

A National Strategy for the Development of Education Statistics (NSDES)

Guidelines for country-level design
of the NSDES

1. Introduction

1.1. Context, purpose and users of the guidelines

1.2. What is the NSDES?

- 1.2.1. Essential features of a results-oriented NSDES
- 1.2.2. A Results-Based Management (RBM) approach for the NSDES

2. Preparation of a NSDES

2.1. *Getting Started*

- 2.1.1. Reaching consensus on the NSDES goal
- 2.1.2. Using Data Quality Assessments (DQA) to prepare the ground

2.2. *Designing the Results Framework*

- Step 1.** Defining results
- Step 2.** Clarifying partners' roles and responsibilities
- Step 3.** Identifying assumptions and risks
- Step 4.** Identifying resources
- Step 5.** Developing a monitoring and evaluation (M&E) matrix

2.3. *Moving toward implementation*

- 2.3.1. Developing operational plans
- 2.3.2. Using the M&E matrix during programme implementation
- 2.3.3. Finalizing and mainstreaming the strategy

ANNEX 'Tool kit':

Tool 1. Prioritizing recommendations and setting strategic objectives

Tool 2. Results matrix template

Tool 3. Risk matrix template

Tool 4. M&E matrix template

Tool 5. Costed program plan template / annual work plan (AWP) template

1. INTRODUCTION

1.1. CONTEXT, PURPOSE AND USERS OF THE GUIDELINES

In May 2015, participants from 160 countries gathered at the World Education Forum (WEF) hosted by the Republic of Korea, to agree on and adopt the Incheon Declaration for Education 2030. A key feature of the new education agenda is a resolve to develop "*comprehensive national monitoring and evaluation systems* in order to generate sound evidence for policy formulation and the management of education systems as well as to *ensure accountability*" (Incheon Declaration, 2015).¹

In the interests of better education data for strengthened education management and accountability, participants in the WEF of 2015 specifically requested co-conveners and partners to "support capacity development in data collection, analysis and reporting at the country level", enabling countries to "improve the quality, levels of disaggregation and timeliness of reporting to the UNESCO Institute for Statistics" (Incheon Declaration, 2015).

The Capacity Development for Education (CapEd) programme is one of UNESCO's responses to the challenges raised by the "holistic, ambitious and transformative vision" of the Education 2030 development agenda. The programme supports countries in integrating the Sustainable Goal for Education (SDG 4) into education plans and monitoring systems.

Component 2 of the CapEd programme specifically answers the call made by member states at Incheon, designed by UIS to assist countries in aligning and strengthening national data and education management information systems to monitor progress towards SDG 4 targets. Component 2 promotes a coherent medium-term (3-5 years) approach for sustainably building capacities of national education statistical systems (NESS) by supporting:

- The setting up of an **education data platform** - comprising a Steering Committee made up of multiple stakeholders of the SDG 4 and a national technical team (NTT) - to develop and implement a sector-wide vision of education statistics;
- The design, implementation and monitoring of a country-level **national strategy for the development of education statistics (NSDES)**.

The purpose of these Guidelines is to accompany country-level stakeholders through a process of preparing their NSDES and medium-term capacity development program plan for education statistics, ensuring that such a strategic plan is results oriented. The process follows a 'learning by doing' approach, using a set of simple, flexible tools which can be adapted to suit specific contexts.

The users of the Guidelines are members of the NSDES education data platform, specifically the National Technical Team guided by the Steering Committee. Where requested, this team work may be supported by technical assistance provided either by UNESCO or by externally sourced expertise, or both.

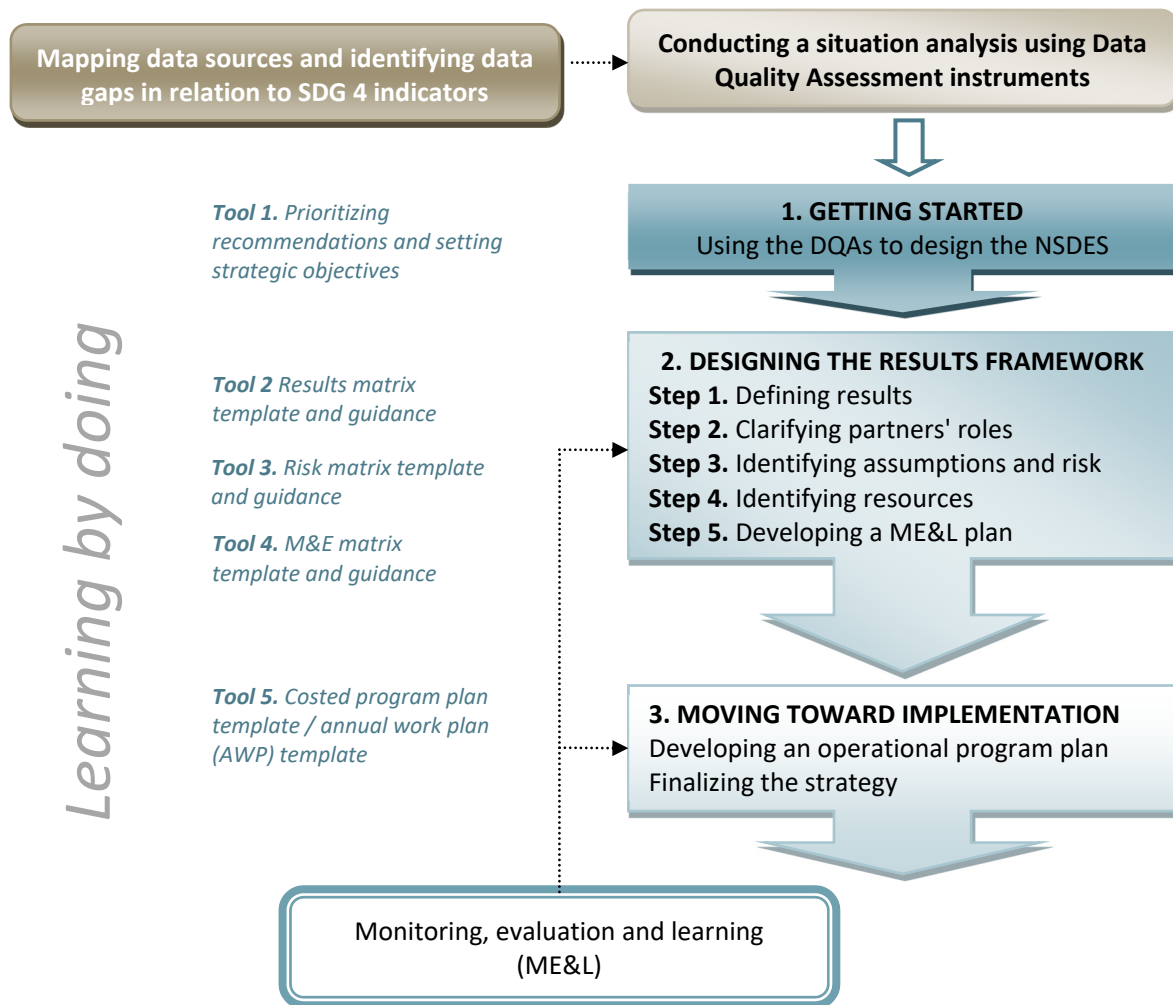
Following a preparation phase during which the education data platform will be initiated, design of the NSDES will take place in the following phases:

¹ Over the last 15 years, results-based management (RBM) has emerged as a key instrument for development effectiveness. The Incheon Declaration is a recent landmark in a series of international agreements that have all underscored the importance of increased accountability of governments and development partners towards the achievement of results. Among these international agreed principles are the Monterrey Consensus (2002), the Rome Declaration on Harmonization (2003), the Paris Declaration (2005), the Hanoi Conference on Managing for Development Results (2007), the Accra Agenda for Action (2008), and the Busan Partnership for Effective Development Cooperation (2011).

- Mapping relevant data sources and identifying data gaps against the contextualised SDG 4 indicators framework;
- Conducting a situation analysis through a series of Data Quality Assessment (DQA) for various required data sources and producing the DQA Report, including recommendations;
- Developing and validating the NSDES.

The Guide will take you through the final phase, that is, the process of designing a NSDES and strategic program plan. The process is illustrated by **Figure 1** below, which also indicates the relevant tools corresponding to the stages in the 'learning by doing' approach.

Figure 1. The process of designing an NSDES



1.2. WHAT IS THE NSDES?

A National Strategy for the Development of Education Statistics (NSDES) is a policy instrument designed by government and its partners, namely the education data platform. It provides a medium-term vision for a strengthened education data system and data management platform in a country: the National Education Statistics System (NESS).

