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Implementing Evaluation in the context of Sustainable Development (II)

The Strategic Orientation in the context
of Evaluations with Sustainable Development
as part of a Tool Box

by

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Abstract

In the context of sustainable development, evaluations have particularly high relevance as complex issues have to be dealt with generally over an extended period of time. Furthermore, there is a growing demand to evaluate against the concept of sustainable development. Especially evaluations *with* sustainable development are a rather new type of evaluation, as the source of its evaluation questions and the criteria applied are rooted in the concept of sustainable development.

Sustainability of a specific project or process is often highly case specific as sustainable development is determined by many often unique issues. However, evaluations would be highly inefficient, if they would have to be newly designed in every case. Thus it is necessary to determine and utilize the major issues for evaluations with sustainable development.

This paper is part of a series of three papers – which can be used independently – that present the major common issues for evaluations with sustainable development in a Tool Box. The results presented here are based on outcomes of a research project funded by the “Austrian Science Fund”.

This paper includes the “strategic orientation tool”, which was developed as a tool for reflection and decision upon the general outline of an evaluation with sustainable development. It helps to define a design- frame with respect to its information-focus, scope and utilization. The core of the tool is a matrix that is based on two key- functions. On the one hand it defines which contents should be assessed: “What is the object of evaluation?”. On the other hand it is oriented along the actual utilization of the evaluation: “How the gained results of the evaluation should be communicated and to whom?”.

Keywords

Evaluation, Evaluation in the context of sustainable development, Evaluation with sustainable development, Tool Box, strategic orientation, evaluation matrix, communication of evaluation, evaluation object

Introduction

Evaluations provide relevant information for decision makers through systematic data analysis, interpretation and judgment. Evaluations give evidence of the adequacy, performance or efficiency of projects, programs or processes. In distinction from audits, compliance with a set of standards is not the focus in evaluations. In contrast to assessments, evaluations do not result in a neutral account of the situation but in a value judgment. Depending on the type of evaluation, also recommendations for further action may be included (e.g. Rossi 1994).

Evaluations answer questions that are relevant for decision-making, referred to as evaluation questions. Evaluation results can be used for example in decisions concerning the further financial allotment of programs, the initiation of further projects of a similar type or improvements in the process and organization of an ongoing project.

Basically, any project, program, process or measure can be evaluated with regard to its compliance with sustainable development. Evaluation with sustainable development is an evaluation that applies criteria of sustainable development. The evaluation subject in this context is not limited to projects or processes explicitly designed towards objectives of sustainable development. The special requirements and qualities of evaluations with sustainable development arise from the evaluation questions and the criteria applied for the judgment.

Evaluations *with* sustainable development thus clearly differ from evaluations *of* sustainable development, where sustainable development is represented by the evaluation subject, e.g. a corporate sustainability program, but where evaluation questions and criteria focus on other issues than sustainable development, e.g. efficiency of resource use. In this case economic criteria are applied. In this perspective, evaluation of activities of sustainable development does not differ from any other economic evaluation. In this case we are referring to evaluations *of* sustainable development. For example Local Agenda 21 processes represent a potential evaluation subject, due to their participative structures of decision-making within a social and political environment characterized by traditional democratic and administrative mechanisms.

Evaluation questions for evaluations with sustainable development concern the adequacy or contribution of the evaluation subject relative to the objective of sustainable development, e.g.:

- What is the contribution of the project, program or process towards sustainable development?
- Are the structures adequate in order to contribute towards sustainable development?
- Is the design e.g. of a process suitable to contribute towards sustainable development?

Evaluating a subject with regard to sustainable development requires criteria that ensure sustainability according to present knowledge. An overview of aspects and criteria for this purpose is discussed in Langer et al. (2002). Characteristics of sustainable development encompass for example the requirement of long-term consideration, spatial interlinkage and integration of multiple goal dimensions. Fulfilling all these requirements in a comprehensive manner is impossible within a single evaluation. Thus the decisive issue is the delimitation of the system under scrutiny with regard to content, time and space. Evaluation with sustainable development also is distinct through the fact that the concept of sustainable development does not only impose technical criteria, but also implies criteria for the design of the development process.

Thus commissioning agents and various other stakeholders of evaluations face a new challenge – evaluations that integrate sustainable development into their design and orientation. Thus the authors suggest a Tool Box that can be used in this specific context. The Tool Box consists of three main parts – the **planning and commissioning tool**, the **strategic orientation tool** and the **tool for integrating sustainable development**. The Tool Box relates exclusively to evaluations that make a judgment against criteria of sustainable development – thus evaluations *with* sustainable development. On the following pages a general overview of the Tool Box will be given and part 2 of the Tool Box will be discussed in greater detail. The other two parts of the Tool Box are discussed in Langer et al. (2003a) as well as Langer et al. (2003c).

The Tool Box

The Tool Box addresses primarily clients of evaluations with sustainable development. It provides orientation and facilitation of decisions associated with such an evaluation. The Tool Box helps with defining the evaluation task as well as the use and form of the evaluation results. Strategic alignment as well as the challenges of integrating sustainable development issues in evaluation practice is also part of the Tool Box.

Evaluators are not the prime target group of the Tool Box. The Tool Box does not provide an overview of methods in the fields of data collection, analysis, assessment and interpretation. According to the respective evaluation questions of sustainable development, a broad array of methods from the social, economic and natural sciences can be applied. There also exists ample literature concerning the use of indicators and the measurement of sustainable development. The Tool Box focuses on the strategic direction and the design of the evaluation, which are prerequisites for the selection of methods.

