

The Sustainable Development Facility

THE GEORGE BOOLE FOUNDATION LIMITED



Practical solutions to Sustainable Development Goals through technology and know how transfer

Effective project teams for
Sustainable Development Goals

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To reduce dependency by enabling communities to address the challenges of poverty, climate change and sustainability in a practical manner by fostering independence by building competence and self-reliance.

The George Boole Foundation Limited

The George Boole Foundation Limited is a non-profit organisation dedicated to the development and dissemination of useful digital applications to solve practical problems facing society and economic activities. The Foundation was established in 2010 based on the cumulative experience of applied research and development work of [SEEL-Systems Engineering Economics Lab](#). SEEL's activities cover natural resources and agriculture, decision analysis, project design and management, microeconomics, development economics, systems engineering and information technology.

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The Sustainable Development Facility

The Sustainable Development Facility (SDF) was established by The George Boole Foundation Limited as a holding account for donations to be used to support an international extension service dedicated to raising the quality and to lower the cost of technical service support to low income country institutions managing agricultural projects in support of Sustainable Development Goals.

The framework mechanism for this support is an advanced Sustainable Development Goals Toolkit ([SDGToolkit](#)) a cloud-based Software-as-a-Service project design, implementation, operations evaluation and portfolio management system.

This extension service includes:

- The free provision to organizations, in low income countries, of a SDGToolkit consisting of a due diligence design procedure supported by analytical tools, over an extended period, to identify, design and implement projects in support of Sustainable Development Goals
- Training in the use of the SDGToolkit with ongoing technical support
- On-the-job support in the design of two projects
- Development of long-term sustainability adjustments to projects
- The continued development (design and implementation) of cloud-based software services
- Regular reporting on progress

Why has this approach been adopted?

One of the important issues for donors and investors is to know whether or not a project has been shaped by applying rigorous due diligence procedures to collect the relevant information as evidence to justify a project design. The analysis of potential benefits, sustainability and management of risks is also required.

Although project cycle management guidelines have existed for well over 50 years, they have been slow to adapt to the changing requirements of complexity linked to climate change and of remaining economically viable while safeguarding the state of the environment and ecosystems upon which human survival depends.

Between 1990 and 2010, World Bank reviews of funded projects found that there was a rate of failure of projects of around 35% and natural resources-based projects such as agriculture the failure rate was around 45%.

Following a 5 years evaluation of project cycle management methods by the Open Quality Standards Initiative (OQSI) between 2010 and 2015, it was concluded that the main cause of project failure was a combination of inadequate design and evaluation procedures. This review reported that in the 1960s some 85% of projects were subjected to economic rate of return

assessments, such as cost-benefit analysis (CBA) and by 2015 this had declined to just 20% of all projects funded. This decline has not been compensated by alternative forms of appraisal, such as cost-effectiveness analysis (CEA). The lack of economic appraisals has resulted in too many projects being either under-ambitious or over-ambitious resulting in a lower than desired economic development impact.

In 2015 the launch of the United Nations Agenda 2030 and 17 Sustainable Development Goals added some urgency to the need to improve project design and evaluation procedures as a combined package. Under Agenda 2030, agriculture is not treated as a coordinated sector and project teams are expected to handle a very large number of criteria (SDGs) which are associated with around 230 indicators. This challenge requires a different support system for project design.

Between 2015 and 2020 the George Boole Foundation completed a system engineering programme to complete the development of such a system which delivered an operational SDGToolkit system within the assigned budget and timeframe.

The 2019 the United Nations Sustainable Development Report highlighted important gaps in the performance of the Sustainable Development Goals project portfolio. It observed that the global economic growth is correlated with rising income disparity, declining sustainability of production and consumption and a continuation of rises in average temperatures. Therefore, the trends in project failure measured in 1992, 2010 and 2015 were persisting. The launch of Agenda 2030 and 17 Sustainable Development Goals demand more effective project design procedures and able to handle the multiple constraints arising from poverty, climate change and natural resources carrying capacity.

This represents a significant current challenge to donors and investors in SDG projects.

Project team & executing agency benefits

As a learning system, the principal advantage of the SDGToolkit is its support of the professional advancement of project teams and agencies that employ them. Whereas SDGToolkit raises the quality standards of project design by building up capabilities of project teams, the system provides an efficient oversight management capability for individual and multiple projects in a portfolio. The longer team use SDGToolkit the more proficient they become at designing effective higher performing sustainable projects.

The SDGToolkit combines an advanced due diligence design procedure with analytical tools to review critical factors to identify options based on evidence. The details of design decisions, project proposals and subsequently all decisions and decision outcomes throughout the implementation and operations stages provide an ongoing monitoring to support evaluation with detailed profiles on all aspects of a project. All of this data is held in what is referred to as the Project Memory.