The NSDES should be results-oriented - outlining a coherent set of intended changes in the production, reporting and use of education statistics - and based on a sound analysis of the current education statistics situation, i.e. a series of DQAs (one per relevant data sources). It should be integrated into the national Education Sector Plan (ESP) and the overall multi-sector National Strategy for Developing Statistics (NSDS) and should include a monitoring and evaluation and (M&E) framework to guide implementation.

1.2.1. ESSENTIAL FEATURES OF A RESULTS-ORIENTED NSDES

The essential characteristics of a results-oriented NSDES are as follows:

- i. **It contributes to the country's development vision.** The NSDES aligns with the government's international commitments and overall national development framework, the mission statement of its ESP, and the overall NSDS goal. As such, it is a living-document, responding to the country's evolving education development context
- ii. **It is sector-wide.** The NSDES covers all subsectors (early childhood education, primary, secondary, TVET, and higher education) and should also include non-formal education, as well as adult literacy in line with SDG4 targets. It recognizes the need for a sector-wide approach and reflects an awareness of equitable, quality lifelong learning
- iii. **It is strategic.** By definition, the NSDES prioritizes intended results, including human, technical, and financial capacities, in order to achieve the development vision: the NSDES results framework shows a focus on specific, objectively measurable results and a clear intervention logic, ensuring planned results are realistic.
- iv. **It is achievable.** Responding to actual financial, technical, and political constraints in the area of education statistics, the NSDES provides a framework for budget and management decisions; the extent to which the strategy is owned by key stakeholders largely determines NSDES feasibility.
- v. **It is evidence-based and pays attention to a country's specific data-related challenges.** The process of developing the NSDES begins with an education data quality assessment (DQA), providing an information base to guide design of the NSDES. In addition to the DQA, the NSDES is informed by various surveys and consultations undertaken to assess the readiness of country's to engage with the SDG 4 agenda (**Box 1**).
- vi. **It is sensitive to the country context.** The NSDES should be in line with other ESP strategies to strengthen the education system at all level; these are typically based on an analysis of the vulnerabilities specific to a country (e.g. conflicts, disasters, and economic crises) and address preparedness, prevention, and risk mitigation.

The **process of preparing** the NSDES includes the following features:

- It is a **country-led process**. The NSDES is the responsibility of the national government, which has to make the final decisions in terms of committing resources, as well as for its implementation. The strategy must be grounded in a government's commitment to the preparation process, and this commitment should deepen through the process.
- It is an **inclusive process**. The strategic planning process should be accompanied by a participatory policy dialogue among multiple stakeholders that builds consensus on, and commitment to, the development of strategy; existing mechanisms for such policy dialogue between the government and its development partners include the Sector Working Group (sometimes called the Local Education Group).
- It is a **well-organized process**. Clarity is required on the roles and responsibilities of the multiple stakeholders, especially those who lead and coordinate; NSDES structures may include; a steering committee to oversee and guide the process; a National Technical Team (NTT) to coordinate the technical work, bringing together all ministry directorates and departments; and selected working groups to focus on specific themes or subsectors.
- It is a **process of growing mutual accountability for education statistics**. This entails the respective accountability of multiple-stakeholders working together toward shared outcomes, where each stakeholder is accountable for its own contribution.
- It is a **capacity-development process**. Plan preparation is itself a form of 'learning by doing' capacity development, making the process of NSDES preparation as important as the strategy itself.
- It is a process that reflects the **comparative advantage** of UNESCO and its partners in addressing the systemic constraints and capacity gaps related to education statistics.

1.2.2. A RESULTS-BASED MANAGEMENT (RBM) APPROACH FOR THE NSDES

RBM is an approach for strategic planning. Using this approach, all stakeholders ensure that their processes, products and services contribute to the achievement of intended results (outputs, outcomes and higher level goals or impact). The stakeholders in turn use information and evidence on actual results to inform decision making for programming accountability and reporting.

Two key concepts used in RBM programming are outlined in this section and are elaborated through the step-by-step NSDES preparation process: the RESULTS CHAIN and the RESULTS FRAMEWORK.

The NSDES Results Chain

A result is change that can be described and measured. Results can be intended or unintended changes, positive or negative. It is expected that a results-oriented strategy and/or programme will lead to positive and intended change. But this is not always the case. As change can sometimes lead to unintended or negative consequences, it is important that the intervention is carefully monitored and adjusted in line with the programme's monitoring data.

Typically, RBM strategic planning and programming entails three main levels of result, as follows.

Result level 1. Impact: this is the long-term change in social or economic conditions.

Result level 2. Outcome: this is a medium-term change in development conditions, measured in terms of institutional performance and/or changes in the behavior of a specific group of people or organization.

An outcome is the intended benefit to a specific community, group of people or organization that is measurable and specific. **Intermediate outcomes** are sometimes used to specify results proximate to an intended final outcome, but *more measurable and achievable in the lifetime of a programme* than the intended final outcome.

Result level 3. Outputs are the supply-side deliverables, including the events, products, or services that result from a development intervention in the short-medium term. The key distinction between an output (a specific good or service) and an outcome is that the output typically is a change in the supply of goods and services (supply side), whereas the outcome reflects changes in the utilization of goods and services (demand side).

Impact-outcome-output level changes are derived from a cause-and-effect relationship, which is set in motion by a development intervention or programme. The cause-and-effect sequence is the **Results Chain**, sometimes referred to as the results logic, or intervention logic, or logic model. The causality between results extends further to the attribution between inputs-activities and the results that are generated in the form of outputs, outcomes and impact. A results chain should also clearly represent the change achieved through the cause-and-effect relationship between inputs-activities and the results.

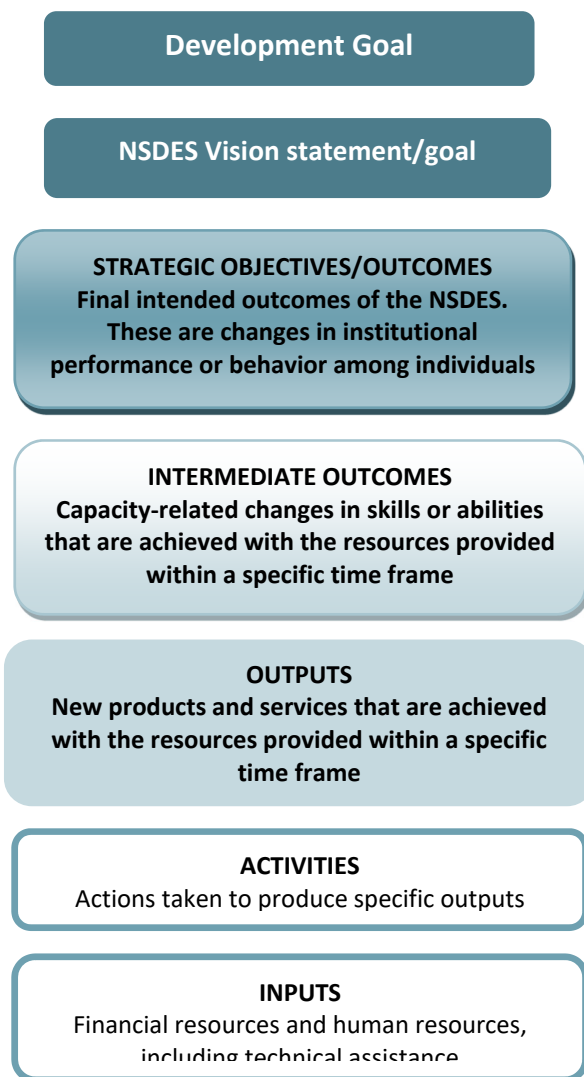
Generally, results-oriented planning requires *a shift in the direction of thinking about how to achieve results*. Conventional planning approaches often start with the interventions and required resources: "if X activities are implemented, using Y resources, then Z result will be achieved"; the focus here is on implementation. Using RBM entails planning "in reverse"; that is, we begin with the impact-level result (goal) and move to the objective-level results (outcomes) before detailing the interventions.

Table 1. Corresponding elements in a generic logic model and the NSDES results chain.