Evaluations with sustainable development differ from other evaluations due to the evaluation questions and the evaluation criteria. In addition to that, processes of sustainable development such as Local Agenda 21 processes – which here are used as a proxy for other processes – represent specific evaluation subjects. As a consequence, a number of particular requirements have to be considered regarding the steps in the decision-making and planning process as well as the realization of the evaluation.

As a basis, the Tool Box draws on general evaluation theory and practice from other evaluation areas. In a further step, specific challenges of the evaluation with sustainable development are identified. The Tool Box points out the particular features and describes procedures to tackle the problems associated therewith. The Tool Box provides a consistent guidance from the idea to the realization of the evaluation with sustainable development.

Finally, each evaluation has to be adapted to the individual tasks. The necessity of diversity and adaptation to the individual case is generally recognized in literature (Caracelli, 2000). However, the room to maneuver that evaluators have in implementing an evaluation depends on the task of the evaluation, the resources available as well as the framework conditions. Thus it is neither aspired nor possible to provide a generally applicable procedure that is suitable for all evaluation situations (Rossi, 1994).

Despite the necessity of individual adaptation there do exist critical moments in the evaluation planning and design or the strategic alignment that are of general importance. The Tool Box aims to describe these issues for the evaluation with sustainable development and to point out options among which the best one can be chosen according to the respective situation.

The structure of the Tool Box

The Tool Box is structured along the following sections:

- Evaluation planning procedure – steps in evaluation design from the idea to implementation
- The strategic orientation of the evaluation by using a matrix
- Challenges and strategies of the integration of sustainable development issues based on a framework of sustainable development for the definition of the evaluation subject, content and evaluation criteria

The first section on the **evaluation planning and commissioning procedure** presents the critical elements in planning and designing an evaluation with sustainable development. The procedure proposes a path along the steps from the evaluation idea to commissioning and conducting the evaluation. Based upon general requirements to evaluation planning the specific features of evaluations with sustainable development are emphasized. It also introduces the content of the evaluation with sustainable development as a basis to and deduct evaluation criteria. An overview over a broad array of interpretations of the concept of sustainable development is provided, which helps to categorize the approach under scrutiny and specify the aspects that shall be subject to the evaluation with sustainable development (Langer et al., 2003a).

In a second step the Tool Box describes the definition of evaluation goals and information needs. This issue is treated in more detail in the part on the **strategic orientation** (Langer et al., 2003b) of the evaluation. It includes a matrix that helps to define the information needs

and the prospective use of the evaluation results. Furthermore this tool provides an overview of potential types of evaluations and their fields of application and facilitates the selection of the adequate type. Also the options and criteria for defining the adequate role of the evaluator are described in this context.

Finally challenges and strategies **for integrating sustainable development** derived from evaluation practice are presented (Langer et al., 2003c). The strategies were developed in cooperation with technical and scientific experts. This section focuses on finding practical and action-oriented ways to achieve the best possible evaluation results due to the impossibility of conducting a comprehensive all including evaluation with sustainable development.

The features of the Tool Box

An empirical analysis (Langer et al., 2002) has shown that persons or organizations that commission evaluations (evaluation clients) generally lack an overview of the options available for decision-making and design of evaluations. The Tool Box provides **tools for orientation and guidance** along the steps and decisions towards conducting or commissioning an evaluation.

The Tool Box...

- describes each step in the decision making process from the idea to the implementation of the evaluation from the perspective of the evaluation client
- helps define the objectives, purpose and prospective use of the evaluation – the strategic direction of the evaluation
- provides orientation among evaluation approaches
- provides guidance for the definition of the role of the evaluator
- provides orientation in defining the aspects of sustainable development to be evaluated
- helps define the evaluation criteria relevant for sustainable development
- describes challenges and strategies

Summing up the list above, the Tool Box facilitates the clarification and definition of the evaluation task or contract among the involved agents, in particular the evaluation client and the evaluator(s).

The strategic orientation tool

The “strategic orientation tool” was developed as a tool for reflection and decision upon the general outline of an evaluation in the context of sustainable development. It helps to define a design- frame with respect to its information-focus, scope and utilization. The tool as been developed for evaluations in the context of sustainable development, however, it may well be adaptable for other evaluations.

The tool is basically a matrix that is based on two key- functions, which have to be defined as basis for the concrete design planning. On the one hand it has to be clarified which contents should be assessed: “What is the object of evaluation?” On the other hand a decision has to be made upon the actual utilization of the evaluation: “How the gained results of the evaluation should be communicated and to whom?”

The “strategic orientation matrix” is developed as an analytical and reflexive tool for the general orientation of evaluations of sustainable development. It helps to design an evaluation with respect to its focus, scope and utilization. Whereas Langer et al. (2003a) reflects the planning process within its general conditions the matrix focuses on specific issues of design development and methodological questions.¹

Since the methodological and disciplinary requirements of evaluation profiles are enormously diverse, the matrix can’t provide a formative guidance. In general the development of evaluations needs highly variable and flexible instruments to provide adaptive designs for the various demands of evaluation practice.

Openness and flexibility are particularly required in the context of sustainable development as such an evaluation...

- has to deal with issues of high complexity as the long-term perspective, participation, spatial integration and the integration of social, economical and ecological dynamics.
- has to cover a broad range of issues, since sustainable development includes in fact all societal systems and its institutions as well as various scientific and technical fields.

Furthermore, openness and flexibility are required to promote an innovative environment, which in turn is essential for pursuing methodological development within the field of the evaluation of sustainable development.

The matrix proposes a general categorization, which provides a structured overview within the various evaluation approaches and practices in the context of sustainable development. For the evaluator as well as for the evaluation client the matrix offers orientation for the general design of evaluations.

¹ The matrix is an expansion on the issues “Information needs“ and “Scope of evaluation“, which are discussed within Langer et al (2003a). The design- and the choice of methodology are essentially determined by these issues.

