?
2. Where does the organization want to be 5-10 years in the future?
3. What does the organization aspire to become?

One writer suggests that in writing a vision statement, team members use a basic formula to help them think of the organization’s aspirations within a specific time frame².

Use the following formula to help shape your vision statement:

Five years from now, (my organization name) will _____ by _____.

Using a formula like this will force you to choose what you consider to be the most important accomplishment of your business and give you a time frame to accomplish it.

Here is a sample vision statement using this formula:

In ten years’ time, the National Weather Service will be the leader in the North American Region by consistently providing improved meteorological and hydrological services that contribute to national sustainable development.

If the organization already has a vision statement, the planning team should convene a session to carefully *review it* and as a group, determine whether your vision mission statement can respond positively to the following questions:

Table 2: Vision Statement Questions for Consideration

| VISION STATEMENT (Carefully review you vision statement and answer the following questions) | Yes | No |
|---|-----|----|
| Does the vision statement provide a clear picture of the organization's future? | | |
| Is the vision statement challenging and inspiring? | | |
| Is the vision statement believable? | | |

WMO's Vision Statement

To provide world leadership in expertise and international cooperation in weather, climate, hydrology and water resources and related environmental issues and thereby contribute to the safety and well-being of people throughout the world and to the economic benefit of all nations.

²Susan Ward-Small Business Canada expert 'How to write a Vision Statement.'
<http://sbinfocanada.about.com/od/businessplanning/a/writevision.htm>

Table 3. Examples of Vision Statements from selected National Meteorological Services

| |
|--|
| Thailand "Aspiring to the excellence in meteorology at the international level." |
| Tanzania "To stand out as a centre of excellence in accelerating the National Development Vision through provision of world class meteorological services." |
| Denmark "We are a world-class meteorological institute. We help citizens, public authorities and private companies to transform knowledge into safety and growth." |
| Finland "The Finnish Meteorological Institute is an international forerunner in atmospheric and marine know-how and works to guarantee the safety and success of Finnish society." |

3.3.2. Mission

It is critical that you have a solid, current and agreed mission statement in place before you initiate the subsequent planning steps. A mission statement clearly communicates to your customers (citizens to whom services are provided) and other stakeholders (those with a vested interest) what your organization does, which services and programmes it provides, why you provide them, and for whom and how they benefit or are impacted. It is a comprehensive statement that articulates a clear purpose.

Characteristics of a Mission Statement:

- A good mission statement is clear and to the point
- A good mission statement is a concise and practical description of what the organization does
- A good mission statement is memorable
- A good mission statement answers the questions 'What does this organization do?' 'How does this organization do its work?' 'Why does this organization do the work it does?'

Guidance (*for organizations that already have a Mission Statement*): Convene the strategic planning team and as a group, determine whether your mission statement is still accurate and relevant using the following questions:

Table 4. Mission Statement Questions for Consideration

| MISSION STATEMENT (Carefully review you mission statement and answer the following questions) | Yes | No |
|--|------------|-----------|
| Does it clearly state what business you are in? | | |
| Does it answer the questions: "who we are, what do we do, for whom (or to whom) we do it, and why it's important?" | | |
| Is the ultimate rationale for existence clear? | | |
| Is the mission broad enough to accommodate current times? | | |
| Does it describe what is unique or distinct about the NMHS? | | |

Does it specifically describe the demographics and geography or community it serves?

Can the mission survive changes in administration?

Is it easily understandable to anyone who reads it?

Can you justify the resources you spend on executing the mission?

Would people want to rally around the mission or contribute to it?

If the agency were to disappear, does it adequately describe why anyone should care?

Does it remain relevant to those the NMHS serve? Would they share the description of what we do and why?

Does it allow for growth and innovation?

Does it appeal to the heart and head?

See Mission Statement Worksheet in Annex 5 to help NMHS to define each element of a mission statement.

WMO's Mission Statement

The mission of WMO is to:

- Facilitate worldwide cooperation in the establishment of networks of stations for the making of meteorological observations as well as hydrological and other geophysical observations related to meteorology, and to promote the establishment and maintenance of centres charged with the provision of meteorological and related services.
- Promote the establishment and maintenance of systems for the rapid exchange of meteorological and related information.
- Promote standardization of meteorological and related observations and to ensure the uniform publication of observations and statistics.
- Further the application of meteorology to aviation, shipping, water problems, agriculture and other human activities.
- Promote activities in operational hydrology and to further close cooperation between Meteorological and Hydrological Services.
- Encourage research and training in meteorology and, as appropriate, in related fields, and to assist in coordinating the international aspects of such research and training.

Table 5. Examples of Mission Statements from selected National Meteorological Services

Jamaica

"The Mission of the Meteorological Service is to take full advantage of man's present knowledge of weather and climate; to take steps to improve significantly that knowledge and to foresee and prevent potential man-made changes in climate that might be adverse to the well-being of humanity."

Canada

"The mission of the Meteorological Service of Canada is to anticipate and respond to the evolving needs and expectations of Canadians and their institutions for meteorological, hydrological and related information and prediction services thereby helping Canadians adapt to their environment in ways which safeguard their health and safety, optimize economic activity and enhance environmental quality."

Fiji

"To provide meteorological expertise and professional services in support of Fiji's economic development, and for the safety and benefit of the community. In parallel to the national interest, and consistent with its newly assigned role of a Regional Specialized Meteorological Centre (RSMC) for Tropical Cyclones under the World Weather Watch Programme of the World Meteorological Organization (WMO), the Fiji Meteorological Service aims to deliver quality forecast, warning and advisory services to the South Pacific island nations and territories falling within the area of responsibility."

Philippines

"To provide typhoon and flood warnings, public weather forecasts and advisories, meteorological, astronomical, climatological, and other specialized information and services primarily for the protection of life and property and in support of economic and productivity and sustainable development. To conduct research and development for the improvement of such services."

3.3.3. Core Value Statements

Values statements are rooted in the core values of members of the organization. They manifest the core values of their leaders especially. Other names for values statement include: philosophy, quality statement, principles or guiding principles.

- Values are the things that are important to your organization and that your clients or stakeholders identify as your important characteristics. What do people value about your organization?
- Values are those things which the organization believes to be important in its work and its interaction with others. These values are important as they help inform both your mission and vision statements. Examples of values are integrity, honesty, efficiency, teamwork, equality, excellence.
- All organizations have values and the work of all organizations is informed by their values, whether or not these values are documented.
- Value statements document the principles to which an organization subscribes and which guide its operations.
- Value statements are important as they communicate these principles to team members (internally) and to stakeholders (externally).

How to/Guidance

1. **Identify the current beliefs/behavior of the organization.** Be cognizant of some of the underlying assumptions about how the organization behaves. For example, think about how people are treated, relationships are developed or decisions are made.
2. **List values that the NMHS are not currently demonstrating that it should be.**
3. **Repurpose the description of beliefs and behaviors into value statements.** Go for clarity, making sure to avoid jargon, vague language that would allow multiple interpretations.
4. **Prioritize the list by getting agreement on the key or most important values.**
5. **Describe how the values could translate into the day-to-day work of the organization.** Consider the impact of the values on all aspects of the organization including, governance, operations, programs, relationships and behavior.
6. **Formalize the value statement through Board endorsement.** Consider whether to make the value statement an organizational policy.
7. **Communicate the value statement to all key stakeholders.** This can be done as a part of the overall communication strategy.



Examples of Values Statement

Google's Core Philosophy

Google calls its values and value statements, its philosophy and they re-look at the components every few years to make sure that the values are still the values.

- Focus on the user and all else will follow.
- It's best to do one thing really, really well.
- Fast is better than slow.
- Great just isn't good enough

The FBI's Core Values

- Rigorous obedience to the Constitution of the United States;
- Respect for the dignity of all those we protect;
- Compassion;
- Fairness;
- Uncompromising personal integrity and institutional integrity;
- Accountability by accepting responsibility for our actions and decisions and the consequences of our actions and decisions;
- Leadership, both personal and professional; and
- Diversity.

General Value Statements

- **Integrity:** We are honest and frank in all of our dealings and communications. We ensure information that is timely, appropriate and honest.
- **Meaningful partnerships:** We form and then actively nurture meaningful partnerships and collaborations in order to better serve our clients and reduce duplication of effort.
- We are committed to forging public and private partnerships that combine diverse strengths, skills and resources.

3.3.4. Identify Organizational Goals

A goal without a plan is just a wish — Antoine de Saint-Exupery

Organizations are established to solve problems. Goal statements describe the results that your organization is working to accomplish over a long-term period so as to make its contribution to solving an identified problem or challenge. The goal statement(s) should convey the area(s) in which the organization is intending to affect *change*. These changes over the long-term are typically those that address behaviours, patterns of events, and state of conditions.

The attainment of organizational goals validates the organization's *purpose* or mission. The goals should be tied to the mission of the organization; they do not change often. However, the organization should remain flexible if there are emerging trends, which 1) have changed or 2) have the potential to change how work should be done in the field (or sector). For example, an emerging trend such as the *making considerations for climate change in development planning* could cause an

organization that delivers training to farmers to reconsider its mission and consequently its goals so as to incorporate climate change in its core functions.

Figure 5: Interaction between Mission and Goal



The day-to day work of the staff of the organization represents an investment in the attainment of those goals, so it is important to carefully select them. The goals set the organizational wheels in motion.

How To/Guidance:

| GUIDING QUESTIONS: GOALS | Yes | No |
|--|------------|-----------|
| Do the goals support the mission? | | |
| Do the goals represent a measurable result? | | |
| Do the goals provide direction for action and results? | | |
| Are the goals challenging, but realistic? | | |
| Are the goals important to management, policy-makers and customers? | | |
| Would someone unfamiliar with the organization understand what the goals mean? | | |

1. The statement should identify “who” will benefit from the change you are working to see
2. The statement should include “what” we intend to be different—the results (change)

3.3.5. Articulate Objectives

The set of strategic objectives reflect the organization’s priorities as it tries to strike balances between achieving goals (long-term) and responding to existing realities.

The objectives indicate what it is that you specifically want to see change (that is within the scope of your organization). This change will be brought about because of a series of strategic actions that the organization will decide to pursue. In other words, your organization’s work (over one or more strategic planning periods) would have caused a particular outcome (or change) to occur. These changes can be seen as evidence that your organization is doing something to make a difference (*see organizational goals*).

Figure 7: Interaction Between Goal and Objective



How To/Guidance

| GUIDING QUESTIONS: OBJECTIVES | Yes | No |
|--|-----|----|
| Do the objectives reflect specific desired accomplishments? | | |
| Can progress be measured? | | |
| Are there enough resources to meet the objectives? | | |
| Do the objectives work toward a result? | | |
| Are there specific time frames associated with the objectives? | | |
| Will meeting objectives lead to goal attainment? | | |
| Is there at least one objective for each goal? | | |

1. Aim to start the objective statement with: "To..."
2. You are trying "To [achieve a **specific** outcome]..." .The objective statements are specific. They are distinct one from the other (i.e. an outcome statement is not simply a rephrasing and or modification of another)
3. You are trying "To [achieve a **measurable** outcome]..." .The objective statements should reflect change that can be assessed to determine whether or not the (intended) change has occurred.
4. You are trying "To [achieve an **achievable** outcome]..." .The objective statements should convey a change that can be achieved (within the specific time and resources).

Examples of Objective Statements

- To facilitate worldwide cooperation in the establishment of networks of stations for the making of meteorological, hydrological and other geophysical observations related to meteorology.
- To promote the establishment and maintenance of centres charged with the provision of meteorological and related services.
- To promote the establishment and maintenance of systems for the rapid exchange of meteorological and related information.
- To promote standardization of observations (meteorological and related) to ensure the uniform publication of observations and statistics.

3.3.6. Identify Specific Strategies and Outputs

Within the strategic planning process, your strategies represent your “best pick” of actions to take so that the objectives or the expected results can be met. More broadly however, the strategy is the *approach* that the organization presents as its *solution* to address the challenges in the field (sector). Put another way, strategy is the method used to accomplish goals and objectives.

Strategies generate outputs, which are tangible products and or services. These products and services are made available so that they can be applied to solving problems. Put another way, strategies link "input" and "output" and lead to "outcome" (the results of accomplishing an objective).

Figure 8: Interaction Between Objective and Strategy



How To/Guidance

| GUIDING QUESTIONS: STRATEGY | Yes | No |
|---|-----|----|
| Do the strategies help achieve the objectives or expected outcomes? | | |
| Are there enough resources to implement the strategies? | | |
| Do the strategies relate to the ultimate vision? | | |

Strategy building involves research, analysis, and prioritization. Strategy options or alternatives may be identified and compared through:

- **Brainstorming how to achieve results:** Engage in free-flowing discussions to generate innovative ideas, identify opportunities for coordination and cooperation, and encourage entrepreneurial approaches
- **Researching what works**
- **Evaluating what is already in place:** Use the information generated during the internal/external assessment to build strategies.

1. Aim to start the strategy statement with a verb (action word). For example "*Deliver training curricula...*"; "*Conduct needs assessment...*"; "*Establish regional centre..*"
2. Consider whether or not the outputs that are generated from the strategies are relevant to the objectives. In other words, will the existence of these outputs make change possible? Examples of outputs include training sessions; needs assessment; regional centre.
3. Consider that one strategy may serve to advance more than one strategic objective.

3.3.7. Develop a Pathway of Change

RBM is a management strategy by which all actors, contributing directly or indirectly to achieving a set of specific objectives, *ensure that their processes, products and services contribute to the achievement of desired results* (outputs, outcomes, and higher level goals or impact). The actors in turn use information and evidence on actual results to inform decision making on the design, resourcing and delivery of programmes and activities as well as for accountability and reporting.

"RBM is a management approach that considers strategies, people, processes and measurements for improving decision making, such as transparency and accountability. It is based on results production, performance measurement, learning, adaptation, and the production of performance reports."

In practical terms, RBM means striving for a common TOC or a pathway of change. Goals and objectives are clarified through the definition of precise and measurable statements of the results to be achieved.

Specifically, RBM:

- Emphasizes realistic development results;
- Clearly identifies beneficiaries and stakeholders;
- Uses information to make management decisions;
- Identifies and manages risks;
- Reports on results using indicators.