GENERIC RESULTS CHAIN	NSDES RESULTS CHAIN
<p>Higher-order result/impact. The long-term effects near or at the top of the results chain in terms of improved social or economic conditions. Generally, a stand-alone intervention alone will not achieve the higher-order result; but a programme should identify the country development goal it seeks to influence.</p>	<p>Development goal The high-level country development goal or sectoral development goal; e.g. Sustainable Development Goal 4, the national poverty-reduction goal, and/or the NSDS goal. It may be achieved through a combination of development interventions, including the NSDES.</p>
<p>Program development objective The intended benefits to a specific community, group of people or organization that are to be realized through the programme.</p>	<p>NSDES Vision statement/goal This seeks to influence the above development goal or sectoral development goal. The vision/goal should clearly indicate the target group of the NSDES capacity-building intervention and what they will be doing better or differently as a result of the programme</p>
<p>Program outcome (final and intermediate) The change in institutional performance or behavior change among users of outputs that demonstrates the uptake, adoption, or use of the program outputs by the targeted stakeholders. An intermediate outcome specifies a result that leads to the intended final outcome, but is more measurable and achievable in the lifetime of a project than the intended final outcome.</p>	<p>Strategic objective(s) of capacity development These are the final outcomes of the NSDES, intended to be achieved by the end of the program's first phase. They are informed by the DQA recommendations and describe the benefits to the targeted stakeholders (e.g. education data platform) in relation to one or more of four targeted NSDES components. Intermediate outcomes specify the results leading to a specific final outcome. They are intended to be achieved in 1 to 3 years of an overall five-year programme life-cycle.</p>
<p>Outputs The supply-side deliverables, including the events, products, or services that result from the intervention.</p>	<p>NSDES program outputs Knowledge, products and services</p>

It is important to note that the terminology and level of detail used to describe the elements of a results chain can differ from programme to programme, depending on the scope of the intervention. In the case of the NSDES, the results chain needs to take into account the capacity-building function of a strategy to develop education statistics in a given country; the NSDES results chain also needs to anticipate the eventual integration of the NSDES into broader strategic planning frameworks such as the country's ESP and the umbrella multi-sector NSDS. **Table 1** above explains the corresponding elements in the NSDES results chain and the generic logic model. **Figure 2** below illustrates the NSDES results chain.

Figure 2. The NSDES Results Chain



A results chain will always be embedded in a given context that reflects the overall situation, needs, issues, priorities and aspirations of key rights-holders. A range of factors – economic, political, social, environmental or cultural – will affect the achievement of results. The general rule is that one size does not fit all and results chains will vary from country to country. In this sense, the NSDES results chain outlined above is itself a generic logic model, and open to modification. For example, in some country contexts the intermediate outcome results-level may not be required, while *in other more complex situations* it is.

The NSDES Results Framework

Generally, a results framework is an explicit articulation of the results chain, showing the different levels of results expected from a particular project, program, or development strategy.² This may be a graphic display or in matrix form. The NSDES results framework comprises a **results matrix** and a complementary **M&E matrix**.

As a conceptual presentation of a results chain, the results matrix captures the essential elements of the logical and expected cause-effect relationships among inputs, outputs, intermediate results or outcomes, and impact. But it also includes the following elements:

- Identified responsibilities of the different **partners** - whether they are government or a specific ministry, United Nations agency, NGO or any other implementing agency - who will achieve a given output and outcome;
- Identified underlying **critical assumptions** that must be in place for the intervention to achieve the targeted outcomes and impact or high-level development goal and the **risk** of potential future events - which may be fully or partially beyond control - that may negatively affect the achievement of results;
- Estimated **resources** (financial, human and technical) required to achieve the agreed results.

The preferred format and level of detail for results matrix vary by organization and by the scope and scale of the intervention, but all include the same basic components to guide implementers in achieving, and evaluators in assessing, results. **Table 2.** below presents a basic outline of a country-level **NSDES results matrix**.

Table 2. Sample NSDES results matrix

Intervention Logic	Key Action Areas	Implementing Partners	Assumptions and Risks	Indicative Costs (Total/Source/Gap)
Strategic Objective/Outcome 1				
Intermediate Outcome 1.1.				
<i>Output 1.1.1.</i>				
Strategic Objective/Outcome 2				
Intermediate Outcome 2.1.				
<i>Output 2.1.1.</i>				

As mentioned above, the NSDES results matrix is accompanied by a detailed M&E matrix. In this matrix, results are further defined through indicators, which are quantifiable and measurable, or observable. With reference to baselines and target values, these are used to track progress toward achieving the results at different intervals of time.

In sum, the NSDES is underpinned by the results framework, including both results and M&E matrices. Besides providing a systematic approach for Education Data Platform to plan their strategies and select interventions that are most likely to address targeted problems, the results framework serves as a tool for:

- *Consensus, coordination, and ownership*, providing the opportunity for the Education Data Platform to coordinate the implementation approach and agree on the expected results;
- *Managing implementation*, using performance data to make corrective adjustments to activities, reallocate resources, and reevaluate targeted objectives or underlying assumptions;

² Similar conceptual tools, also designed to organize information regarding intended outcomes and results, are used across different agencies: log-frames, logic models, theories of change, results chains, and outcome mapping.

- *Communication and reporting* on the resources, activities, and outcomes to program staff, development partners, and other stakeholders;
- *Harmonizing the efforts of diverse partners*, clarifying efficient divisions of responsibilities for achieving specific results;
- *Evaluating*, clearly identifying how progress toward the targeted objective(s) will be measured and serving as the basic accountability tool for developing an evaluation approach to the intervention;
- *Learning from experience*, allowing the Education Data Platform to assess over time what approaches or interventions contribute most effectively to achieving specific development objectives, a process that helps identify good practices for replication.

Table 3 provides an overview of the NSDES preparation process, the focus of each stage in the process, relevant tools to support preparation of the NSDES, and a suggested time-frame.

Table 3. Stages and steps in preparing an NSDES

STAGE 1. Getting Started			Time-frame
Using the Data Quality Assessments to prepare the ground	✓ Reach consensus on the NSDES goal in line with the national education sector plan (ESP) strategic priorities	Tool 1. Prioritizing recommendations and setting strategic objectives	Week 1 2-3 day Consultative Meeting OR working session integrated into the Design Workshop
	✓ Prioritize and use DQA recommendations to set strategic objectives		
STAGE 2. Designing the Results Framework			
Step 1. Defining results	✓ Formulate outcomes	Tool 2. Results matrix template and guidance	Week 2/3 5-10 day Design Workshop See Annex 2: Proposed Design workshop agenda
	✓ Formulate outputs		
Step 2. Clarifying partners' roles and responsibilities	✓ Identify NSDES partners		
	✓ Review and refine the NTT, if necessary		
Step 3. Identifying assumptions and risks	✓ Integrate assumptions and risks into the results matrix	Tool 3. Risk matrix template	
Step 4. Identifying resources	✓ Estimate the costs of the NSDES		
Step 5. Developing a monitoring and evaluation matrix	✓ Assign the baseline, indicators and targets for outcomes and outputs	Tool 4. M&E matrix template and guidance	
	✓ Identify the means of verification		
	✓ Prepare to use the M&E data for learning and adjusting, during the program life-cycle		
STAGE 3. Toward implementation			
Developing an operational program plan	✓ Use the results matrix to prepare a program plan / annual work plan	Tool 5. Costed program plan template/AWP template	Week 4/5 5-10 day working session or workshop
Monitoring and evaluating the NSDES	✓ Understanding how to use the M&E matrix for programme management and planning evaluation		Week 6
Finalizing the strategy	✓ Prepare the NSDES document using the template provided		Week 7-8

2. PREPARATION OF THE NSDES

2.1. GETTING STARTED

In this section we will reach consensus on the NSDES goal, or vision statement, in line with (a) the national education policy frameworks; (b) strategic priorities of the National Statistical System (NSS); and (c) the Education 2030-SDG4 development agenda. Referring to the results of the data quality assessments (DQA), we will review the recommendations and reflect on these in light of the NSDES vision statement. Finally, we will prioritize the DQA recommendations and use these to set strategic objectives for the NSDES.

The focus here is on establishing country-ownership of an evidence-based NSDES; and on reaching agreement on a strategic vision that is not in parallel with management structures and processes for existing policy frameworks and which contributes to the country's overall development priorities. In all the above sessions, the tasks must be undertaken collaboratively by stakeholders, specifically key members of the education data platform.

2.1.1. REACHING CONSENSUS ON THE NSDES GOAL

At this stage, before the process of preparing the NSDES begins, the education data platform - including all stakeholder government authorities and development partners - is in place. This platform draws on those stakeholders of the overall National Strategy for Developing Statistics (NSDS), where it is in place, that are specifically engaged with the education sector, as well as other stakeholders; in the Tanzanian context, for example, these are the education sector partners who contribute to the Tanzanian Statistical Master Plan (TSMP).