Beyond that, the matrix can serve as an analytical instrument to demonstrate the interrelations between the different functions of evaluation and the respective methodological approaches.

The matrix aims to offer...

- a differentiated overview of the essential functions of evaluations
- specifications of the particular functions of evaluations
- an overview of the qualities of the methodical approaches in use
- an overview of the range of utilizations of evaluations regarding sustainable development.

A crucial feature of the matrix is to visualize the causal interrelations between the features of content and task of evaluations in the context of sustainable development on the one hand and the methodical instruments to put them into practice on the other.

The matrix should help to develop a deeper knowledge about the broad application variety of the instrument of evaluation in the context of sustainable development and should furthermore support the clients of evaluation to clarify and reflect their ideas and demands on evaluations of sustainable development.

Structure of the strategic orientation-matrix

Evaluation regarding sustainable development comprises two fundamental functions:

- Its general task is to provide the basis for an assessment of a well-defined evaluand.
- An additional and just as important function of an evaluation is the communication of obtained results to various actors like the client, the project-team, the participants or interested stakeholders.

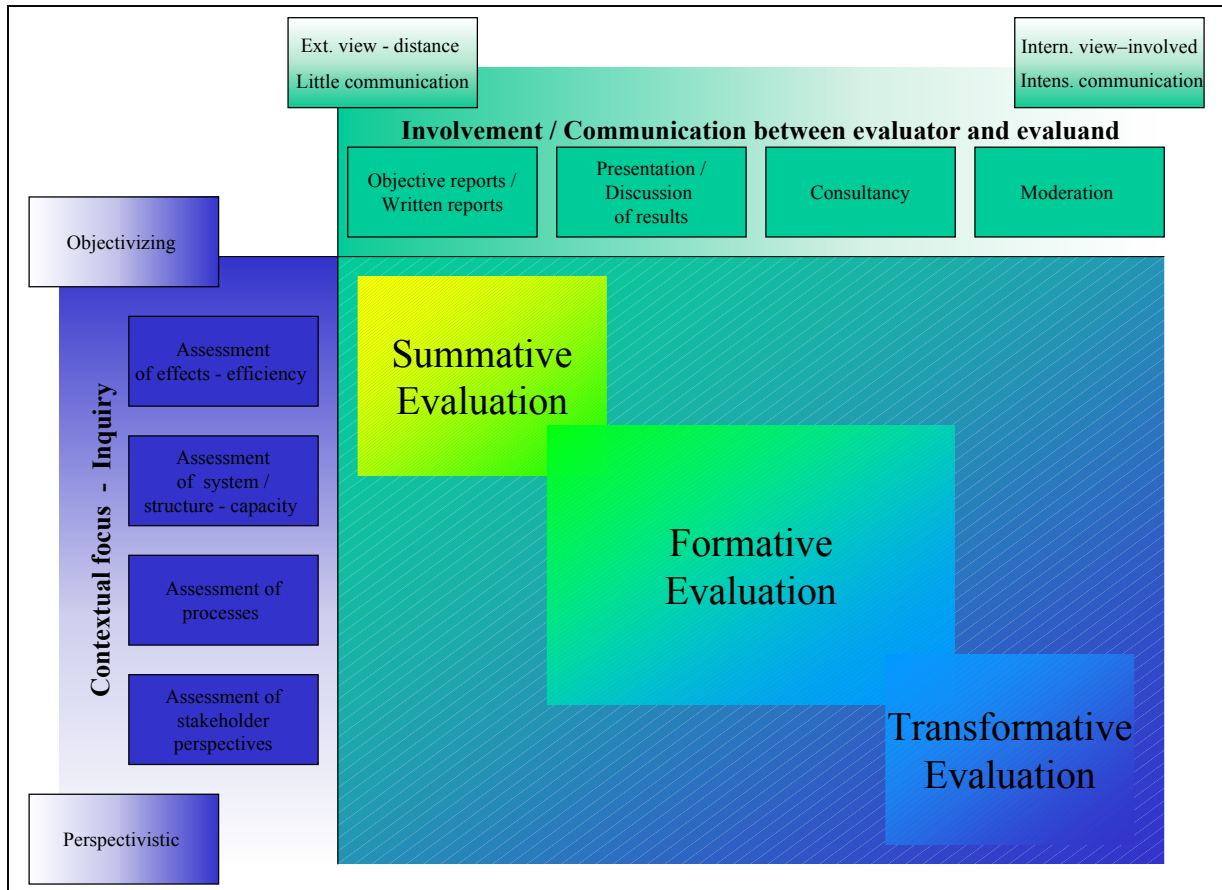


Figure 1: Matrix for strategic orientation

These two functions of evaluation in the context of sustainable development define the two axes of the matrix (see figure above).

The vertical axis displays the *contextual foci of inquiry*. It serves as an orientation for the decision which specific issues should be assessed in an evaluation.

Four focus categories are differentiated. One and the same object (a project, program or the like) can be investigated...

- with respect to its factual effects - Assessment of effects and efficiency
- its structural or systemic capacities - Assessment of structure/system-capacity
- its general course of process - Assessment of process
- or its focus on the interaction of the involved actors (stakeholders) regarding its various interests - Assessment of stakeholder perspectives

The second axis deals with *communication*: How is the gained information passed back and to whom is it communicated? Four categories are distinguished:

- objective / written reports

- oral presentation / discussion of results
- consultancy
- moderation

To gain the best possible results of an evaluation, the communication process requires a well-grounded planning process within the general evaluation planning- also with regard to the methodical design.

Thus the decision on the way of communication is a determining factor regarding ...

