

Guidelines to the DCED Standard for Results Measurement: Defining indicators of change and other information needs

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Where these Guidelines fit in the Standard

The DCED Standard specifies seven elements of a successful results measurement system. This guide covers the second element, defining Indicators of Change. For guidance on the other elements of the Standard, visit [the DCED website](#) or see the links below.

- 1) [Articulating the results chain](#)
- 2) **Defining indicators of change and other information needs**
- 3) [Measuring attributable change](#)
- 4) [Capturing wider change in the system or market](#)
- 5) [Tracking costs and impact](#)
- 6) [Reporting costs and results](#)
- 7) [Managing the system for results measurement](#)

How to use these Guidelines

These Guidelines are for programmes implementing the DCED Standard for Results Measurement in Private Sector Development. The DCED Standard provides a practical framework for programmes to monitor their progress towards their objectives, enabling them to better measure, manage and demonstrate results.

The Standard specifies seven *control points* that programmes should follow while defining indicators and other information needs. Each control point is further broken into *compliance criteria* that can show whether the control points are met or not. This guidance explains what the control points mean and how to comply with them. It also provides links to further guidance and resources.

Some of the control points are required for compliance with the Standard (marked below with 'Must'). Other control points are recommended but not required..

Using these Guidelines will help you to better understand what the DCED Standard requires and assist you to meet it. By doing so, you will strengthen the quality of your results measurement system, and be better able to measure, manage, and demonstrate your results.

This and other guidelines to the DCED Standard are work in progress, and we hope to update them in future. If you have any suggestions or contributions, please email Admin@Enterprise-Development.org

Defining indicators of change and other information needs

The results chain describes how each intervention is expected to benefit the target group of the programme, typically poor consumers, producers, or employees. By monitoring each step in the results chain, programmes can understand the extent to which the intervention is having the desired results, and whether it was based on accurate assumptions.

An indicator specifies what you will measure to assess whether each box in the results chain has been achieved or not. This enables programmes to understand whether expected changes are happening and if so, to what extent. Indicators are specific and precise, and mostly measure quantitative changes. Measuring indicators is unlikely to be able to answer questions relating to how and why changes happened and therefore information needs beyond indicators also need to be defined. This information can be used to scale up, revise, or scale down each intervention as required.

Control Point 2.1: There is at least one relevant indicator associated with each change described in the results chain(s). (Must)

Compliance Criteria:

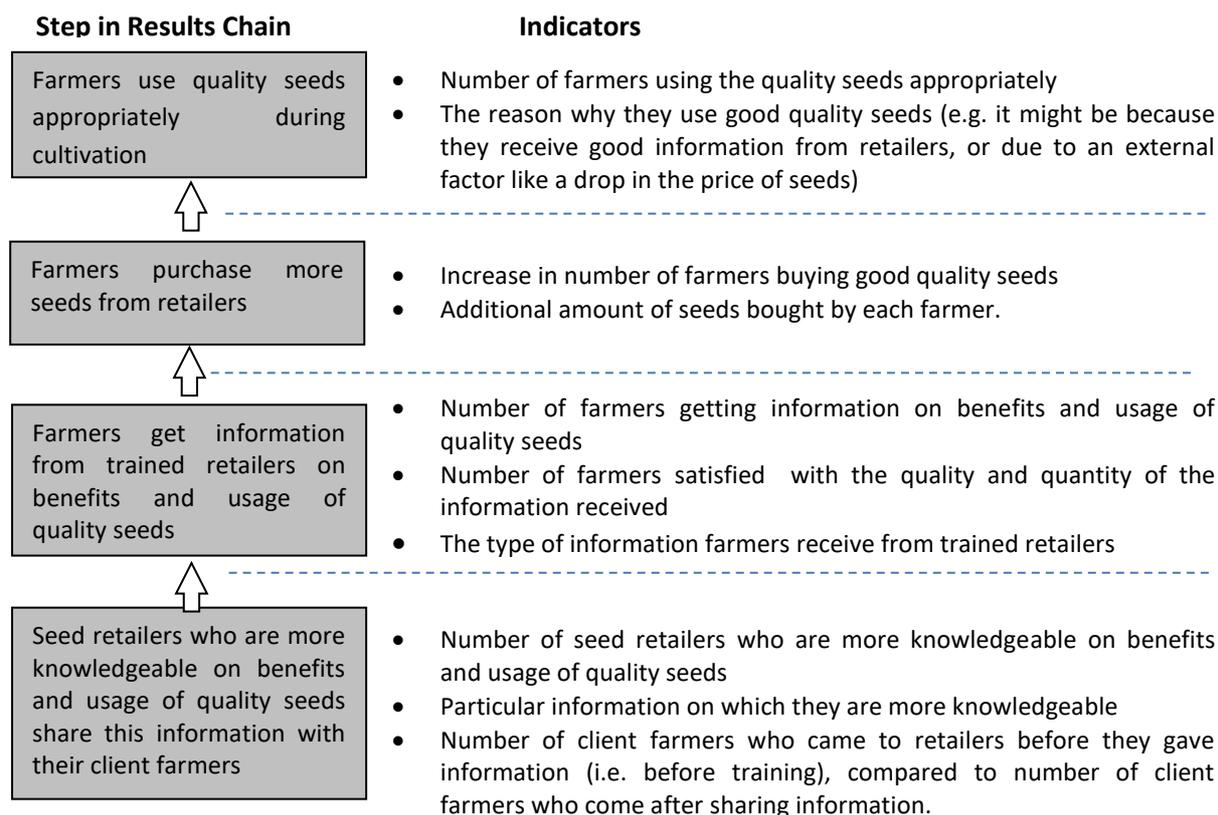
- *Indicators to measure each change in every intervention results chain are defined..*
- *Indicators to measure changes in each intervention results chain are specific and relevant..*