Aligning the NSDES with national policy frameworks

You should begin by identifying the relevant policy frameworks for a country NSDES. For example, in the case of Tanzania, these include:

- The **Tanzania Strategic Master Plan (TSMP)/NSDS**. The development of this strategy includes putting in place a legal and institutional framework that will guide implementation to achieve the vision of TSMP, which is to have “*a well-integrated and efficient National Statistical System (NSS) that produces quality statistics for decision making in an objective, timely and cost effective manner*”.
- The **Five Year Development Plan, 2016/17-2020/21 (FYDP-II)**. The goal of the second implementation phase of the Tanzania Development Vision 2025, merging the FYDP and the National Strategy for Growth and Reduction of Poverty (NSGRP), is: *Nurturing industrialisation for economic transformation and human development by 2020.*
- The goal of the recent **Education Sector Development plan, 2016/17-2020/21** is: *“Improved knowledge and skills for better livelihoods by 2020”.*

If the country's commitment to the Education 2030 agenda and the SDG 4 targets have not already been integrated into the national sector plan, you may need to also reflect on SDG 4: “*Ensure inclusive and equitable quality education and promote life-long learning opportunities for all*” (see CapED training materials related to the SDG 4 target indicators metadata).

Drafting the NSDES vision statement / goal

You now have a list of relevant policy statements. To reach consensus on the NSDES goal, you can follow this process and complete **Table 4** below (examples are in italics).

1. Reflecting on the overall policy context, draft an initial version of the NSDES vision statement/goal. **For example:**

- *By 2020 develop sector-wide capacities of National Education Statistical System (NESS) stakeholders to produce statistics and measure progress towards national, regional and global education targets.*

2. Identify the major stakeholders who are relevant to the goal.

3. Identify why the goal is relevant; what does each major stakeholder expect to achieve from the goal?

4. Identify what role each stakeholder plays in achieving the goal.

5. Reflecting on the results of the discussion, *redraft* the NSDES vision statement/goal. In Table 4 below, the final vision statement/goal reflect changes, marked in bold, that reflect stakeholders' inputs. For example, the Ministry of Health and Social Welfare is particularly concerned with 'school readiness'; the President's Office for Regional Administration and Local government is concerned with 'inclusive basic education', and the Ministries of Community Development and Labour are particularly concerned with "skills development"; and all stakeholders are invested in "lifelong learning opportunities for all".

*By Year 5 develop sector-wide capacities of National Education Statistical System (NESS) stakeholders to produce **quality** statistics from **multiple data sources** and **track life-long learning opportunities for all**, particularly in terms of **school readiness, inclusive basic education, and equitable skills development for better livelihoods.***

Table 4. Sample discussion results and consensus-based goal

DRAFT NSDES vision statement/goal: <i>By Year 5 develop sector-wide capacities of National Education Statistical System (NESS) stakeholders to produce statistics and measure progress towards national, regional and global education targets.</i>		
WHO are the major stakeholders relevant to the goal?	WHY is the goal relevant to each stakeholder?	WHAT role does each stakeholder play in advancing the goal?
<i>National Bureau of Statistics (NBS)</i>	<i>NESS is integral to the NSS</i>	<i>Cross-sector coordination</i>
<i>Ministry of Education, Science and Training</i>	<i>NESS is a pre-requisite for ESDP implementation</i>	<i>Sector-wide coordination, data management, sector-wide reporting</i>
<i>President's Office-RALG</i>	<i>NESS is a pre-requisite for basic education services</i>	<i>Share/export relevant data with education sector management</i>
<i>Ministry of Health and Social Welfare</i>	<i>Linked sector data-sets, particularly related to ECD/ECCE indicators</i>	
<i>Ministry of Community Development</i>	<i>Linked data-sets, particularly related to skills training</i>	
<i>Ministry of Labour, Employment and Youth Development</i>	<i>Linked data-sets, particularly related to skills training</i>	<i>Integrate labour market information (LMI) into the NESS</i>
FINAL NSDES vision statement/goal:		
<i>By Year 5 develop sector-wide capacities of National Education Statistical System (NESS) stakeholders to produce quality statistics from multiple data sources and track life-long learning opportunities for all, particularly in terms of school readiness, inclusive basic education, and equitable skills development for better livelihoods.</i>		

2.1.2. USING DATA QUALITY ASSESSMENTS (DQA) TO PREPARE THE GROUND

Prior to the preparation of the NSDES, Data Quality Assessment (DQA) will have been conducted at country level, using instruments developed by the UIS (see CapED training materials). These include assessments of administrative routine data systems, household surveys, and learning assessment studies.

The DQA(s) will generate a set of recommendations. These can be categorized in terms of the following capacity components of the NSDES.

Component 1. Institutional and policy environment

Component 2. Organizational/statistical processes

Component 3. Technical capacity (data system and dissemination)

Component 4. Human resource capacity

Each component can be broken down into specific elements. These elements are a reference for you to *group recommendations* under each component. For example, the elements of Component 1 will guide the grouping of DQA recommendations related to the institutional and policy environment, as follows

Component 1. Institutional and policy environment

Recommendations related to:

- Institutional re-structuring and coordination
- Clarity of mandates, roles and responsibilities, collaboration and accountability among stakeholders
- Legal/policy reform for credible official statistics (transparency, confidentiality and public trust)
- Adequacy of financial resources
- Statistical quality awareness and relevance to users
- OTHER

As recommendations may emerge from additional sources besides the DQA, the table includes 'OTHER', in order that further elements may be incorporated into the categorization framework. It is important to note that the above categorization is *indicative only*, as the grouping of recommendations may differ from one country context to another.

To group DQA recommendations you can follow the process outlined below, using **Tool 1** 'Prioritizing DQA recommendations and setting objectives' in the **Annex**, 'Tool-kit', which includes examples in italics. **Table 5** below presents the contents of Tool 1. It shows the following: components for DQA recommendations and elements of each component; DQA recommendations by component; the relative importance of each recommendation; and a strategic objective related to the overall component.

1. Review the recommendations provided in the DQA report; are they clear? Familiarize yourselves with each component and its elements provided in Column A; do you need to include additional elements, or will the category 'OTHER' suffice?
2. Map the DQA recommendations against each component. Ideally, this should be in relation to the elements of the component; or against the category 'OTHER'. Enter the information in Column B.
3. Score the relative importance of each recommendation on a simple scale of low to high (1-3), in Column C.
4. Reflect on the high-scoring recommendations. Brainstorm on an intended change in relation to a NSDES component. Decide on the strategic objective that describes the change and enter the information in Column C.

What is a 'strategic objective'? A strategic objective is a higher-order outcome representing measurable capacity-related change in institutions, systems, organizations and population groups. Together, the achievement of all strategic objectives will result in the ultimate NSDES vision/goal. A strategic objective relates to one of the 4 capacity components of a NSDES, as outlined above and elaborated in Table 4 below.

It is critically important that you *do not formulate a strategic objective in relation to a single recommendation*. Rather, you should refer to the recommendations to guide your brainstorming on the strategic objective. A single recommendation will most likely form the basis of an Intermediate Outcome, which is discussed in 2.2, Step 1, below. TO DO examples

Table 5. Indicative categorization of DQA recommendations (Examples are found in the **Annex, Tool 1**)

COLUMN A Component and elements of each component	COLUMN B Recommendations	Relative importance			COLUMN C Strategic Objective
		1	2	3	
Component 1. Institutional and policy environment					
Institutional re-structuring and coordination					
Clarity of mandates, roles and responsibilities, collaboration and accountability among stakeholders					
Legal/policy reform for credible official statistics (transparency, confidentiality and public trust)					
Adequacy of financial resources					
Statistical quality awareness and relevance to users					
OTHER:					
Component 2. Organizational/Statistical processes					
Statistical methodologies (concepts, definitions and classifications in line with international standards)					
Reliable and accurate data sources to sufficiently portray reality					
Routine data collection processes					
External data sources to meet gaps in administrative data; harmonization of multiple data sources					
OTHER:					
Component 3. Technical capacity (data system and dissemination)					
Database software					
Basic services and connectivity					
Periodicity, timeliness and consistency of statistical outputs					
Data analysis and reporting methods and mechanisms					
Dissemination and user-feedback mechanisms					
OTHER:					
Component 4.					
Human resource capacity assessment and staff recruitment					
Training of staff at all levels in statistical skills and knowledge					
Incentive schemes to attract and retain competent staff					
Data management skills training and professional development for NESS staff					
OTHER:					

2.2. DESIGNING THE RESULTS FRAMEWORK

In this section we will prepare a results matrix and accompanying monitoring and evaluation (M&E) matrix. Together, these constitute the results framework which sets the strategic direction and expected results of the NSDES in the country. The results matrix contains the following information:

1. *Strategic objectives/Outcomes (no more than 4)*
2. *Intermediate Outcomes*
3. *Outputs*
4. *Implementing Partners*
5. *Assumptions and risks*
6. *Indicative resources.*

A Results Matrix template (Tool 2) is provided in the Annex, 'Tool-kit' and includes examples in italics.

STEP 1. DEFINING RESULTS

By the end of the first stage of preparing a NSDES (Getting Started), you will have a the higher-order results of the strategy: the vision statement/goal and a set of strategic objectives. The task now is to define the following results in the NSDES results framework: outcomes, intermediate outcomes and outputs.