- the general design of the evaluation and its methodological approach
- the function of the evaluation within the whole process /project /program
- the role the evaluator and the extent of his/her involvement within the process
- the need of utilization of the evaluation results by the respective actors
- the general potential of evaluations to initiate and implement processes of sustainable development

To separate the evaluation focus on the one hand and the communication of information gained on the other hand is a result of the empirical analysis conducted within this research project. A meta-analysis of evaluations in the context of sustainable development as well as expert inquiries on sustainable development (Langer et al., 2002) revealed that communication is an important but often ignored task of evaluations in the context of sustainable development. As communication is often considered to be a natural part of evaluation, it is rarely subject to specific methodical planning strategies. Furthermore, theoretical approaches mostly fail to investigate the particular role of communication within the evaluation process. Communication is either left out completely or it is subsumed within the general methodology of evaluation research. Looking at communication as a task of its own, should introduce this essential aspect of evaluation towards a systematic and methodological development of evaluation design.

The Matrix as an orientation-tool

The two functions of evaluation in the context of sustainable development described above require a fundamentally different repertoire of methods:

- For inquiry and assessment of the object of consideration, methods of data acquisition, analyses and assessment are required.
- To mediate the gained results, communication methods as didactic techniques for presentations, consulting and moderation skills, as well as know how in writing documents and reports are needed.

Furthermore the combination of the two functions of the matrix emphasizes specific evaluation designs and evaluation methods.

To some extent such combinations can be observed in evaluation practice, which reflect the different theoretical and methodological approaches as summative, formative or transformative evaluation. Thus the instrument of moderation typically is combined with process-oriented evaluations or evaluations which focus on the various stakeholder perspectives, whereas evaluations which mainly rest on factual data analyses often communicate the results via written reports only.

However, these stereotype combinations are increasingly abandoned due to the heterogeneous tasks and the general requirement of flexible and variable handling of various evaluation instruments. It is basically open to decide on the question of evaluation focus independently of the way to communicate the results.

The matrix offers a frame to reflect and to decide upon the general alignment of an evaluation. Along the two axes, objectives and tasks can be decided upon separately, which determines the design setting and methods to be used. The following questions have to be answered by the evaluation planners (clients and evaluators).

- Which kind of information is needed? What are the issues of interest? What shall be the focus of an evaluation? How should it be assessed? Are the chosen evaluation-objects appropriate for the requested utilization of the evaluation?
- How should the gained information be utilized within the project/program? How should the results be communicated? Which role should the evaluator have within the project? Is the chosen way of communication appropriate for the requested aim of the evaluation?

Empirical studies (Langer et al., 2002) show, that evaluation clients usually have neither ideas nor experience about utilization-potentials of an evaluation in the context of sustainable development and its various fields of application. A clarification of these crucial questions at the beginning of the evaluation planning might contribute to a better reflection as well as concretization of the actual (intrinsic) request (information needs). A better understanding of potentials and limits of an evaluation leads to more constructive and satisfying evaluation process.

Once the general aims and the alignment of an evaluation are defined, evaluators can develop an evaluation design along the needs of the two functions. According to the evaluand on the one hand and the demand of utilization on the other, respective methods of inquiry, analysis, assessment and communication can be chosen and combined within a compact evaluation design.

Description of Categories

The contextual focus of the evaluation in the context of sustainable development

The evaluation focus can be pointed at different levels of the evaluand. Four levels are distinguished in the matrix:

A program or project can be evaluated with respect to its *effects*. However, evaluations can also be conducted regarding the *system-* respectively *structural capacities* of an intervention, as well as the *implementation process* of interventions. Furthermore the evaluation focus can be aimed at the various *stakeholder interests* and the *interaction and participation processes*.

In practice an intersection of these categories or the application of more than one aspect are common. This is especially true for the evaluation *with* sustainable development since the complex premises ask for the integration of multiple perspectives.

Nevertheless the matrix as an instrument for orientation makes a clear-cut distinction between the four focus categories to display the specific qualities of the four categories. Also potentials and limits of the particular approach should be demonstrated. Especially for complex evaluation designs, which include different categories (e.g. effect- inclusively process assessment), a clear definition of the particular focus arrears is a crucial strategy to deal with high complexity.

Assessment of effects and efficiency

The evaluation deals with the question if the analyzed intervention obtains the desired effects and which unintended effects have been caused by the intervention. The evaluation aims to measure the net effects, which don't include effects caused by external factors. The most problematic issue of this approach is to investigate relevant data, which allow a distinctive measurement. The choice of indicators to verify the true effects is of special importance.

Usually the evaluation has to be designed to compare the results with a "zero-scenario". This means it has to be verified what would have happened without intervention. Some experimental designs therefore operate with control groups to find out about the differences. Yet this leads to a considerable increase of costs. An assessment on effects without evaluating the previous process is called "black box-evaluation" (e.g. Rossi, 1994).

Evaluation of effects needs a clearly defined set of aims and criteria. Especially the evaluation of long-term effects, unintended effects und the complex task of evaluating the interrelation of social, ecological and economical effect chains require highly developed evaluation methodologies which are farley insufficient by now. The more it is tried to cover complexity within an evaluation the more costly and extensive the design will be.

The inquiry of primary data normally goes far beyond the possibilities of evaluation budgets. Thus the feasibility of evaluations on the basis of effect assessment is essentially dependent

on the disposability of relevant data. Up to the present, continuous data logging - especially in field of environmental measurement data – just comes into being. Hence a comprehensive evaluation of sustainable development on the basis of long-run effect measurements is still limited.

Disciplinary Variety of Methods

Effects, which are aimed with the interventions for sustainable development, are manifold. Projects/programs can target on social, economical and political effects. In the ideal case, all of these dimensions should be covered. Many interventions also aim on technical improvements (as energy efficiency or emission reduction of any technical installation).

