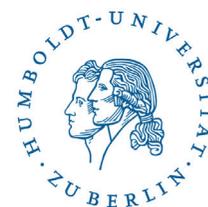# HOW IT'S DONE!

Action- and Decision-oriented Research Handbook

Karin Fiege 2019

ADR
Handbook

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ADR Handbook

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SLE is an institution of the Humboldt-Universität Berlin and has trained post-graduate students in the field of international cooperation since 1962. Apart from its study courses, SLE is active in three other areas: SLE ADVISORY SERVICE focuses on cooperation with universities and non-academic training centres, supporting them in curriculum design; SLE RESEARCH is involved in the implementation of large research projects on sustainable development; SLE TRAINING concentrates on advanced training of international expert and managerial staff.

SLE Publication 2019

Preface

This methodology HANDBOOK was designed to structure procedures in practice-oriented research projects and is the result of years of applied research in the field of international cooperation at the Centre for Rural Development (SLE1) of the Humboldt-Universität zu Berlin. Within the scope of the SLE Training programme, three to four projects are carried out abroad each year. Interdisciplinary teams composed of up to five junior experts conduct research and advise on issues of sustainable development under the supervision of a team leader in collaboration with and partly financed by development cooperation partners. An external impact study that measured the success of these projects can be found on the SLE website (www.sle-berlin.de).

Apart from SLE studies, the ADR methodological concept is applied in numerous consulting assignments, university cooperations with Mozambique, Brazil and Colombia, and larger application-oriented research projects. In this case the concept is adapted to the other formats and not all steps need to be taken over completely.

More specifically, the Action- and Decision-Oriented Research (ADR) methodology presented here serves the systematic preparation and implementation of research projects that are both problem- and solution-oriented. At SLE, research is carried out on the basis of a solid empirical problem analysis. Solution-oriented steps are then designed and recommendations made to the cooperating partners on the target groups concerned.

The range of topics covered by the studies and the needs and demands of cooperating partners and SLE itself have changed, expanded and increased over the decades. Accordingly, the methodological concept has been adapted continuously and project team experience woven into the procedure.

Susanne Neubert

Acknowledgement

I would like to take this occasion to express my gratitude to all who worked on the conceptual development and design of this HANDBOOK.[1] Anja Schelchen revised parts of a previous version, notably in the section on methodology and the annexes. My heartfelt thanks! I also wish to thank Carolin Pranz and Ute Zurmühl for their support in producing the HANDBOOK, Sunniva Greve for her feedback and critical eye in translating the German version into English, my colleagues, especially Anja Kühn and Christian Berg, and the many SLE team leaders and participants for their valuable input throughout the entire process.

Karin Fiege

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1   Uwe Nagel drafted an initial version of ADR during his time as a scientific staff member at SLE.

Inhalt

Glossary

Bias

"Distorting influence (e.g., via suggestive questions, choice of samples, interviewer); systematic mistake that affects the validity of the research results". (Lamnek 1993: 383)

Capacity development

Capacity development describes in general terms the strengthening and widening of the ability to achieve goals sustainably and use resources efficiently. It can apply to an individual, an organization or a social group.

Cluster method

The cluster method used in empirical social research serves "to divide a number of units (e.g., populations, companies, regions) into groups (clusters, types) according to their characteristic values, so that the similarity of the units in one group is as high as possible and, on the other hand, the similarity between the groups is as low as possible." (Bacher et al. 2010: 15ff.)

Do-No-Harm matrix

The Do-No-Harm matrix is based on the Local Capacities for Peace Approach developed in 1996 and referred to as Do-No-Harm (DNH). It refers to the impact of IC/DC on conflict as a result of resource transfers but also of "implicit messages" (Schmitz 2008: 78ff.) Hence the aim of the DNH matrix in the context of development measures is to act in a conflict-sensitive manner and prevent adverse effects from the outset.

Hypothesis

"Statement or sentence that attempts to explain something observed in material or socio-cultural reality in terms of its origin, cause or impact or its relation to other phenomena. A hypothesis is not a reliable explanation, but merely expresses a preliminary assumption (...)." (Hillmann 2007: 351)

Impact analysis

Impact analysis examines interventions and their impact on achievement of the overall development goal (e.g., the positive impact of water reforms on poverty reduction). It is frequently based on a before-and-after comparison or work with control groups. The discussion on impact concepts and the methodological difficulty of measuring impacts has a long history in the field of development cooperation.

Inception report

An inception report is a concept paper that describes the procedure for achievement of the desired results. It outlines the research work in concrete terms. (Fiege et al.2012)

Indicator

From the Latin indicare=point out; observed phenomenon, empirically determined measurement result or indicator. Living space per inhabitant, for example, is a social indicator to measure quality of life. (cf. Kromrey 2009)

Iterative method/feedback loops

Iteration in this context means the repetitive 'return' to analysis steps and stages in the research process. Each step is reflected on, adjusted and completed with further insights and experience. In the long experience of SLE in development cooperation, this repetitive method and so-called learning loops have proved indispensable. (cf. Fiege et al. 2012)

MAPP

Method for Impact Assessment of Programmes and Projects (MAPP) is a methodological approach to measure the impact of development cooperation. MAPP is actor-centred and comprises a set of seven instruments that build on each other in logical sequence. At the same time, the approach presupposes an open procedure. (cf. Die 2004)

