



How is sustainable development analyzed?

User Guide for the Sustainable Development Analysis Grid

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FOREWORD

- While the content of this text is the property of the authors, it has received input from many volunteers and university students in the Saguenay–Lac-Saint-Jean (Quebec, Canada) and Strasbourg (France) regions and elsewhere around the world during training workshops on the grid. These workshops have been taking place in Francophonie countries since 2013. The authors would like to give special recognition to the people who helped develop the tool. These people are Sibi Bonfils, Associate Professor at the Chair on Eco-advising; and Tounao Kiri, Specialist in national strategies and institutional frameworks for sustainable development program at the Institut de la Francophonie pour le développement durable.
- The authors would also like to thank the following people who helped review the GADD's content: Jean-François Betala-Belinga, Jean-François Desgroseillers, Pierre-Luc Dessureault, Olivier Guede, Nicole Huybens, Annie-Claude Laflamme, Georges Lanmafankpotin, Guillaume Maziade, Rasmane Ouedraogo, Kathleen Pelletier, Kouraichi Said Hassani, and Ian Segers.
- Under no circumstances should the distribution of the sustainable development analysis grid (GADD) and its user guide be restricted. The tool and its guide can be downloaded at <http://ecoconseil.uqac.ca/outils/>.
- Anyone wishing to use the analysis method described in this text can do so by citing the source:
Villeneuve, C., Riffon, O., Tremblay, D. (2016). How is sustainable development analyzed? User Guide for the Sustainable Development Analysis Grid. Département des sciences fondamentales, Université du Québec à Chicoutimi.
- We look forward to receiving comments from users of this method. Suggestions for improving the method or this guide can be sent to ecoconseil@uqac.ca.

Preface

Among the policy instruments developed by the Chair on Eco-advising at UQAC, the sustainable development analysis grid (GADD) is a tool for systematic analysis in six dimensions (social, ecological, economic, cultural, ethical and governance) that assesses the extent to which a policy, strategy, program or project promotes the improvement of human conditions. It allows those who apply it to orient themselves and propose ways to enhance a project or process, with a view to continuous improvement. This tool is frequently updated to reflect the evolution of global knowledge, practices and consensus with regard to sustainable development. It addresses the major challenges of sustainable development, including poverty reduction, health, education, access to goods and services, biodiversity, and climate change.

In September 2015, the United Nations General Assembly adopted the Sustainable Development Goals (SDGs). Despite this progress, implementation of these goals at the country level is still a major challenge. For example, it is difficult to take into account the interactions between sometimes divergent goals, the national governance of sustainable development, and the measurement and accountability mechanisms needed to monitor the SDGs. Over the last decade, the Organisation Internationale de la Francophonie (OIF) has taken various initiatives to equip its member countries with the human and institutional capacities needed to participate in the global effort to establish sustainable development. In particular, the OIF has developed specific tools and training on how to use them. In view of the adoption by the United Nations of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, the IFDD, a subsidiary body of the OIF, has partnered with UQAC's Chair on Eco-advising to design and undertake a unique initiative. This initiative is to adapt the GADD, developed and tested in various countries and contexts for more than 25 years, to the SDGs. A GADD adapted to the SDGs has been created in recent months. It has now been made available to users to strengthen the capacities of the OIF member countries and governments.

Table of contents

- Preface* iv
- Table of contents* v
- Introduction: What is sustainable development?* 1
- 1** *Why this assessment grid?* 3
- 2** *Grid adapted to the Sustainable Development Goals*..... 6
- 3** *Before using this analysis grid* 6
 - 3.1** *When to use the grid*..... 6
 - 3.2** *Requirements for the analysis* 8
 - 3.2.1 *Definition of the scope of the analysis*..... 8
 - 3.2.2 *Needs analysis* 9
 - 3.2.3 *Knowledge acquisition* 9
- 4** *GADD methods* 10
 - 4.1** *Detailed analysis*..... 10
 - 4.2** *Summary analysis*..... 11
- 5** *How to conduct a detailed analysis*..... 11
 - 5.1** *Weighting of goals*..... 11
 - 5.2** *Goal assessment*..... 15
 - 5.3** *Planned or already implemented actions*..... 16
 - 5.4** *Opportunities for improvement*..... 16
- 6** *Interpreting analysis results* 17
 - 6.1** *Radar charts*..... 17
 - 6.2** *Prioritization* 18
 - 6.3** *Priority issues* 19
 - 6.4** *Data quality index*..... 19
- 7** *Assessment follow-up* 23
- Conclusion* 24
- Bibliography*..... 25

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List of appendices

Appendix 1: History of the Chair on Eco-advising's analysis grid

Appendix 2: What, Why, How of the dimensions, themes and goals

Appendix 3: Details regarding the calculation of the overall results (dimensions and themes)

Introduction: What is sustainable development?

Humans have the ability to picture the future and to anticipate certain events and needs. For hundreds of thousands of years, this ability to anticipate events and solve problems has made it possible for us to evolve and to adapt our behaviours and tools to live better in nature.

Since the beginning, in every era and culture, humans have taken an interest in their future to varying degrees. Therefore, analyzing the sustainability of human activity is nothing new. However, since the industrialization of our societies, three elements have placed increased pressure on both renewable and non-renewable resources. These elements have also threatened certain ecosystems and even some populations. They are the following:

- global population growth;
- increased life expectancy; and
- increased individual consumption.

This pressure on resources has forced humanity to rethink its development. As a result, the idea of sustainable development has made significant progress at the international and local levels and within organizations.

But what is sustainable development?

The most universal definition of sustainable development comes from the Brundtland Commission report: *“Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs”* (WCED, 1988). The report emphasizes that sustainable development has two key concepts. These are the concept of needs, in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs.