Additionally effects can be observed on different levels – on the micro-level (as individual habits, health, emission reduction of one particular artifact), on the meso-level (changes within local communities, certain sectors) or on the macro-level (changes in biosphere or national economies). Accordingly, methods and designs used in evaluation of effects cover all disciplines and are as manifold as the effects to be assessed.

One of the most challenging tasks of the evaluation regarding sustainable development is to interlink different disciplines (see Langer et al., 2002: 100f). Inter-disciplinary respectively multi-disciplinary concepts need a highly elaborated design planning, all the more as there are hardly interdisciplinary design standards developed by now.

Qualitative versus quantitative evaluation methods

Usually effect-analytical research is built upon quantitative approaches. Yet if little general knowledge and hypothesis exist (as it is often case with sustainability issues), explorative qualitative methodologies come into practice. Qualitative approaches only can explain the particular research case yet it is not possible to generalize the results for common effect analysis.

Different Assessment Strategies

A main problem of effect evaluation is how to assess future developments. In practice three different assessment strategies are in use.

- Methods based on empirical measurements as material flow accounting (technical / ecological methods), quantitative inquiries as questionnaires or research using statistical socio-economic data (socio-scientific methods).
- Assessment methods resting on model based assumptions respectively estimation based methods: Examples are technical, economical or ecological models about climate development, development of biological diversity or rational choice models. Recent progress in computer-aided simulation methodologies makes this strategy increasingly important. Assessments also can be drawn out of comparing analyses by comparing similar cases or previous developments.

- Methods based on expert opinions or estimations of involved actors. Methods typically used for this strategy are expert interviews and analysis of reports.

The latter strategy is used most frequently, as it is a very efficient and cost-saving approach. Generally, secondary-data logging methods are preferred (especially for technical and scientific issues) because of limited budgets. Primary-data logging and fundamental research remains in the domain of scientific research of specialized disciplines.

Most challenging in the evaluation in the context of sustainable development is the assessment of long-term effects. To assess future events only estimations or assessment based on simulation-models can be used. Due to the fact that these approaches typically cause high costs, expert assessments are preferably in use. However, for empirical verification of long-term effects the development and upgrading of continuous monitoring systems – e.g. based on key-indicators - is needed.

Assessment of system / structure-capacity

While evaluation of effects concentrates on interventions as such, evaluation of system / structure-capacity points at the assessment of organizational potentials regarding implementation and management of an introduced intervention. Internal structures and capacities are analyzed and assessed as well as the general context, in which the implementation procedure is embedded.

This particular focus of evaluation is mainly used in the implementation phase of new innovative political concepts, as it is the case for most interventions in the field of sustainable development. To bring a political program or project into being, as a first step an organizational frame for administration and operationalization has to be developed.² In a broader sense the implementation of organizational structures can be considered as institutionalization process of sustainable development. Thus the issue on structure / system-capacity contains crucial importance for the long-term development of the socio-political aim of sustainable development. Assessment of structure / system-capacity means the assessment of the ‘sustainability’ of the institutionalization.

Institutionalization can appear in various ways as for example as a conversion of existing administrative structures, creation of new organizations, co-ordinations or networks and many more.

Thus the assessment of system/ structure capacity has a number of core issues:

- How is the process of implementation of an intervention for sustainable development structurally embedded?

² As a meta-analysis of evaluation reports shows (Langer et al., 2002: 145ff), recent evaluations regarding sustainable development are dominated by this focus of evaluation. This result implies that the process of institutionalisation of a novel political objective is of high importance. It also indicates that current policies are far away from a routine practice of sustainable development.

- Are the organizational/systemic structures appropriate to transform the respective intervention and best possible to fulfill the wanted aims?
- How are the external conditions relevant for a successful implementation assessed?
- Are the organizational structures capable to guarantee a “sustainable” continuation of the intervention in the sense of an ongoing sustainable development?

Furthermore for the evaluation of structural / systemic capacities it is necessary to generate a broad understanding of the respective system (organization, institution, network,...) and to find out about the organizational (internal and external) coherencies. Also an understanding of the causalities between the chosen intervention, the objectives and the organizational structures has to be developed. Systematization and visualization of the organizational structures and its interrelation often help to clarify weak points and to gain knowledge about the frictions within the implementation process.

As a consequence the issue of using specific criteria is surfacing. In general external referential criteria to assess structural/systemic potential rarely exist. The criteria used are mainly developed by evaluators themselves and refer either to theoretical based principles (as about organization research) or to experiences of the evaluator.

Typical criteria to assess the performance of organizational structures are:

- organizational capability to learn and adapt within internal processes as well towards the external environment
- efficiency regarding the implementation performance
- Internal and external capabilities for co-operation and communication
- Innovation potential of the organizational structures
- Sustainability of the organizational structures for further continuation of the intervention

The performance of an organization can't be judged by its own but by the fulfillment of the objectives of the intervention. Therefore the assessment of the organizational structures must take into account the actual aims of the intervention. In many aspects the focus on the structural/systemic capacities overlaps with the evaluation focus on effects and process.

A number of critical issues have to be solved to proceed successfully towards the evaluation of system and structure capacities

- Access to involved actors and relevant data about organizational details are necessary.
- Results depend to a large extent on the experience and individual judgment of the evaluator.
- External referential (independent) criteria are rarely given.

- Evaluators run the risk to get involved in political conflicts.

As the focus on systemic/structural capacities implies that the evaluation is exclusively of social nature. Correspondingly only social science approaches came into use, which are by large adaptable from other socio-political fields of evaluation as education or social policies.

In general this focus is dominated by formative evaluation approaches. Also designs, which involve evaluation in the implementation process as intrinsic tool for organizational transformation, are used.