Methodology

A system of methods, principles and rules applied to scientific work and research. As a scientific theory in the strict sense, methodology serves to explore scientific methods in depth. (cf. Hillmann 2007). Methodology is the entire spectrum of techniques used in a scientific approach. (Halbmeyer 2010)

Method

A method outlines the systematic procedure or approach adopted for the elaboration of scientific problems, questions and findings, as well as for their empirical testing. (cf. Hillmann 2007)

Moderation

ADR understands moderation as methodological support for the research team in the interests of achieving the best possible results. Here there is a conscious distinction between the term moderation in the context of a participatory approach and its meaning as "discussion leader": the aim is to provide a space for each team member, one that is marked by equality and an absence of hierarchy. (cf. Seifert 1995)

Operationalizing

Operationalizing describes the process of translating theoretical concepts into concrete terms for application in empirical social research. (Hillmann 2007)

Peace and Conflict Impact Assessment (PCIA)

Peace and Conflict Impact Assessment is a method of analysing aspects of peace and conflict in the project cycle of development programmes. PCIA primarily involves analysing tools to monitor and plan processes. (cf. Zupan 2005).

Participatory Impact Monitoring (PIM)

Participatory Impact Monitoring is also (cf. MAPP) a method of measuring impact. A twenty-step model, it can readily be tailored to the projects concerned. (cf. WHH 2008)

Participatory Rural Appraisal (PRA)

This participatory approach to development cooperation gained considerable currency towards the end of the 1980s (Chambers 1989, Scoones and Thompson 1994). PRA can be interpreted as a means of "enabling local (urban and rural) groups to analyse their living conditions in a common process, to enter a

shared discussion of the findings, and to plan activities with or without outside assistance. External experts merely trigger the process (...)". (Schönhuth 2005: 28)

Pre-test

A measuring technique for testing the clarity and validity of research instruments prior to the main investigation. (Porst 2000)

Rapid Rural Appraisal (RRA)

RRA is a social science analysis and planning approach developed in the early 1980s. Data and hypotheses on rural life and rural resources are collected locally within a short period of time by a multidisciplinary team. Although this includes local knowledge, local participation is excluded from the research process itself. The role of "researcher" and "researched" remains unchanged. (cf. Schönhuth 2005)

Sample

A selection method in statistics and empirical social research; a method of selecting elements (n) from the sum of all elements (N) belonging to the problem area of a certain topic as a result of one or more common features. (Neubäumer 1982)

Triangulation

Triangulation describes the observation of a research object from several perspectives. It has gained considerable currency in the context of combining qualitative and quantitative methods. (cf. Flick 2011)

Variable

Variables are conceptual features (characteristics) of objects and can take several different values. (Kromrey 2009)

Impact assessments

Impact assessments "examine the impacts of interventions with a view to achieving an overarching development policy objective (e.g., the poverty-reducing effect of water reforms in a certain country). Impact assessments differ from mere monitoring activities, whereby impact attributions are not made but instead development trends themselves are foregrounded or the impact assignment is obvious from the start because it is clearly a direct consequence of specific interventions." (DIE 2004: 1)

Introduction

Introduction

How can research become socially more relevant? What path does science have to take in order to create concrete and immediate problem-solving strategies? And what should an academic study look like, what form should it take and how should it be designed in order to maximize and guarantee its practical relevance?

These are questions that scientific academia has been grappling with for some time. In recent decades they have been raised more often, and the call for universities to take greater responsibility sounds more urgent when it comes to creating solutions to development challenges such as resource degradation, poverty, climate change, and food security. This is not about "grand designs" for the future of society but tackling the issue of

and put into practice, how can development policy organizations, national development policy actors, civil society representatives and target groups be supported in their efforts to develop alternatives to traditional solutions and practices?

The motives for debate are legion: the realization that strengthening the **impact of research** is of the essence; the normative arguments that research should have a more direct impact on decision-making; the quest for democratizing knowledge and, finally, the epistemological arguments that truth implies many perspectives and the search for truth demands the integration of a plurality of perceptions. (Oswald et al. 2016: 2ff.)

Academic researchers are no longer regarded purely as generators of knowledge and should be seen as "knowledge brokers" and "change agents" (Young et al. 2014: 2/240). There is mounting evidence that knowledge creation must be ac-

The four ADR Principles

Usage
- Problem-oriented
- Solution-oriented
- Impact-oriented
- Ressource efficient
- Close involvement of users

Multilevel Approach
- Global framework, international agreements, concepts, regulations etc.
- National laws, political strategies and programmes, development trends etc.
- Regional structures and development processes, historical associations, policies
- Local specifics, projekts, programmes, implementations etc.

Angemessene Qualität
- Disclosure of research concept incl. methodology
- Interactive approach
- Holistic approach
- Plurality of perceptions
- Publication of the results
- Method diversity

Team and partner orientation
- Interdisciplinary
- Intercultural
- Transdisciplinary
- Mutual learning
- Goal-oriented work
- Moderation
- Feedback
- Documentation

Source: own illustration

companied by the **strengthening of institutional problem-solving and decision-making competencies**. Critical engagement with research institutes is gaining ground: although the latter frequently create innovations, they are at a loss when it comes to working out how these reach the relevant target group. Hence the

context-appropriate solutions to local problems. How can customized innovations be developed

issue of disseminating innovations has long since become a research branch of its own. In the same vein, the demand that new research priorities be defined by those affected by the problems has been spelt out more clearly. Furthermore, voices calling for a closing of the gap between research and decision are growing extremely loud (ibid.).