While it is widely agreed upon, the above definition may seem vague and difficult to put in practice in an organization. It does not specify which needs must be met, or the scope of its application within an organization and society. However, it does provide a sound basis for action. It gives directions for how to implement more sustainable ways to develop:

- Take care of basic needs first (housing, education, food), which also means reducing the precariousness of marginalized populations;
- Avoid taking more from nature than it can provide, and avoid introducing more waste than what it can withstand;

- Distribute the benefits of scientific, technical, and social progress in a fair manner;
- Take precautionary measures and allow some leeway for future generations;
- Ensure optimum resource management so that everyone can benefit.

Sustainable development is a complex and encompassing idea that evolves over time. It cannot consist of only technical, economic and material aspects. It must be a richer and broader concept. We must imagine a development that:

- Integrates intellectual, affective, moral, and ethical dimensions;
- Considers multiple levels of action, from local to global;
- Includes short-term and long-term goals;
- Seeks to maximize local benefits and minimize negative effects at local, regional, and global levels;
- Shows concern for culture and equity.

What may have been considered sustainable development fifty years ago is not necessarily considered as such today. In addition, what is considered sustainable development today may no longer be considered as such in the future. Di Castri (1998) reminds us of the following: "The only things that can be considered sustainable in the history of life are change and adaptation."

The problems and solutions of sustainable development are therefore complex. However, we consciously choose this complexity by deciding to include multiple opinions and to exchange ideas in an effort to make better decisions. That is why we need to establish an ongoing discussion among the people involved in development. We want you to keep this at the back of your mind when using this analysis grid.

1 Why this assessment grid?

The purpose of the sustainable development analysis grid (GADD) is to give direction to sustainable development policies, strategies, programs or projects (PSPPs), in order to address their shortcomings and/or assess their progress. Three factors in particular support the need for tools that assist with the operational implementation of sustainable development:

- Sustainable development perceived only as an ideology will not necessarily lead to a pragmatic and accountable approach in the field to meet the legitimate and immediate needs of communities (Di Castri, 2002);
- The term has been trivialized to the point that we must develop tools to make sure projects, through rigorous methods, comply with certain basic sustainable development principles;
- The concept of sustainable development has nevertheless become unavoidable. The first step in implementation lies in the desire to do things differently and to accept the necessary process of asking questions, which must be guided.

The GADD addresses those three factors. It is a tool for systematic analysis in six dimensions (ethical, ecological, social, economic, cultural and governance) that assesses the extent to which PSPPs promote the improvement of human conditions through real action. It allows those who apply it to situate themselves and propose ways to enhance the PSPPs, with a view to continuous improvement. The analysis can also be used to set goals, find indicators, make more informed decisions, or find compromises that facilitate the acceptability of the PSPPs.

The goal of the grid is to cover as many sustainable development issues as possible in the PSPP analysis. The analysis grid consists of dimensions, themes and goals drawn from science and practice. The grid is based on the analysis of proceedings from major conferences and international conventions (such as the World Conservation Strategy, Brundtland Commission, Strategy for Sustainable Living, Agenda 21, and The Future We Want) and United Nations resolutions. The goals set out for each dimension are used to build an index that measures a project's capacity to comply with the conditions of sustainable development. For almost 30 years, GADD experts have been using it in their research and practical responses. This results in new questions, which lead to regular adjustments to the grid (Appendix 1).

The GADD is an Excel spreadsheet composed of six tables. Each table covers a dimension (refer to the analysis grid). The tables are divided into different tabs bearing the name of the dimension. Each table proposes a principle and themes. These themes filter down into goals that can be weighted and assessed based on their application (PSPP). For each goal, explanations (What?), justifications (Why?) and examples (How?) are

entered directly into the spreadsheet for ease of use (these clarifications are accessed through the red triangle in the upper right-hand corner) (Appendix 2).

Each dimension considered in the grid corresponds to specific principles and seeks to address specific needs, as illustrated in Figure 1.

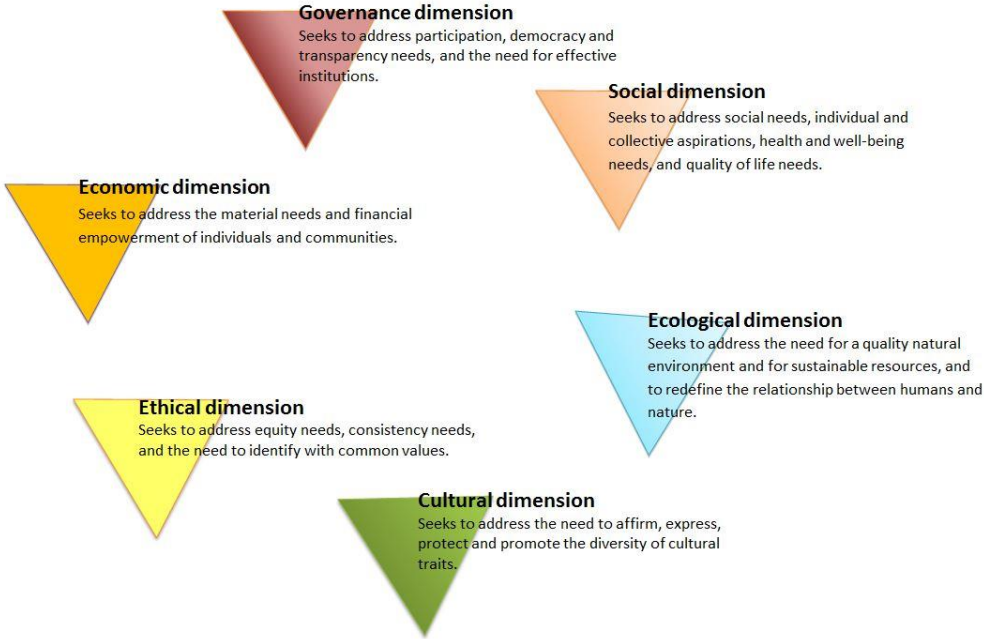


Figure 1 The six GADD dimensions

These six dimensions are tightly interwoven, and decisions made to give priority to any one of them can add stress to another (synergies and antagonisms, see 7.3). Analysts must always keep these synergies and antagonisms in mind. Actions that help achieve one or more goals should not negatively affect other goals.