3.3.7.1. Definition of Results

One of the key concepts in RBM is results. Results are defined as describable or measurable **changes** that are derived from a cause-and-effect relationship. Results represent the building blocks as they outline what we hope to achieve.

These anticipated changes are articulated in a results statement and are usually signified by words such as: **Improved** (service delivery); **Increased** (access to water and climate data); **Strengthened** (capacity of NMHS); **Reduced** (vulnerability); **Enhanced** (understanding of the changing climate system), etc.

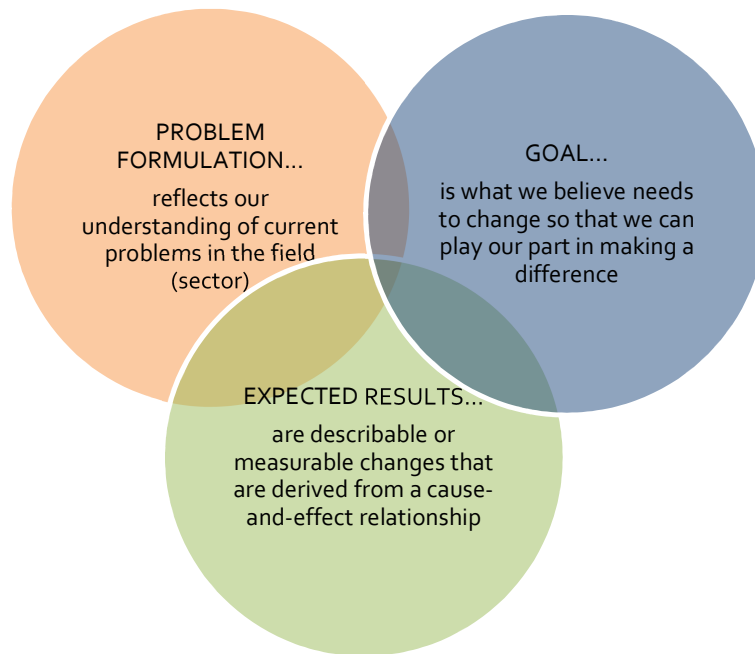
While it is expected that careful planning and management for results will lead to positive change, this is not always the case. It should be noted that change can sometimes lead to unintended or

negative consequences and therefore **results should be continuously monitored and managed** to ensure that projects, programmes and interventions can result in positive change for the target audiences/beneficiaries.

When thinking about results, key questions to be asked, include the following:

- Why are we undertaking this project/programme/intervention?
- What do we want to achieve?
- Who do we want to reach?

Figure 9: Interaction Between Goal and Expected Result



3.3.7.2. Levels of Results

Change is an evolving process. There are **different levels of results** that seek to capture changes that occur at different points in time. Results are linked and connected by a **causal relationship**. Results are linked together by a **Results Chain (See Figure 12, page 37)**.

It is important to note that many development agencies and stakeholders are using different definitions and terminologies, even though the concepts are, in many cases, analogous. The idea however is to understand the logic that lies beneath differing terminology.

Table 6. Differing Terminology for Results used in Selected Agencies

| | Impact | | Outcomes | | Outputs | Interventions | |
|--|------------------------------|-------------------|-------------------------|---------------------|-----------------------------|-------------------|---------------|
| <i>Needs-based</i> | <i>Consequence/Problem</i> | | <i>Cause</i> | | <i>Solution</i> | <i>Process</i> | <i>Inputs</i> |
| OECD ³ | Goal/Impact | | Outcome | | Outputs | Activities | Inputs |
| | | | Medium term effects | Short-term effects | | | |
| Global Affairs Canada terminology ⁴ | Ultimate Outcome | | Intermediate Outcomes | Immediate Outcomes | Outputs | Activities | Inputs |
| DFID ⁵ | Impact | | Outcome | | Outputs | Activities | Inputs |
| Europe Aid ⁶ | Overall Objective | | Purpose | Outcome | Outputs | Activities | Inputs/Mean |
| USAID ⁷ | Development Objective | Project Goal | Purpose | Sub-Purpose | Outputs | Inputs | |
| World Bank ⁸ | Impact | | Objective/Outcome | | Outputs | Activities | Inputs |
| WMO | Global Societal Needs | Priorities | Expected Results | Key Outcomes | Outputs/Deliverables | Activities | |

3.3.7.3. Impact Level of Results

The large-scale changes that the organization works toward are impacts. An impact statement is the long-term desired result for identifiable population groups, produced by a development intervention. It defines the overall “big picture” need or problem being addressed; the justification or the “why” of the project, programme, or intervention. It is the larger change or goal that is expected or hoped to occur; the ultimate sustainable change. There is little control over this level of

³OECD/DAC (n.d.) *Glossary of Key Terms in Evaluation and Results-Based Management Proposed Harmonized Terminology, 2002.*

⁴CIDA.(2008). *Results-based Management Policy Statement 2008.* [http://www.acdi-cida.gc.ca/acdi-cida/acdi-cida.nsf/eng/ANN-102084042-GVJ].

⁵DFID.(2011). *How to Note. Guidance on Using the Revised Logical Framework.*34 p.

⁶EuropeAid. (2009). *Results Oriented Monitoring. ROM Handbook.*118 p.

⁷USAID. (2012). *ADS Chapter 200 Introduction to Programming Policy.*

⁸L. G. Morra & R. C. Rist. (2009). *Road to Results. Designing and Conducting Effective Development Evaluations.* 582 p.

result as many factors and stakeholders have influence on those, and it is likely that the specified project/programme/intervention will not directly bring about these changes but rather contribute to this overall long term goal. In this context, monitoring of results at the impact level normally extends beyond the 'life' of the project or programme itself.

The impact usually implies a **sustainable change in condition or state**. These are long term effects on identifiable population groups, communities, systems or organizations. These effects can be **economic, socio-cultural, institutional, environmental, technological or of other types** and often have some relationship to internationally agreed upon and national development goals.

IMPACT STATEMENTS

- Increased protection of life and property from extreme weather, climate and water events
- Reduced disaster risks
- Reduced potential impacts of hazards caused by weather, climate, water and related environmental elements

3.3.7.4. Outcome Level of Results

Outcomes are defined as the intended or achieved medium-term effects of an intervention's outputs.

Outcomes result from the use that beneficiaries and clients make of the products and services delivered. They are the consequence of the uptake of the outputs. Outcomes often represent changes in the institutional and behavioural capacities needed for development conditions to occur between the completion of outputs and the achievement of the impact. These are often changes in capacity and performance of the primary duty-bearers and may include changes in

OUTCOME: Intended or achieved short and medium-term changes in capacity and performance as a result of an intervention's outputs

International agreements, mechanisms and standards that promote more efficient and inclusive trade and markets are formulated and implemented by countries

behaviours and attitudes, social action, policy formulation, decision-making, norms and knowledge, standards etc. It is important to manage towards outcomes because they represent the concrete changes that the development intervention is trying to bring about.

EXAMPLES OF OUTCOME STATEMENTS

- Improved access to seamless weather, climate, water and related environmental products and services (e.g., warnings, forecasts and supporting information)
- Improved long range forecasts and long-term projections
- Increased effectiveness and efficiency of WMO constituent bodies (RAs and TCs)

3.3.7.5. Output Level of Results

Outputs are new products, goods and services or changes in skills and capabilities of individuals or institutions that result from the completion of activities within the control of the organization. Outputs are the **most immediate results or deliverables** of the activities undertaken within a development intervention. Because these results are generated directly by the work being done, there is a higher degree of control over them. They are achieved with the resources provided and within the time period specified. Outputs contribute to outcomes in that, for example, an evaluation, a report, or a new system or changes in skills and capabilities (outputs) may cause or affect higher level changes such as policy formulation, decision making and changes in general behaviours and attitudes (outcomes). Generally, outputs are fairly tangible given that they are direct “products” or “effects” of specific activities that have been implemented.

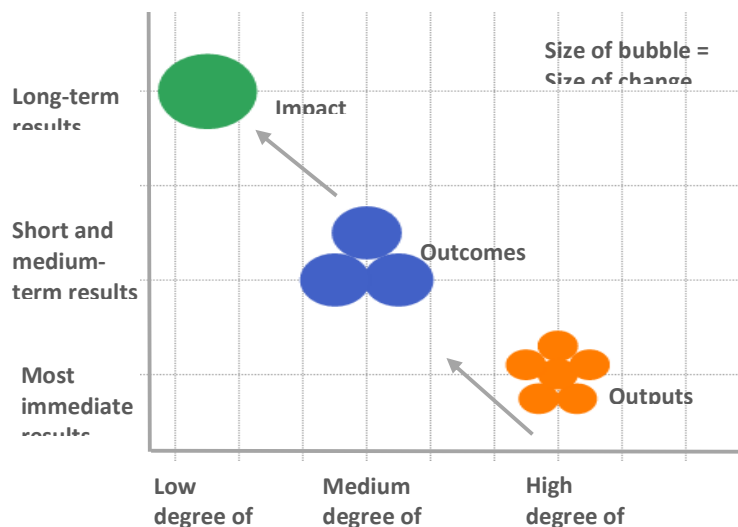
EXAMPLES OF OUTPUT STATEMENTS

- Research findings documented
- Policy documents drafted
- Standards developed
- Coordinated observations systems constructed
- Early warning systems built
- Framework for regional cooperation developed

Degree of control

As described above, the three different levels of results exist along a number of different continuums. As you move from outputs to outcomes to impact, **the degree of control** that one has over the results decreases, the significance or level of the change increases and the timeframe in which you will witness the result also increases. In this way, the longer term results (impact) have the greatest effect and therefore there is the lowest degree of control, while the more immediate results (outputs) are the lowest level of change and hence the degree of control over these is the highest.

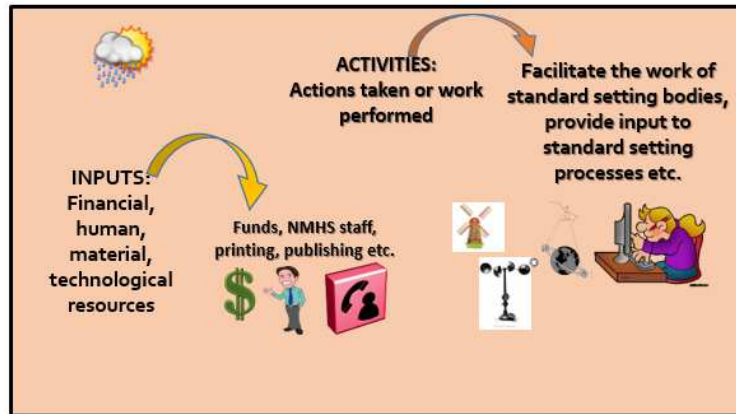
Figure 10: Timeframe, Level of Control and Size of Change for Different Levels of Results



In order to achieve specific outputs and begin the process of effecting change, planned efforts are undertaken through the contribution of **inputs** and the use of those inputs in **activities** to deliver the expected outputs.

Activities: Actions taken or work performed through which inputs, such as funds, technical assistance and other types of resources, are mobilized to produce specific outputs.

Inputs: The financial, human, material, technological and information resources used for development interventions.



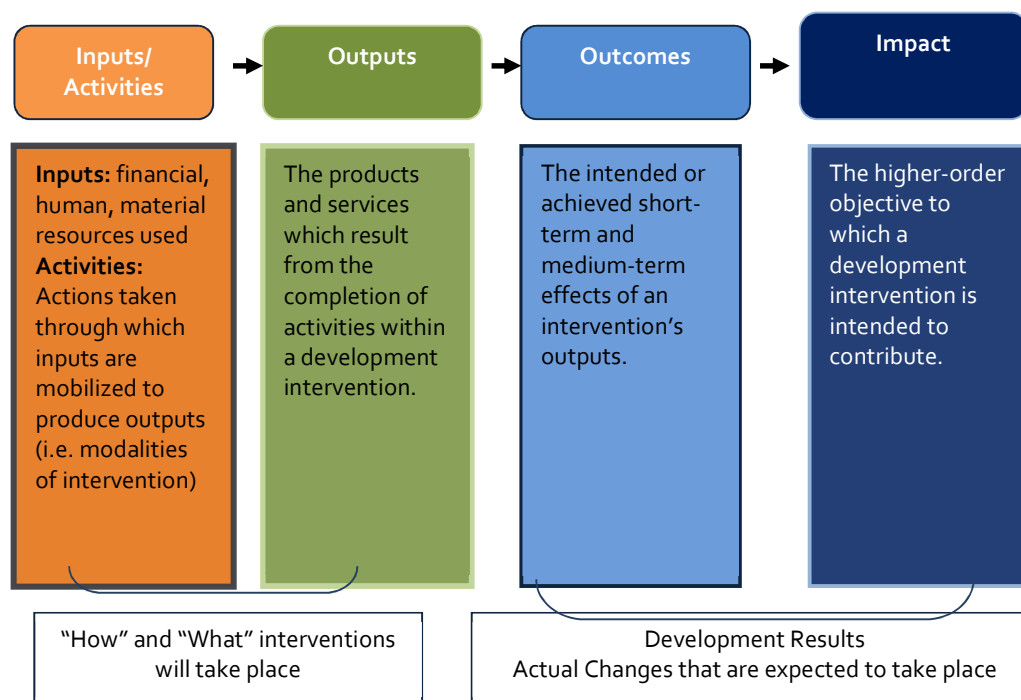
ACTIVITIES

- Develop a strategic plan template and guide for the NMHSs
- Organize training sessions for managers and focal points
- Conduct data processing, modelling and forecasting activities for junior meteorologists
- Facilitate networking activities with other UN organizations
- Conduct international and regional meetings
- Develop/implement National Pilot Projects
- Conduct Hazards/Risk analysis

3.3.7.6. The Results Chain

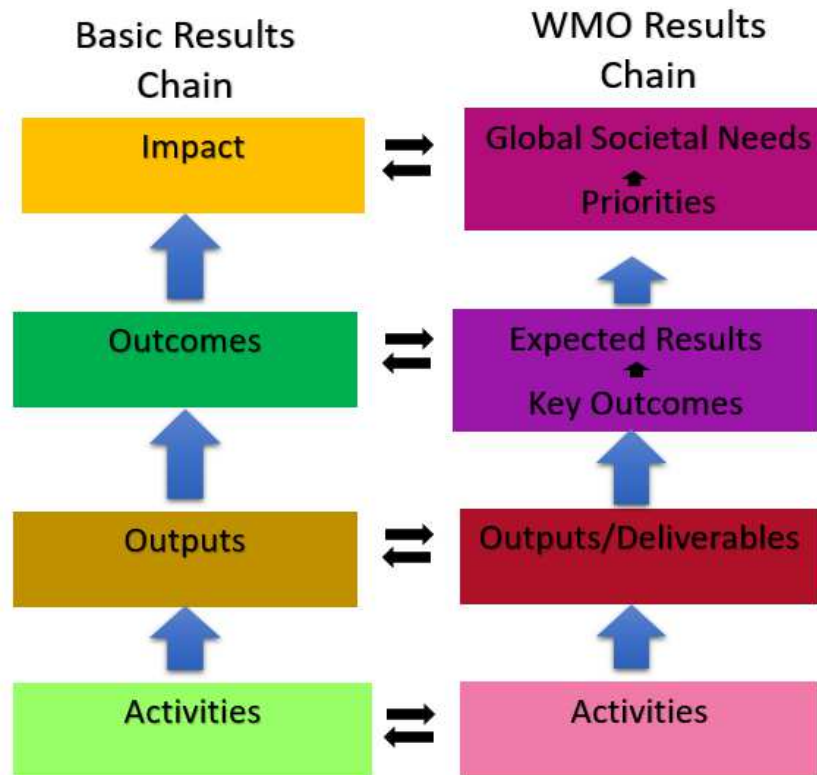
As seen in Section 3.3.7.2 above, there are varying levels of results. The logical order in which these results contribute to each other and interact is called a **results chain**. A results chain (also known as a **logic model**) is a casual sequence for a development intervention to achieve desired results. A results chain illustrates a relationship of influence from inputs/activities to outputs, from outputs to outcomes, and from outcomes to impact, all of which are linked by causal relationships (cause and effect) and sustained by some assumptions/hypothesis about the development context or factors that can influence the causal relationship. Each level of the results chain is a requirement for achieving the next level in the chain.