Although far from new, these debates have recently gained momentum. Many years ago they were groundbreaking for the design of a concept entitled **Action- and Decision-oriented Research (ADR)**. ADR has long served as a guideline at the Centre of Rural Development of the Humboldt-Universität zu Berlin for the creation of **applied research** concepts and the implementation of studies based on this principle. Recent years have seen its successful integration in the curriculum of universities in Mozambique, Brazil and Columbia, universities with a common desire to attune their academic research more closely to societal needs and to contribute directly to solving current problems. Topics range from designing tools to identify and tackle corruption risks in the rural sector, boosting the resilience of peasant organizations to natural events, measuring the impact of rural road construction programmes, and initiating and accompanying stakeholder dialogue to creating strategies for minimization of landslide risk.[2] All of them were developed and implemented in accordance with specific principles based on the ADR concept, which is outlined in the following.

Principles of Action- and Decision-oriented Research (ADR)

The somewhat unwieldy name[3] ADR embraces two key terms: action and decision. The idea is to **steer research to action** and facilitate decision-making for cooperating partners. This can occur in many different ways: for example, by providing partners with knowledge-based decision tools; by bringing stakeholders to the table to discuss and design scenarios for future development; by providing organizations with methods and instruments to enhance their work.

ADR pursues **four key principles**, which in turn shape ADR-based studies: impact orientation, team and partner relations, adequate quality and a multi-level approach/multi-dimensionality.

Impact orientation

Action- and decision-oriented research activities are carried out with and for cooperating partners. The usefulness of the findings for our partners takes centre stage in ADR. The studies and advisory services provide partners (and others) with **relevant information and the necessary knowledge** for smoother planning, implementation and evaluation of their work. The research results must therefore be applicable to current decision-making processes. "The focus is not on abstract contexts ('regularities') but on the applicability of the findings to a concrete case or category of similar cases." (KROMREY 2009: 11). This has several implications: research is carried out in the context of one or a number of problems to be solved by the study. The research is geared to impacts, goes beyond mere fact gathering, analyses, draws conclusions, suggests alternatives and makes recommen-

dations for the concrete improvement of a specific situation. The deficits and problems to be solved in this manner range from lack of knowledge to the need for promotion of skills and capacities. The action orientation of the concept points to the responsibility ADR studies take for implementation of the results and recommendations concerned. To ensure implementation ADR studies are based on a detailed problem and user analysis. ADR studies must likewise clarify what resources are available to users. In other words, designing solution strategies means taking a realistic framework into account.

A frequently asked question in the field of applied research refers to the extent to which researchers are responsible for implementation of the results. Is the research team responsible for putting recommendations into practice? The answer is no. We cannot force our cooperating partners to undertake certain activities. The research team is, however, responsible for the potential of its research findings to be implemented. This in turn has much to do with solutions tailored to the local context.

The impact orientation of ADR studies calls for a high sense of research ethics. Negative side effects must be considered and studies always carefully conceptualized from a Do-No-Harm perspective.

Team work and partner relations

Applied research based on decisions and solutions cannot take place in an academic ivory tower. The perspectives, perceptions and expectations of co-operating partners must be clarified and constant dialogue with the ultimate users of the study findings guaranteed. The research framework (in evaluator speak: Terms of Reference) must therefore be clarified in dialogue with the cooperating partners.

Studies based on the ADR concept are not tailored to 'lone warriors'. The problems we encounter today in the development policy context are multi-dimensional and their solution calls for several areas of specialization and the inclusion of diverse per-

ceptions. **Interdisciplinary, intercultural and transdisciplinary work contexts** are vital building blocks in good quality studies. ADR studies are carried out within a specific (limited) time frame with specific (limited) resources. Provided the research team does not lose sight of the main objective, these studies will be crowned with success. Goal-oriented work depends, in turn, on good moderation and the structure of the work process, on a constructive feedback culture that allows mistakes to be corrected and processes improved, and on good documentation, particularly with reference to the allocation of responsibilities, and a realistic time frame with reasonable milestones.

Most of all, however, the research team should be in possession of good communication and advisory skills to facilitate conveying results to the very different target groups concerned. "It is no longer sufficient to produce 'world-leading' academic articles in isolation: effective scholars, as imagined within impact evaluation practices, are also skilled in communicating their research to multiple audiences (WILLIAMS 2013:232 cit. in OSWALD 2016: 10). ADR researchers must keep a fine balance between research and action "in order to make their research useful and relevant ..." (ibid.).

Adequate quality

ADR focuses on the usage context. Studies carried out on this basis do not therefore represent basic scientific research. The spotlight is not on grand theory but rather on theories in the middle range that allow for explanations of specific phenomena (cf. also BROWN et al. 2014: 40).