Quantitative versus qualitative indicators

In most cases, indicators are likely to be based on quantitative data that tells you how many people were involved, how many things were produced, how much something changed, as well to when, and to whom. Indicators can also be based on qualitative data although it is common that the qualitative information is quantified. For example, the number of people who were satisfied with the training course. Satisfaction relates to quality while the number of people satisfied is the quantification of the qualitative information.

Linking results chains to indicators.

The figure below shows a simplified results chain (on the left) with four changes, leading from seed retailers sharing information with farmers to farmers using quality seeds appropriately during cultivation. On the right, it suggests some indicators which could be used to monitor each change step. The DCED Standard requires each step in the results chain to have at least one indicator (quantitative or qualitative) attached. By clearly linking each indicator to a results chain step, the project can ensure that indicators are relevant to the change they wish to measure.



What is a good indicator?

A good indicator should help a programme to assess the status of its actions and the subsequent changes caused by those actions. A good indicator should be:

- **Relevant:** A good indicator should be relevant to the change that it is trying to measure. The table below shows the kind of generic indicators that might be relevant for different areas of measurement in results chains. When these indicators are defined they would have to be made more specific and precise.

Broad area of measurement	Indicators that would measure:	When appropriate
Poverty Reduction	Net additional income for SME workers and owners	
	Changes in other poverty indicators (nutrition, empowerment, working conditions etc.)	
Enterprise Competitiveness	Change in enterprise productivity	All interventions will ideally have a measurable impact on many or all indicators from this "menu"
	Change in enterprise net income	
	Jobs created as a result of programme activities	
	Promising innovations/changes in business practices (e.g. sustainable eco-efficient products and processes)	
Changes in rules/framework	Changes in policies or regulations as a result of programme activities	At the time of arrival of the services or

Broad area of measurement	Indicators that would measure:	When appropriate
conditions	Documented changes modifying the way in which a policy or regulation, aimed at the target group, is implemented by a public agency.	deliverables that the target group expects from the government
	Target group's opinions concerning how the change has impacted on their businesses.	
Changes in the demand for services	Target group's awareness of the service and the benefits it can deliver	At the time of measuring the impact of services which might impact on the target group only in the long run
	Willingness to pay for service	When fee-based or stand-alone services are on offer
	Level of satisfaction with service	When measuring changes in demand for <i>embedded</i> services
	Changes in business practices as a result of service	
	Number of new service providers entering the market	When observed in the market, or at point of service offers to clients
Changes in the supply of services	Changes in number of clients served	For all types of intervention - to measure change in service quantities
	Changes in volume of business	
	Changes in range of products offered	
	Changes in number of service providers	For measuring change in service quality
	Target group's opinion of service provision	
	Management capacity of service providers	
Level of supplier satisfaction with success of service	When measuring changes in supply of <i>embedded</i> services	
Immediate outputs in the business service markets	Number of service providers trained	At completion of training courses
	Management capacity of service providers	

- Precise:** A good indicator should be specific to the change that it is trying to measure. This might not be possible at the initial design phase, when the exact changes are still being defined. However, once intervention design is completed and implementation is ready to start, the project should be able to clearly define the indicators of change. The table below notes some loosely defined indicators, and shows how they can be tightened.