The interrelations play an intrinsic role in sustainable development issues. This complexity requires the authors to make certain choices on the arrangement of themes in the dimensions. In the GADD's case, this choice is based on the concept of human needs. Brundtland's definition of sustainable development places needs at the heart of sustainable development. The authors have organized the dimensions and themes from this perspective. The six dimensions (social, ecological, economic, cultural, ethical and governance) meet different, complementary and interrelated needs. For example, the purpose of the social dimension is to address social needs and individual aspirations. This dimension includes health, well-being and quality of life needs. The themes (40) are related to the dimensions, as illustrated in Figure 2. Then, the goals (166) are distributed in

the grid based on their closeness to a specific theme and their contribution. A number of goals that have links to one theme can be found in other themes.

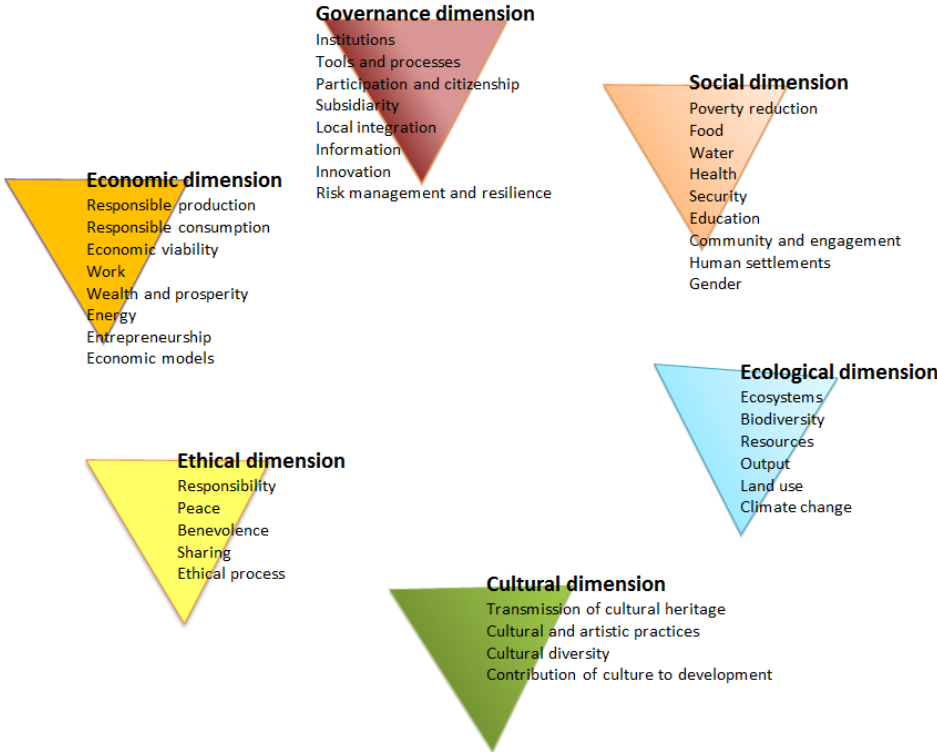


Figure 2 The 40 GADD themes

Lastly, there are two ways to use the grid. It can be used for a summary analysis or a detailed analysis. The choice of method depends on the nature of the PSPPs and the goals of the analysis. Graphics are also generated automatically through a detailed analysis.

2 Grid adapted to the Sustainable Development Goals

After developing the concept for over 40 years, in September 2015, the United Nations General Assembly adopted 17 Sustainable Development Goals (SDGs) for all countries. The goals and their 169 targets are at the heart of the 2030 Agenda for Sustainable Development. Despite this progress, implementation of these goals at the country level is still a major challenge. For example, it is difficult to take into account the interactions between sometimes divergent goals, the national governance of sustainable development, and the measurement and accountability mechanisms needed to monitor these SDGs. Over the last decade, the Organisation Internationale de la Francophonie (OIF) has taken various initiatives to equip its member countries and governments with the human and institutional capacities needed to participate in the global effort to build sustainable development. In particular, the OIF has developed specific tools and training on how to use them.

In view of the adoption of the 2030 UN Agenda for Sustainable Development, along with the SDGs and their targets, the Institut de la Francophonie pour le développement durable (IFDD), a subsidiary body of the OIF, has partnered with UQAC's Chair on Eco-advising to design and undertake a unique initiative. This initiative is to adapt the sustainable development analysis grid (GADD), developed and tested in various countries and contexts for more than 25 years, to the SDGs. The current version of the GADD fully integrates the SDGs and helps take into account the performance of PSPPs based on the SDGs.

3 Before using this analysis grid

3.1 When to use the grid

The use of the GADD should ideally be considered a process of continuous improvement. For PSPPs, this approach involves conducting regular assessments to make sure they continue to move in the desired direction:

- The pre-analysis is used to make sure the knowledge acquisition and needs analysis are sufficient, and to verify which elements are under-represented or missing;
- During implementation, the analysis is used to check the relevance of the plan, direct actions, look for compromises, and formulate priority opportunities for improvement;
- The post-analysis is used to validate the overall direction taken. It is used to review the established actions, because some may produce counter-intuitive effects. It can be used to acquire knowledge in order to improve future PSPPs.