What does this mean for **scientific standards**? ADR deals with what has been described for decades in applied research at the renowned Institute of Development Studies (IDS) as engaged excellence (IDS 2016). Instead of searching for a scientific truth that explains everything, the focus is on conducting studies of adequate quality. "There has been a long

and vibrant debate within academia about how to define rigorous and robust research. Different research paradigms have different understandings depending on their epistemological viewpoint." (Oswald et.al 2016:4) Inter- and transdisciplinarity are key principles when it comes to defining a robust and rigorous research approach based on ADR. Research methods should be made transparent and discussed. Since ADR projects are bound by time and financial constraints, 'second-best methods' may occasionally have to be adopted if research is to be completed under the given conditions. Costly panel analysis may have to give way to storytelling or a peer group interview in the search for information on processes of change. Cleverly chosen random samples in a quota process could produce more realistic results than representative surveys, which are doomed to failure particularly in developing countries due to lack of knowledge about the population in general. Be that as it may, methods must be carefully chosen, withstand hypothesis testing, enable data collection for a baseline, and generate statements on attitudes. It is not simply about facts, but refers to values, attitudes, opinions and perceptions. In this sense, the alleged truth becomes more complex and more profound once it has been observed from diverse perspectives. This, too, is an ADR goal. "For the purposes of applied research, this means that the field of study is always changing and always includes the values (and the value debate) that pertain to the problem or situation under study...This also means that the tools that are used to conduct applied research must be able to explicitly access and accommodate values on various levels of understanding" (Brown et al. 2014:40).

The research design, the methods used and the instruments applied must be made transparent. The research concept is discussed with an interested audience of specialists and cooperating partners prior to the actual field research and, where

necessary, adjusted. An **inception report** is a written outline of the objectives, content volume and methodological setting of the studies. Results are fed back to the target groups and verified. The entire data collection process goes hand in hand with ongoing communication between research team and cooperating partners. This prevents the team from missing the point or overlooking the core issue and calls for an **iterative research process**. In other words, the research concept is not written in stone but developed further as insights are gained.

Key criteria for quality studies based on ADR:

- transparency;

- comprehensibility, logic, analytical depth, recourse to theory, utilization, applicability of results, confines of the research topic (definition of system boundaries within which data is collected and conclusions drawn);

- restriction on information flow (knowledge on a need-to-know basis!);

- use of adapted techniques (instruments suited to time and financial constraints;

- triangulation: use of various methodological tools to achieve a higher degree of plausibility in terms of data and insights.

Multi-level approach and multi-dimensionality

User-oriented research projects must always consider multi-dimensionality and take a multi-level approach. Each individual study moves in a complex field, that is, frameworks at international level and **in the national context** should be taken into account to the same extent as **regional specifics and local conditions**. The problem context is thus negotiated up and down, and made comprehensible. In the case of some topics, this may sound somewhat overdone. At the same time, we know that problem-solving strategies can be counteracted in the

blink of an eye by laws and plans, as well as rules and regulations. Being familiar with these is a prerequisite for the design of realistic alternatives. Another ADR premise is ensuring that development problems are observed from several perspectives and in several dimensions. Economy, ecology, institutions and social structures are interwoven to such an extent that interventions in one area are bound to trigger consequences in another. Development policy, as Theo Rauch states in his book of the same name, "… as the experience of past decades and the critics teach, can only be successful if all levels are considered, from the global to the local. And it must take account of all dimensions of human life – the dimensions of sustainable development" (Rauch 2009: 119). It could be added: this also applies to research focused on solutions to development problems.

Who uses ADR?

As mentioned earlier, ADR can be used as a planning and methodological guide for very different types of studies and research work, independent of the concrete topic. It systemizes the approach but is not a rigid blue print for action.

It helps ADR research teams in the **preliminary phase** of applied research to work out a coherent **research concept** that

- clearly defines the objectives of the study,
- clarifies the volume of the research,
- develops a methodological procedure appropriate to the topic and
- draws up a viable work plan for the entire course of the research.

Anyone involved in the broad spectrum of development research can use ADR:

- University research teams
- Evaluators in the field of development cooperation

- Programme and project managers who design studies
- Specialists and experts in public institutions, politicians, civil society actors , all of whom commission applied research activities or carry them out themselves
- Members of think tanks

Individual researchers and evaluators can also use ADR in the preparation and implementation of their work. A team is not a sine qua non for applied research. At the same time, experience has shown that a multi-disciplinary perspective paves the way for smoother implementation of a multi-dimensional and multi-level approach, and productive research results for solutions to development problems.

Predecessors and associates:
a short detour into the past

Impact-oriented research principles are not a new phenomenon. With varied emphasis, they are reflected in research approaches with assorted titles: Problem-Based Research, Decision-Oriented Research … Common to all is the desire to close the gap between research and practice, and between academic and local knowledge. The idea of research is to bring about change. An early proponent of this definition of research was social psychologist Kurt Lewin. Lewin's interest was to create hypotheses with a practical orientation and on this basis to trigger change in the social field. Hypotheses were to be accompanied by long-term studies. The approach gained currency notably in the education sciences, in social work and, more recently, in health and care research (cf., for example, Meyer 2010 and Zoyer et al. 2013).

Action research[4] was found to be valuable in development cooperation, particularly in the area of community development, and was made famous

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4 Discussing the pros and cons of action research and its critical reception within the frame of the positivism dispute in Germany would exceed the scope of this HAND-BOOK. For an overview, see Unger (2014).

in the global South by educationalists like Paulo Freire. Since the 1980s, the group of practitioners associated with Robert Chambers and the research activities of the Institute of Development Studies in Brighton have primarily been responsible for extending the practice-oriented methods of action research to the development context and enhancing them. They became known for methods such as *Rapid Rural Appraisal*, *Participatory Rural Appraisal* and *Participatory Learning Appraisal*. Techniques for specific contexts followed and spread rapidly, also to international development cooperation programmes and projects.