Lazy and Loose	Tight and Precise
% financial sustainability of a business membership organisation	% of total annual costs (including depreciation costs) covered by revenue from membership fees, services sold and other private sources
% productivity change in business centres	% change in contribution of gross profit to cover consultant salary costs
% change in SME customer satisfaction	% change in SME customers reporting

	“exceeded expectations” in a random sample survey
% growth in a business membership organisation	% change (year-on-year) of total businesses paying full membership fees in business membership organisation.
Behaviour changes in enterprises	The extent to which farmers have changed their behaviours since receiving advice from input suppliers: e.g. applying recommended fertilizer dose, spacing crops according to the Department of Agriculture recommendations and so on.

- **Measurable:** If the indicator is not measurable, then a programme would not be able to use it to assess changes. Consequently, each programme must ensure that the indicators that they use can be measured. For instance, if a project is working to improve safety and health regulations in agro-processing companies, a measurable indicator of change would be whether employees follow ten basic rules of health and safety when packing meat.
- **Time-bounded:** It should be clear over which time-period each indicator should be measured. For example, an indicator such as ‘Average sales’ is ambiguous, as it does not specify a time over which measurement should be done. This means that different staff may measure the same indicator in different ways, which would prevent comparisons from being made. Consequently, the indicator should be time-bound. Examples are:
 - Average monthly sales over the previous six months.
 - Sales in the last month.
- **Realistic:** Programmes need to be pragmatic and realistic in selecting indicators, as it has implications on the resources needed for monitoring. For instance, if a project ultimately aims to reduce poverty, it may choose to use an indicator of poverty reduction to measure this change. However, measuring poverty is expensive and technically challenging. Consequently, it might be unrealistic for the programme to measure poverty directly, and so it might choose a more easily measured indicator such as increased household spending.
- **Useful:** Indicator need to be selected in order to provide the most useful information possible. For instance, consider a project that wanted to monitor an increase in sales. It considers two possible indicators; increase in revenue and increase in sales volume. It may decide that the increase in sales volume is a more useful indicator, as the revenue will also be affected by fluctuations in the exchange rates and price of goods.

The case for proxy indicators:

In some situations, proxy indicators may be used. These are indicators that do not directly measure a phenomenon but provides an indirect, substitute measure. For example, income measures are challenging to monitor directly. Consequently, programmes may use proxies such as:

- Measuring changes in output, then translating from output to income by imputing a standard profit rate per unit of output¹
- Measuring change in expenditure, assuming that change in income would have an impact on household expenditure which is easier for respondents to recall and report.

¹ 1995. Quantifying Impact of MSE support services at the enterprise level, FIT Programme; p7

- Using proxies for poverty such as the Poverty Probability Index.²

Control point 2.2: Qualitative information on how and why changes are occurring is defined for each intervention. **(Must)**

Compliance Criteria:

- *Qualitative information needed to understand how and why changes are occurring has been defined for each results chain.*
- *The defined qualitative information needs are clear, specific and relevant to each intervention and sufficient to provide a thorough understanding of how and why changes are occurring.*

Qualitative data is necessary for successful results measurement in private sector development. Quantitative data tells you what happened, when, and to whom while qualitative data supplements this with insights from partners, beneficiaries and staff, explaining how and why things happen. The 'final impact' of a project is often expressed quantitatively, such as '1,000 jobs created' or 'a 50% growth in income.' However, numbers alone do not tell the full story. It is essential for the project to supplement this with a qualitative understanding of what these numbers mean.

Qualitative information gathering is particularly important for the following:

- Understanding the perceptions of the programme among aid recipients.
- Capturing unexpected changes, which were not predicted in the results chain.
- Understanding the sustainability of changes.
- Understanding the behaviour of firms, micro and small enterprises.
- Understanding wider effects of the programme on gender, work place conditions, social and environmental impact, and other important factors.

Alternatively, they may include qualitative information as a supplement to their quantitative data collection, putting each quantitative indicator in context and explaining its meaning. In either case, qualitative data collection should be planned carefully. Care should be taken that interviewees include a full range of stakeholders, (not just 'success stories'), that data collection tools are carefully designed, and that the programme has adequate resources in qualitative data collection and analysis.

Control point 2.3: A small number of indicators at the impact level can be aggregated across the programme. **(Must)**

Compliance Criterion:

- *Indicators for each intervention results chain include common impact indicators or alternative indicators that can be aggregated at the impact or nearest feasible level.*

Common indicators can allow programmes to compare progress across different interventions, and understand which interventions are more effective. They also allows programmes to report on aggregated results to their donors, the public, and other key stakeholders.