Figure 11: Results Chain



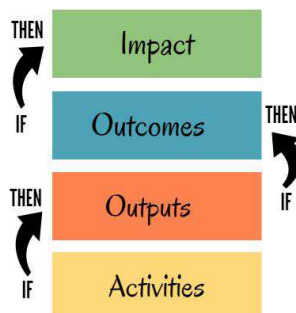
Within a results chain, the **inputs and activities** are "how" a development intervention expects to achieve results. The **outputs and outcomes** are considered "what" the development intervention wants to achieve in the short to medium-term, while the **impact** is a longer term result that demonstrates "why" this intervention is being undertaken in the first place.

Figure 12: Basic Versus WMO Results Chain



When developing or understanding a results chain it is important to **test the logic**. A simple way to do this is to use an **"IF/THEN"** process. Starting at the activity level ask the question "if" the following set of completed activities and the assumptions hold true, "then" the stated output will occur? Continue following this process throughout your results chain all the way to the impact level. It will allow you to see where there is logic and where the logic can be improved.

Figure 13: Testing the Logic of a Results Chain



Results chains, however do not simply include one set of activities, leading to one output or one set of outputs leading to one outcome, but involve multiple groups of activities, outputs and outcomes. In this case, testing the logic is similar. A group of outputs for instance will lead to the achievement

of one outcome and subsequently a group of outcomes together will lead to the impact, building upon each other in a pyramid fashion.

For example, in the diagram below Output 1.1 and Output 1.2 should together, logically lead to the achievement of Outcome 1. Then, Outcome 1 plus Outcome 2 should logically contribute to the Impact.

A results chain is usually expressed in some form of logic model, in fact the terms “results chain” and “logic model” are often used interchangeably. In addition, a more comprehensive version of the logic model is found in the Logical Framework Approach (LFA), which includes information on indicators, data sources, assumptions and risks for each level. As demonstrated in Figure 11 (Section 3.3.7.5 above), the degree of control that one has over a development intervention moves from high to low as you move from outputs to impact in the results chain. In this way, as you move from the bottom to the top of the results chain it is more difficult to show the causality and influence that the interventions efforts and the expected results.

Steps to Developing Logic of a Results Chain:

1. Start with the Impact level of results - then work backwards to the Outcomes necessary to achieve the stated Impact level results statement.
2. Then based on those outcomes (change in state/practice/behaviour, determine what Outputs are necessary (product/service) to achieve them (outcomes).
3. Remember, outputs are based on bundles of activities
4. Use directional verbs in the past tense.
5. Use “if/then” to test your logic.



Figure 14: Example 1 of an NMHS /Results Chain

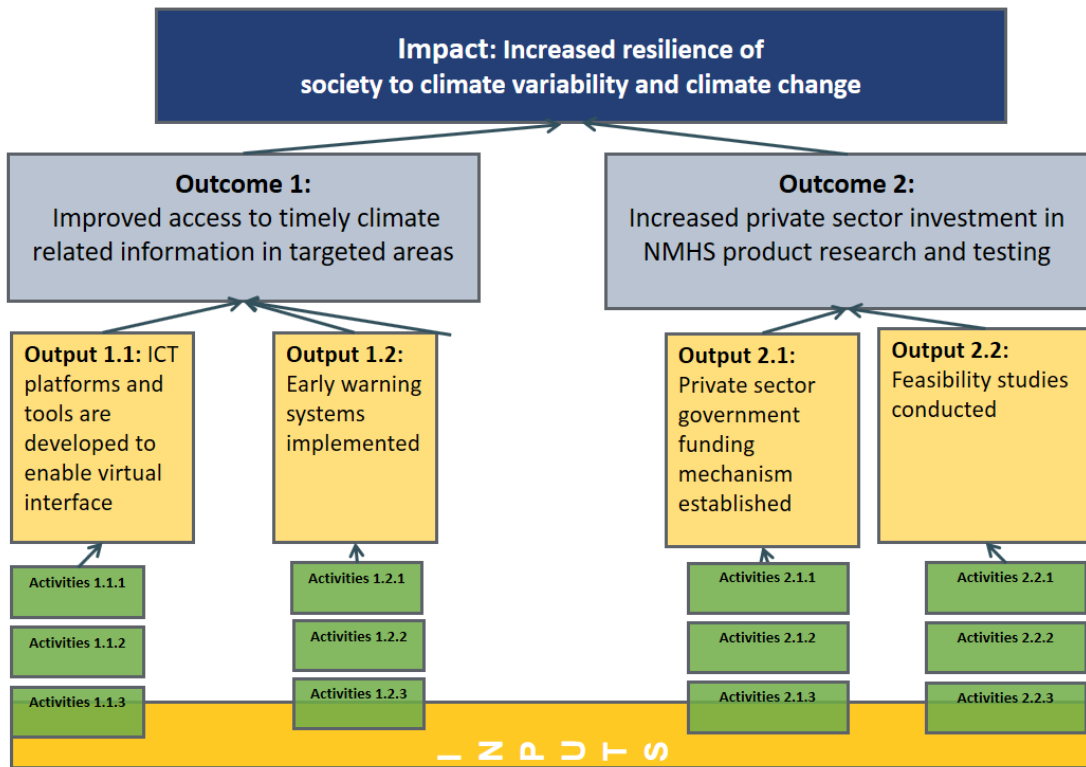


Table 7. Example 2 of an NMHS /Results Chain

| IMPACT | | |
|--|---|---|
| Reduced losses of life, property and economic productivity caused by weather, water and climate related natural hazards | | |
| OUTCOMES | | |
| Outcome 1: Increased use of Members' products and services to build resilience at the national level to impacts of hazardous weather, climate, water and other environmental events | Outcome 2: Improved capacity of NMHS to deliver demand-driven meteorological services and products | Outcome 3: Strengthened partnership among global, regional and national actors to improve NMHSs' performance |
| OUTPUTS | | |
| Output 1.1: Multi-hazards early warning systems developed Output 1.2: Accurate forecasts and warnings delivered from the Regional Centre Output 1.3: Flood management plans developed Output 1.4: Drought early warnings produced Output 1.5: Climate products and information developed | Output 2.1: Members trained on multi-hazards early warning systems Output 2.2: Members trained in flood management plans development Output 2.3: Information systems established, Output 2.4: Research in the prediction of high-impact weather on time scales of hours to seasons completed | Output 3.1: Cooperation agreements developed Output 3.2: Communication strategy developed Output 3.3: Resource mobilization plan to support NMHS research and innovation developed |
| ACTIVITIES ⁹ | | |
| <ul style="list-style-type: none"> - Attend meetings of the CBS Coordination Group on Forecast Verification - Develop guidelines and best practices on use of global/regional climate products - Conduct situational assessment for strategy and action plan of WMO's Flood Forecasting Initiative | <ul style="list-style-type: none"> - Develop training program - Conduct workshops/seminars on early warning systems - Produce guides and templates - Collaborate with universities to undertake research | <ul style="list-style-type: none"> - Conduct meetings with strategic partners - Participate in networking activities - Draw up partnership agreements - Prepare for Resource Mobilization Mission - Establish Strategic Partnerships for financing and implementation of Regional Development Projects |

⁹ Several more activities would have to be listed for each output.

3.3.7.7. Formulating Results Statements

When developing result statements, there are a few things to keep in mind. First, we ask the following questions:

- What do we want to change: a situation, a condition, the level of knowledge, behaviour?
- Is the expected change absolute or relative?
- Who are the beneficiaries (the target group)?
- What is the scope of the change (for each result)?
- Do the results integrate all cross-cutting themes (gender, environment) and important issues (poverty, etc.)?
- What are the needs and priorities of responsible agencies and donors?

Second, results are the expected changes which are demonstrable and that are to take place during the project/programme life. As such, they are written using a ***directional verb in the past tense***.

For example:

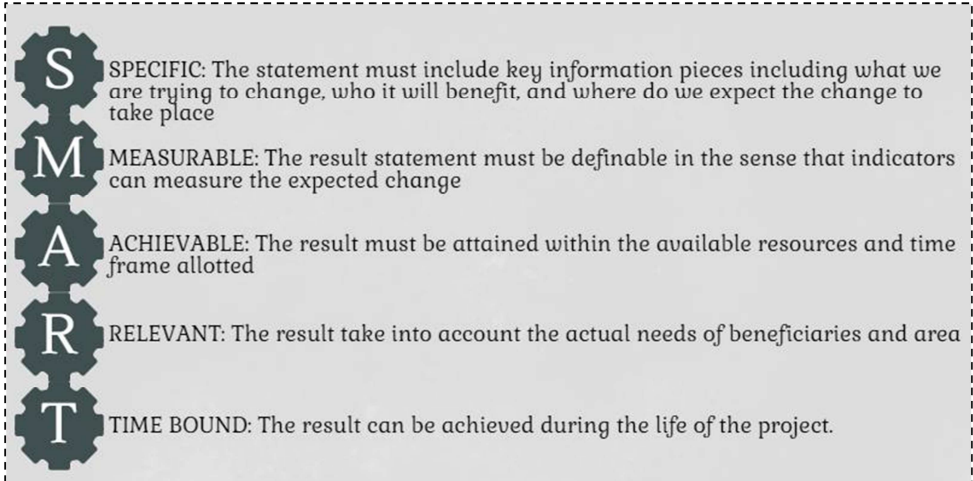
- ***Increased*** alignment of NMHSs program of work with national development priorities
- ***Improved*** public awareness about the contribution of NMHSs to disaster preparedness
- ***Expanded*** outreach mechanisms to facilitate the participation and engagement of the private sector to NMHS product development

Tips: Formulating Results

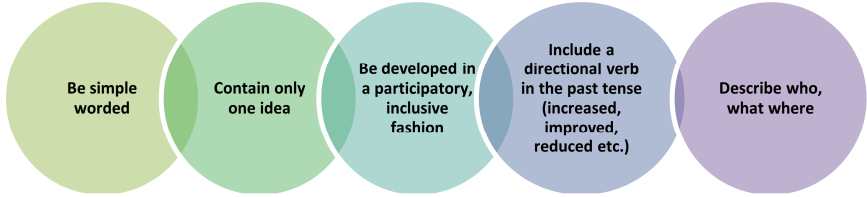
When formulating result statements, the following questions can help narrow down the expected results of a development intervention:

- **What do we want to change: a situation, a condition, the level of knowledge, a behaviour?** (This will help you organize the different levels of results for your intervention and your results chain).
- **Is the expected change absolute or relative?**
- **Who are the beneficiaries (the target group)?** (Keeping in mind the target population or beneficiary and making them the centre of the results statement can greatly help to write your statement, since the results are supposed to translate into the expected changes/benefits for them).
- **What is the scope of the change (for each result)?** (This will serve to make sure the results will be achievable).
- **Is the statement simply worded or does it contain more than one idea? If the latter, can it be split into separate statements? Would the public and the partners be able to understand this results statement?** (Results are a snapshot of what you want/expect to achieve, they should be clearly stated and easy to understand).
- **Do the results integrate all cross-cutting themes (gender, governance, nutrition) and important issues?**
 - **Gender:** Are the results truly gender sensitive? Do they address the concerns, priorities and needs of women and men, girls and boys?
 - **Environment:** Have you taken environmental implications into consideration? Will results be sustainable?
- **What are the needs and priorities of responsible agencies and donors?** (A sound intervention design should demonstrate clearly how it responds to those needs and priorities identified).

In addition, results statements should be SMART:



Remember that results statements should also:



When in doubt as to whether the result you are formulating or reviewing is an output or an outcome, the following questions can help to clarify the level of result:

| Outputs | Outcomes |
|---|---|
| Is it something that can be delivered with a high degree of control, even when working with partners? | Does it require a change in behaviour or conditions resulting from the achievement and use of outputs, such as products and services? |
| Is it something that is possible to do with a set number of resources within a given period of time? | Can it only be achieved in direct partnership with other stakeholders, who are mutually responsible (less control)? |
| Is it an achievement that we can measure and against which we can also measure our performance? | Is it something that will be used by the country? Will we work with partners to deliver it? |
| Does it help to achieve an outcome? | Is it a change we can see and measure only after some time during implementation or even only at the end of the programme? |
| Is it the direct consequence of an activity? | |

RBM Tool Box

Results-Based Management is a management approach that considers strategies, people, processes and measurements for improving decision making, such as transparency and accountability. It is based on results production, performance measurement, learning, adaptation, and the production of performance reports.