ADR learned much from these discussions and approaches. The systematic approach to the research context was, nonetheless, based primarily on the **Principles of Logical Frameworks** and, of course, the classic **empirical social research** approach (discovery/explanation/usage context, cf., for example, Friedrichs 1985 and Kromrey 2009).

ADR has profited over the years from all of these approaches, concepts and tools. The idea of combining a practice-oriented research approach with scientific standards from empirical research and of learning from experience to enhance the approach is still relevant today. The ADR approach focuses on intermediaries rather than local target groups: in the spirit of sustainability, the idea is to support organizations, institutions, projects, intermediaries and multipliers, for example, in their search for sustainable solutions to development problems.

How to use the ADR Handbook

The ADR HANDBOOK is a guideline for the systematic planning of applied research. The individual steps are presented chronologically and build on each other in logical sequence: only when we know our research objectives, know who is at the receiving end of the results and how these are likely to be used does it make sense to consider the con-

tent in detail. Only when the scope and depth of the topics have been fully understood does it make sense to define the appropriate methodological instruments. Each step is designed as iteration: as a rule, researchers return to steps already completed and view them with a critical eye, revise them and adapt them to new insights. It could be said that ADR marches up and down the system more than once.

Not all of the steps presented here are relevant for all types of research. Short cuts are possible in some cases, while others may need to be worked on more thoroughly depending on the topic. The procedure should always be adapted to study conditions on the ground.

To illustrate the steps we chose two SLE studies with radically different subject matters. The first example concerns the research cooperation with GIZ in Brazil on the "Social perception of environmental risks". It included an empirical survey and the setting up of awareness-raising activities and multiplier training. The second example refers to the research cooperation with Welthungerhilfe and involved a survey on youth unemployment and job opportunities for young people in Liberia. Both studies were action-oriented. Different from the Liberia project, however, the Brazil project implemented some of the study results straightaway (multiplier training).

Instruction sheets in the Annexe outlining the procedure in short form make it easy for the team or the individual researcher/evaluator to access the methodology. The Annexe also contains papers on themes we see as relevant to ADR implementation but do not necessarily find systematic entry into the methods. They are useful notes on the production of studies/reports as a team and the development of a conflict-sensitive research approach.

Designing a research concept based on ADR: Overview

What does a research team need for applied research?

- ■ It must have a reasonable, shared idea of the problem to be solved;

- ■ it must know who will ultimately solve the problem in practice and what ideas, capacities and resources are available for this purpose;

- ■ it must work out a clear system of objectives for the study, outlining usage of the results *(outputs)* and the research team contribution;

- ■ it must identify the content volume of the study, both in scope and depth;

- ■ it must clarify its methodological approach and define the methods and instruments to be used for achievement of the desired results.

A research concept developed along these lines and the written inception report outlining it in detail serve as orientation for the study in terms of content and methodology. Given the limited time factor both are indispensable, since they help to keep the project focused on the essentials of the research topic and to develop a realistic approach in harmony with the cooperating partner. The quality of the empirical results depends on the quality of the research concept.

The research concept is designed in three large steps that follow in logical sequence.

Phase 1, Clarifiying the usage context explains the core issue and the reason for the study, and asks about aims and impacts in relation to the users of results. Guiding research questions are formulated, unintended negative side effects discussed and forms of communication identified.

Phase 2, Defining the content describes the main thrust of the work, specifies the subject areas and dimensions of the study, and determines what information the results should provide and about whom. Important steps towards operationalizing (forming hypotheses and creating indicators) take place in this phase. The research team works systematically on acquiring a shared knowledge of all topics relevant to the research (theory, concepts, etc.).

Phase 3, Choosing the methods deals with the methodology to be used in the practical implementation of the study and outlines the entire spectrum of methodological instruments with which results are to be achieved.

Having completed the three phases, the research team now has a consistent research concept, which is to be presented to an audience prior to the field phase, and an inception report to be agreed upon with the cooperating partners.

Steps to designing a Research Concept: Overview

Phases	Steps
Phase 1 **Clarifying the usage context**	Identify and define core issue Objective system and impact analysis User analysis Guiding research questions Define activities (roughly) Negative side effects Forms of communication Present and adjust results[5]
Phase 2 **Defining the content**	Define key research topics Acquire knowledge Specify with research questions or sub-topics, identify information sources Form hypotheses Operationalize: indicators und indices Prepare report structure and work plan Present and adjust results
Phase 3 **Choosing the methods**	Decide on methodological design Determine survey units Select samples Choose empirical instruments and analysis techniques Pre-test and adjust to conditions on the ground Present and adjust results
Research concept	Outline research concept, present and adjust if necessary
Inception report	Write inception report and consult with partners

Working through the steps involved in creating the research concept should be understood as **an adaptive and common learning process based on feedback loops**. The research team will obtain much of the required information in the course of its research work. Cooperating partners will state some of their objectives more specifically, ideas will be thrown overboard where appropriate and reconsidered during **exchanges with partners and experts**. "Hopping" from one phase to another, i.e., an iterative procedure is helpful. Going through several rounds of the system is not unusual during the study or in the course of field research in the host country.

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5   This work step is dealt with in Annexe I

1

Clarifying the usage context (Phase 1)

1 Clarifying the usage context (Phase 1)

Research geared to impact, i.e., applied and action-oriented research, should first and foremost take a close look at the problem to be solved. It should also establish who will ultimately be responsible for implementation of the proposed solutions and how this is to take place. It should set clear objectives for the research work involved and define the outcome and intended impact. The latter implies looking at the possibility of unintended adverse effects of the research and analysing these to establish how they can be avoided or at least minimized. Finally, it should have a clear concept of communication and how to guarantee the information flow between researchers and cooperating partners.