Results are about change. To define results you will need to use 'change language' and not 'action language'.

- **Action language** expresses would-be results from the providers' perspective and usually starts with "by doing this or that". This type of language can be interpreted in many ways because it is not specific or measurable (e.g. improve statistical outputs). It tends to focus only on the completion of activities (e.g. establish EMIS units in 15 regional offices).
- **Change language** describes changes in the conditions of institutions and people. It sets precise criteria for success. It focuses on results and not on the methods to achieve them; expressions such as "through this and that" or "by doing this and that" should be avoided (**Figure 3**).

The following are some examples of results using change language:

- The Education Platform develop, cost and implement an EMIS policy;
- The National Statistical Office (NSO) and line ministries follow a schedule of regular meetings;
- An adequate budget, including annual recurrent costs, is available for EMIS development and management;
- The Statistical Act includes measures for treating individual data with confidentiality;
- The National Technical Team puts in place appropriate mechanisms to prevent unauthorized access and use of individual data;
- A User Satisfaction Survey is conducted among users.

Figure 3. Key elements of 'change language'



Formulating strategic objectives as final outcomes

You may find that the strategic objectives you have identified are expressed in 'action language'. If this is the case, you will need to formulate the objectives using 'change language'. In this way, the strategic objectives will represent the (final) outcomes of the NSDES.

The following checklist may help you brainstorm and formulate an outcome, based on your strategic objectives.

Checklist 1. Outcomes

Checklist	✓
The outcome describes change (the results of actions) and not the actions themselves	<input type="checkbox"/>
The outcome conveys high level institutional and/or behavioural changes	<input type="checkbox"/>
The outcome is specific, it does not combine two or more different types of results and is not so general that it could cover just about anything	<input type="checkbox"/>
The outcome includes a subject of the intended change (a "who")	<input type="checkbox"/>
The outcome specifies a realistic time-frame (e.g. a five-year period)	<input type="checkbox"/>
The outcome is clearly stated and the wording is unambiguous. Test the wording. The objective should not be interpreted differently by different constituents.	<input type="checkbox"/>

Formulating intermediate outcomes

While a final outcome is a change in institutional performance or behaviour change among the users of outputs, an intermediate outcome specifies an interim result that leads to the final outcome but is more measurable and achievable in the lifetime of the program.

In a nutshell, an intermediate outcome is an *improvement in the ability of stakeholders to take action*. These can be:

- Positive changes that occur in an individual or a group of individuals, such as improvements in knowledge and skills, or changes in motivation and attitude with respect to a particular issue; and
- Changes that occur in the interactions among individuals and groups - in the broader organizational or social environment - which are embodied in improved processes or in new products and services.

We can classify intermediate outcomes in terms of **three types**:

1. Enhanced skills and implementation know-how. Increased ability to act through:

- Acquisition of new knowledge or skills
- Application of new knowledge or skills

2. Raised awareness. Increased ability to act through improved:

- Understanding
- Attitude
- Motivation

3. Improved consensus and teamwork. Increased ability to act through improved:

- Coordination
- Processes for collaboration
- Communication and networking

It is important to note that the above listing is not a sequence. Rather, you should draw on the typology when formulating one or more intermediate capacity outcomes in relation to a specific (final) outcome.

Before moving on to next element in the results framework, check the intermediate outcome:

- ✓ Does it describe change (the results of actions) and not the actions themselves?
- ✓ Does it include a subject of the intended change (a “who”)?
- ✓ Does it specify a realistic time-frame (e.g. a one to three-year period)?
- ✓ Is it clearly stated?

Formulating outputs

Outputs are **commitments**. They are results that a programme or project *must* achieve with the resources provided and within the time-period specified, usually less than 5 years. This makes outputs very different from outcomes or impacts, which are longer term changes that usually require the energy and resources of multiple partners. Outputs are the type of results over which programme managers have a high degree of influence and failure to deliver outputs may be viewed as a failure of the programme. In general, if the result is mostly beyond the control or influence of the programme or project, it *cannot* be an output.

Outputs are **deliverables** that relate to operational change: the availability of new products and services. A single output will almost never be sufficient to achieve the institutional or behavioural changes implicit at the outcome level. On the other hand, if a programme or project has too many outputs, it can lose focus and be difficult to manage.

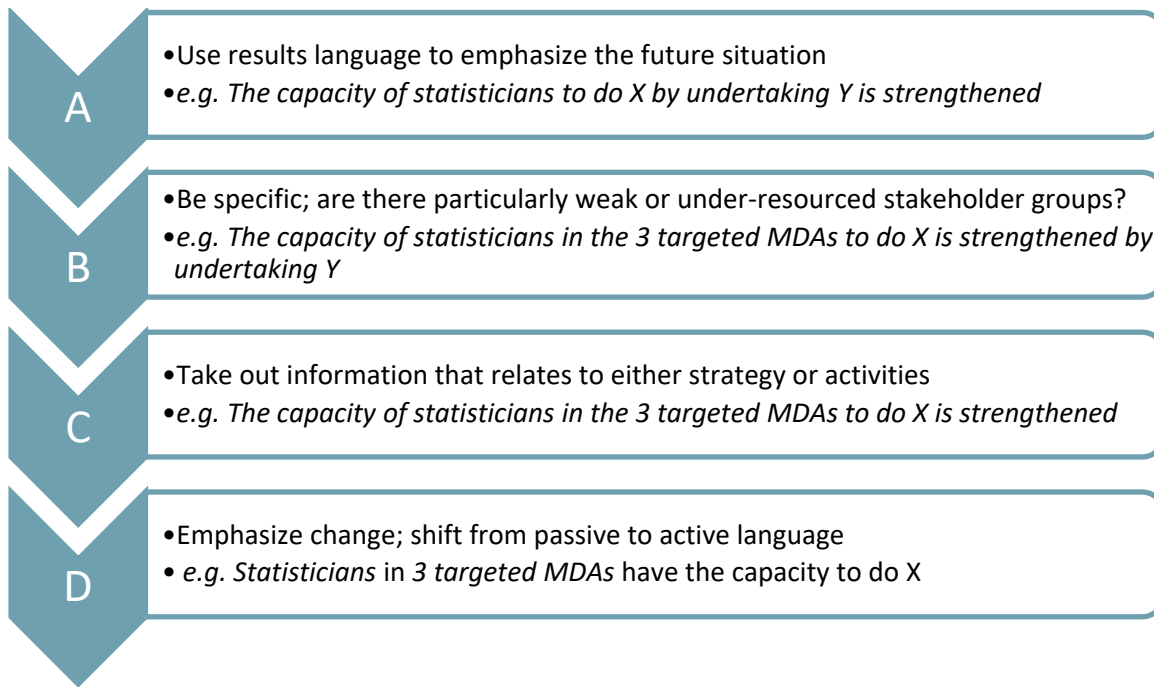
A key feature of outputs is that they should be **tangible**. When defining outputs, be cautious about using words like "endorsed" or "empowered". Such words may be more appropriate at the outcome level, because they depend critically on the actions of others, outside the control of a programme or project.

You may be tempted to list things like workshops and seminars as outputs. After all, they are deliverable and some workshops can be strategic if they gather decision takers in one room to build consensus. But, in most cases, workshops and seminars are activities rather than outputs. And outputs are not simply completed activities; they are the tangible changes in products and services, new skills or abilities that result from the completion of several activities.

Checklist 2. The following checklist may help you brainstorm the formulation of outputs.

Checklist	✓
The output is a new deliverable that can be developed by the NSDES programme	<input type="checkbox"/>
The output is linked to one (and only one) outcome.	<input type="checkbox"/>
Each output is stated using change language, and in the form of a deliverable, that will be completed in less than 5 years (see Figure 4 below).	<input type="checkbox"/>
The output <i>does not repeat</i> the outcome statement above it.	<input type="checkbox"/>
There is obvious or intuitive causality between the output and the outcome to which it contributes (If ...then).	<input type="checkbox"/>
The sum of the outputs is sufficient to achieve the higher level outcome.	<input type="checkbox"/>
The output <i>is not</i> a completed activity (eg. Training conducted; Workshop completed; Survey implemented – these are activities).	<input type="checkbox"/>
The output is specific; it does not combine two or more different types of results, and is not so general that it could cover just about anything.	<input type="checkbox"/>

Figure 4 Using change language to formulate an output



STEP 2. CLARIFYING PARTNERS' ROLES

A critically important element in the NSDES results matrix **who** is responsible for achieving specific results - i.e. outputs and intermediate outcome - and the type of role they play (**Figure 5**).