This Theory of Change Model uses three primary tools to plan, manage and monitor results during the project and programme life cycle.

- **Tool 1: Logical Framework** – This is a management tool used to facilitate planning, execution and evaluation of a development intervention (see Section 3.3.7.8 for more information).
- **Tool 2: Performance Measurement Framework (PMF)** – This is the main tool used for organising and monitoring of results. The PMF is explained in detail in **Section 3.6.1** (page 62 of this document).
- **Tool 3: Risk Assessment Matrix** (see Section 3.3.7.9 for more information).

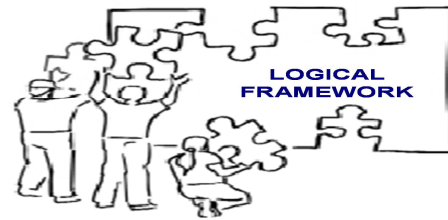
3.3.7.8. Logical Framework

The Logical Framework Approach (LFA), which is today adapted in one form or another by most aid agencies and donors¹⁰, is a very effective analytical and management tool. It is an approach to project management that on a single paper, organizes project components into a **hierarchy of logically linked objectives**; defines **indicators** to track accomplishment of those objectives,

¹⁰ The adaptation of the Logical Framework by aid agencies and donors resulted in variation in terminology of the hierarchy of objectives. A comparison between terminologies of different donor agencies for results / logical frameworks is provided in Table 6.

specifies *sources/methods of data* to measure indicators and takes into account external *assumptions and risks* that affect project success.

Developing a logical framework is like doing a jigsaw puzzle: an intermediate outcome here, an immediate outcome there... until all the components go together logically!



Logical Frameworks are a way to consider and answer the following questions prior to undertaking a project or a programme:

- What does the project/programme want to achieve? (Impact and Outcomes)
- How will the project/programme achieve this? (Outputs and Activities)
- How will we know when the project/programme has achieved this? (Indicators)
- How can we confirm that the project/programme has achieved this? (Means of Verification)
- What are the potential problems that may be experienced along the way? (Risks and Assumptions)

The Logical Framework usually takes the form of a four column by four row matrix as shown in Table 8 below. It is particularly useful to provide an overall “snapshot” of the project/programme for stakeholders.

Table 8. Template for Developing a Logical Framework

| Level of results | Summary | Indicators | Means of verification | Risks and Assumptions |
|------------------|---------|------------------|-----------------------|-----------------------|
| Impact | | | | |
| Outcomes | | | | |
| Outputs | | | | |
| Activities | | Resources needed | Cost | |

If a Logical Framework is done well, it will help organizations to plan activities that contribute to meaningful change.

Table 9. Steps to Completing the Logical Framework

| Column of the Logical Framework | Description of the Content |
|---|---|
| Column 1 of the Logical Framework: Results Chain | Specify the different levels of results to be achieved |
| Column 2 of the Logical Framework: Summary | Identify the expected results for each level of the results chain: impact, outcomes and outputs + activities |
| Column 3 of the Logical Framework: Indicators | For each result (impact, outcome and output) develop one (1) quantitative indicator and one (1) qualitative indicator |
| Column 4 of the Logical Framework: Means of Verification (or Sources of Information) | For each indicator, specify where and how the information will be collected from (reports, organizations, partners, etc.) |
| Column 5 of the Logical Framework: Assumptions and Risks | For each level of results (impact, outcome and output) identify the necessary conditions (assumptions) that have to be present for achieving the result and determine the level of risk (chance of occurring) for each assumption |

See an example of a completed logical framework in Annex 6.

DID YOU KNOW?

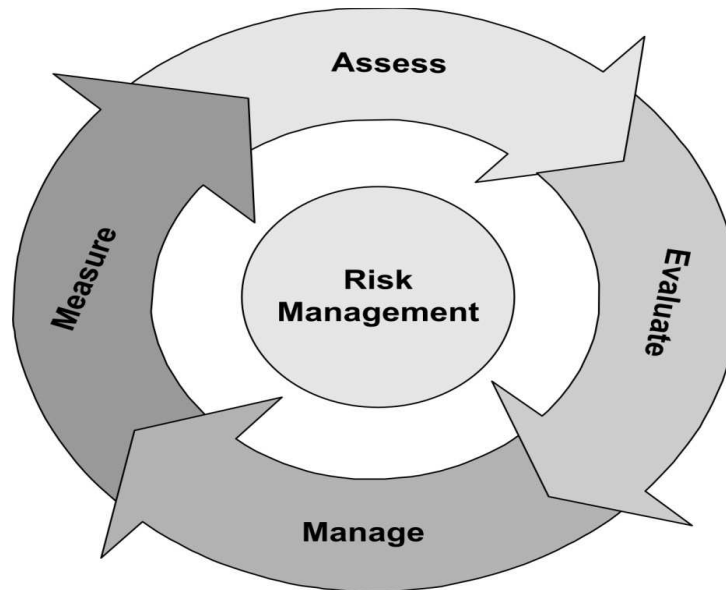
1. **Objective statements**, which are mostly used in logical frameworks, express the progress that is hoped to be achieved and are written in present tense.
2. **Results statements**, which are used in results/performance measurement frameworks, state the achievements expected at the end of a project, program or at the end of a specified period for an organization and are expressed in past tense.
3. Both Objectives and Expected Outcomes should apply the *SMART Rules* as follows:
 - **Specific:** *What the project intends to change. Ask: What change is expected? Where the change is expected? Who it will benefit or the unit of change?*
 - **Measurable:** *Precisely defined; measurement and interpretation should be unambiguous. Ask: How will the change be measured quantitatively and/or qualitatively?*
 - **Achievable:** *Verify that it is indeed possible to accomplish the specified quantities Ask: Is the change/result within the scope of the program? Is it achievable within given time frame and availability of resources?*
 - **Relevant:** *Address real priority needs and problems. Ask: Does the planned/anticipated result reflect the needs and priorities among the beneficiaries?*
 - **Timebound:** *Determine "when" a certain change is expected. Ask: When/In what specific time period do you want to achieve the set objective?*

3.3.7.9. Risk Analysis and Monitoring

Effective strategic planning means managing risks. In practical terms, risk management means:

- *Identifying risks*
- *Classifying risks in a Risk Analysis Matrix*
- *Developing a Risk Management Strategy*
- *Developing a Risk Monitoring Plan*

Figure 15: Risk Management



➤ Key Questions for the SP Team

- What could happen that would affect our ability to meet our objectives? (Risk identification, consolidation and classification)
- How likely is it to occur? (Likelihood of occurrence)
- How serious might it be? (Prioritization: impact of the risk events)
- What are our top ten risks? (Finalizing top risks)
- What else do we know about our top risks? (In-depth analysis)
- What can we do to manage the risk? (Action planning – risk strategy)
- How do we monitor the risk? (Risk monitoring)

Risks are external or internal factors that can potentially prevent results from being achieved or which can have a significant negative influence on the achievement of one or more results.

➤ **Central Question: What might go wrong and how can the organization avoid it?**

"...risk is the possibility of a critical condition or occurrence that could impede the realization of expected results."

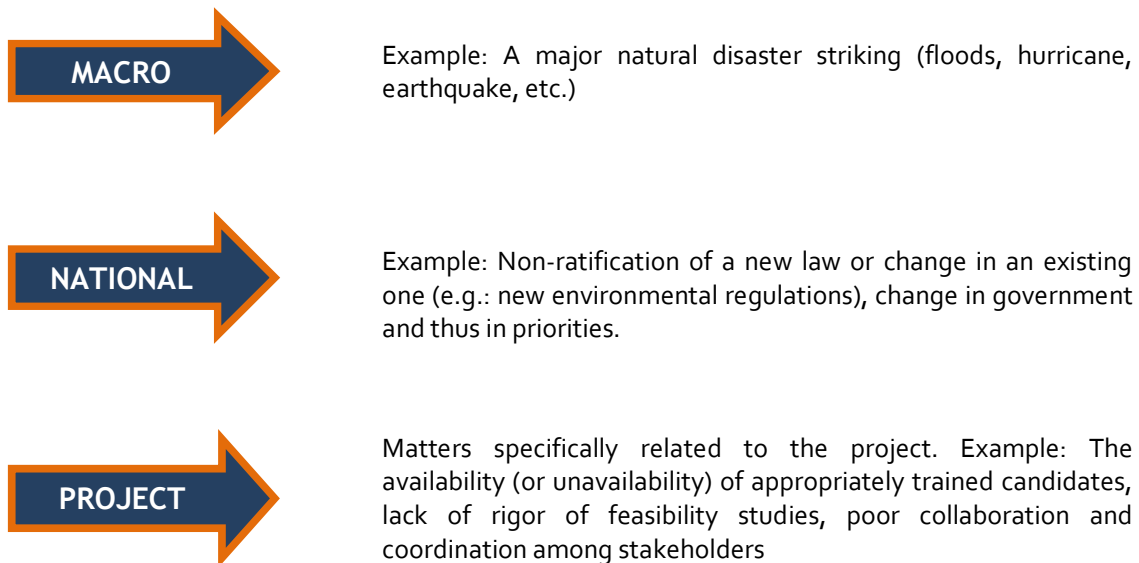
Strategies should always be designed in such a way to minimize the negative influence of risks when they occur or to mitigate against risks actually occurring.

Risk analysis means determining the odds that conditions/probabilities pointed out in a project or programme will occur. Risks must be identified (hypothesized) as specifically as possible.

Identifying potential risks and developing response strategies accordingly will help minimize their impact on project's costs, schedule and results. It is much more effective to have a plan in place beforehand rather than trying to deal with the risk when it occurs.

Risks can be influenced by a number of factors and can occur at various **levels** and be of different **types** :

Figure 16. Levels of Risks



Types of Risks

- Development Risks
- Operational Risks
- Financial Risks
- Reputation Risks

Once each of the risks has been identified and described, the next step would be to determine the **probability (level of occurrence)** of these risks occurring and the **effect** the risk would have if it was to occur. This allows you to prioritize risks and to maximize resource use by focusing the majority of your time and effort on the most important risks.

In terms of probability, there are three levels:

- **Low probability** (e.g. an extra-terrestrial invasion – there is little probability of that happening!)
- **Medium probability** (e.g. fluctuating inflation rates)
- **High probability** (e.g. heavy traffic during rush hour)

In terms of the effect the risk will have on the project, for each of the risks identified, there are also three levels:

- **Minor effect** on project with little compromise to expected result
- **Moderate effect**, could threaten achievement of expected results
- **Significant effect**, would prevent achievement of expected results

For each identified risk, using the matrix as outlined below will be helpful in determining whether the risk is acceptable, whether the risk should be monitored and reviewed periodically and whether further mitigation (risk reduction) is necessary. Risks in the bottom left corner of the matrix are expected to have minor impact and low probability and you can often ignore them. On the other side, risks towards the top right corner are of critical importance. In the middle are risks of moderate importance for which you should try to reduce the likelihood of occurrence or reduce the impact they will have if they occur. The risks retained for further analysis in the Risk Monitoring Matrix are those considered significant enough depending on your tolerance for risk.

Figure 17: Risk Analysis Matrix

| Effect of Risk | | | |
|----------------------|------------------|--------------------------|--------------------------|
| Significant (3) | Risk Monitoring | Risk Reduction necessary | Risk Reduction necessary |
| Moderate (2) | Acceptable Risks | Risk Monitoring | Risk Reduction necessary |
| Minor (1) | Acceptable Risks | Acceptable Risks | Risk Monitoring |
| Probability of Risks | Low (1) | Medium (2) | High (3) |

Monitoring Risks

Monitoring risks involves the use of another RBM tool: the Risk Monitoring Matrix. As risks change, so too will the need to track the use and effectiveness of the response strategies and the severity (effect) or frequency (occurrence) of each of the risks initially identified. This means that certain risks will change, disappear or be added overtime.

Table 10. Example - Risk Monitoring Matrix

| Risk Area | Probability | Effect | Indicator | Frequency to Monitor | Risk Response |
|--|-------------|--------|--|----------------------|--|
| Weak coordination and communication with key partners and stakeholders | Low | Likely | Level of satisfaction about communication /coordination issues | Monthly | <i>Mitigation:</i> Elaborate a detailed communications plan. Organize more information sharing sessions. |
| Weak infrastructures components needed to support service delivery such as high performance computing technologies | High | Likely | Existence of adequate infrastructure | Quarterly | <i>Mitigation:</i> Develop partnerships with private sector organizations |

Risk Response Strategies

For those risks that are judged severe enough, by the combination of impact and probability, response strategies have to be designed. The most common Risk Response Strategies are:

- Avoidance
- Transfer
- Mitigation
- Acceptance

Avoidance

Although it is impossible to avoid all undesirable events, some of them may be eliminated if appropriate measures are taken. Risk avoidance strategies could include:

- Changing the design of the project or output to be produced so that the risk cannot occur;
- Ending or not proceeding with an intervention
- Adding more resources to ensure a critical deadline will be met

Transfer

The transfer strategy in managing risk is to give responsibility for the risk to someone outside the project. The risk does not go away; the responsibility of the risk is simply given to someone else. The transfer strategies usually allow the sharing or outsourcing of the risk, generally in exchange for financial compensation. This can be done:

- Through the purchase of insurance;
- By asking a subcontractor to execute the part of the project that represents a risk.

For example, transfer of risks is a common response in situations of insecurity (e.g. in conflict affected country). When governments channel funds through UN humanitarian agencies and/or partner with specialized NGOs that have a track record of working in highly insecure areas, they use a transfer strategy because they know that the experienced staff and strong systems and procedures of these organizations can better ensure delivery.

Mitigation

Mitigation is a strategy used to reduce either the probability or the impact of unacceptable risks to a point where their severity falls below the maximum risk tolerance level. For example, the installation of smoke detectors and fire-extinguishing systems, as well as the law prohibiting parking in front of a fire hydrant are all part of a mitigation strategy. In fact, nothing of this will stop a fire from happening, but it will help reduce the impact by offering the quickest response possible to the emergency.