² <https://www.povertyindex.org>

The indicators selected for aggregation should, in principle, influence the selection, design and implementation of programmes. Consequently, the definition of those few indicators is largely a function of the priorities and culture of the individual agency or programme. The DCED Standard recommends that programmes find indicators at the impact level which can be aggregated across programmes.

Many private sector development programmes aim at similar impacts. Consequently, the DCED Standard recommends three 'Common Impact Indicators': scale, income and jobs. As 'impact' indicators, they refer to changes for the people that the programme ultimately aims to benefit, rather than intermediaries such as businesses, NGOs, or governments. The definitions of the indicators are:

- **Scale:** Number of members of the target group who realize a financial benefit as a result of the programme's activities per year and cumulatively.
- **Net income:** A sustainable net change in income (additional sales minus additional costs) accrued to the target group as a result of the programme per year and cumulatively.
- **Net additional jobs created:** A sustainable net change in the number of full time equivalent jobs created for the target group as a result of the programme, per year and cumulatively. "Additional" means jobs created minus jobs lost. "Per year" comprises 240 working days. Jobs saved or sustained may be reported separately.

What is Full Time Equivalent (FTE)?

One challenge when measuring jobs is how to account for employees working part time or seasonally. The use of full time equivalent (FTE) figures addresses this issue by converting all part-time work into the equivalent in full-time work.

In order to use the FTE methodology, simply work out the number of days worked per person in a year. Divide this by the number of working days in a year, which for the purposes of the DCED Standard is typically assumed to be 240. This gives you the FTE. For example, if a person works 120 days a year, that is 0.5 FTE. ($120/240 = 0.5$) If a person works 60 days, that is 0.25 FTE. ($60/240 = 0.25$).

Multiply that by the number of people working, and you will get the total FTE worked. For example, if 100 people work 0.5 FTE, that is a total of 50 FTE jobs.

For more details, see [Measuring Job Creation in Private Sector Development](#), a working paper by MarketShare Associates for the DCED.

However, these common indicators are not always appropriate. In some cases, the results chain between activities and the common indicators may be too long to feasibly assess. In other cases, different agencies contribute different parts of a solution, and isolating the impact of one programme is difficult to do meaningfully. Other programmes may not aim to affect all of the common indicators; for example, a programme may work with the private sector to improve access to healthcare rather than to increase incomes.

At all stages, the DCED Standard advocates a practical approach to results measurement. Consequently, if a programme has valid reasons for not assessing progress against any of the common indicators, they should clearly document what these reasons are. They should also look for alternative indicators which can be aggregated across the programme, as far along the results chain as is feasible. The auditor will take that into account when grading the project, and if the justification is acceptable then the project can still be compliant without monitoring the common indicators.

Control Point 2.4: There are specific indicators that enable the assessment of sustainability of results. (Must)

Compliance Criteria:

- *Indicators to measure the likelihood of sustainability of changes for each intervention results chain are defined.*
- *Indicators to measure the likelihood sustainability of changes for each intervention results chain are specific, measurable and relevant.*

Programmes should include qualitative and/or quantitative indicators which enable it to assess whether the target group will continue to benefit, even after the end of programme activities. Projects don't need to assign indicators of sustainability for all of the changes in their results chains, but rather only for the changes that it intends should be sustainable. For instance, a seed manufacturer might make some demonstration plots on a one-off basis to improve marketing of its products. This activity in itself doesn't need to be sustainable. However, the results of these activities – that farmers know about the new products available – is expected to continue past the end of the programme, and so their sustainability should be monitored.

Indicators that might help to measure sustainability include:

- Profitability for all stakeholders
- Sustainability of sources of income
- Satisfaction among market players at all levels
- Capabilities for carrying out new functions
- Positive attitudes of stakeholders

Control Point 2.5: Mid and senior level programme staff understand the indicators and how they illustrate programme progress. (Must)

Compliance Criterion:

- *Mid and senior level programme staff understand the indicators relevant to each intervention results chain.*

As with the results chains, defining indicators and other information needs is only useful if they are actually used by the relevant staff in the project. Thus, all mid and senior level staff should be able to describe the indicators and information needs that are relevant for their results chains. They should also have access to up-to-date versions of indicators whenever necessary. As well as understanding the indicators, staff should be able to describe how use of indicators and information guides their decision making.