Evaluation supports the institutionalization process by documentation and analyses of the organization, deficit analysis, comparative studies, context analysis and the like. A specific analytical approach appropriate for the concept of sustainability is the “live cycle analysis” developed by Stockmann (in: Meyer, 1999).

Frequently used methods are:

- qualitative interviews, expert interviews, informal conversation with involved actors
- document analysis (ongoing protocols, documents of objectives, official documents, strategic papers, reference documents, media analysis, ...)
- group interviews and group discussion, open round tables, ...
- written inquiry (open or standardized)

Assessment of processes

Whereas the evaluation of effects only values the results (outcome) of an intervention, process evaluation focus on the performance and processes of a program or project. The evaluation assesses if the intervention was performed as planned, if the intervention was directed towards the wanted addressees, if the right assumptions have been made, if the right recourses and strategies have been chosen and if they were used in an appropriate way.

Process evaluation opens the ‘black box’ of the process. It is not asking “What are the results” but “What are the causes for the results” respectively “What are the causes for failures?”

Assessment of the previously described evaluation of structural/systemic capacities is indeed an important element within the total process performance.

This evaluation focus gives answer if the program/project is able to master its critical functions. It identifies factors, which are responsible for the obtained effects. Within the process evaluation the main goal is to generate explanations rather than making assessments.

In most of the cases process evaluation is only performed at one point in course of the program/project. Yet an ongoing monitoring program might be useful in order to document the efficiency of the intervention. As such, it offers a fundamental database, which might

support team-members during decision-making processes and serves as quality assurance (Rossi 1994: 69). Furthermore process evaluation gives information to maximize the performance efficiency. The most important indicators can be subsumed within a management information system (MIS).

Process evaluation often is combined with an evaluation of effects. The latter is insufficient if the performance behind the effects is not illuminated. It is to find out if the introduced intervention is the real cause for the observed effects.

Process evaluation comprises two functions:

1. An explanatory function with respect to the inter-relation with observed effects
2. A formative function with respect to ongoing programs/projects with opportunities to intervene

Again, to define criteria, the critical functions of a program/project have to be identified first. The sponsor of the intervention, the managers or other stakeholders can set criteria. For a long-term process these criteria can be developed further into measurable indicators. Beside quantitative indicators it is necessary to develop qualitative criteria, which have to be drawn up from the actual case.

Typical process criteria are the compliance with planned targets and milestones, the appropriateness of the basic concept respectively the assumptions behind the intervention as well as the appropriateness of the used instruments, and more.

Furthermore, to evaluate a process regarding its effects as well as the consistence of the process a clear-cut program theory is needed, which clearly describes the concept ideas and intentions of the program. Such a clear-cut developed program planning is rarely done in practice. Consequently this leaves much space for interpretation, for the program manager as well as for evaluators. Evaluation criteria are therefore often very vague. This problem raises the principle question if process evaluation should be led by internal criteria or by external reference criteria.

An important task of process evaluation is to detect the critical functions and hot spots, which are responsible for a good respectively bad performance of a program/project. This capability is by and large determined by the experience and domain knowledge of the evaluator.

Additionally, as process evaluation is a mere social issue since it asks for the socio-political implementation process of sustainable development. Ecological or climate processes are usually not included in the notion of "process". Economic processes can be an element of the assessment of evaluation but it can't be considered to be the main focus here.

Accordingly this evaluation perspective is dominated by approaches with socio-scientific background. Similar to the evaluation of structural/systemic capacity, process assessment

designs are typically qualitative with focus on the actual case. For building up monitoring systems quantitative approaches can be developed.

In general process evaluation designs are very dense and complex but flexible since the holistic focus on the process raises the complexity of the evaluanda. Additionally the designs have to adapt and assess the time course of a process.

The methods used in practice are by and large identical with the methods used for structural/systemic evaluation.

Assessment of Stakeholder Perspectives

Stakeholder integration is a crucial premise of sustainable development. Therefore the different perspectives and interests of the involved stakeholders become an important object of evaluation. Besides defining the different perspectives, evaluation has to assess the interaction process of the stakeholders. Of particular interest in this context is the question to which extent participation is realized within the program/project. Which stakeholders are participating? Which ones are not? What are the different perspectives? Which interests and which conflicts do exist? How does the interaction process and co-operation between the various actors look like? How can these processes to be assessed regarding sustainable development?

Evaluation of stakeholder perspectives and participative processes might help to overcome institutional barriers and support the development of co-operations and networks. Empowerment and human resource development of the concerned actors can be achieved via the instrument of (self-)evaluation of the participative processes. Here evaluation becomes an integrative element of a program or project.

Usually criteria for such an evaluation are developed via an internal process on the basis of the involved interests rather than on an external reference system of sustainable development. Since internally developed criteria tend not to be identical with external (official) premises of sustainable development, in the beginning of an evaluation process a decision has to be made, which referential frame is wanted.

The evaluation of stakeholder perspectives requires a high level of transparency for all actors. To get the required acceptance also a clear cut definition of the role of the evaluator must be defined.

Furthermore it is important to clarify already in planning phase, which actors are going to be involved in the evaluation, which claims they have towards the evaluator and who has the responsibility to decide upon these questions.

If the evaluation itself is designed as a participative process, evaluation criteria might be conflicting with the overall concept of sustainable development. Criteria developed in the dynamics of negotiation during a decision-making processes easily can shift away from the

guiding principles of sustainable development. An evaluation then needs a sensitive approach to gap the actors' interests on the one hand and the overall conventions on sustainability on the other. Moderation qualifications and experiences in guiding dynamic processes are therefore required.

Evaluation of participation can but must not be participative itself. The involvement of different perspectives indicates a complex design combined with methods for communication processes, which usually causes expanding costs and time-budgets.