In the case of projects or programmes, policy dialogue and targeted capacity development are usually built precisely to mitigate risk.

Acceptance

It may happen, in some situations, that an appropriate strategy to minimize the likelihood or impact of risk cannot be found, or that the strategy developed is impractical or too expensive. In those cases, the other option is to accept the risk. Accepting a risk does not mean that nothing will be done about the risk when and if it occurs, it simply means that something will be done only if it occurs.

There are two kinds of acceptance: active and passive. Acceptance is passive when nothing is done to plan for the risk occurrence. The only actions required are documenting the risk, informing the stakeholders involved of its existence and ensuring willingness to suffer the consequence if the risk occurs. Acceptance is active when a plan to deal with the risk is prepared to avoid improvisation if the risk occurs. It can be done for example by developing a contingency plan.

Residual Risks

In some cases, the risk response strategy cannot eliminate or transfer the risk entirely. Risks or part of the risk that remain after the implementation of the chosen response strategy are referred to as residual risks. Residual risks also include risks that were accepted and risks for which no response strategy was found. Where the chosen strategy was to mitigate the risk, these risks should be re-evaluated according to their new impact and probability after implementing the mitigation strategy.

Key questions for consideration by the Strategic Planning Team with regards to Risks

- What could happen that would affect our ability to meet our objectives? (Risk identification, consolidation and classification)
- How likely is it to occur? (Likelihood of occurrence)
- How serious might it be? (Prioritization: impact of the risk events)
- What are our top ten risks? (Finalizing top risks)
- What else do we know about our top risks? (In-depth analysis)
- What can we do to manage the risk? (Action planning – risk strategy)
- How do we monitor the risk? (Risk monitoring)

3.4. Writing the Strategic Plan

It is time to consolidate all the information amassed into a draft of the Strategic Plan document. The previously defined vision, mission, goals, objectives, strategies, outcomes and performance measures form the backbone of the Strategic Plan.

How To/Guidance

1. **Drafting the text of the Strategic Plan:** A small group of individuals should take on the task of drafting the text of the document using the information garnered during the various phases.
2. **Get feedback from leadership at all levels as well as other reviewers.** The board of directors should also be involved. Feedback could be in written as well as verbal forms (consultation workshop). The team of writers will then finalize the Strategic Plan based on feedback received.
3. **Final approval and endorsement of the Strategic Plan.** Each NMHS will have their own processes for formally adopting an official document. Whatever the processes are, it is likely that a meeting or special event will be convened. At this event, the final Strategic Plan will be comprehensively discussed including the implications that will follow its adoption in terms of the NMHS's modus operandi. All of this will augur well for raising awareness and understanding of the final Strategic Plan and engendering ownership and commitment. Identifying champions for the Plan should be a part of this step.

3.5. Implementation Phase

The success of the strategy lies not only in the strategic plan itself, but also on the organization's ability to implement it and to communicate its achievements to stakeholders. It is known that the failure of many planning initiatives has been related to weaknesses in the implementation process. The implementation phase is focused on executing the strategic plan and includes the development of an action plan or operational plan. A strategic plan without a realistic action plan and communication strategy and plan is completely insufficient.

The operational plan sets out the outputs and activities necessary to achieve the outcomes in the strategic plan, as well as the operational budget and staffing requirements. The detail of how to develop an operational plan and communication around the strategy, focused on the logical framework methods are summarized below.

3.5.1. Develop an Action Plan or Operating Plan

The action/operational plan details the outputs and activities necessary to achieve the outcomes in the strategic plan as well as the operational budget and staffing requirements.

The action plan will help the organization to stay focused, and make sure that you stay on track with your goals.

An action plan is a planning document that provides detail on the steps that will be followed to achieve a desired outcome, and most importantly, how each step will be implemented (who and when), how the achievement of the desired outcome will be assessed and the resources needed to carry out the action plan.

How to/Guidance:

1. Clarify the result areas (outcome) on which you will be working.
2. For each result area, list the steps necessary to achieve it.
3. Sequence the steps in a logical order using a tool such as the Gantt Chart.
4. Do a summary of the outputs.
5. Assign responsibility for each of the activities involved.
6. Do a summary of the human resourcing needs.
7. Do a summary of likely costs.
8. Put it all together in a work plan schedule.



ACTION PLANNING IS THE PROCESS THAT GUIDES THE DAY-TO-DAY ACTIVITIES OF AN ORGANIZATION OR PROJECT. IT IS THE PROCESS OF PLANNING WHAT NEEDS TO BE DONE, WHEN IT NEEDS TO BE DONE, BY WHOM IT NEEDS TO BE DONE, AND WHAT RESOURCES OR INPUTS ARE NEEDED TO DO IT.

<http://www.civicus.org/view/m>

Table 11. Example of NMHS Action Plan

| Result Area 1 (Outcome 1): Improved delivery of effective weather, climate and hydrological services and processes | | | | |
|---|---|---|--------------------------------------|---------------------|
| Key Indicators: Level of citizen’s satisfaction with weather, climate and hydrological services and processes | | | | |
| Outputs | Activities | Time frame (begin by, complete by) | Person responsible | Costs/inputs |
| Output 1.1: Multi-hazards early warning systems implemented | <i>Activity 1.1.1: Conduct series of community level workshops to undertake multi-hazard mapping</i> | August 2016 - December 2016 | SE Cupp (Manager) | US\$120,000 |
| | <i>Activity 1.1.2: Upgrade existing stations and install new field stations</i> | September 2016 - December 2017 | Anderson Kohn (Project Director) | US\$500,000 |
| Output 1.2: Accurate forecasts and warnings delivered from the Regional Centre | <i>Activity 1.2.1: Upgrade technology/instruments to provide more precise/accurate readings</i> | July 2016 – June 2017 | W. Blitzer (Technical Director) | US\$700,000 |
| | <i>Activity 1.2.2: Train specialised staff in use of technology/instruments as well as analysis and reporting</i> | August 2016 – September 2017 | L. King (Training Manager) | US\$50,000 |
| Output 1.3: Flood management plans developed and implemented | <i>Activity 1.3.1: Contract consultants/firm and coordinate preparation of plans</i> | July 2016 - September 2016 | Angela Sayle (HR Manager) | US\$150,000 |
| | <i>Activity 1.3.2: Upgrade landslide monitoring systems</i> | Start Date: End Date: | Peter McQueen (Technical Specialist) | US\$60,000 |

NOTE WELL: Action Plans are required components of the strategic planning process.

3.5.2. Communicating the Strategic Plan

Effective communication is not only required during the preparatory and development phases of the strategic planning process. Moreover, it is not good enough to finalise and get endorsement for the strategic plan and then leave it on the shelf! A communication strategy is therefore essential to help the organisation to effectively communicate the various aspects of the strategic plan including vision, mission, core values, organisational goal, objectives and expected outcomes.

In crafting the communication strategy, the NMHS should determine who (**stakeholder/audience identification**) will be involved in the planning of the implementation process, how they will be involved and what is to be communicated (**messages**) to whom and in what formats (**communication channels/methods**).

At a minimum, the NMHS Communications Strategy should include the following:

- Objectives
- Audiences
- Messages
- Tools and activities
- Resources
- Timelines
- Evaluation and revisions

How To/Guidance

1. **Formulating SMART communication objectives:** Objectives helps to specify what the organization wishes to accomplish. The ODI (Overseas Development Institute) in stressing the importance of communications objectives provides the following:

“Your objectives are the key to the success of your communications strategy. They should ensure that your communications strategy is organisationally driven rather than communications driven. Your communications activity is not an end in itself but should serve and hence be aligned with your organisational objectives. Ask yourself what you can do within communications to help your organisation achieve its core objectives.

Aligning your communications and organisational objectives will also help to reinforce the importance and relevance of communications and thereby make a convincing case for the proper resourcing of communications activity within your organisation.”¹¹
2. **Audience identification:** The NMHS communications strategy will identify its main audiences – both external and internal. These might include the public, public sector representatives, service users, development partners, UN agencies and staff. Potential stakeholders or audiences that the NMHS is interested in connecting with should be included. The communications strategy will use information from the stakeholder assessment described in Section 3.2.2.3.
3. **Messaging:** Following the identification of the NMHS’ audiences, the next step is to develop relevant messages for each of those audiences beginning with the audiences that are the

¹¹ ODI Toolkit. (2005). Planning Tools: How to write a communications strategy <https://www.odi.org/publications/5186-communications-strategy-planning>.

highest priority. It is important to ensure that the messages are relevant and appropriate to the audience. Remember to ensure that there is a continuity across the messages. All of the NMHS stakeholders should understand what the organisation is about and what it does and stand for, therefore messaging should always link back to the key organisational vision, mission, goals, objectives and values.

4. **Communication Channels** : The next step involves finding the most appropriate channels for communicating with the NMHS target audience. These might include an e-bulletin/newsletter, annual reports, conference, workshop, press release, event – or broader methods such as media and your website. It is important to conduct an internal analysis of the existing channels to evaluate which is the best to use for getting specific messages to particular audiences and to ascertain if you will need new channels. There are pros and cons for each channels and the choice of channels will vary depending on the NMHS needs and resources.
5. **Preparing the Communication Plan:** After assessment of the communication channels, the next step is to begin to construct the communication plan, linking audiences, messages and channels. See Table 12 below for a sample Communication Plan Template.

Table 12. Communication Plan Template

| What groups do we need to serve most? | What do they need to hear from us? | What is the best way to find and communicate with them? | When will we communicate with them? How often? | How will we know if they have heard our message? |
|---|--|--|---|--|
| <i>Try to divide your audience into groups – service users, industry sector leaders, funders, etc. There may be several groups but they will need you to communicate slightly different messages to them.</i> | <i>What need do they have? What problem can you solve for them? In the case of industry sector leaders, etc., what do they need to hear about us?</i> | <i>Where are they? Do they communicate online? In person? Are there networking groups, events, or trainings that you can participate in to give an opportunity to communicate with them?</i> | <i>Will you reach out to them daily? Hold networking events once a month/year? Hold an annual meeting? Send out a quarterly newsletter?</i> | <i>If this works, how will you know they have heard you? What will success look like? Send out a survey?</i> |

6. **Develop a work plan** inclusive of key communications activities, budget, and resources allocated to delivering the strategy. The work plan should also include proposed timescales and identify particular milestones within the strategy. This will allow for the measurement of clear steps towards ultimate goals.

7. **Evaluate** the success of the NMHS communication strategy. This involves assessing the success of the strategy. What does success look like and how will you know when objectives have been met? Develop simple measures such as the number of responses to e-bulletins, hits to your website or increases in funding following response to call for proposals from prospective private sector partners. Indicators could also focus on user satisfaction with NMHS services and how clients use NMHS' services and products to improve development results.

General Considerations to Support Effective Communication of the Strategic Plan

1. Prepare a professional communication plan covering at least the first six months after the initial communication.
2. Give every board member and member of management team a copy of the strategic plan and make them your strategy ambassadors.
3. Consider distributing all of (or highlights from) the plan to everyone in the organization.
4. Publish portions of your plan in your regular newsletter, and advertising and marketing materials (brochures, ads, etc.).
5. Sensitize and train especially new board members and employees on portions of the plan during orientations.
6. Integrate content from the plan into speeches, policies and procedures, including the employee's manual.
7. Disseminate copies of the plan to major stakeholders at special events.
8. Use proven channels including social media to publicize your strategic plan.

3.5.3. Costing and Financing the Strategic Plan

Strategic plans cannot succeed without people, time, money, and other key resources. The costs of implementing the strategy are therefore important to estimate, even if qualified as a "rough order of magnitude." The major elements of the plan should be listed, with cost estimates, and the assumptions (or biases) of the estimation process. The organization should also address how it proposes to obtain the funding required to implement the plan and how it allocates and schedules the necessary funding.



3.6. Performance Measurement Phase

How will we know when we get there?

It is crucially important to measure and review the implementation and success of the strategy and accompanying operational plan in order to be able to know whether progress is being made, and to know what is not working and may need adjusting. The part of the Strategic Plan that summarizes how we will measure and report on progress is referred to here as a monitoring and evaluation (M&E) framework.

QUICK DEFINITIONS

The term "*monitoring and evaluation*" is a generally used expression. Even if these words are often seen together, as if it is only one thing, monitoring and evaluation are, in fact, two distinct sets of organizational activities. They are related but not quite identical.

Monitoring is the systematic collection and analysis of information as a project progresses. It is aimed at improving the efficiency and effectiveness of a project. It helps to keep the work on track, and can let management know when things are going wrong.

Evaluation is the comparison of actual project impacts against the agreed strategic plans. It looks at what you set out to do, at what you have accomplished, and how you accomplished it. More specifically, evaluation focuses on the relevance, efficiency, effectiveness, impact, and sustainability.

The M&E framework consists primarily of identifying indicators (measures) which can be feasibly and reliably tracked during the life of the strategy, and putting in place the necessary resources to be able to collect, analyze and report on that information. It also consists of establishing a plan for what will be reviewed and evaluated during the lifetime of the strategy, and how. In this way, the monitoring and evaluation framework is the primary support to establishing accountability of the organization regarding the implementation of its strategic plan. Experience shows that it is essential to design this system at the same time as defining the objectives of the strategic framework.

WHY MONITOR AND EVALUATE PERFORMANCE?

To provide accurate and up-to-date information on progress:

- To provide regular feedback and early indications of progress, or lack thereof;
- To track actual performance / situation against what was planned/ expected.

For learning and decision-making:

- To detect early signs of potential problems and success areas;
- To take corrective actions;
- To improve the design and performance of ongoing programmes;
- To generate knowledge about what works and what does not work.

To improve accountability:

- To ensure that a programme/ process continues to be relevant, and achieving results as intended;
- To make an overall judgement about the effectiveness of interventions.