Broadly, there are two types of partners:

- The lead partner: the organization responsible for initiating and managing the process mapped out through the NSDES results chain; this organization will most likely be drawn from the education data platform;
- Implementing partners: the organization(s) or group(s) - there may be more than one - responsible for implementing key action areas, which result in an output

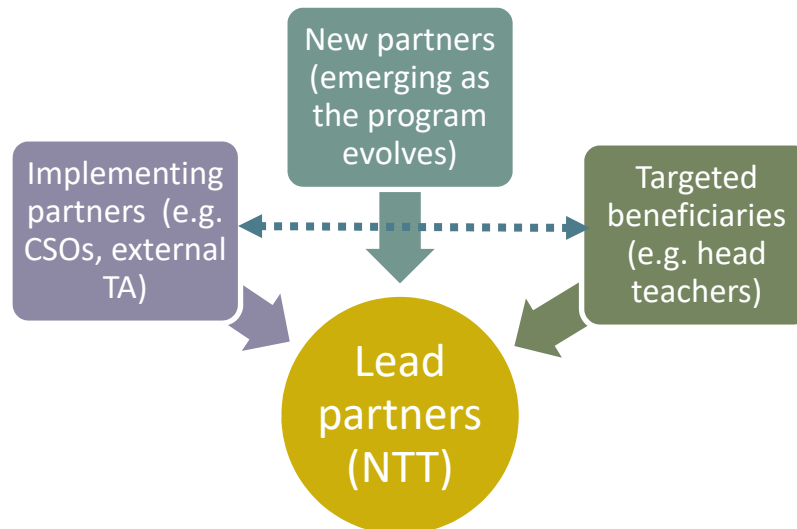
To specify partners in the results matrix, you should enter not only the organization(s) involved, but also the particular group(s) or department(s) within the organization and, if necessary, the particular individuals within the group(s).

While identifying partners and their roles in relation to intended results, it is important to bear in mind four simple points:

1. A 'learning by doing' capacity development approach implemented through the NSDES will mostly like target *partners themselves*; i.e. members of the Education Data Platform. In Figure 5 below, these are 'Lead Partners'.
2. Other *external individuals or groups* who are not part of the education data platform or NTT may also be the users of particular outputs, or beneficiaries of specific intermediate capacity outcomes; for example Head teachers, school management boards, or consultancy groups providing targeted long-term technical support. In Figure 5 below, these are 'Implementing Partners'.
3. It may not be possible to identify in advance all NSDES partners responsible for managing, implementing and monitoring the strategic program plan; as the program evolves over time, so will the partnerships underlying the NSDES. In Figure 5 below, these are 'New Partners'.

4. Risks to the change process should be clearly identified, with suitable provision for monitoring and adaptation. A key question, which is addressed in the following section is this:
How will the NSDES design team ensure that the work environment of identified implementation partners is conducive for using newly acquired skills?

Figure 5. Partners and their roles



STEP 3. IDENTIFYING ASSUMPTIONS AND RISKS

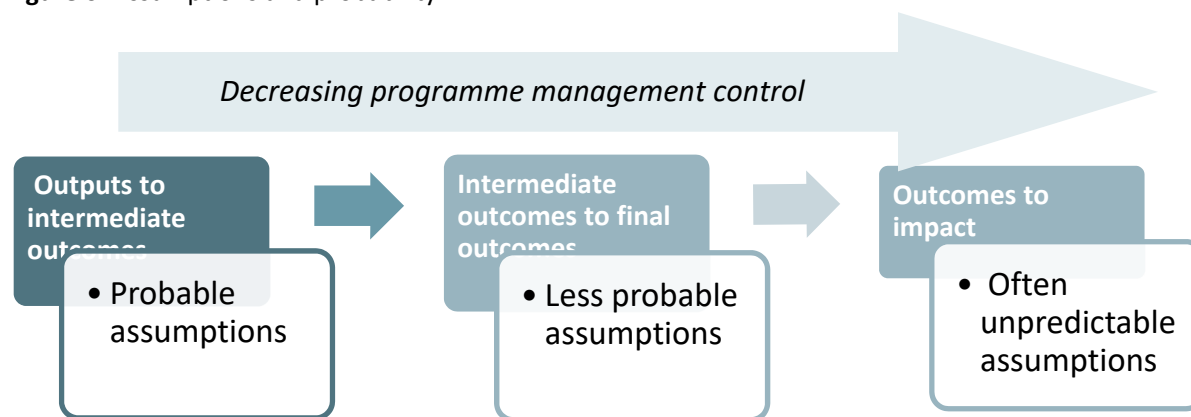
Assumptions describe the *conditions which must exist* for the 'if-then' relationship between the different levels of results to behave as expected. As such, they are the linkages that bind together elements in the results chain. Assumptions may be internal or external to the development intervention itself. **Risks** on the other hand are future *external negative events* which can potentially alter the achievement of desired results. These may include strategic, environmental, financial, operational, organizational, political and regulatory risks. As such, risks are important in that they provide an opportunity to anticipate and specify reasons why a programme may *not* work out as intended.

A country's NSDES will inevitably rely on some assumptions about factors that are beyond the control of the planners and implementers. Generally, results frameworks should not be based on critical assumptions that are perceived to have a low probability of holding true over the implementation period. If the risks are high, the entire strategy needs to be reconsidered.

As **Figure 6** illustrates, at the **output-level** assumptions about the transformation of activities into outputs are usually highly probable; that is, they can be expected to come true in most cases. Remember, outputs are commitments, so NSDES partners should have a high level of control over their achievement. But assumptions at the **higher levels** - for example, relating to the transformation of outputs into outcomes - can be expected to be less probable. New skills and abilities, or new services and products can be developed, but the NSDES partners have little control over whether these operational changes lead to changes in institutional performance and behaviour. Because NSDES partners can influence these actions, but not control them, assumptions are most important at:

- the interface between National goals and NSDES outcomes; and
- the interface between final outcomes and intermediate outcomes.

Figure 6. Assumptions and probability



It is important that assumptions are formulated *after* the results chain (impact-outcomes-outputs) - and the clarification of partners' roles - and *before* the indicators. This is because identification of assumptions is crucial and can lead to a redefinition of the results chain, or the identification of additional partners.

To identify critical assumptions and risks, you may follow this process.

1. For each outcome and output considered critical in the results chain, identify conditions that are essential in order that the respective result is achieved.

The expectation is that if the outputs have been delivered and the assumptions in the programme document still hold true, then the outcome will be achieved. Assumptions should be stated in positive language.

Examples of assumptions for the NSDES include:

- There is political, economic, and social stability in the country;
- Sustained support and leadership of the government is well-established;
- Political will exists to implement the proposed strategy;
- Planned budget allocations are actually made by financial partners.

Using the risk matrix (**Table 6** below), enter those outcomes that carry risks. You will find a Risk Matrix template (**Tool 3**) in the **Annex**, 'Tool-kit', which includes examples in italics.

2. Identify risks for outcomes in the Results Matrix. Prioritize the identified risks, ranking them according to their likelihood of happening (low, medium or high);

3. Define a risk mitigation strategy for each medium-to-high risk. The following are a range of risk mitigation strategies that may be considered:

- **Prevention:** Prevent the risk from materializing or prevent it from having an impact on objectives;
- **Reduction:** Reduce the likelihood of the risk developing or limiting the impact in case it materializes;
- **Contingency plan:** Prepare actions to implement should the risk occur;
- **Acceptance:** Based on a cost/benefit analysis, accept the possibility that the risk may occur and go ahead without further measures to address the risk.

During the operational programming stage (Section 2.3 of the Guidelines) it is good practice to *incorporate these risk-mitigation strategies into the NSDES*. Risk mitigation strategies may be included as key action areas.

By including these in the operational plan, you will ensure that measures to avoid a specific risk are actually implemented

Table 6. Risk matrix

#	Outcome	RISK and likelihood of risk (LMH)	Risk Mitigation Strategy
1.			
1.2			
1.4			
3.			
3.1			

STEP 4. IDENTIFYING RESOURCES

The final column in the results matrix, 'Indicative resources' is an estimate of the resources required – financial, human, technical assistance and knowledge – to implement the NSDES. To arrive at an estimate, you will refer to the Key Action Areas identified in your Results Matrix.

Listed below are some key points to bear in mind.

1. The medium-term results matrix is a tool not only for financial resource planning over a 3-5 year period but is also the basis for coordinated medium-term **joint resource mobilization**. The matrix includes

- best estimates of the total funding required to deliver the NSDES outcomes;
- breakdown of the available funding disaggregated by source (core and non-core); and
- any funding gaps that require resource mobilization.