The Project Memory is a database system of all of the information that is added recorded in real time during the project design phase explaining the rationale and decisions, implementation progress, operation decisions, in the face of changed conditions and their outcomes and any design changes to ensure long-term, post-funding, operations.

Internal evaluations

Internal evaluations are an important factor in enhancing the expertise of team members in being able to observe and record the relationships between project design decisions and

operational performance of that design in practice. The system supports an internal evaluation process to record progress associated with all project activities and phases. Internal evaluations are carried out by team members as a basic means of acquiring expertise in linking previous design decisions to practical results as a way to internalise knowledge and lessons learned. Since such evaluations are recorded in the Project Memory they are not lost and serve to support better future design efforts.

Based on this system of record keeping, project managers and team members have access to an on-demand analysis and reporting system on any details of any aspect of any project as well as comparative data across any sized project portfolio.

As a result, project managers can field any questions on any project, for example, during meetings within a few second using a mobile or tablet browser.

No Software
Just a browser

This system adds a considerable amount of transparency to project proposals by providing access to the options reviewed before the selection of a particular project design. Financial projections and estimated returns can be checked and options reviewed.

In complex projects where the project design requires a wide range of domain experience, the SDGToolkit analytical tools provide domain related analyses that facilitate the review of evidence. These tools identify the required information to carry out analyses and they complete the analysis. With the relatively high cost of human resources or lack of specific expertise SDGToolkit helps fill in some gaps while making clear what questions need to be answered before finalising project designs.

The internal evaluation data is more comprehensive than any existing evaluation systems because the application of criteria are applied to different aspects of activities depending upon the project phase such as:

- Design quality
- Implementation performance
- Quality of operational decisions
- Long-term project feasibility (post-funding viability)

SDGToolkit applies the OQSI recommended evaluation procedures they include phase-specific orientation for internal evaluators. This ensures that comparing evaluation results for different projects produced by different evaluators, that they remain comparable. SDGToolkit provides analytical tools to input evaluations covering the list above so that there is more coherence between evaluations across portfolios. This information is also available for any subsequent external evaluations.

In addition to the OECD DAC evaluation criteria of: relevance, efficiency, effectiveness, coherence, impact, and sustainability, the OQSI criteria also have **resilience** as a specific criterion. This is an indicator that is specifically related to the degree to which risks have been accounted for and the project contains sufficient flexibility to adapt to changes in conditions to attain the original objectives.

Sustainability is a more general criterion that is dependent on resilience and relates to the maintenance of cash flow and carrying capacity over time and satisfying technical, economic, financial, environmental ecosystem and social dimensions of sustainability.

Resilience is in essence the result of a project's **change strategy** embodied in its design. The SDGToolkit change strategy approach replaces the Theory of Change approach with a set of

analytical tools to generate more transparent quantitative measures of risk across all applications domains.

The conventional Log Frames often take on the form of a management plan and schedule but the reasons for the project configuration are seldom apparent. Log Frames are also the default current plan and often this is used to establish a project budget. This can lead to a lack of adaptability under conditions of change and in some cases has resulted in project management difficulties, downgrading of indicators and even project cancellations linked to delays or non-performance.

In SDGToolkit, the Log Frame is replaced by a more informative Logical Project Option (LPO) which enables donors to drill down from any section to access the evidence and justifications. This information is relevance to decisions taken under conditions of change. The LPO is recognised to be the current option and it is assumed that if/or when conditions change corrective actions should not be constrained. The Project memory contains original design options including those scenarios where conditions have changed. This provides useful decision analysis support on best actions to keep projects on track.

The Project Memory has the important function of enabling management to realign projects during their operational (post setup) phases to detailed re-evaluations of implications of decisions to adjust operations to ensure long term viability and sustainability.

Operations

Access to the information can be freely undertaken by donor or investor portfolio managers to review anything in their project portfolio of any size.

Where a donor or investor does not have a dedicated portfolio manager the SDGToolkit service can submit regular reports or as required as part of the service provision. This can include regular oversight, monitoring and internal evaluation reports on progress.

For further information and discuss any additional requirements or receive replies to any questions please contact

<mailto:sdfprovisions@sdgtoolkit.com>

References and further reading

The following references relate to SDGToolkit and additional White Papers will be added in due course.

The [SDGToolkit.com website](#) contains some detail on the content of this system.

There is a resources section with publications on the SDGToolkit otherwise the Foundation's Boolean Library contains the following documents of relevance:

An advance notice [of the launch of SDGToolkit](#)

A document describing [why SDGToolkit was developed](#)

The [Final report of the Decision Analysis Initiative 2010-2020](#) that produced the SDGToolkit.