1.1 Identifying and defining the core issue

At the root of applied research lies a concrete problem. The question therefore arises as to the precise nature of the problem to be solved by the research. For whom is the situation a problem? Why? What are the consequences?

Although the questions seem straightforward enough, this may be a false conclusion. Without a more comprehensive understanding of the underlying causes of the problem it will be difficult to create solutions appropriate to the context. Is social conflict over land caused by lack of land legislation? Or is it due to the inability of a weak state

PHASE 1: CLARIFYING THE USAGE CONTEXT

PHASE	STEPS
Phase 1 **Clarifying the usage context**	**1** Identify and define core issue **2** Objective system and impact analysis **3** User analysis **4** Define activities (roughly) **5** Guiding research questions **6** Negative side effects **7** Forms of communication **8** Present and adjust results

Clarifying the usage context is key when it comes to preparing for an application-oriented study and the basis for subsequent stages of the research concept design. Only when objectives, i.e., the required *outputs*, and users have been clearly defined can the team make solution-oriented contributions. The usage context work phase is the appropriate framework for drawing up a set of objectives in an exchange with cooperating partners or counterparts.

administration to implement existing land laws? If land laws are in place, however, and a functioning administration exists, could the problem be lack of information channels to enlighten those concerned about their rights and legal action? In other words, careful analysis of what appears at first sight to be an obvious problem is worthwhile when it comes to discovering the real causes and implications. The research team is called upon here to take the necessary time. "The pressure to deliver results often

limits the amount of time available to define the root cause of a problem. This is a false economy, as it can lead to projects and programmes that address symptoms rather than causes" (Young et al. 2014:12).

And "A careful statement of the problem goes a long way toward its solution" (Hicks and Turner, in: Ellis et al. 2008:18).

The core issue is the reason or justification for an application-oriented study. Where possible, the core issue should be expressed at the impact level. The mere absence of something does not in itself necessarily constitute a problem. It can, however, have dramatic consequences. Applied research should be able to solve the core issue and the research team in a position to make a real contribution towards solving it.

Research methodologies offer numerous tools with which to carry out problem analyses. The Canadian Overseas Development Institute (ODI) recommends the so-called "Five Whys Technique": "The 'five whys' technique asks you to identify the initial problem and then answer why it is a problem five times. After the fifth 'why' you will have reached a real depth of understanding about the issue. This helps you beyond the initial issues or those that are immediately apparent, to work out what is causing a problem and where the most effective entry points are" (Young et al. 2014:12).

Problem trees that visualize the cause and effect chain, Mind Maps that illustrate a cluster of problem complexes or a fishbone diagram are some examples (ibid.:13).

This step calls for some awareness of the situation. Although the research team may not be in possession of detailed information at this point, it should read the relevant literature on the topic in question and, where necessary, consult and interview specialists before undertaking a problem analysis. In-depth elaboration of the content is discussed in the next phase.

For project- and programme-related research it is useful to distinguish three problem levels:

- The **problem at target group level** (social problem), e.g., high level of exposure to extreme weather events (high material loss, high physical danger);

- The **problem of the (partner) organization** (institutional problem), of a project or programme, e.g., low response of target group or implementing organization to recommendations for natural disaster protection;

- The **information problem** (knowledge problem – can also be a problem of poor methods of communication) to be solved by research cooperation, e.g., lack of information about target groups, their perception of environmental risks.

Analysis will show the logical connection between the different levels and situate the envisaged study in its socio-economic and political environment. A problem analysis should consider a multi-level approach and multi-dimensional perspectives in order to indicate the possible scope and depth of the study.

> **!** The core issue, for example of the (partner) organization, may in reality be a dilemma. It could be a conflict of interests between economy (income generation, poverty reduction) and ecology (protection of biodiversity) in the management of a national park. Unlike a problem – this type of conflict cannot be 'solved', but it can be managed more effectively.

Examples

Two studies carried out by SLE exemplify the step-by-step approach in ADR. Examples relevant to the individual phases can be found in Annexe II.

■ **Brazil Summary:** Risk Perception and Ecosystem-based Adaptation to Climate Change in the Atlantic Forest

The aim of the Brazil research team was to find out how the local population of Teresopolis perceived environmental risks and whether they were open to prevention measures. The landslides of 2011, which took the lives of almost 1 000 inhabitants and left 40 000 homeless, formed the background to the study. Persistent torrential rainfall had caused landslides and floods, the origin of which was seen by environmental experts in the gradual degradation of natural resoures, notably deforestation. The study was carried out within the framework of the Environment Ministry project Biodiversity and Climate Change in the Mata Atlântica, with technical support from GIZ. An awareness-raising concept was designed on the basis of the results and accompanying research. The objective was to ensure more active participation of the local population in ecosystem-based risk reduction (Lange et al. 2013).

Liberia Summary: Empowering Youth. Opening Up Perspectives. Employment Promotion as a Contribution to Peace Consolidation in South East Liberia

The Liberia research team conducted a baseline study with recommendations on youth employment promotion to the Welthungerhilfe (WHH) Reintegration and Recovery Programme (RRP) financed by the KfW development bank. The aim of the study was to ensure greater emphasis on the topic of youth employment promotion in the further development of the programme.