Due to its openness and group-dynamics stakeholders, a participation-oriented evaluation extends some political risk, which has to be taken into account by evaluation clients as well as evaluators.

Just like the two aforementioned perspectives, the focus on stakeholder perspectives is an exclusively socio-scientific object, which requires socio-scientific evaluation methods as well as design.

Typically this evaluation focus tends to operate with constructivist approaches, which are most appropriate to deal with differing perspectives.

As a consequence mostly qualitative and interpretative methods are used as

- qualitative interviews
- group interviews/ -discussions
- participatory observation of processes in meetings, discussion-groups, workshops, events, ...

Increasingly *action research models* are used to cope with difficult process- and interaction-dynamics. Approaches applied herewith have an advanced research profile, as evaluation is not only used for inquiry and information generation but also to initiate communication and discourse processes. Evaluation research itself becomes the initiative element to activate processes, communication and discourses within projects or programs.

Aside from the already mentioned methods like discussions and interviews groups, specific evaluation settings are used like workshops or the establishment of regular meetings of discussion groups. Also expert committees or accompanying interest groups can be established which provide an ongoing exchange process with the evaluation.

The communication of evaluation-results

Communication between evaluators and interested actors (evaluation client, project team, stakeholders, the public ...) describes a specific function of evaluation. The issue of communication deals with the various ways to utilize evaluation as well as with the role and the involvement of the evaluator within a process. Therefore it turned out to be useful to treat

the function of communication separately from the function of assessment regarding the evaluation-content.

Following questions were clarified:

- How should the generated results passed back to the relevant interest groups?
- Which methodologies are therefore used?
- Which targets should be reached with the evaluation and are the communication methods appropriate to reach these targets?
- Which role comes up to the evaluator in the evaluation setting?
- Should evaluation provide an external focus or should evaluation become an intrinsic part of the whole project/program?
- Should evaluation only provide 'objective' data or should evaluation serve as a consulting or moderating function?

The matrix displays four categories of communication, which are dealing with these questions. These categories are: *Written documents and reports*, *oral presentation*, *consultancy* and *moderation* are considered as the main instruments to transport the gained knowledge to its users. Usually more than one of these communication forms are combined in practice, and the transitions of the defined categories are not clear-cut.³

However the typology should help...

- to clarify the specifics characteristics of the four categories
- to display the different roles of communication in the evaluation practice
- to point out the different possibilities of intervention of evaluation by means of communication
- to serve as a tool for decision-making about the desired use of an evaluation

The focus on the specific evaluation-function of communication demonstrates the various uses of the instrument of evaluation. The type of communication essentially defines the conduct and the utilization of an evaluation.

³ The categories of this matrix are the result of a first step investigation and only roughly developed yet. It needs deeper empirical and methodological research and discussion for further elaboration of this concept. Also regarding the commonly used communication methods only few examples can be stated as little information could be gained in the theoretical and empirical analysis so far. However, the categories give a general orientation about the spectrum of different dimensions of communication.

Objective / written reports

Written reports typically hold the status of an official document about the results of an already performed evaluation. Thus it serves as a basis for a mostly internal discussion and decision-processes. The evaluator takes a passive role as author behind the evaluation report. In this position the evaluator undertakes of an objective authority whose statements are of common validity. The communication here is limited to the written elaboration of analysis and results of an evaluation.

Due to the formal character of written papers, this form of communication gets a documentary and objectifying feature. Factuality, transparency and scientific correctness are therefore important criteria. Formal standards of design and structure as well as standards have to be obeyed. As a clarifying and explaining (oral) communication for the reader usually is not available, measures and results have to be clear and compact. Furthermore a user-friendly writing stile should be attempted to guarantee the usability for all actors (also including laymen).

Written “communication” of analysis and results attributes the knowledge gained a binding character and makes information available independently to the researching person. Written documents create safety upon further estimations and can serve political legitimatization.

Presentation and discussion of evaluation results

Here, results are presented to a group of selected actors. The presentation often includes a clarifying discussion about the gained information and its conclusions. The presentation can be set at the end of an evaluation or during the evaluation to present the interim-results. Through oral presentation, the evaluator gets actively involved in a communication process. The evaluator has to maintain its position as non-political expert and has to respond to critical questions regarding the results.

The results of the evaluation have to be adapted for the medium of verbal communication. The results therefore have to be presented clearly, precise and compact. The presentation can be supported by visual media (multi-media presentation). Eloquence and didactic qualification are certainly important. Also competences to deal with dynamic processes and confrontation in discussion-processes are requested. The form of presentations can be very different, depending if takes place in a formal and official context or in an informal setting. The general character of the presentation and discussion can be considered as *discursive process*, since it initiates a mutual exchange of information and opinions, which is highly relevant in the context of sustainable development.

The aim of oral presentations is to give factual and analytical information, explanation and reflection of actions, processes and structures. It can include the presentation of different options and critical input for further discussions and dialog. Furthermore a learning process

can be expected due to the given information. The discursive character helps to extend the spectrum of various perspectives and leads to mutual reflection upon the objectives and processes of the respective intervention.

Consultancy

If the evaluator has a consulting function, the evaluation becomes a constructive (shaping) influence within the respective program or project. The evaluator therefore is strongly involved in the project/program. The necessary information for consultancy-performance usually derives of the previous assessment of the actual evaluand. Furthermore external consulting know-how and experience of the evaluator can be of high importance for evaluations in the context of sustainable development. Additional consulting qualifications (theoretical background on sustainable development, methods, practice) are required. The evaluation can give consulting support by means of suggestions of improvements or alternative strategies, organizational consultancy, development of monitoring models, outlining of advertised bidding or follow up programs, concepts for public relations and more.