Regarding the PSPPs, the GADD can also be used at all steps of the management cycle, as illustrated in Figure 3.

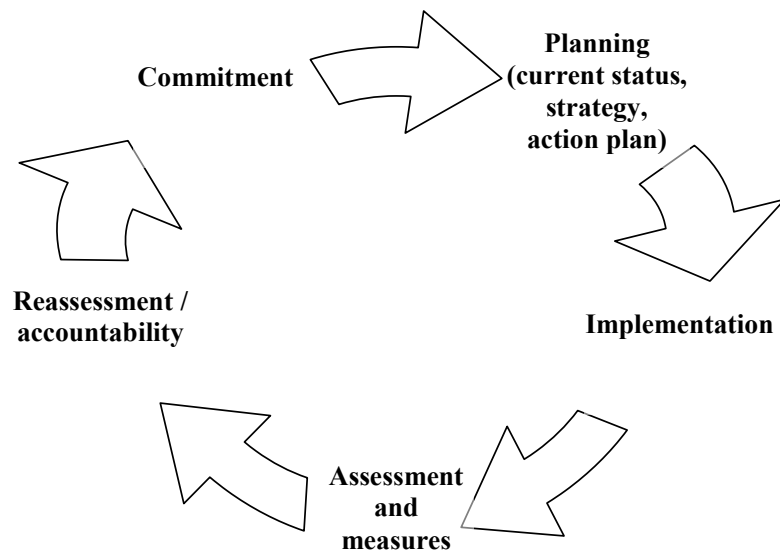


Figure 3 Sustainable development management cycle

- At the commitment step, the analysis is used identify the priority goals and principles that will guide the PSPPs. It is used to define the major issues and needs the PSPPs must address.

- The next step is planning, which involves three sub-steps: current status, strategic planning and action plan. Planning involves asking questions about the position of the PSPP initiators in their environment.
 - The current status can be determined by conducting a sustainable development analysis of all activities to identify the strengths and shortcomings.
 - Strategic planning helps to identify the SD issues, directions and goals, which can be determined and prioritized using the analysis grid.
 - The SD action plan makes the PSPPs definitive and may accompany the development of indicators and targets. The analysis grid is used to verify whether the actions, taken separately or together, help achieve sustainable development goals.
- Implementation involves taking action, and, in many cases, looking for compromises. These compromises can be found through the results and opportunities for improvement proposed during a sustainable development analysis.
- The assessment and measurement phase involves following up on indicators and searching for ways to improve. The analysis grid can be used to develop these indicators and prioritize certain opportunities for improvement.
- The accountability phase involves communicating that goals have been achieved. The GADD graphics are used to share PSPP results and assessments.
- Reassessment involves reviewing the experience and reflecting on the continuation of the PSPPs. An overall assessment using the analysis grid shows the progress made and helps to establish new priorities.

3.2 Requirements for the analysis

Beyond the painstaking research leading to the GADD's design, we must remember that it is not enough to have the right tools to analyze the PSPPs. The tools must be used rigorously, while paying particular attention to three elements: the scope of the analysis, the needs analysis, and knowledge acquisition.

3.2.1 Definition of the scope of the analysis

To measure progress in sustainable development, the scope of the analysis must first be determined. The geographic, temporal and operational limits (steps of the life cycle) of the assessment must be identified to limit the amount of information needed. The difficulties encountered in a sustainable development analysis often stem from the fact that the analytical team did not properly and unanimously define the scope of the analysis. The first requirement for using the grid is to determine how the grid must be applied and the goals of the analysis. The analysts can describe the scope of the analysis in the "Goals and scope of analysis" tab.

3.2.2 Needs analysis

The second step before the analysis stage concerns the needs the PSPPs must address. A variety of sustainable development issues, goals and indicators can be targeted. PSPPs can also identify the compromises needed to meet the most basic needs of the largest number of people, before addressing the secondary needs or preferences of some people. The needs analysis is essential to fully grasp the nature of the compromises that must be made by stakeholders involved in PSPPs. Discussions on the needs analysis must be held with the stakeholders, and the results should be entered into the GADD.

3.2.3 Knowledge acquisition

Finally, the last step before the analysis concerns the best possible understanding of the PSPPs and the situations that have motivated them. This understanding is achieved through methods such as research, presentations by experts, field visits and reading. This knowledge can be acquired in the technical, legal, moral, social, economic and environmental fields, and in other fields. A lack of sufficient knowledge in one of these fields can lead to biases in the assessments (see 7.4). Naturally, full knowledge cannot be acquired. However, it is possible to ask the right questions and to leave those questions open if satisfactory answers are not found. Together, these open questions will help determine the follow-up indicators and hypotheses to verify when carrying out PSPPs.

4 GADD methods

There are two ways to use the GADD. It can be used for a summary analysis or a detailed analysis. The choice of method depends on the nature of the PSPPs and the goals of the analysis. Depending on the method selected, the scope of required knowledge can be very different. The summary analysis is first used to determine the strengths and shortcomings of the PSPPs. The detailed analysis achieves the same goal with a quantitative assessment and a weighting process that helps prioritize the actions to take.

4.1 Detailed analysis

The detailed analysis requires each goal to be weighted and assessed quantitatively. Weighting is used to calibrate the grid based on the relevance and significance of each goal for the PSPPs. For example, the protection of biodiversity may be more important to consider in a national sustainable development strategy than in a national education policy. When completed, this analysis method helps prioritize improvements based on the significance and performance of each goal. The detailed analysis requires the participation of a GADD expert who is familiar with the tool and its special features. The complete detailed analysis process (explanation of the weighting and assessment) is described in section 6.