The high youth unemployment rate in post-conflict Liberia is a massive development problem. Young people with no job prospects whatsoever are seen as potential conflict drivers. An entire generation is growing up without the slightest possibility of participation in the job market, with neither opportunities nor prospects.

At the time of the study, the WHH programme was already in its third phase, nine years after the end of the civil war. Up to this point the programme had focused on four areas: infrastructure, agriculture, education and sexual violence against women. Parallel, youth employment promotion found entry onto the country's political agenda, prompting WHH to place stronger emphasis on the topic (Kürschner et al. 2012).

The core issue identified for the Brazil project was expressed as follows: Neither the local population nor the decision-makers recognize the significance of ecosystems for environmental risk reduction. No precautionary measures for risk reduction or risk aversion have been designed.

The core issue for the Liberia project was expressed as follows: Welthungerhilfe lacks information about the requirements and opportunities for youth employment in Liberia.

Research may have occasion to develop methodological concepts. In the case of ADR studies at SLE

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this is almost a regular occurrence. Problem analysis procedure must be adjusted accordingly. As a rule, it is not possible to isolate and identify a target group problem. Based on the reason for the study, however, it can prove useful to conduct a problem analysis in order to gauge the dimensions of the research project more clearly.

While the reason for the study (i.e., the core issue) is more clearly specified in the first step – clarifying the usage context – subsequent steps deal with the **objectives** to be pursued by the research and the **users of results**. These analyses are crucial to ADR: the research team works to create an impact, solve problems, enhance situations, and bring about change. The findings should not disappear into academic desk drawers or those of cooperating partners. Analysing the objectives of the study and the potential users is vital to ensuring that the work does not bypass the problem.

1.2 Objective system and impact analysis

As a rule (but not always) the objectives and impacts of application-oriented studies are clear. The problem analysis will have already indicated the normative frame of reference: research should be geared to reducing or removing the problem. As the ultimate implementers of the studies, the cooperating partners have some idea of the type of results they need (e.g., training measures, baseline data, HANDBOOKs or impact assessment indicators) to improve situations. A framework that qualifies and quantifies the research has normally been agreed upon with the cooperating partners at an earlier stage. A critical reading of the frame of reference or research frame helps the team to be clear about the context and the contents of the research. Should the reference frame not (yet) exist, the research team must create it in collaboration with the actors to whom the results are relevant.[6]

In a first step the research team examines **the objective of the study (at the** outcome **level).** The objective describes the impact of the applied research involved and must clearly identify the users/implementers of the research results. How will the cooperating partners/users apply the results and to what benefit? What will change, be enhanced, make headway as a result of the study? More than one objective *(outcome)* is possible and different users can benefit from different results. The SLE Brazil project defined several *outcomes*, e.g., users apply and disseminate methods to survey the perception of environmental risks and ecosystem services. The Liberia project set four objectives including: Welthungerhilfe and its partners analyse youth employment factors with the help of a methodological procedure and the relevant stakeholders have been made aware of the topic (see Annexe II).

■ A second step clarifies the **results (**outputs**)** to be delivered by the research team in order to achieve the objective *(outcome)* of the study. Are these listed in the frame of reference? Or does the team have to make this move and subsequently clarify the results with the cooperating partners/users? This step is the key to a realistic research plan, since it compels the team to define all of the results required to achieve the overall objective. If multipliers are to become familiar with and apply the awareness-raising concept on environmental risks designed by the team, putting it on paper will not suffice. On the contrary, multipliers must be trained and this training tested for comprehensibility and applicability. In this sense, the Brazil project defined the results *(outputs)* as the creation of a transferable method package, the collection and analysis of empirical data on social perceptions, and the design and implementation of an awareness-raising strategy for environmental

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6 Creating a sound reference frame, or Terms of Reference as it is known in the evaluator speak of international development cooperation, is a science of its own.

education and communication. The Liberia project formulated its *outputs* as the survey and analysis of data on youth employment in Liberia, on youth employment concepts and on the potential of the formal and informal economic sectors, and added the inclusion of stakeholders in the study in order to achieve the objective of raising awareness about youth unemployment.

■ (Important) results such as training workshops, teaching material design for advisory services or databank creation must all be documented. They should be described in great detail and, for instance, specified with indicators (e.g., xxx training workshops with xxx participants over a period of xxx weeks).

■ In a final step, the desired impact is defined. It describes in concrete terms the anticipated use of the *outputs* by the target group. Cooperating partners should not see achieving the *outputs* as an institutional end in itself but continue to fulfil their development policy aims.[7]

The impact is usually well beyond the research team's sphere of influence. It is part of the objective system of development cooperation projects and programmes underpinned (by SLE) with applied research. This allows the research team to focus its time and energy on defining outcomes and outputs.

1.3 User analysis

Clarifiying the users of the study and how they will apply the results is vital to content alignment, the *outputs*, and the preparation and presentation of the research findings. The design of training material for staff members of an environmental research institute in a partner country will differ from that of

a HANDBOOK for environmental education multipliers or an impact study for the German Federal Ministry of Economic Cooperation and Development (BMZ). Addressing several users at the same time is a frequent occurrence.