If consulting is required, evaluation-results are transformed to practical guidance for actions. The fact, that solutions for specific problems are aspired implies that this type of evaluation is specifically oriented on the needs of the actual program than on an objective assessment of an evaluand. For a productive consultancy situation mutual trust between client and evaluator is of paramount importance. The general character of the consulting situation can be considered as constructive communication, since it pointed at an active shaping process.

The main target of consulting is to find solutions (like by offering instruments or by development of concepts and strategies) and to give qualified instructions for process-development and -improvement.

Moderation

As a moderator, the evaluator is involved in communication process and shapes it actively. Its input is not to contribute factual results but to design the communication process. The evaluator acts as a catalyst for the information-flow within the process. This aspect is on the one hand highly important in the context of sustainable development, but on the other hand rather challenging due to the complexity of the task.

Moderation can be seen as a mutual process of information-generation and information-mediation. The communication situation (for example the setting of involved actors, the communication disposition, ...) gives the context for the performance of the evaluator/moderator. The active exchange of all actors (for example in a workshop) is wanted, as it should lead to a mutual learning process. The task of the moderator is to channel all the inputs of the participants and pass them back in a structured and constructive manner. High

communication qualifications and moderation methods are required, as well as experience to deal with conflicting communication dynamics.

The target of moderation-performances within an evaluation is to initiate a collective learning process. Therefore it is crucial to adjust external premises of sustainable development with internal interest to achieve consensual solutions.

Concluding remarks

The matrix allows a flexible and non-dogmatic use of diverse evaluation approaches and designs. This opens the chance for an advanced evaluation-research regarding sustainable development beyond the common standards and typologies.

The systematic approach of the matrix especially allows reflection of interrelations (and causalities) of methodological approaches, sharpens the focus regarding content of assessment and the utilization of an evaluation. The matrix can systematically analyze also methods like data-logging methods, assessment methods and communication methods.

Thus far these questions only have been mentioned exemplarily. However, the matrix holds the basis to develop continuative research-questions.

By splitting the question of factual assessment from the question of communication, the matrix did help to find out about some general causality of the postulations of sustainable development within the scope of an evaluation process.

One (rather general) conclusion can be made about the realization of the postulation of integrating the three dimensions of sustainable development. In this context also a statement about the general anthropocentric approach of sustainability evaluations can be made. Finally the issue of communication in the evaluation process as well as on the general implementation of sustainable development should be raised.

Limited realization of the integration of the three pillars

An interesting detail regarding the integration of social, ecological and economical assessment was revealed via to the differentiation of the four contextual focus-categories (assessment of effects, structure / system capacities, process and stakeholder perspectives). It was disclosed (Langer et al., 2002) that only on the level of effect-assessment the three dimensions (social, economic and ecological effects) are reflected. On the issue of structural/systemic capacities, of process performance and of interaction processes most stakeholders have genuine social orientation and thus can be assessed only on the basis of

social categories.⁴ The integration of the three dimensions therefore cannot be realized within every questions of interest or information need.

Domination of anthropocentric perspectives

The previously mentioned observation points to the nature of the typical object of evaluation. All the programs, projects and actions, which are objects of evaluation regarding sustainable development, are in principle societal interventions. Evaluations deal with social constructed strategies with the aim to solve ‘social’ environmental problems. Interventions for realization of sustainable development underlie social (socio-political) valuation, they are established within societal institutions and organizations (as political and economic institutions) and they are carried out by different social actors.

Evaluations are typically installed to assess socio-political intervention and therefore have to take an ‘anthropocentric’ perspective in its performance, as socio-political instrument should be assessed.

Interventions for realization of sustainable development therefore don’t differ fundamentally from other political interventions. Despite different effects aimed at, many issues are in common: which political steering instruments could be used best, how organizational and administrative processes can be optimized and how to deal with conflicting interest.

Issues concerning the goal of sustainable development are by far more complex and broad (as at length is pointed out in Langer et al., 2002). One strategy to deal with this enormous complexity in evaluation practice is to distinguish between the

- Socio-political implementation - strategies to realize the goals of sustainable development (including all organizational processes to do so)
- The postulates of sustainable development as such

For example, the fact that social issues as institutionalization processes, implementation processes performances or stakeholder perspectives, dominate evaluations in the context of sustainable developments does not necessarily mean, that these evaluations herewith cope with the social dimension of sustainable development. These focus only deals with issues of implementation and organization regarding realization of sustainable development while it does not give (direct) information about effects on social development in general.

⁴ The question of the economic dimension has to be considered separately since the differentiation of the social and economic behaviour of human beings principally is very difficult. In the mentioned three categories, the economic dimension mostly is seen as an additional aspect of the general structural, procedural issues respectively the issue of stakeholder interests. Differently, the notion of efficiency usually is only used in a strict economic context and therefore not applied within an integrated assessment.

The role of communication to implement sustainable development

The idea of sustainable development is not targeted towards a final goal but is seen as a socio-political process. In a broad understanding of evaluation, it is seen as an instrument to initiate and implement such a political process. Evaluation itself becomes – according to this view – a political action (see e.g. Rossi, 1994). The function of communication, which is described in the matrix, is a key-instrument to utilize evaluation with respect to the demands of the evaluation clients.

Considering evaluation as a political instrument, it is crucial, which actors get involved in the evaluation, in which way they are involved and in how the gained information is transmitted to the actors. All these questions are defined in the communication-process of an evaluation.

By now, the function of communication is insufficiently reflected and it's potential to help to implement sustainable development is not fully tapped. Evaluation clients as well as evaluators should be encouraged to apply evaluation actively to emphasize the learning- and communication process within the program or project, also to support the public information and the discourse on sustainable development.

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