Following a detailed analysis, graphical representations of the performance of the PSPPs are automatically generated in the tool (“Results” tab). The main tool used to provide a visual representation of the analysis results is the radar chart. This chart shows the assessment as a percentage for the ethical, ecological, social, economic, cultural and governance dimensions (weighted average of all the goals of each dimension, according to the calculation provided in Appendix 3).

Lastly, six radar charts are provided (one for each dimension). These charts show the weighted average of the assessment of the goals for each theme of a dimension. With these graphics, it is possible to assess the general performance of the PSPPs, the balance between the sustainable development dimensions, and the performance of each dimension and theme.

The advantages of a detailed analysis include the ability to:

- conduct more in-depth investigations;
- set priorities;
- establish indicators;
- assess the progress of a continuous improvement process;
- expand the representations; and
- educate stakeholders about sustainable development issues.

However, the detailed analysis has some shortcomings. It is a long process that requires a significant amount of time and human resources.

4.2 Summary analysis

A summary analysis can be carried out by qualitatively assessing the performance of PSPPs in relation to the various sustainable development goals proposed in the grid. These goals are not quantitatively weighted or assessed. The purpose of a summary analysis is to verify the overall direction based on the principles of sustainable development.

To perform a summary analysis, it is sufficient to put forward the planned or already implemented actions of the PSPPs that address the sustainable development goals suggested in the GADD.

It is advisable to also propose opportunities for improvement for each goal deemed relevant.

A summary analysis is used to initiate reflection on each aspect and to identify ways to improve the PSPPs. The summary analysis is the starting point for a process of improvement and consultation. The advantages of a summary analysis include the following:

- It helps to identify missing elements;
- It leads to a more comprehensive analysis process;
- It helps to identify strengths and to inform the planners or promoters of whether they are on the right track;
- It is inexpensive in terms of time and resources; and
- It helps to quickly compare alternatives for meeting a need.

However, this type of analysis is more superficial than the detailed analysis. It cannot fully assess project performance, prioritize opportunities for improvement, or monitor the development of the PSPPs over time.

5 How to conduct a detailed analysis

The detailed analysis involves weighting, an assessment based on planned or already implemented actions, and the identification of opportunities for improvement where relevant. This method of analysis makes it possible to prioritize the actions to take in a process of continuous improvement. Here is how to complete each step.

5.1 Weighting of goals

Initially, each goal should be weighted according to its importance within the PSPP framework. The group of analysts must determine the weighted values by **consensus**.

It is recognized that, in practice, weighting is an initial dialogue exercise conducted by a group of analysts from different backgrounds. In agreeing on the relative importance of various goals in relation to a particular situation, the analysts learn the values, biases and vocabulary of others.

Weighting helps adapt the GADD to the realities and context to which the PSPPs are applied.

“Weighting is used to prioritize the priorities.”

The team of analysts must determine the importance of each PSPP goal using weighting. The following questions must be asked for each goal:

Is the achievement of this goal indispensable, necessary or desirable for the success of the PSPPs?

Numerical values from 1 to 3 are used to determine the importance to attach to this goal for the PSPPs in question:

- 1: **desirable** goal: achieving this goal is not deemed important, or is not a priority;
- 2: **important** goal: achieving this goal is important, but is not one of the immediate priorities related to the needs targeted by the PSPPs;
- 3: **indispensable** goal: achieving this goal is important and is an immediate priority. It is deemed indispensable to the success and delivery of the PSPPs.

Obligation to take all the goals into consideration

A special feature of this analysis grid is that it requires all the goals to be taken into consideration. Even though a number of goals may seem far removed from the PSPP analyzed, users cannot eliminate any of them. Each element proposed can involve sustainability issues. The goal is to avoid excluding stakeholders from the process of asking questions. The analysis process must maintain its comprehensiveness.

It is important to note that a 0 value **cannot be assigned** in the weighting, because each goal in the grid is relevant from a sustainable development perspective. Therefore, **all the goals are subject to weighting and assessment.**

Weighting is used to calibrate the grid. In fact, the weighting will necessarily be different when analyzing a craft program or an energy strategy. In addition, similar PSPPs (in fields such as education, industry, agriculture and energy) may have commonalities but will be distinguished by local aspects. A similar energy strategy will very likely not be weighted the same way in Belgium as it is in Burkina Faso.

For example, in terms of a project to establish schools, the goal of “ensuring the cost efficiency of the project” or “promoting species with symbolic value” likely would not weigh in very strongly. If that is the case, the rating would be 1, meaning that it would be desirable to consider these goals, but not necessary or essential. On the other hand, “giving access to individual and collective goods to the greatest number” and “providing basic education for everyone” would likely be essential and would be rated 3.

Therefore, the analysts will know immediately that the PSPPs must explicitly take the planned or already implemented actions to achieve the goals. Regarding desirable goals, there will be no need to develop opportunities for improvement in cases where the PSPPs do not achieve the goal.

5.2 Goal assessment

Once weighted, each goal must be assessed by answering the following question:

How do the PSPPs meet this goal?

Numerical values from 0 to 100% are used to determine PSPP performance in relation to a given goal. The following table proposes an assessment scale:

0-9%: The PSPP has significant negative impacts on this goal

10-19%: The PSPP has moderate negative impacts on this goal

20-29%: The PSPP has minimal negative impacts on this goal

30-39%: This goal is not taken into account by the PSPP, but the PSPP has no impact on the goal

40-49%: This goal is not taken into account by the PSPP, but the PSPP has indirect positive impacts on the goal

50-59%: This goal is slightly taken into account, with no concrete actions and measures, and minimal positive impacts are expected

60-69%: This goal is moderately taken into account, with planned actions, but with no innovative elements compared to similar PSPPs

70-79%: This goal is taken into account, with concrete actions and some innovative elements; positive impacts are expected

80-89%: This goal is well taken into account, with innovations and concrete measures, significant positive impacts are expected

90-100%: This goal is strongly taken into account, the PSPP is exemplary in that respect.

