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AN INTEGRATED REFERENTIAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

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Why a referential framework?

Sustainable development is defined as progress towards objectives over which there exists consensus within a social group that they will ensure sustainability of the system under consideration. The objectives may vary between different social groups and may change over time. (Rao 2000) The term sustainable development is attributed a different meaning depending on the context and the objective. As a consequence of the diversity of definitions and objectives, there does not exist a generally applicable system of reference for the evaluation of sustainable development.

An important interface in the process of sustainable development lies between implementation and evaluation. Evaluation sponsors, the project or programme manager and the project team have a vision of sustainable development and a subjective perception of the process in question. For the evaluation, either an internal system of reference constituted by the project objectives and goals or an external system of reference is applied. Due to the great variety of theories and ethics of sustainability, the perception of the stakeholders involved may differ significantly. Similarly, there is a great choice available for the selection of an external system of reference. Clearly, the selection of the system of reference is critical for the quality of the evaluation.

Like a map for orientation, a distinct and comprehensive referential framework is a useful instrument for the transparent and accurate definition of scope and subject of the evaluation of sustainable development.

Evaluation with regard to what?

The role of evaluation for sustainable development

Sustainable development is a social process that requires comprehensive considerations in decision making and a continuous reflection of the implications of human activity. In this context, evaluation plays a key role. In decision making, evaluations serve as an instrument for the integration of social, economic and environmental policies and for assuring the compatibility of programs on different political levels. During implementation, evaluations ensure the continuous improvement in social processes. In addition to that evaluations play an important role as a catalyst for institutional innovation. Given the wide scope of technical and process related aspects of sustainable development, the assessment and improvement of the process and its results require an evaluation that goes beyond the monitoring of indicators and financial controlling.

The role of evaluation for sustainable development depends on the stage in the cycle of political decision-making where it is applied. Considering the moment of evaluation, a broad distinction between prospective, ongoing and retrospective evaluations can be made (Chelimsky 1995, Bussmann 1997).

Prospective evaluation is an important field for sustainability evaluation. Decisive for political programs is the coherence of their elements. (Bussmann 1997) The evaluation at this stage of the policy cycle helps to identify discrepancies between objectives, operative elements and resources that may impair the desired effects of the program. Prospective evaluations focus on the system of political intervention, its context and its elements. Subject to the assessment are all framework conditions that are defined in the political planning process and will influence the implementation stage.

In the context of sustainable development, prospective evaluation can play an important role in identifying incompatibilities of goal systems between sectoral policies. Evaluations furthermore serve as an instrument to ensure and verify the integration of social, economic and environmental policies. Assessing the consistency of goal systems on different political levels is an evaluation task that supports governance. Questions of political priorities and the assessment of alternatives are also subject to prospective evaluations. Finally, evaluations are commissioned in order to verify the adequacy of objectives and strategies with regard to a superposed political or scientific system of reference.

Ongoing evaluation, also referred to as process evaluation, is generally conducted in the course of the program or project with the objective of organisational learning and improvement through feedback. Process evaluation helps to identify and eliminate weaknesses in planning and implementation and to find potentials for further innovation. Generally, qualitative methods are applied in order to foster exchange of experience between actors. The target group of the evaluation are the protagonists themselves. The people involved expect from the evaluation an external point of view, an assessment of activities, suggestions for measures and an impetus for their further commitment. As a consequence, the innovative aspects are more prominent. In this context, ongoing evaluation plays an important role as a catalyst for institutional innovation.

In the case of activities for sustainable development, process evaluation provides information on whether the process is on the right track. Deviations are identified and analysed in order to assure the final achievement of objectives and requirements. Clearly, the system of reference used for the assessment of activities and progress is a central issue.

Performance evaluations, also referred to as retrospective evaluations, focus on the results of the evaluated subject including output, outcome and social impact. In many cases, performance evaluations are conducted at the end of the intervention in a summative manner.

The motivation for performance evaluations can often be found in reporting requirements and accountability. In this context, hypothesis testing is a frequently applied approach. Indicators are a means for assessing in quantitative terms whether targets have been achieved. Another criterion for the impact assessment is the effectiveness of the intervention which is defined as congruency of intended and observed behaviour of the target groups. (Bussmann 1997) Effectivity comprises both quantitative and qualitative aspects. Relationships between effects and causes are equally subject to performance evaluation.

In political practice, as it is the case for Local Agenda 21 processes, the questions of effects, impact and efficiency are of foremost interest. Currently a tendency from retrospective output evaluation towards process evaluation focusing on the organisation and protagonists of the system can be observed, which goes along with a shift towards a methodology developed in the auditing context. (Leeuw 1998) However, for the time being, evaluation as an instrument of ensuring political consistency and logical coherence (Bussmann 1997) is not so often applied.