Table 13. Differences between Monitoring and Evaluation

| Area | Monitoring | Evaluation |
|----------------------|---|---|
| Frequency | Continuous and Regular | Periodic/Episodic: at important milestones such as mid-term or end of a project/program |
| Main Action | Keeping track/Oversight: document progress | In depth analysis: compares planned with actual achievement |
| Purpose | Improve efficiency, inform decision-making and management during implementation | Assess effectiveness, efficiency, reach, impact and future programming and learning |
| Focus | Inputs, outputs, processes, work plans | Results in relation to costs, overall relevance, impact, sustainability |
| Answers the Question | Answers what activities were implemented and results achieved | Answers why and how results were achieved |
| Information Sources | Routine systems, field observations, progress reports, etc | Same, plus surveys, questionnaires, studies |
| Undertaken by | Project managers, field staff, supervisors, funders, community | Program managers, funders, external evaluators |

3.6.1. Monitoring using the Performance Measurement Framework

Specifically, the Performance Measurement Framework (PMF) guides planning of the systematic compilation of data on the progress of a project or program based on expected and obtained results. In addition, the PMF outlines the main elements of the monitoring system and ensures that performance information is collected regularly and on time.

The basic elements of a PMF are:

- Expected Results;
- Performance Indicators;
- Baseline;
- Targets;
- Data Sources;
- Methods;
- Frequency; and
- Responsibility.

Table 14. Performance Measurement Framework Template

| Expected Results | Indicators | Baseline | Targets | Data Sources | Data Collection Methods | Frequency | Responsibility |
|------------------|------------|----------|---------|--------------|-------------------------|-----------|----------------|
| Impact | | | | | | | |
| Outcomes | | | | | | | |
| Outputs | | | | | | | |

The first column represents the result chain from output to impact level articulated in the logic model. Simply copy and paste your logic model into this column. It should be noted that in terms of the results chain, activities are not included in the PMF - only results.

Column 2 of a PMF contains the performance indicators. A performance indicator is a variable that allows the verification of changes in the development intervention. See Sections 3.6.2 - 3.6.6 for further elaboration on indicators and examples.

Column 3 of the PMF contains baseline data for each of the selected indicators. The collection of baseline data is a critical activity of any M&E framework. Baseline data refer to the existing situation, or 'starting point' of an expected result project or program area prior to intervention against which 'change' can be measured over time through the use of indicators. Without baseline data, there would be an expected result and a way to measure progress towards that result (indicator), but no point from which to measure.

Column 4 displays the "Targets" which specify particular values for performance indicators (outputs and outcomes only) throughout the project/programme cycle and denote what is to be achieved. Targets are explicit statements of the desired and measurable results expected for an indicator at a specified point in time. They have to be set based on realism and based on the planned activities. Setting targets is intended to enable stakeholders to envision the overall change the program is aiming to achieve and to enable managers to determine if they are "on track". Targets are often set yearly, but can also be set for shorter or longer time frames (quarterly, bi-annually, etc.) depending on the context. Where necessary, targets should also be disaggregated and be specific, measureable, achievable, relevant and time-bound (i.e. S.M.A.R.T.).

The PMF Column 5 named "Data sources" refers to 'where' data can be found or 'who' should be contacted to access data to inform each indicator. Data sources can include individuals, organizations, institutions, but can also include specific documentation. It is necessary to identify a data source for each indicator (and result) that has been selected. It is important to choose a wide range of data sources, in order to avoid having to switch data sources mid-way through the project/program and risk jeopardizing data reliability.

Column 6 denoted as "Methods" indicates the way in which information is collected. There exist various data collection methods representing different ways to collect the required data (e.g. census, observation, surveys, etc.).

Column 7 "Frequency" reflects how often the data will be collected throughout project/programme execution. Progress being made towards the achievement of results can be reported at a variety of

time periods (quarterly, semi-annually, annually or even less frequently) depending on a variety of factors. Generally though, the higher up the results chain you go, the less frequent you monitor.

Column 8 "Responsibility" outlines who is responsible for collecting, analyzing and reporting on the data collected. Responsible persons can change throughout the programme implementation.

The table below outlines the structure of a PMF highlighting the eight basic elements.

Table 15. PMF Snapshot with Examples

| Column 1 - Expected Results | Column 2 - Performance Indicators | Column 3 - Baseline | Column 4 - Targets | Column 5 - Data Sources | Column 6 - Methods | Column 7 - Frequency | Column 8 – Responsibility |
|---|---|---|---|-------------------------|--------------------|----------------------|---------------------------|
| <i>Intermediate Outcome 1: Increased strategic private sector engagement to support NMHS product research and development</i> | Percentage change in partner's financial contribution to research and product testing | Baseline: 10% change over previous period | Target: At least 5% increase over previous period | NMHS Annual Reports | Document Review | Annually | WMO Secretariat |

Figure 18: Order to Complete the Performance Measurement Framework



3.6.2. Monitoring for Results: A Focus on Indicators

The development of indicators is a key step to measure change over time. If indicators are not properly selected, all the PMF will be flawed as all monitoring information goes back to the indicators. To select indicators, one has to refer to the different aspects entailed by a specific result. For example, if the results refer to better meteorological services and delivery, indicators could focus on the number of sectors using the services, and/or the quality of the products/services, and/or the average time to access the service, etc. Aspects for a specific result can be many. This is why indicators chosen should be the most closely related to the intended change expected as possible.

There are five criteria for selecting indicators. For each indicator, ask yourself the following question:

- **Validity:** Does it actually measure the result?
- **Reliability:** Is it a consistent measure over time?
- **Utility:** Will the information be useful for decision making and learning?
- **Clear:** Precise and unambiguous
- **Affordability:** Can the project afford to collect the information?
- **Simplicity:** Will it be easy to collect and analyze information?



3.6.3. Types of Indicators

Indicators can be either **quantitative** or **qualitative**. Quantitative indicators have a numeric value. Quantitative indicators are typically easier to develop and collect information on since they involve hard data. An example of a potential quantitative indicator for the expected result of: Increased private sector investment in NMHS product research and testing could be: *Number of official meetings convened between NMHS and private sector partners to discuss research and product innovation.*

Qualitative indicators reflect perceptions, judgments or even attitudes. They can include the application of knowledge, quality of participation, perceived change, sense of well-being, etc. Collecting qualitative indicators requires more resources, time and analysis. An example of a potential qualitative indicator for the expected result of Improved access to timely climate related information in targeted areas could be: *Degree of use by key stakeholders of climate products/services.*

Table 16. Examples of Quantitative and Qualitative Indicators

| Quantitative Indicators | Qualitative Indicators |
|--|--|
| <ul style="list-style-type: none"> • Number of • Percentage of • Frequency of • Ratio • Rate of • Proportion of • Variance with | <ul style="list-style-type: none"> • Perception of • Quality of • Degree of • Presence of • Level of • Congruent with • Extent to which |

All of these indicators are **neutral**, meaning that no target is specified (e.g. Number of official meetings convened between NMHS vs. 30 official meetings convened between NMHS). The reason for this is that in the PMF, a separate column is allotted for targets, whereas indicators are used to measure if there is progress or not.

In addition, indicators are neutral in terms of not specifying a direction in the change you would like to see. This is reserved for the result statement (e.g. Percentage of industry sectors accessing climate data to use in decision-making *as opposed to* Percentage *increase* industry sectors accessing climate data to use in decision-making).

3.6.3.1. Levels of Indicators

Different types of indicators are required to assess progress towards results. Within an RBM framework, there are two types of indicators – development indicators and process indicators.

Development Indicators: These indicators measure development results (outcome and impact levels) and are used to measure medium and long term changes (e.g. % of communities who have been food secure within the last twelve months).

Process Indicators: These indicators are used at the activity and output levels (e.g. numbers of people trained, type of equipment procured, amount of money invested for activities, etc.) and are used simply to demonstrate that the activity has been completed.

Proxy Indicators

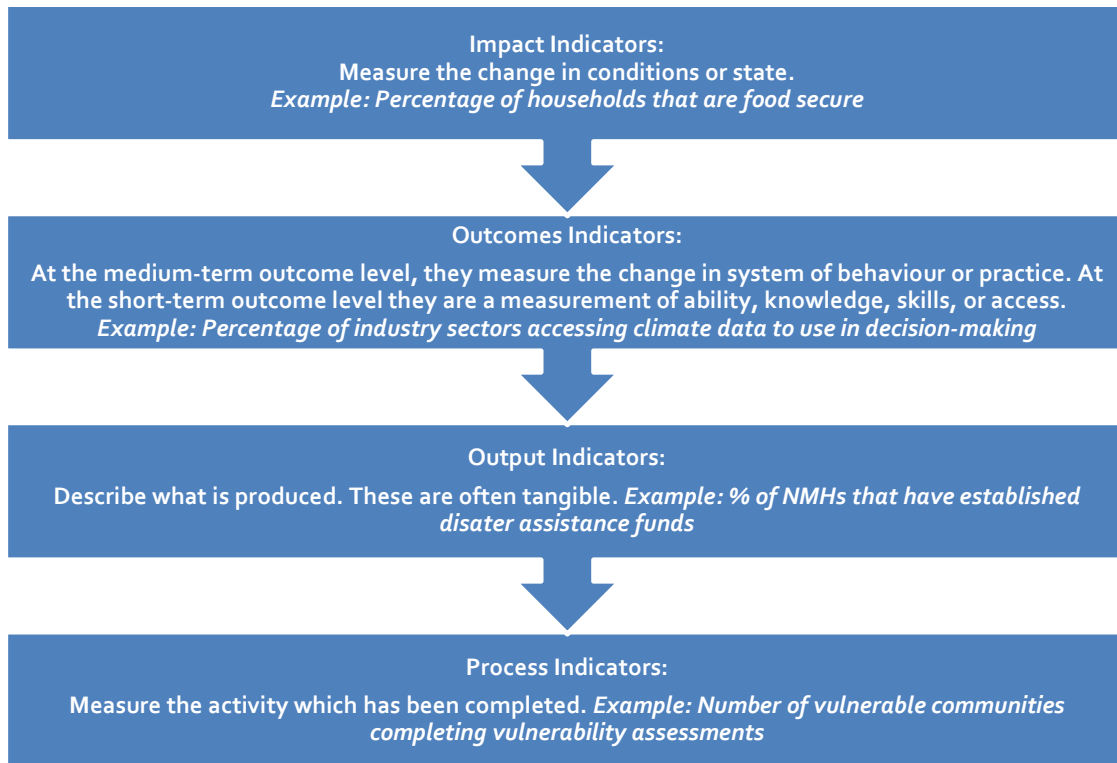
Indicators are not always practical and can require extensive and expensive data gathering. Measuring the increases in rural incomes, for instance, would require a household income and expenditure survey which is time-consuming, requires larger samples, external expertise and is costly. Instead, proxy indicators may be used to determine if rural incomes have increased through indirect ways, such as number of tin roofs or number of bicycles (assets) that households may have acquired throughout the duration of the project. Other examples include using newspaper employment advertisements as a signal for trends in employment, and monitoring greater consumption of fertilizer as an early signal of greater agricultural production. Generally, proxy indicators may be used if:

The result is not directly observable, e.g., quality of life or organization development;

The cost of direct measurement is too high; and The result is achievable only beyond the life of the project.

These various indicators at different levels are described in more detail below.

Figure 19: Examples of Indicators for Each Level of Results



3.6.4. Elements of Indicators

Simply put, indicators are composed of three elements:

- A unit of measure (i.e. quantitative or qualitative)
- A unit of analysis (i.e. the subject/topic who is affected)
- A context (specific situation, circumstances, factors, state of affairs, etc. to be measured)

Figure 20: Elements of Indicators

| Unit of measure | Unit of analysis | Context |
|---------------------|------------------------|---|
| #/Total | of new laws | that have been passed to give NMHS access to weather related data from the private sector |
| %/Total | of NMHS (by region) | providing quarterly cyclone warnings |
| Level of confidence | of rural farmers (f/m) | In the security of police-patrolled rural roads leading to and from markets |

3.6.5. How Many Indicators?

Multiple indicators are needed to measure output, outcomes and impact adequately. A general rule is to select two to three indicators per result level which are both quantitative and qualitative. This is to ensure that you are measuring the same result from different angles (triangulation). Most importantly, indicators should be set to collect only what is **needed** in order to measure the relevant results. Collecting too much information is costly, timely and most often unnecessary.

3.6.6. Disaggregation of Indicators

Indicators should be disaggregated where possible in order to ensure that the results being achieved are benefiting all and demonstrate reality.

Aggregation of an indicator (e.g. Percentage of industry sectors accessing climate data to use in decision-making) is useful as it provides an overall picture. It does not, however, demonstrate the reality in terms of 'who' or "which" sectors are accessing data and it can mask the actual change that has happened. For example, knowing which industry sectors are using data for planning and decision-making is even more useful for knowing where real change has occurred.

This is referred to as **disaggregation** whereby a specific characteristic in the measurement is highlighted. Disaggregation can be done by various dimensions - gender, income level, ability, age, geographic/topographic location, ethnicity, etc.

Some examples can include:

- *Number of meteorologists trained in the last 12 months (disaggregated by gender, NMHS and regions)*
- *Number of countries accessing weather predictions (disaggregated by region, types of predictions)*

A Final Word on Indicators

- Select the appropriate number of indicators. Too many indicators - with little consideration of time and resources required to collect data - and too few indicators, will not allow you to adequately measure the result;
 - Indicators should respond to the result statement. For example, for the result "Improved access to climate products and services", "*number of research proposals developed*" would be an inappropriate indicator as this is a process indicator. It does not measure if there is in fact, improved access to the services nor does the development of research proposals mean these services are being accessed. A better indicator would be "*Number of industry sectors using climate data in their annual planning*";
 - Ensure that indicators are disaggregated and that you have sufficient gender specific or gender integrated indicators;
 - Pay special attention to the validity of your indicators and avoid ambiguous terms (e.g. "*number of meteorologists that are demoralized*" is open to varying interpretations. A better indicator could read "*number of meteorologists that have experienced burn out in the last year*";
 - Indicators should not be compounded (e.g. use indicator "*number of meteorologists trained*" as opposed to "*number of meteorologists trained and providing mentorship to colleagues based on training*"; and
-

-
- Indicators should be neutral and not demonstrate a direction. Direction is given in the result statement (i.e. do not write "*percentage increase of NMHS receiving technical assistance from private sector partners*", instead write "*percentage of NMHS receiving technical assistance from private sector partners*").
-

3.6.7. Developing a Monitoring System

The development and implementation of a monitoring system in order to organize information, consolidate data, and report on results in a synergized way is important for organizations that work with RBM. A **monitoring system** is essentially a system used to monitor performance and organize data in a way that allows users to report on these results.