2. **Sources of funding for the NSDES** may be categorized as follows

- *Core funding* are those government resources that are allocated without restrictions. Their use and application are directly linked to national education sector plans that are approved by the ministry of finance as part of an established intergovernmental process.
- *Non-core* resources are mostly external and are usually earmarked and thus restricted in their use and application. They are normally earmarked to a specific theme or geographical area, or to a specific project. These resources can originate from the country level or be allocated from head-quarters or regional levels and include resources received from global funds and vertical funds.
- *To be mobilized (funding gap)* is the difference between resources already secured and firmly committed and the required resources to implement the NSDES.

Medium-term programming and annual operational planning are discussed in section 2.3. below. The results framework is operationalized using Tool 5 (Programme planning template) in the **Annex**, 'Tool-kit'.

3. The costing and required budget projection should be developed in collaboration with staff from budget/finance sections or departments of relevant NSDES stakeholder organizations. The estimation of funding requirements for results can be based on different budgeting approaches.

- The simplest approach is traditional budgeting (or incremental budgeting). This budgeting approach uses historical data (e.g., past expenditures, delivery rates) and adjusts for incremental changes. The key disadvantage of this approach is that by using historical data as the base, it assumes that the past data represents effective and realistic costing already (which is not always the case).
- Alternatively, a priority-based budgeting approach can be used, in which the NSDES outcomes are put in priority order and a budget for each outcome is set according to that order.

4. Last but not least, the results matrix offers an **opportunity for a 'reality check'**, ensuring that the NSDES has a reasonable chance of mobilizing the resources required to achieve the defined results. If the funding gap is not realistic, you may need to review the results matrix.

While the results matrix - and related program plan - provides a medium-term budgetary framework, you will also utilize an annualized version of this framework: **annual work plans (AWPs)** provide a yearly picture of total financial resource required, available and funding gaps, if any. *It is important that AWPs and budgets distinguish between one-time investment/capital costs and the recurrent costs, particularly in the case of administrative data and periodic household surveys. This is essential for the NSDES to be routinely implemented over time as a 'rolling' AWP.*

In some country contexts, NSDES stakeholders may choose to disaggregate results to only the outcome level; in other countries, results may be disaggregated to output level. But it is important that the **AWPs** contain resource requirements and funding gaps **at the output level**, in order to translate NSDES outcomes into concrete, measurable and time-bound outputs, and specific key activities

STEP 5. DEVELOPING A MONITORING AND EVALUATION (M&E) MATRIX

As mentioned above, the NSDES results matrix is accompanied by an M&E matrix. This assigns indicators and targets to NSDES outcomes, intermediate outcomes and outputs.

Indicators tell us how intended changes described in the NSDES results chain will be measured, and whether (or how far) these results have been achieved. They are objectively verifiable and repeatable measures of a particular condition. Indicators force clarification of what is meant by the result by focusing on one or more of its characteristics; as such they complete an outcome, intermediate outcome or output. A measure then expresses an indicator's value quantitatively or qualitatively using **SMART** criteria, as described below:

- ✓ **Specific:** Is the indicator specific enough to measure progress towards the results?
- ✓ **Measurable:** Is the indicator a reliable and clear measure of results?
- ✓ **Attainable:** Are the results in which the indicator seeks to chart progress realistic?
- ✓ **Relevant:** Is the indicator relevant to the intended programme results? And national standards?
- ✓ **Time Bound:** Are data available at reasonable cost and effort?

A general typology of indicators is as follows:

Quantitative indicators measure change in numerical values over time.

Qualitative indicators measure changes which are not easily measured through numerical values such as process-related improvements, and improved quality of services, policies or capacity. Qualitative indicators usually need additional criteria. For example, if an intended result is to see greater civil society participation in local development, and the indicator is the quality of local public consultations, then partners must agree beforehand on the criteria for determining a quality process. These criteria will often be country-specific, and once agreed, they can be used in a simple monitoring checklist.

Proxy indicators measure changes not directly related, yet closely associated with, the issue under consideration. For example, an increase in the number of political parties and voter turn-out might serve as proxy measures of improved governance.

Binary indicators or "yes-no" indicators, are more common at the output level, and are simple measures of change. For example, an output might be: "Draft curriculum developed", and the indicator is "Yes" or "No".

To prepare the NSDES M&E matrix you need to complete **Table 7**), following the process outlined below. A template is provided in Tool 4 in the **Annex**, 'Tool-kit', with examples in italics.

Table 7. M&E Matrix

Result	Indicator	Means of Verification	Baseline	YEAR 2 Target	YEAR 3 Target	YEAR 4 Target	YEAR 5 Target
Outcomes							
Intermediate outcome							
Outputs							

1. Assign indicators for each of the following results: strategic objective/Outcomes; Intermediate outcome; and outputs.

An objective or intermediate outcome could need more than one indicator to measure both its qualitative and quantitative aspects. BUT a minimal number of indicators should be selected. More information is not necessarily better. A common problem with results frameworks and performance measurement systems is that they are tied to a large set of indicators that are burdensome to track.

There is no correct number of indicators to assign per outcome, but the following are useful questions to ask: *Is this indicator absolutely necessary to measure whether progress toward the strategic objective is being achieved? Will it create additional burdens on the respondents or on the staff collecting the data? How will this indicator help with monitoring, management, and evaluation?*

2. When identifying data sources (the means of verification) bear in mind that sophisticated statistical tools aren't usually necessary to develop or track indicators. Whenever possible, indicators should rely on existing operational information or publicly available sets of data (e.g. National, sub-national or UN statistics). The use of secondary data, when available and appropriate, is preferable owing to the higher costs associated with primary data collection.

3. All indicators must be accompanied by baselines and targets and should lend themselves to aggregation at all levels. Without baselines and targets, measurement of change over time is not possible.

- Baselines establish the value of the indicator at the beginning of the planning period;
- Targets describe expected values upon completion of the plan;
- Performance monitoring of the indicator tells us about actual achievement, against the original target.

To ensure objectivity, indicators, baselines and targets should not be changed retroactively once established, unless by consent of all partners in the development cooperation.

Section 2.3 below discusses in more detail how the NSDES M&E matrix can be used to manage and evaluate the operational strategic program plan.

2.3. MOVING TOWARD IMPLEMENTATION

In this section we progress from designing the NSDES to preparations for operationalizing and managing the strategy. Outlined below are NSDES management tools, including the operational strategic (medium-term) programme plan; the annual work plan and budget; basic guidance on monitoring and evaluating the NSDE; and a suggested template for the strategy document.

2.3.1 DEVELOPING OPERATIONAL PLANS

Without good programme management it is unlikely that results will be achieved; but the 'M' in RBM is sometimes neglected. As mentioned above, in addition to functioning as a planning instrument, the NSDES results framework is a management tool. The results framework - including both the results matrix and its complement, the M&E matrix - can be used in several ways

- It is the heart of operational strategic (medium-term) planning, as well as annual planning and implementation
- It guides the production, analysis and use of data to track the performance of a NSDES strategy and/or operational programme; and
- It is a reference point for programme managers to make decisions based on performance information and to change strategies and activities if and when needed.

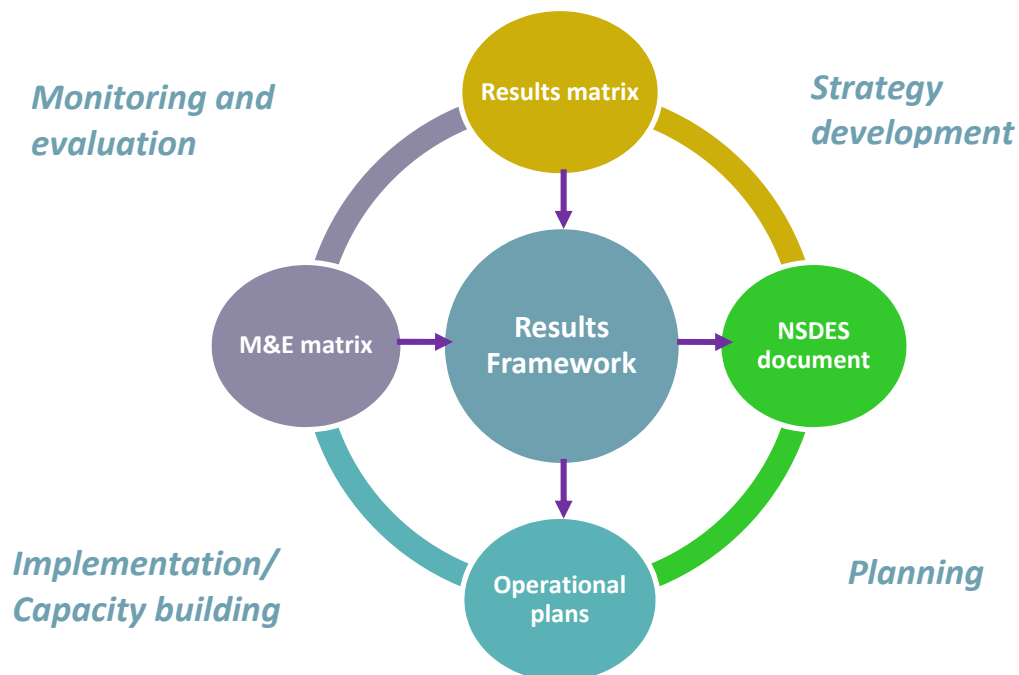
While the planning phase with NSDES stakeholders serves to prepare a framework for joint collaboration, the NTT must also pay attention on managing and monitoring the NSDES. It is critically important that a flow and consistency of results is maintained among the various programming instruments. **Figure 7** shows the relationship and flows between the NSDES results framework (results matrix and M&E matrix), the country strategic programme plan, and the annual work plans.