Systems of reference – the case of sustainable development

A core element of evaluations is the assessment of adequacy and progress relative to a set of objectives or criteria. Thus, as a prerequisite, evaluation requires a system of reference, with regard to which the subject of the evaluation, the *evaluandum*, will be assessed. From the perspective of the evaluated system, either an immanent or exmanent system of reference are applicable. Immanent frameworks of reference are deducted from objectives and tasks defined within the evaluated project or programme. Exmanent systems of reference are provided by external political or scientific sustainability concepts.

In practical experience, immanent systems of reference pose several problems. Often the goal system is not clearly defined at the outset of the project or programme. In other cases, the set of objectives only covers a narrow segment of the scope of sustainable development. Besides, information on the achievement of project goals and efficiency does not allow a general assessment of sustainable development.

If evaluations use external systems of reference, sustainable development is often interpreted in a reductionist way, frequently based on a set of indicators. However, a technical assessment of indicators can only provide insight into impacts, leaving aside information on the process. (Martinuzzi, Langer 2001) Besides, politicians, project managers and evaluators do not necessarily share the same perception of sustainable development and thus apply different systems of reference. The differences are hardly discussed at the outset of the evaluation. (Langer, Schön 2001)

However, the quality and accuracy of evaluations can be improved by discussing explicitly the elements and scope of the assessment system. On this basis, an unambiguous system of reference can be defined in a transparent and participative manner.

For this purpose, a distinct and comprehensive referential framework is a useful instrument for the transparent and accurate definition of scope and subject of the evaluation of sustainable development. Like a geographic map it provides orientation within a greater context, it facilitates finding the focus of the process and the co-ordination of people involved.

Based upon literature analysis and expert workshops, the Research Focus Managing Sustainability has elaborated such a framework.

Features and limits of the Framework

The framework is an orientation tool to facilitate explicit discussion and informed decision making. The target groups of the framework comprise in particular evaluators, managers and institutions commissioning evaluations of sustainable development processes. It thus has to account in a comprehensive way for the different perspectives and approaches to sustainable development.

The framework accounts for the wide range of notions of sustainable development in a systematic way. Like a map, the proposed framework depicts the landscape of potential approaches to sustainable development and thus provides an overview of the aspects of sustainable development (scope) and the different requirements that are associated therewith (forms).

With the help of the framework, the scope, focus and level of complexity of concrete processes can be clearly determined and distinguished from alternative approaches. An explicit determination of the content of projects or processes may help to make the concept of sustainable development more tangible and operational. Similarly, a clear terminology also facilitates communication and co-ordination among protagonists and stakeholders. With regard to the implementation of sustainable development, the framework helps to match the demands and expectations on sustainable development that exist on different policy levels.

Without any assessment, the framework considers different forms to implement the aspects of sustainable development. On this basis, an informed choice for a specific form adequate for the given situation can be made within a project or process. As the framework points out perspectives for the improvement, extension and further development of the process, the framework can provide support in directing processes from a basic approach to more complex forms. Finally, the framework also provides a guideline for identifying approaches that may not be suitable to lead to sustainability.

For analytical purposes, profiles can be drawn from the framework that allow a comparison of approaches and perspectives. However, the framework does not provide a means for consistency testing. Incompatibilities between the choice of a certain form in one aspect and another aspect cannot be automatically identified. In this case the instrument relies on the discussion and participative decision making of the protagonists. Nevertheless, the framework facilitates these discussions.

Structure of the framework

The structure of the framework follows the key questions that determine a process for sustainable development:

- Systemic aspects: time, space and material system boundaries
- Potential Aspects: What shall be sustained or achieved?
- Process design: How do we get there? What are the rules for decision making, implementation and improvement?

Along these three questions, the framework is structured in aspects and forms. The **aspects** determine the **scope and focus of a project or process** and thus allow a rough orientation like borders on a map.

Following the aspects, a basic match in scope of the concepts applied in planning, implementation and evaluation of the process can be determined. Further more the aspects allow the categorisation of approaches

Systemic Aspects
Integration of aspects especially the triangle of sustainable development
Temporal characteristics of sustainable development
Spatial characteristics of sustainable development
Potential Aspects
Stocks and flows of potentials
Distribution and equity
Valuation of potentials
Process Aspects
Social crosslinking/networking
Risk and dynamic change
Management of processes
Participation
Evaluation

Table 1: Aspects of the referential system

according to their focus on the social process or on impact and results.

In a particular project or process, certain aspects suggested in the framework may be attributed negligible relevance. However, the selection of the aspects should be the result of a transparent decision making process where all aspects are taken into consideration.

Whilst the aspects describe the scope of the process, the requirements or approaches associated therewith take on different forms of complexity. Here we refer to the forms as “basic”, “intermediate” and “complex”. In some cases also a “non sustainable” form can be determined.