Building an effective monitoring system involves:

- **Diagnosis** – An assessment prior to establishing the system has to be conducted in order to adapt it to the organization. In fact, understanding the flow of information and institutionalizing a systematic flow of data upwards to the central level is essential for any monitoring system to work;
- **Preparation**–Establish data collection methods and tools, as well as analysis and reporting guidelines;
- **Management**–Designate who will be responsible for which activities and establish means of quality control;
- **Qualified and dedicated staff** - Regardless of how effective the monitoring system is, maintaining the system as well as conducting ongoing monitoring requires a certain skills set.

3.6.8. Results-Based Reporting

Using the PMF:

- Use selected indicators to capture progress being made towards expected results, and against the baseline;
- Monitor your indicators with enough anticipation so you have time to analyse your data and report adequately;
- Monitor on an ongoing basis throughout execution.

Using the Scorecard:

You can use a scorecard to report the data of your key performance indicators (KPIs) and track your performance against targets.

General:

- Describe what has changed (in relation to expected outcomes and impact, using indicators) rather than what you did;
- Brevity is key: enumerate activities but avoid writing a descriptive report on process, stay focused on the changes;

- Always connect your outputs on the “why” you do all this, and make necessary connections;
- Capture all unintended/unexpected results as well;
- State key gaps and challenges experienced good practices that should be replicated, as well as any lessons learned and recommendations to improve the project management.

Table 17. Sample Questions for Reporting on Results

| Sample Questions for Results-Based Reporting |
|--|
| <ul style="list-style-type: none"> • What is different after activities have been completed? (this refers to outcomes) • Who was directly involved and what are they now doing differently? (this refers to outcomes) • Over time, what changes in an organization or community can you observe? Who is being affected? (this refers to impact) • How do you know any person, organization or situation has changed from the baseline situation? (this refers to indicators) • What helped or hindered the achievement of results? (this refers to challenges or best practices); Did anything unexpected occur? • What should be done differently in subsequent activities or projects in order to improve such programming? (This refers to lessons learned) |

3.7. Review and Modify Phase

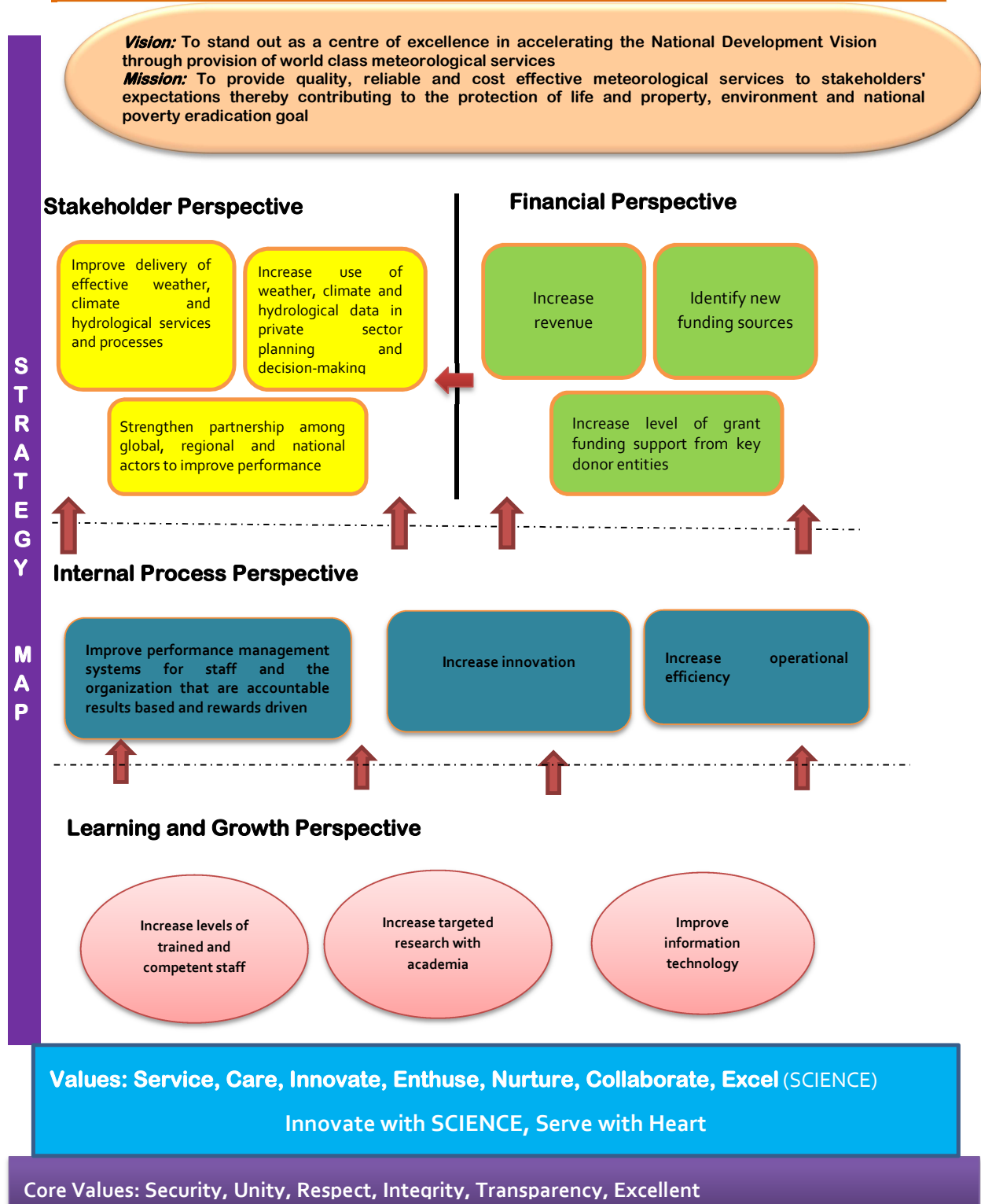
The strategic plan is not set in stone.

While care should be taken to not make frequent major changes without reasonable justification, making some corrections to the directions being taken by the organization as it implements its strategic plan is an important and necessary part of making sure that the strategy remains relevant to the needs of the people it seeks to serve, and the changing capacity of the different parts of the organization implementing it.

The strategy document is a “living document”. It can and should be adjusted as needed during implementation, based on new data from monitoring, studies, evaluation and other sources.

Good practice recommends that organizations assigns one individual as the “prime mover” for each overall strategy in the strategic plan. These individuals will be responsible for monitoring progress towards the plan and to provide regular updates to the strategic planning committee. The committee will then assess whether any major or minor adjustments need to take place for the strategic plan.

ANNEX 1: SAMPLE STRATEGY MAP AND BALANCED SCORECARD FOR NMHS



Sample Strategy-Based Balanced Scorecard for NMHS

Vision: To stand out as a centre of excellence in accelerating the National Development Vision through provision of world class meteorological services

Mission: To provide quality, reliable and cost effective meteorological services to stakeholders' expectations thereby contributing to the protection of life and property, environment and national poverty eradication goal.

| Objectives | Measures | Targets | Initiatives |
|--|--|---|---|
| Financial Perspective | | | |
| Identify new funding sources | Number of new funding sources (by type) identified | At least 3 new sources of those identified confirming interest in providing funding | Resource mobilisation strategy |
| Increase level of grant funding support from key international development entities | Percentage of programmes funded by donor grant resources | 50% | Resource mobilisation strategy |
| Increase revenue | Percentage change in annual sales of weather, climate and hydrological product/services | 15% per annum | |
| Stakeholder Perspective | | | |
| Increase use of weather, climate and hydrological data in private sector planning and decision-making | Percentage of private business sectors utilising weather, climate and hydrological data in production/operation | 30% | Review of industry annual reports |
| Improve delivery of effective weather, climate and hydrological services and processes | Percentage change in the level of citizen's satisfaction with weather, climate and hydrological services and processes | 15% per annum over previous year | Implement Service Delivery Strategy |
| Strengthen partnership among global, regional and national actors to improve NMHSs' performance | Proportion of new collaborations/relationships with businesses at global, regional and national levels contributing to the implementation of NMHS's programmes | 10% per annum | Develop partnership strategy |
| Internal Process Perspective | | | |
| Improve performance management systems for staff and the organization that are accountable results based and | Performance Management and Appraisal System in place | Performance Management and Appraisal System in place by 2018 | Implement the Performance Management and Appraisal System |

| Objectives | Measures | Targets | Initiatives |
|--|--|------------------------|--|
| rewards driven | | | |
| Increase innovation | New products as a percentage of revenue | 30% | Implement Staff Innovation Competition |
| Increase operational efficiency | Percentage waste reduction | 50% | Waste reduction plan |
| Learning and Growth Perspective | | | |
| Increase levels of trained and competent staff | Percentage of staff trained per annum (disaggregated by new and existing; male and female) | At least 15% per annum | Implement Training Plan |
| Increase targeted research with academia | Number of research papers authored jointly by NMHS and tertiary institution presented at national fora | At least 2 per annum | Implement Research Plan |
| Improve information technology | IT Maturity Score | 4.2 (out of 5) by 2020 | Apply Life Cycle Assessment System |

ANNEX 2: SAMPLE SWOT ANALYSIS FOR NMHS

| INTERNAL | |
|--|--|
| <p>Strengths <i>(List here anything you can think of that makes your organization amazing! What can you rely on to deliver your services?)</i></p> <ul style="list-style-type: none"> ▪ Strong commitment from top management ▪ Knowledgeable, highly qualified and experienced professionals ▪ Well organised NMHS, operational on a 24/7 basis, covering all sub-regions ▪ Robust management information systems | <p>Weaknesses <i>(What isn't quite the way it should be yet? What is missing?)</i></p> <ul style="list-style-type: none"> ▪ Poor visibility among government ministries, departments and agencies of products and services ▪ Bureaucratic procurement criteria which cause delays in hiring competent staff ▪ Lack of effective mechanisms for collaboration with the private sector and academic institutions |
| EXTERNAL | |
| <p>Opportunities <i>(List here any potential opportunities to really push your organization forward that you have not yet taken advantage of.)</i></p> <ul style="list-style-type: none"> ▪ Growing awareness of the public and the decision makers of how everyday life and the sustainable development of society are affected by the weather, climate, water resources and the natural environment (heatwaves, floods etc.) ▪ Growing demand for ever broader range of environmental services ▪ Existence of the World Bank and other development agencies as a potential source of funding of meteorological and hydrological development projects ▪ The possibilities of strong partnerships and cooperation between WMO and other UN agencies delivering as one on projects and initiatives ▪ The possibility to use new and evolving technologies | <p>Threats <i>(List here anything that might get in your way of achieving your goals – such as funding you aren't sure of yet, relationships that might break down, etc.)</i></p> <ul style="list-style-type: none"> ▪ Failure to cope with rapidly changing environment and framework ▪ Lack of recognition of socio-economic value of NMHSs and their services ▪ Lack of government funding to support the requirements of the National Meteorological and Hydrological Infrastructure ▪ Attrition of trained staff |

ANNEX 3: SAMPLE PESTLE ANALYSIS

| Issue | Impact on Business |
|---|---|
| Political | |
| <ul style="list-style-type: none"> • Growing political focus and pressure on Healthcare • Global governments looking for healthcare savings. • Harmonization of healthcare across Europe. | <ul style="list-style-type: none"> • Cut backs (loss of business) more pressure on pricing. • Increase pressure on pricing. • Reference pricing, exposing prices across borders. |
| Economic | |
| <ul style="list-style-type: none"> • Global economic crisis. • Reduction in individual disposable income. • Increasing number of buying groups putting pressure on pricing. • Reduction in Pharma Growth. | <ul style="list-style-type: none"> • Reluctance of consumers to spend on healthcare. • Again, an increased pressure on pricing, however market is likely to grow due to aging population. • Need to introduce value adding processes. • Increased pressure from shareholders. |
| Social / Culture | |
| <ul style="list-style-type: none"> • Patient awareness, changing expectations. • Patient /public activism is also increasing (e.g. harnessing new social networking technologies). • Increasing age of population & growth in obesity. | <ul style="list-style-type: none"> • More pressure on customer service, increased need for education and more price transparency. • Better intelligence gathering requires. • Market likely to grow with increasing health concerns. |
| Technological | |
| <ul style="list-style-type: none"> • New info and Comms technologies (Social Media). • Customized Treatments. • Direct to Patient Advertising. | <ul style="list-style-type: none"> • New digital opportunities: creating new "e-models". • Direct to patient communications. • More responsive service facilities required. |
| Legislation | |
| <ul style="list-style-type: none"> • Changes to advertising laws. • Increased litigation. • Global inconsistencies. | <ul style="list-style-type: none"> • Need to focus on Education. • Quality becomes key. • Unable to rationalize (US and European markets require different formulas). |
| Environmental | |
| <ul style="list-style-type: none"> • Growing environmental agenda and community awareness. | <ul style="list-style-type: none"> • Identify eco opportunities to market. |

Source: http://suranjanmktg.blogspot.com/2011_10_03_archive.html

ANNEX 4: SAMPLE STAKEHOLDERS ANALYSIS MATRIX

| Stakeholder | Interests | Expectations | Potential |
|--|---|---|--|
| <i>List Stakeholder</i> | <i>Highlight what is their (stakeholders') interests in the NMHS?</i> | <i>Detail what they expect from their relationship with the NMHS?</i> | <i>Enumerate the contributions that they could make to the NMHS?</i> |
| Other Government departments (specify) | Interested in the data produced by NMHSs on | Get access to updated information and data | Provide NMHSs with internal statistics or data |
| Private sector | | | |
| Universities | Access to research produced by NMHSs | Networking on thematic issues | Exchange of research information |
| Civil society organizations | | | |

ANNEX 5: MISSION STATEMENT WORKSHEET

This worksheet will help NMHS to define each element of a mission statement. It follows the format of a mission statement, asking the NMHS to describe whom they serve, what they do, why they do it, and how they do it. For each element, there are associated key questions that guide staff members through the process.