Analysts may proceed by **averaging** their respective assessments or agreeing on a common score based on their discussions. The assessments must be based on planned or implemented actions to justify them. If information is missing, the quality index, coupled with the weighted scores, will show how important data collection is (see 7.4 Assessment Quality Index).

5.3 Planned or already implemented actions

Planned or already implemented actions must be entered in the appropriate fields of the GADD. They provide justification for the assessments.

5.4 Opportunities for improvement

The opportunities for improvement thought out and proposed during the analysis must be entered in the appropriate fields. In terms of the opportunities for improvement, the software generates a red field for the “Act” and “React” priority goals. This means that analysts have an obligation to identify improvements for the goal in question.

In order to operationalize the implementation, a comment sheet can be completed for each opportunity for improvement proposed for goals where the PSPP should be enhanced. It is possible to do so in the “improvement analysis” tab. Each opportunity for improvement should be on a separate line.

6 Interpreting analysis results

An analysis report should usually be produced every time the grid is used. The main purpose of this report is to identify the goals that should be given priority to improve the performance of the PSPP in terms of sustainable development, and to highlight the strengths of the PSPP or the organization. The interpretation features presented here are designed to document this analysis report.

6.1 Radar charts

These graphics are a visual presentation of the overall scores obtained for each dimension (6) and for each theme (40). All the scores are computed automatically by the spreadsheet. The details of the equations are outlined in Appendix 2. The score is an indicator of the performance of PSPPs for one sustainable development dimension or theme. It has no scientific value, but it is used to compare the performance of dimensions, themes or similar PSPPs. The following is a qualitative assessment of possible scores that can be obtained for a dimension or theme:

- Less than 20%: Critical situation: The dimension or theme is negatively affected by the PSPP;
- Between 20% and 39%: Problematic situation: The dimension or theme is insufficiently considered in the PSPP;
- Between 40% and 59%: Improvable situation: The dimension or theme is poorly considered in the PSPP;
- Between 60% and 79%: Satisfactory situation: The dimension or theme is considered in the PSPP;
- Between 80% and 100%: Excellent situation: The dimension or theme is strongly considered in the PSPP.

Using the GADD therefore makes it possible to identify the strengths and weaknesses of the PSPPs and to set up a process for improvement. Moreover, with each PSPP being assessed according to its own weighted value, what matters most is its progress, not its starting point. This approach makes it possible to avoid the pitfalls of comparing or rating a project in isolation.

In fact, although both a community garden project and a national sustainable development strategy can be analyzed using the GADD, comparing their performances against each other would be unfair and inappropriate. However, if done carefully, similar projects can be compared if the weighting of each goal is similar. Ideally, the grid can be used to compare a project with itself, as it evolves.

The balance of poles:

PSPPs meant to be part of a sustainable development approach should reach a minimum threshold of 60% in all six dimensions of the GADD. PSPPs with dimensions less than 60% are unlikely to succeed in the area of sustainable development. They should therefore be reworked.

6.2 Prioritization

A prioritization index is automatically generated for each weighted and assessed goal. The prioritization index aims to identify the goals that should be given priority to improve the performance of PSPPs in terms of sustainable development. The more important the goal is (high weighted value) and the lower the performance (low assessment score), the more urgent it is to implement improvement measures (opportunities for improvement) for this goal. Figure 4 shows the prioritizing goal mechanism.

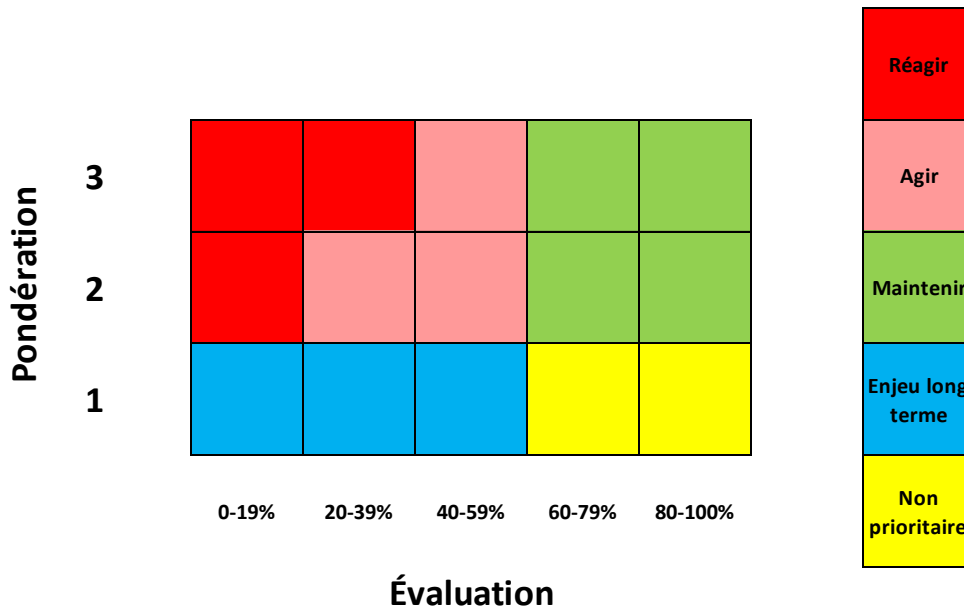


Figure 4 Prioritization index

- The “React” priority applies to indispensable goals (weighted 3) with an assessment less than 40% and necessary goals (weighted 2) with an assessment score less than 20%;
- The “Act” priority applies to indispensable goals with an assessment score between 40% and 59% as well as to necessary goals with an assessment score between 20% and 59%;

- The “Maintain” priority applies to indispensable and necessary goals with an assessment score equal to or higher than 60%;
- The “Long-term issue” priority applies to desirable goals (weighted 1) with an assessment score less than 60%;
- “Non-priority” applies to desirable goals with an assessment score less than or equal to 60%.