After some analysis, an **informed choice** for a specific form adequate for the given situation can be made within a project or process. Such an approach also offers the possibility to develop a process into a well-determined direction by proceeding from a basic approach to more complex forms.

For analytical purposes, profiles can be drawn from the framework that allow a comparison of approaches and perspectives. However, the framework does not provide a means for **consistency testing**. Incompatibilities between the choice of a certain form in one aspect and another aspect cannot be automatically identified. In this case the instrument relies on the discussion and participative decision making of the protagonists. Nevertheless, the framework constitutes a helpful instrument to facilitate these discussions.

Empirical evidence

Within the analysis of four cases of evaluations of local and regional initiatives of sustainable development, the framework described before, depicting the scope and form of approaches to sustainable development, was applied. The investigations show that in the observed cases the choice of certain aspects and forms of sustainable development is being made implicitly. However, such a choice is linked to a number of **shortcomings**:

- The choice is mostly done without specific knowledge of the aspects chosen and those not chosen
- The choice is not done explicitly
- The individual choices by different protagonists do not necessarily match

If an overall view of the cases is being made, it can be concluded that the full **integration of environmental, economic and social aspects** is not disputed by any of the actors within a sustainable development process. However, there is a more differentiated view concerning the **substitution** of resources and the limit up to which a resource might be exploited. For this aspect the protagonists adhere to either a basic, intermediate or even complex understanding of sustainable development. Concerning the **just allocation** of resources, the interviewees either think that equal opportunity is sufficient while there also is the more differentiated view that actual equality is important for sustainable development. The actors of these processes also see the field of action and influence mostly limited to the actual process. Only a minority of the active persons would consider effects beyond the process of sustainable development.

On the **process level**, there also exist rather differentiated views. Aspects with specific social background as participation and networking are considered to be aspects, which have to be regarded in great depth. The management of processes and the awareness and the management of risk are seen as less important.

It can be subsumed that there generally is some **common ground concerning sustainable development**. However, there are some differences in the general perception by the protagonists of local or regional processes of sustainable development, which aspect is part of sustainable development and which is not. There are even larger differences if the aspects of sustainable development are differentiated in levels of complexity – their forms of sustainable development. The fact that personal views of sustainable development differ considerably between project managers and evaluators raises the question of which aspects and forms will be applied in the process of sustainable development and its evaluation.

What are the implications for evaluations?

There are considerably different views of the aspects involved in a process of local sustainable development. The protagonists of the processes of sustainable development are not explicitly dealing with some of the divergences of these views. Therefore there are **discrepancies** concerning the question which aspect and form of sustainable development is an issue for the process of sustainable development.

The results may imply **inefficiency and non-accuracy** as a result of insufficient coordination between the evaluator and the project manager and further research has to be done in this respect. On the other hand, evaluations may also play an important role in pointing out issues not covered by the process.

Conclusion

In the context of sustainable development, **evaluations have particularly high relevance** as evaluations enable continuous improvement in social processes. They serve as an instrument for the integration of social, economic and environmental policies and assure compatibility of processes on different political levels. Evaluations play an important role as a catalyst for institutional innovation.

The interface between the different groups of protagonists involved in planning, implementation and evaluation of sustainable development have a particular need for establishing a common ground to ensure consistent and efficient implementation and accurate evaluation.

The investigation of four case studies in Austria have shown that the **choice of certain aspects** of sustainable development is being made implicitly. Among stakeholders of local and regional initiatives of sustainable developments, there is a general but heterogeneous knowledge of potential attributes of sustainable development. A more detailed analysis with regard to the forms of the aspects of sustainable development reveals even greater differences.

In addition to the underlying personal views, perceptions of the evaluated process and the content and priorities of the evaluation also vary greatly. Differences in the importance attributed to aspects of sustainable development by evaluation sponsors and evaluators may impair the effectiveness and accuracy of the evaluation. Even though the interviewed evaluation sponsors generally expressed their satisfaction with the evaluations, in the cases under scrutiny the recommendations have hardly led to action.

Empirical evidence emphasizes the necessity to establish a common **referential framework of sustainable development**. Such a referential framework is especially important for the definition of scope and subject of the evaluation of programmes, processes and projects for sustainable development.

Further research has to be conducted to reveal additional details concerning the conduct of evaluations and the methodology for the evaluation of processes for sustainable development to advance towards a comprehensive model of the evaluation of sustainable development.

Annex

The referential framework - checklist

Sustainable development is...