| | Elements of the Mission Statement |
|-----------------------------------|--|
| Whom does the organization serve? | <ul style="list-style-type: none"> a. To whom do we offer our products and services? b. What are the characteristics of the target population or market? c. Where is the target population or market located? |
| What does the organization do? | <ul style="list-style-type: none"> a. What products and services do we offer? b. What do our beneficiaries or clients need and want? c. How well do our current products and services meet the needs and desires of our clients or beneficiaries? |
| Why does the organization do it? | <ul style="list-style-type: none"> a. What are the needs and desires of our clients or beneficiaries? b. What can we do to address the most pressing needs? |
| How does the organization do it? | <ul style="list-style-type: none"> a. What strategies will be employed to provide the right products and services to our clients/beneficiaries? b. Can the strategies be implemented, given the resources and context within which we work? |

ANNEX 6: EXAMPLE OF LOGICAL FRAMEWORK

| Expected Results | Objectively Verifiable Indicators | Sources of Verification | Assumptions |
|---|--|----------------------------------|---|
| Outcome 1: Improved delivery of effective weather, climate and hydrological services and processes | Level of citizen's satisfaction with weather, climate and hydrological services and processes | Country survey | Adequate budget to fund survey |
| Outcome 2: Strengthened partnerships among global, regional and national actors to improve NMHS's performance | Proportion of new collaborations/relationships with businesses at global, regional and national levels contributing to the implementation of NMHS's programmes | MOU | Willingness of partners to provide both programmatic and administrative support to NMHS's |
| Output 1.1: Multi-hazards early warning systems implemented | Number of EWS | Annual Report | Availability of resources |
| Output 1.2: Accurate forecasts and warnings delivered from the Regional Centre | Number of forecasts/warnings | Weather and climate reports | Database systems are routinely maintained/updated |
| Output 1.3: Flood management plans developed and implemented | Number of communities with flood management plans | Annual Report | Availability of resources |
| Output 2.1: Cooperation agreements developed | Number of MOUs signed | Signed MOUs | Improved coordination and negotiation capacity of NMHS |
| Output 2.2: Communication strategy implemented | Number of persons reached by communication strategy | Report from communication | Availability of resources to conduct communication campaign |
| Output 2.3: Resource mobilization plan to support NMHS research and innovation developed | Number of research/feasibility studies funded | Research and Feasibility Studies | Availability of resources to conduct research/studies |

ANNEX 7: GLOSSARY OF STRATEGIC PLANNING AND M&E TERMS

| TERMS | DEFINITIONS |
|-------------------------------|---|
| Action plan | An action plan is a planning document that provides detail on the steps that will be followed to achieve a desired outcome, and most importantly, how each step will be implemented (who and when), how the achievement of the desired outcome will be assessed and the resources needed to carry out the action plan |
| Action planning | Action planning is the process that guides the day-to-day activities of an organization of project. It is the process of planning what needs to be done, when it needs to be done, by whom it needs to be done, and what resources or inputs are needed to do it |
| Activities | Actions taken or work performed through which inputs, such as funds, technical assistance and other types of resources, are mobilized to produce specific outputs. |
| Balanced Scorecard | The Balanced Scorecard is a strategic planning model that was designed to measure the performance of an organization in four perspectives namely financial, customer, internal business process and learning and growth |
| Baseline data | Baseline data refer to the existing situation, or 'starting point' of an expected result project or program area prior to intervention against which 'change' can be measured over time through the use of indicators |
| Data collection method | Data collection methods indicate the way in which information is collected. There exist various data collection methods representing different ways to collect the required data (e.g. census, observation, surveys, etc.). |
| Data sources | "Data sources" refers to 'where' data can be found or 'who' should be contacted to access data to inform each indicator. Data sources can include individuals, organizations, institutions, but can also include specific documentation. |
| Evaluation | <i>Evaluation</i> is the comparison of actual project impacts against the agreed strategic plans. It looks at what you set out to do, at what you have accomplished, and how you accomplished it. More specifically, evaluation focuses on the relevance, efficiency, effectiveness, impact, and sustainability. |
| Goal | The goal is what we believe needs to change |
| Indicator | A performance indicator is a variable that allows the verification of changes in the development intervention. |
| Inputs | The financial, human, material, technological and information resources used for development interventions |
| Impact | A sustainable change of state that can be attributed to the accomplishment of intermediate outcomes. An actual or <i>intended change</i> in human development as measured by people's well-being |
| Logical Framework | The logical framework is a management tool used to facilitate planning, execution and evaluation of a development intervention. It is an approach to project management that on a single paper, organizes project |

| TERMS | DEFINITIONS |
|--|--|
| | components into a <i>hierarchy of logically linked objectives</i> ; defines <i>indicators</i> to track accomplishment of those objectives, specifies <i>sources/methods of data</i> to measure indicators and takes into account external <i>assumptions and risks</i> that affect project success |
| Objective statements | Objective statements express the progress that is hoped to be achieved and are written in present tense. |
| Mission | The organization's purpose; what the organization does and why |
| Monitoring | Monitoring is " <i>The systematic and continuous collection of information to assess progress and demonstrate results</i> ". It is the systematic collection and analysis of information as a project progresses. It is aimed at improving the efficiency and effectiveness of a project |
| Monitoring system | A monitoring system is a system used to monitor performance and organize data in a way that allows users to report on these results |
| Objective | What we plan to accomplish so as to make progress in achieving our goals |
| Outcome | The intended or achieved short-term and medium-term effects of an intervention's outputs |
| Outcomes (Immediate) | Change that is directly attributable to the outputs of an initiative: changes in skills, awareness, knowledge, access or ability among beneficiaries |
| Outcomes (Intermediate) | Changes that generally occur once one or more immediate outcomes have been achieved: a change in behaviour or practice among beneficiaries |
| Outputs | Direct products or services stemming from the activities of an organization, policy, program or initiative. Outputs are new products, goods and services or changes in skills and capabilities of individuals or institutions that result from the completion of activities |
| Performance measurement framework | The PMF is an RBM tool that guides planning of the systematic compilation of data on the progress of a project or program based on expected and obtained results. In addition, the PMF outlines the main elements of the monitoring system and ensures that performance information is collected regularly and on time |
| Result | A result is a change which is describable, measurable or calculable as a consequence of a cause and effect relationship |
| Results-based management (RBM) | RBM is a management approach that considers strategies, people, processes and measurement for improving decision-making, such as transparency and accountability. It is based on results production, performance measurement, learning, adaptation and the production of performance reports |
| Results based report | Results based report is a document which demonstrates progress towards achieving your results and CHANGE that has occurred because of your interventions |
| Results chain | A results chain illustrates a relationship of influence from inputs/activities to outputs, from outputs to outcomes, and from outcomes to impact, all of which are linked by causal relationships (cause and effect) and sustained by some assumptions/hypotheses about the development context or factors that can influence the causal relationship. |
| Result statement | A result statement state the achievements expected at the end of a project or program at the end of a specific period and is written in past tense |
| Risk | The risk is the possibility of a critical condition or occurrence that could |

| TERMS | DEFINITIONS |
|---------------------------|--|
| | impede the realization of expected results |
| Risk management | Risk management consists in identifying risks, classifying risks in a risk analysis matrix, developing a risk management strategy, and developing a risk management plan |
| Residual risk | Risk or part of the risk that remain after the implementation of the chosen response strategy are referred to as "residual risks" |
| Theory of Change | Theory of change is a causal model. It defines all building blocks required to bring about a given long-term goal. It explains HOW and WHY the desired change is expected to come about. |
| Strategic Plan | A strategic plan is a document used to communicate within the organization and to its stakeholders the organizations goals, the actions needed to achieve those goals and all of the other critical elements developed during the planning exercise. |
| Strategic Planning | "a disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future." The Institute further notes that "Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful." (Balanced Scorecard Institute) |
| | Strategic planning is a process by which leaders of an organization determine what it intends to be in the future and how it will get there. It outlines a process that includes the development of a vision for the organization's future, the determination of the necessary priorities, procedures, and operations (strategies) to achieve the vision. Included also are measurable goals which are realistic and attainable, but also challenging; emphasis is on long-term goals and strategies, rather than short term (such as annual) objectives. (World Bank) |
| Strategy | What we will do to meet the objectives (short term) and to play our part in making a difference (long-term) |
| Targets | Targets are explicit statements of the desired and measurable results expected for an indicator at a specified point in time. They have to be set based on realism and based on the planned activities |
| Vision | The vision is a futuristic view regarding the ideal state or conditions that the organization aspires to change or create. |
| Values | The values refer to the principles, beliefs and underlying assumptions that guide the organization. |

REFERENCES

- Balanced Scorecard Institute. *Strategic Planning Basics*. Accessed March 21, 2016 at <http://balancedscorecard.org/Resources/Strategic-Planning-Basics>
- Barrows, Ed. (2009, March 13). *Four Fatal Flaws of Strategic Planning*. Harvard Business Review. Accessed March 20, 2016 at <https://hbr.org/2009/03/four-fatal-flaws-of-strategic>
- Canadian International Development Agency (CIDA). (2008). *Results-based Management Policy Statement 2008*. [Available Online](#).
- Canadian International Development Agency (CIDA). (2011). *Results-Based Management Tools at CIDA: A How-to Guide*. [Available Online](#).
- Canadian International Development Agency (CIDA). (2011). *Logic Model – Terms and Definitions*. Available [http://www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Results-basedManagement/\$file/RBM-LOGIC_MODEL-Def.pdf].
- Department For International Development (DFID). (2011). *How to Note. Guidance on Using the Revised Logical Framework*. [www.dfid.gov.uk/Documents/.../how-to-guid-rev-log-fmwk.pdf].
- DiNapoli, Thomas P. (2003, May). *Local Government Management Guide: Strategic Planning*. Accessed March 20, 2016 at https://www.osc.state.ny.us/localgov/pubs/lgmng/strategic_planning.pdf
- Europeaid. (2009). *Results Oriented Monitoring. ROM Handbook*. [http://ec.europa.eu/europeaid/how/ensure-aid-effectiveness/documents/rom_handbook2009_en.pdf].
- European Commission.(2006). *Guidelines for Proposal Evaluation and Selection Procedures*. [http://cordis.europa.eu/documents/documentlibrary/66623291EN6.pdf].
- G.Morra-Imas, L &, C. Rist, R. (2009).*The Road to Results: Designing and Conducting Effective Development Evaluations*.
- Hansen, Dr. Jens J. (2008). *A Strategic Planning Template for Dummies*. Woodhill Park Retreat. Accessed March 20, 2016 at http://www.edmonton.ca/programs_services/documents/PDF/StrategicPlanningForDummies.pdf
- Laban, Jake and Green, Jack C. PhD. (2003). *Communicating Your Strategy: The forgotten fundamental of strategic implementation*. Volume 6 Issue 1, Graziadio Business Review.
- Management Sciences for Health. *Mission Statement Worksheet*. Available at <http://www.thehealthcompass.org/sbcc-tools/mission-statement-worksheet>
- Martin, Roger L. (2014, January–February). *The Big Lie of Strategic Planning*. Harvard Business Review. Accessed March 20, 2016 at <https://hbr.org/2014/01/the-big-lie-of-strategic-planning>

McNamara, Carter MBA, PhD. (n.d.). *All About Strategic Planning*. Accessed March 18, 2016 at <http://managementhelp.org/strategicplanning/#anchor4293674666>

Mollenhauer, Linda Building Strong Foundations: Strategic Planning Toolkit. Canadian Mental Health Association Ontario. Available at http://ontario.cmha.ca/files/2013/01/Basic_Strategic_Planning_Toolkit.pdf

National Association of County and City Health Officials (NACCHO) 2010. *Developing a Local Health Department Strategic Plan: A How-To Guide*. Available at <http://www.naccho.org/uploads/downloadable-resources/Programs/Public-Health-Infrastructure/StrategicPlanningGuideFinal.pdf>

NOAA Coastal Services Center. Preparing to Write Your Strategic Plan Social Science Tools For Coastal Programs. Available at https://coast.noaa.gov/digitalcoast/_pdf/strategic-planning-workbook.pdf

NOAA'S National Weather Service. (2011, June). *Strategic Plan: Building a Weather-Ready Nation*. Available at http://www.nws.noaa.gov/com/weatherreadynation/files/strategic_plan.pdf

Organization for Economic Co-Operation and Development (OECD).(2010). Glossary of Key Terms in Evaluation and Results Based Management. Available at <http://www.oecd.org/development/peer-reviews/2754804.pdf>

Organization for Economic Co-Operation and Development (OECD). (1991). *DAC Principles for the Evaluation of Development Assistance*. [<http://www.oecd.org/dataoecd/31/12/2755284.pdf>].

Organization For Economic Co-Operation And Development/Development Assistance Committee (OECD/DAC). (2002). *Glossary of Key Terms in Evaluation and Results Based Management*. [<http://www.oecd.org/dataoecd/29/21/2754804.pdf>].

Ronchetti Jan L. (n.d.). *An Integrated Balanced Scorecard Strategic Planning Model for Nonprofit Organizations*. Journal of Practical Consulting. Accessed March 18, 2016 at http://www.tphlink.com/uploads/1/1/4/0/11401949/guide_to_implementing_the_bsc.pdf

Rugh, J. (n.d.) *The Rosetta Stone of Logical Frameworks*. [www.mande.co.uk/docs/Rosettastone.doc].

Shapiro, Janet. (n.d.). *Strategic Planning Toolkit*. CIVICUS. Accessed February 22, 2016 at <http://www.civicus.org/view/media/Strategic%20Planning.pdf>

W.K. Kellogg Foundation. 2001. *Logic Model Development Guide*. W.K. Kellogg Foundation. Battle Creek, Michigan. Accessed February 17, 2016 at <http://www.smartgivers.org/uploads/logicmodelguidepdf.pdf>

World Meteorological Organization. (2014). *The WMO Strategy for Service Delivery and Its Implementation Plan*. Accessed March 12, 2016 at http://www.wmo.int/pages/prog/amp/pwsp/documents/WMO-SSD-1129_en.pdf

World Meteorological Organization. (2011). *WMO Strategic Plan 2012–2015* (WMO-No. 1069). Available at: http://www.wmo.int/pages/about/documents/1069_en.pdf

World Meteorological Organization. (2015). *WMO Strategic Plan 2016–2019* (WMO-No. 1161). Available at http://library.wmo.int/pmb_ged/wmo_1161_en.pdf



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