Control Point 2.6: There are specific indicators that enable the assessment of gender differentiated results. (Recommended)

Compliance Criteria:

- *Indicators to measure changes, differentiated by gender, in each intervention results chain are defined.*
- *Indicators to measure changes, differentiated by gender, in each intervention results chain are specific, measurable and relevant.*

Programmes should ensure that beneficiary-focused indicators require sex-disaggregated data and that a clear disaggregation strategy is agreed for the programme since it should not be assumed that men and women experience private sector development initiatives in the same way; or that they derive the same benefits. In addition to being relevant, measurable, time-bounded, realistic and useful, beneficiary-focused indicators should also be gender-responsive. In other words, they must be capable understanding gender-differentiated outcomes and impact.

For further guidance on developing indicators relevant to the programmes' level of ambition regarding women's economic empowerment see **How to integrate women's economic empowerment into private sector development programmes. Control Point 2.7: Anticipated impacts are realistically projected for key quantitative indicators to appropriate dates. (Recommended)**

Compliance Criteria:

- *Projections showing changes in key quantitative indicator values for each intervention results chain have been estimated.*
- *Projections are supported by research and analysis, and clear and accurate calculations showing all key assumptions underpinning the calculation.*

Projections for each intervention results chain are reviewed at least annually and updated, where relevant. Why make projections?

Since it takes time for activities to have an impact on enterprises and poverty reduction, projects should, at the start of activities, make upfront projections about expected results. These predictions will provide staff with feedback on the extent to which an intervention is on track. Projections are also useful for design purposes as they give an indication of whether particular investments are worth their cost.

Projections should be made for all indicators as well as the three common impact indicators (scale, income, jobs), wherever possible, predicting the change that will result from the programme intervention EITHER at the end of the programme OR two years after the end of the programme.

Each projection should be based on well thought out assumptions and on findings from market research, field observations or other credible sources (see table below). The assumptions and findings supporting each projection, as well as any calculations made, should be clear.

Projections of impact should be periodically updated to reflect new data collected on indicators of change. Programmes may find it easiest to discuss and agree these updates by using the same review process used to monitor changes to the results chain itself.

Commonly Used Sources of Information when Making Projections

The following are commonly used sources of information. Other sources may also be acceptable.

- Staff experience and professional opinion:
 - Observations in the field
 - Informal information from key informants, market players or partners
 - Staff's educated guesses, estimates or judgments
- Credible secondary sources:
 - Government data
 - Academic research findings
 - Studies done by other donors or organizations
 - Credible information from associations
 - Credible and formal information from key informants
- Programme information gathering:
 - Market studies and Inception Reports
 - Productivity studies
 - General market surveys or other surveys done for other markets
 - Special studies done by the programme
 - Case Studies done by the programme

How to make projections:

- Start with the project's planned or actual activities. This is the starting ground for making projections as it gives an indication of the scale of an intervention. For example, if a skills development programme works to improve welding courses in 5 institutes, the projected impact should lie with the students of these training institutes.
- Work through each of the subsequent changes step by step to estimate changes caused as a result of activities. Never jump from one box to another. For example, if a skills development programme works to improve teacher training techniques, the next change would be that teachers' capacities are improved, and the projection then estimates the number of teachers who might have this improved capacity.
- If you make assumptions while making estimations, clearly include these assumptions and their source as part of the same documentation. For instance, a reputable study might reveal that 50% of trained teachers retained the new knowledge, and you assume this for your own intervention. It would be useful to record this reasoning, for future clarity and also to make changes if required later.

Other resources on indicators

Guidance on indicators:

The DCED published a set of harmonised indicators for private sector development programmes. They can be found [here](#).

- TradeMark East Africa: How to Design Indicators. www.enterprise-development.org/wp-content/uploads/TMEA_HowtoDesignIndicators.pdf

- MacDonald, G. A Checklist to Inform Selection of High-Performing Indicators, CDC. http://betterevaluation.org/sites/default/files/Indicator_checklist.pdf
- Tips on Selecting Performance Indicators, USAID. http://pdf.usaid.gov/pdf_docs/pnadw106.pdf
- Measuring Performance in Private Sector Development, Asian Development Bank. <http://www.adb.org/sites/default/files/publication/27982/private-sector-dev.pdf>

IRIS Indicators

Programmes looking for recommended indicators could consult the IRIS metrics, which can be used to measure and describe an organization's social, environmental and financial performance. These were originally developed for impact investing, and many are relevant to PSD more generally. Find the indicators at <http://iris.thegiin.org>

To ensure that the indicators chosen are appropriate for the project, develop the results chain first and carefully select indicators that show the expected changes.

WEE indicators

See Chapter 2 of [How to integrate women's economic empowerment into private sector development programmes](#), which provides links to additional resources.