- **Integrating system characteristics of the natural and the socio-economic system**
    1. A unitary approach to sustainable development requires the integrated analysis of the complex structure of effects in a functional and holistic and interwoven way.
    2. A focused approach is characterised by the fact that the goal system comprises of environmental, social and economic aspects, but not necessarily in a balanced way
    3. A partial approach focuses on a singular system or its constituents but also considers some feedback mechanisms from outside the system under scrutiny
- **Considering the different time spans and time lags of systems and system interactions**
    1. The time horizon can be determined according to the duration of projects, programs or planned interventions related to a process
    2. The time horizon can be set according to the duration of effects caused by the respective project or processes, which often last beyond the period of interventions within the project as such
    3. The time-horizon can be chosen according to the system influenced by the decision. The adequate time horizon would be consistent with the time these systems need to react and to regenerate
- **Considering spatial interlinkages of project, processes, programs and policies**
    1. The spatial boundaries are set to define the immediate area of activity of a project, program, process or an organisation
    2. The delimitation is including more than just the immediate area of activity as relevant interrelations with other systems outside are also considered
    3. The actors of a sustainable development process decide to include far reaching interrelations also on the global level

- **Considering material system boundaries**
    1. The partial approach to sustainable development focuses on a singular system or its constituents, for instance natural resources, but also considers feedback mechanisms.
    2. A focused approach to sustainable development is characterised by the fact that priorities are attributed among social, economic and environmental objectives.
    3. With a unitary approach all relevant facets of development including environmental, social and economic issues are considered in a functional and holistic way including the complex structure of effects
- **Defining levels and limits of what shall be sustained**
    1. Monetary limits focus on the monetary value of capital, resources and potentials that shall be sustained.
    2. Physical limits and levels, often expressed as safe minimum standards, are independent of monetary valuation but rely upon scientific knowledge of cause and effect relationships.

3. Qualitative standards describe the desired state of the social, economic and natural environment in quantitative and qualitative terms and reflect both scientific evidence and ethic elements.

- **Valuing and measuring social, economic and environmental resources and capacities**

1. As market prices alone have proved insufficient to assure the sustainable use of resources and capacities, shadow prices are introduced to value and measure goods that do not underlie market rules.
2. In addition to use-values expressed as market and shadow prices, the concepts of total economic value also includes option and existence values, thus accounting for a long term perspective.
3. Beyond the anthropocentric perspective, allowance can be made to so-called intrinsic or inherent values. These values are independent of the function for human beings, they are directly related to the subject in question.

- **Organizing the distribution of resources and income in an equitable way**

1. The potential for compensation is the only assessment criterion.
2. Equal opportunities are regarded as the basis for equity, taking into account that people with different preferences and values need different framework conditions to achieve their objectives.
3. Actual compensation is demanded in order to diminish social inequalities in material terms.

- **Able to manage projects, processes and programs**

1. Specific management-structures like steering committees for projects and processes of sustainable development are in place, which are paying attention to basic management instruments and support the creativity of the actors
2. Complex management-structures like steering committees together with work-groups are in place. These structures are then employing multiple methods of process and project management and support creativity and innovation
3. Broad, efficient and innovation-oriented institutions and management structures are in place. These are then utilizing comprehensive and especially quality-oriented methods of process and project management

- **Supporting societal crosslinking and networking**

1. Networking and the exchange of information is aiming at a win-win situation, but the benefits derived are confined to a small group of directly involved actors who also form a primarily single discipline information background
2. The interests and background of multiple disciplines or stakeholders are being recognized and an interdisciplinary or multi-faceted approach is being chosen to benefit people, initiatives or organizations not directly involved. The knowledge and experience from other disciplines is being integrated
3. An integrated, transdisciplinary and systemic approach, allowing for broad solutions and paths is being chosen. Stakeholder-chains are being extended, and even indirectly involved entities are taken into account, leading to broad solutions

- **Dealing with dynamic change and risk**
  1. The ability to react to change and the interaction with risk is primarily confined to dealing with issues of dread
  2. Changes and possible paths of development are and are prepared. Dynamic change, uncertainty, risk and dread are being anticipated and are included in the development of possible scenarios and feasible ways to react
  3. The precautionary principle is being followed to deal with potential risks. The avoidance of irreversible situations, the minimization of risk and participation are in the foreground
- **Supporting participation and responsibility to come to new forms of governance**
  1. The use of democratic instruments as well as the free market ensure basic participation
  2. The ability to participate actively at case-specific decision making as well as implementation processes is ensured and is going beyond traditional democratic or market instruments
  3. The ability to participate freely and extensively at any project and process is guaranteed to single citizens as well as interest groups
- **Based on a reflexive process facilitating constant learning**
  1. The objectives and goals are being quantified. The attainment of the goals can be measured by using indicators
  2. The quantitative as well as qualitative aspects are being evaluated if originally set goals or guiding visions were reached
  3. Evaluation is being considered to be an integral part of a process of sustainable development. The objective of the evaluation is organizational learning and the improvement of the process

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