An operational strategic (medium-term) programme 'zooms in' on the intended results (*intermediate outcomes and outputs*) as they have been mapped out in the NSDES results matrix. This focus is in terms of the year-by-year time-frame for each result; the partner(s) who are responsible for delivering the result; and the yearly budget for the specific result.

Table 7. Operational NSDES programme

Result (extract of results matrix)	Time-frame				Responsible	Budget			
	Year 1	Year 2	Year 3	Year 4		TOTAL	CORE	OTHER	GAP
Intermediate outcome 1.1									
Output 1.1.1									
Output 1.1.2									

Figure 7 Relationship between the results matrix, M&E matrix, strategy document and operational plans in a NSDES' life-cycle'.



An annual work plan focuses in even more detail on the intended results (*outputs only*), in terms of: the indicators and targets for each output; the activities required to produce the output; the quarterly time-frame for the activities/output; the responsible partner(s) and the quarterly budget for the activities/output.

Table 7. NSDES Annual Work plan

Outputs	Activities	Time-frame				Responsible	Budget		
		Q 1	Q 2	Q 3	Q 4		Source	Description	Amount
Output 1.1.1. (Indicators and targets)									

Templates for the NSDES medium-term programme plan and annual work plan are provided in **Tool 5.** in the **Annex,** 'Tool-kit'.

2.3.2. USING THE M&E MATRIX DURING PROGRAMME IMPLEMENTATION

Using RBM in monitoring the NSDES

Monitoring is an essential element in the NSDES programme life-cycle. It involves regular and systematic assessment based on participation, reflection, feedback, data collection, analysis of actual performance and regular reporting. As mentioned earlier, the M&E matrix - accompanying the results matrix - is a key tool for monitoring the NSDES. An RBM approach enables the Education Data Platform to:

- ✓ understand where the NSDES programme is in terms of planned outcomes;
- ✓ track progress on the basis of agreed outputs and agreed indicators;
- ✓ identify issues in terms of 'real-time' learning, analyzing relevant reports that become available during implementation, to make evidence-based decisions and necessary adjustments to the implementation process;
- ✓ improve the results matrix itself, modifying intended results and assigning new indicators if and when required;
- ✓ continue and deepen collaboration between multiple NSDES partners through shared accountability for planned results, as well as their respective contributions to achieve those results;
- ✓ strengthen national M&E structures and processes that already exist, responsible for tracking progress towards sector goals, high-level national outcomes, and international commitments.

In using the M&E matrix (indicators, baselines, targets, and means of verification), you may also need to reflect further on the *methodology for baseline data collection*. The methods used will depend on the time and resources available and the depth required to adequately complete the monitoring or evaluation of the programme or project. There are a range of methods to draw from, such as: semi-structured interviews, surveys and questionnaires; focus groups, workshops and roundtables; field visits; scorecards; referencing existing reports from government, the United Nations, and other partners.

To operationalize the M&E matrix itself, you may need to put together an M&E calendar, *integrating this into the operational strategic plan* for the NSDES. Activities and outputs that focus specifically on monitoring and evaluation should include, for example :

- six-monthly and/or annual reviews;
- formative (mid-line) evaluation; and summative (end-line) evaluation;
- regular and routine results-based reports.

Results-based reporting tells the story of the effects that interventions are having. This shifts attention from reporting on activities to communicating important results that the NSDES programme has achieved. Results-based reports should be concise, serving two main purposes; the report should (i) inform and guide NSDES program implementation, and (ii) systematically make the case to stakeholders and financial partners for continued support and resources. The report should:

- describe what was achieved and list the indicators of success;
- compare actual results with expected results;
- quantify achievement whenever possible against a baseline;
- explain the reasons for over or under achievement
- highlight any unforeseen problems or opportunities that may require new strategies or a redesign of the initiative;

Using RBM in evaluating the NSDES

Evaluation is an equally critical element of the NSDES life cycle. It depends on important inter-linkages with planning and monitoring. Without proper planning and clear articulation of intended results, it is not clear what should be monitored and how, and monitoring cannot be done well. Without careful monitoring, the necessary data is not collected and evaluation cannot be done well. You should also note that monitoring is necessary but *not sufficient* for evaluation; evaluation uses additional new data collection and different frameworks for analysis. Generally, evaluation has three key dimensions:

- **Performance.** Evaluation provides decision-makers with evidence and objective information about performance and good practices that can help them to improve programmes. It allows programme managers to make informed decisions and plan strategically.
- **Accountability.** *Objective* and *independent* evaluations help those responsible for a strategy or strategic programme to be held accountable to their national partners, development partners, beneficiaries and the general public.
- **Organizational Learning:** Evaluation builds knowledge for institutional learning, policy making, development effectiveness and organizational effectiveness. It is an important means of capacity development and sustainability of results.

All three dimensions are particularly important ***when an evaluation is aimed at developing knowledge for global use and for generalization to other contexts and situations.*** A rigorous evaluation methodology is required in this case, to ensure a higher level of accuracy to allow for wider application beyond a particular context. Moreover, although evaluation generates information to improve programming, it is an *external function*, which should be separated from programme management.

The intended use of an evaluation determines the timing, its methodological framework, and the level and nature of stakeholder participation. It is important that the evaluation's use is determined at the beginning of NSDES development, during the planning stage of the process. A key tool used in planning an evaluation is of course the M&E matrix. The matrix allows you to easily review results achieved, determine progress against the baseline and targets, and assess how risks are mitigated or if the assumptions still hold true. An evaluation will report on these aspects of the results matrix along with five other variables: relevance, efficiency, effectiveness, impact and sustainability.

It is beyond the scope of these Guidelines to provide in-depth guidance on evaluations. (The United Nations Development Group (UNDG) website provides comprehensive evaluation guidance, based on norms and standards used by the United Nations system; see also the NSDS Guidelines (April 2016) available on the Paris 21 website). But the following questions may help you decide on the potential use - or uses - of an evaluation (UNDP 2009).

What information is needed? Information on or about:

- the relevance of intended outputs or outcomes and validity of the results framework;
- the status of an outcome and factors affecting it;
- the effectiveness of the NSDES partnership strategy;
- the status of project implementation;
- cost of an initiative relative to the observed benefits;
- lessons learned.

Who will use the information? These may fall within the following categories in the NSDES context:

- NSDES management and programme officers and involved in programme design and implementation; national government counterparts, policy makers, strategic planners; development partners; the general public and beneficiaries.

How will the information be used? It can be used to:

- design or validate the development strategy;
- make mid-course corrections;
- improve project or programme design and implementation;
- ensure accountability;
- make funding decisions;
- increase knowledge and understanding of the benefits and challenges of with regard to a pilot NSDES.

2.3.3. FINALIZING AND MAINSTREAMING THE STRATEGY

By the end of the NSDES preparation process, you are ready to draft ***the National Strategy for the Development of Education Statistics Document***. This document is a summary of the entire process undertaken to design the results-oriented strategy.

The proposed outline suggests a structure for the NSDES document. While you may of course elaborate this to suit the country-specific process, it is a good idea to include the following components.

1. The education data platform

- Steering Committee and National Technical Team (NTT)
- Roles and responsibilities for designing, implementing and monitoring the NSDES
- The National Education Statistical System (NESS) in relation to the National Statistical System (NSS).
These contents may be prepared during the UIS inception mission and drawn from the mission report.

2. The Data Quality Assessment (DQA)

- Assessment methodology followed for the different data sources.
- Recommendations / Needs of the NESS
These contents may be drawn from country-specific DQA.

3. The NSDES Results Framework

- National policy framework.
Reference section 2.1.1 of the Guidelines
- Defining the overall NSDES vision/goal and mission of the NESS
Reference section 2.1.1 of the Guidelines
- Use of DQA priority recommendations in preparing the NSDES results framework.
Reference section 2.1.2 of the Guidelines
- Narrative description of the results matrix and monitoring indicators

Reference section 2.2 of the Guidelines (Steps 1, 2, 3, and 5)