Although the priorities are automatically assigned in the software, it is essential that the analysts provide their own interpretation of the results.

6.3 Priority issues

The GADD automatically calculates the average of the weighted goals associated with each theme. A high average of the weighted values means that the majority of goals associated with a theme were deemed important or indispensable. The theme therefore represents a major issue associated with the PSPP or an organization. Priority issues are those for which the average of the associated weighted goals is equal to or greater than 2.5.

This average of weighted values is calculated automatically by the spreadsheet, for each theme, in the corresponding tables in the “Results” tab.

6.4 Data quality index

While the weighted goals rely on the intersubjectivity of the team of analysts, the assessment must rely on facts, accomplishments, ongoing or planned actions. To conduct the best possible assessment, the data used for the assessment should:

1. Come directly from PSPPs (Correlation);
2. Come from completed and measured actions (Status);
3. Have been verified and based on measurements or grey literature (Reliability).

However, depending on the progress status or development stage of PSPPs, the data collected may not meet all of these conditions.

For example, if the analysis deals with a strategy prior to its implementation, at the design stage, it will be impossible for analysts to base their assessment on completed actions. They will have to consider the commitments at that time. Nothing and no one can provide analysts with a guarantee of the success or impact of those commitments. This may distort

preliminary assessments, which is why there is value in repeating the exercise once the strategy is implemented and the actions are measured.

The data quality index makes it possible to rate three elements: correlation, status and reliability. For each goal, analysts must use the GADD to assess these three elements in relation to the goal by assigning a value, from 1 to 4, corresponding to their situation.

Correlation: What is the source of the data used to assess the goal?

1	Very good	Directly from PSPPs
2	Good	From similar PSPPs (same needs, same technologies, same context, etc.)
3	Fair	From different PSPPs
4	Weak	From generic PSPPs

Status: What is the degree of maturity of the data source used to assess the goal?

1	Very good	Completed and measured actions
2	Good	Actions in the process of implementation
3	Fair	Actions identified in planning, actions to be taken
4	Weak	Commitments or wishes expressed by PSPP holders

Reliability: How reliable is the data used to assess the goal?

1	Very good	The data used for the assessment are verified and based on measurements or grey literature (document produced by the various levels of government, universities, companies or the industry).
2	Good	The data used for the assessment are verified and based on hypotheses or are not verified and based on measures.
3	Fair	The data used for the assessment are not verified and based on hypotheses or described by an expert.
4	Weak	The data used for the assessment are estimates with no expert opinion.

The ratings provided by the answers to those three questions automatically generate in the GADD two pieces of information about the quality of the data assessment:

- 1- Data quality: For each goal, the software generates a value (very good, good, fair or weak) based on the average of the three ratings.
- 2- Data needs: For each goal, the software crosses the data quality with the weighting to generate a data needs index (Figure 5). The higher the weighted goal and the lower the data quality, the more data will need to be collected in relation to the three criteria mentioned in the questions.

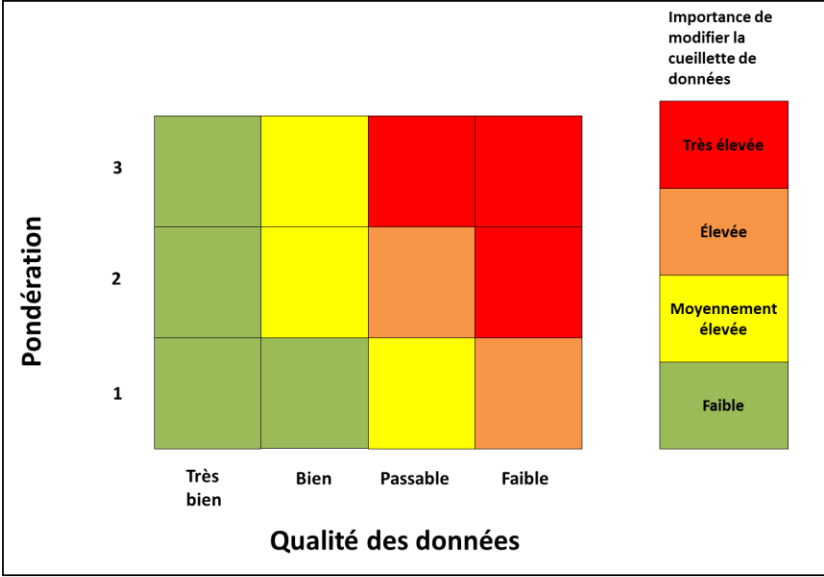


Figure 5 Data needs

It is recommended that the analysts provide the data needs in the analysis report. Those needs may be included in the opportunities for improvement. The purpose of the needs index is to propose the order of priorities to the authorities responsible for improving the

knowledge on the various sustainable development issues identified in the GADD in relation with PSPP needs.

7 Assessment follow-up

First of all, GADD is an analysis tool. Its purpose is to expand the reflection process of stakeholders and to encourage dialogue on PSPPs by integrating any new sustainable development issues. In addition to analysis, it is a decision-making, assessment and planning tool. The results of an analysis show the concerns that need to be considered to ensure sustainable development.

A sustainable development analysis is not an end in itself. It is a tool that must be integrated into a more comprehensive approach. Once the sustainable development analysis is completed, the appropriate follow-up is to apply the opportunities for improvement to the most critical goals identified in the analysis.

The next step is to determine which elements can be measured (indicators) to enable stakeholders to agree on the targets to improve the outcome of a given goal.

For instance, if the goal to reduce greenhouse gas emissions is initially assessed at 10%, what would indicate that it could later be reassessed at 60%, 80% or 100%? To this end, indicators must be developed in line with the goals identified in the grid.

The opportunities for improvement, indicators and targets developed as a result of an analysis can be used to better monitor and assess the improvements made to a project or framework. This approach helps to quickly identify any shortcomings in the implementation of certain opportunities for improvement, and to take corrective actions.

Conclusion

Sustainable development calls for a paradigm shift, as expressed by the Brundtland Commission in 1987. Although a paradigm shift has since been taking place in the world, it is certainly not the shift described in “Our Common Future”. The world’s population has grown by 2 billion people, and it is our duty to feed, care for and educate them in order to uphold the first principle of sustainable development. In the meantime, rainforests have continued to shrink, CO₂ levels have continued to rise in the atmosphere, and disparities between rich and poor countries have continued to grow. Are we further than ever from achieving sustainable development?

Perhaps. However, a number of specific initiatives have been launched around the world. Humanity is learning to tame the complexity of sustainable development issues. The “Future We Want” document, adopted by the UN member states after the Conference on Sustainable Development in Rio (Rio+20), shows the progress made since Rio, but more importantly the daunting task ahead.

There is still a lot of work to do before PSPP stakeholders, both institutional and private, are able to integrate all the sustainable development questions of design, implementation and follow-up. A number of those elements, while legitimate, are often thought to be outside the scope. It is important to emphasize that the answers to those questions are essential to informed decision-making, helping our development become more sustainable.

In PSPP working groups, tensions may arise as a result of the vested interests of each member. The grid may then be used to refocus everyone’s interests toward achieving better performance in terms of sustainable development. This tool can therefore unite the various stakeholders around a common goal, shared by all.

Sustainable development goals evolve. They must be tailored to the reality of a given environment, to the values of a given society, and to its level of development. This analysis tool can therefore be improved. Only once it is used in various settings by persons who are very familiar with their environment will we be able to see whether it helps achieve the goals for which it was designed.

Economic, ecological, ethical, social and governance considerations are included in the analysis. The grid makes it possible to find compromises in achieving the goals for each dimension. Consequently, asking the right questions leads to actions that promote sustainability in all its dimensions.

Bibliography

- Di Castri, Francesco, (1998), *La fascination de l'an 2000*, préface de Qui a peur de l'an 2000 ? Éditions Multimondes, UNESCO, IEPF, 305 pages.
- Di Castri, Francesco, (2002). Les conditions gagnantes du développement durable, Actes du colloque de Dakar, Francophonie et développement durable, quels enjeux, quelles priorités, IEPF.
- Di Castri, F. (2005). Le développement comme stratégie d'adaptation: nouvelles perspectives opérationnelles. In *Liaison Énergie Francophonie*, vol 68 : Culture et développement durable. 3e trimestre 2005. P. 17-24.
- Gendron, Corinne, (2005). Le développement durable entre durabilité et développement, Actes du colloque Le Développement durable, quels progrès, quels outils, quelle formation, Chaire en éco-conseil et IEPF sous presse.
- Huybens, N. and Tchamba, M. (2012). Les services culturels, sociaux et spirituels de la forêt. In. Villeneuve, C. (dir.), *Forêts et Humains : une communauté de destins*. Institut de l'énergie et de l'environnement de la Francophonie et Chaire de recherche en éco-conseil.
- Jacobs, P. and Sadler B., (1993). *Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future*, Canadian Environmental Assessment Research Council (CEARC), 182 p.
- Région Laboratoire du Développement Durable, (1996). *Document de présentation des projets de développement durable de la région du Saguenay-Lac-Saint-Jean*, ÉcoSommet.
- Revérêt, J.P., and Gendron, C., (2002). Le développement durable, entre développement et environnement, *Liaison Énergie-Francophonie*, 55-56-57 : 33-37.
- Riffon, O. and Villeneuve, C. (2011). Une typologie du développement durable. In *Liaison énergie francophonie*, Numéro 88-89, 2e trimestre 2011, IEPF.
- Sadler, B., (1990). *Sustainable development, northern realities and the design and implementation of regional conservation strategies*, In *Achieving Sustainable Development through Northern Conservation Strategies*, Calgary: Calgary University Press.
- United Nations. (2012). *The Future We Want*. Rio de Janeiro.
- United Nations. (2015). *Transforming Our World: the 2030 Agenda for Sustainable Development*. New York.

- Villeneuve, C. and Rodier, L., (1990). *Vers un réchauffement global, l'effet de serre expliqué*. Multimondes et Environnement Jeunesse, 143 pages.
- Villeneuve, C., (1992). Le développement viable, une approche expérimentale, IN VIVO, vol. 12, no 4.
- Villeneuve, C., (1998a). *Le comité de suivi, une solution à la permanence des consultations publiques*, in: Évaluation d'impacts et participation publique; tendances dans le monde francophone, Comptes-Rendus du 3^e Colloque international des spécialistes francophones en évaluation d'impacts; Secrétariat francophone de l'Association internationale pour l'évaluation d'impacts (AIÉA-IAIA), Montréal, Québec, Canada, May 25 to 28, 1998; Collection Environnement de l'Université de Montréal, Hors-Série Numéro 1, pp. 169 to 174.
- Villeneuve, C., (1998b). *Qui a peur de l'an 2000 ?*, Éditions MULTIMONDES, UNESCO, IEPF, 305 pages. Préface de Francesco di Castri.
- Villeneuve, C., (1998c). Discours d'ouverture du congrès NIKAN, Actes du congrès NIKAN, GRIR, Université du Québec à Chicoutimi.
- World Commission on Environment and Development (WCED), (1987). *Our Common Future*. <http://www.un-documents.net/our-common-future.pdf>.