Two basic **user types** are distinguished:

■ **direct users** (e.g., M&E department staff, project staff abroad, agricultural extension staff, ministerial planning departments)

■ **indirect users** (e.g., project target groups, other organizations, universities and research institutes)

It is advisable here to concentrate the discussion on **direct users**, that is, the people who will be using the results on the ground. Not only should they be identified in this step, it must also be clarified how exactly they intend to use the *outputs* (results) and what the implications are for the team and its research. Should, for instance, methodological approaches be available to other programmes, should empirical findings be made accessible to international conferences, and should there be feedback on experience? Questions for this analytical step could be:

■ **How** will users put the results into practice and what form should the results take to be of genuine use?

■ What are the **implications** for the work or the concept of the study?

The Brazil project defined its direct users as public bodies (Environment Ministry, administrative board of protected areas, municipal authorities), while the Liberia project stated Welthungerhilfe and the KfW development bank as its direct users. User analyses from these projects can be found in Annexe II.

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7   See Annexe II for the Brazil and Liberia objective systems.

1.4 Key guiding questions

A number of key research questions for the study will emerge in the course of working on the system of objectives. Documenting these in a separate step helps to keep the bigger research picture in mind. Research questions give basic orientation – and are also rewarding later in the research process.

Key questions should not exceed six or eight in number. In the case of the Brazil project on the perception of environmental risks, the following questions were key:

■ What is the connection between the degree to which people are affected by environmental risks, their perception and the willingness to carry out risk reduction measures?

■ To what extent would awareness of ecosystem services drive people to be more active in the area of risk reduction?

■ Are civil society groups in neighbourhoods suitable multipliers for educational measures on environmental risks?

1.5 Defining activities (roughly)

Activities will automatically emerge from the *outputs* stated in the objective system. Although not obligatory, these activities can immediately be woven into the system, as in the case of teaching material produced for training workshops in the Brazil study. Activities cannot be dealt with in any great detail at this point, merely outlined (see Annexe II for an example).

1.6 Negative side effects

Defining objectives and impacts should trigger **reflection on the possible emergence of unintended effects** in the course of the study. Resource conflicts, for example, may be disclosed in group discussions, cases of corruption or a dispute between target groups. For the two example projects, Brazil and Liberia, dealing with negative side effects was extremely important: in the case of Brazil because research in an area affected by disaster could reactivate traumas among the inhabitants and in Liberia because research took place in the highly sensitive context of a post-conflict country.

Taking unintended negative side effects into account helps to keep these to a minimum at an early stage. Adopting a *Do-No-Harm* approach (see Annexe III), which sees a conflict-sensitive procedure, is the most constructive path in this case. At the same time, the team should not be tempted to draw up a disaster scenario:

■ Be realistic, do not overestimate intended positive effects or unintended negative effects

■ Work solution-oriented, design the research concept in such a way as to minimize potential risks.

1.7 Forms of communication

Communication is the backbone of applied research. The question of communication and its most effective form must be taken into account from the outset. This is not merely about disseminating research results after completion of the project, but rather ensuring from the very beginning that exchanges between the research team and the immediate users of the results remain high on the agenda.

The user analysis and definition of the objective will give an initial indication of how to organize the process of exchange, that is, how to **convey (interim) results** and **encourage feedback**. In the preparatory phase the team should give some thought to the following aspects:

■ arouse interest in the study among cooperating partners in the host country and in Germany;

■ include cooperating partners and counterparts in the preparation;

- set up contacts;

- request feedback and be open to criticism. If the latter is well founded, consider it in subsequent work.

Should doubts or discrepancies arise, contact the cooperating partners for clarification to ensure consensus at an early stage. Possible questions for cooperating partners might concern a shared understanding of the fundamental concepts and terms used. The Brazil team was able to clarify early on how GIZ interpreted terms such as vulnerability and civil society. This proved invaluable when it came to operationalizing the project later on.

2

Defining the content (Phase 2)

2 Defining the content (Phase 2)

Preliminary remark: While the previous phase clarified the usage context and thus the *outcomes* and *outputs* to be achieved and for whom, defining the WHAT, that is, the content or subject matter to be researched in the study, takes centre stage in the next phase.

The individual steps involved are illustrated below:

Phase 2: Defining the content

PHASES	STEPS
Phase 2 **Defining the content**	**1** Define key research topics **2** Acquire knowledge **3** Specify with research questions or sub-topics, identify information sources **4** Form hypotheses **5** Operationalize: indicators and indices **6** Prepare report structure and work plan **7** Present and adjust results

2.1 Research topics and their specification

Determining the research topics helps to express the study in more practical terms. The topics indicate the dimensions of the research work to be carried out by the team if the set target is to be reached. Generally speaking, **the cooperating partners have already formulated these topics (frame of reference**). The topics should be logically connected to the objective system and usage context analysis. The team must **carefully verify** whether this **logical connection** is satisfactorily reflected in the reference frame. It may occasionally be necessary to integrate topics that are not (yet) mentioned as such in the frame but are a prerequisite for a greater understanding of the research project.

Research topics can be divided into three categories:

- **Empirical topics** such as conditions in the research regions, poverty in Brazil and Teresópolis or youth employment promotion in Liberia.

- **Concepts and theories**, knowledge of which is a precondition for elaboration of the research, e.g., the current discourse on impact analysis, vulnerability, youth work, job promotion.

- **Methods and instruments**, which serve to make topics measurable, e.g., impact assessment methods, resilience assessment, perception analysis.

Further examples of topics to be researched are: "Judicial and institutional frames for the development of tourism", "The design of a set of instruments for self-assessment" or an "Inventory of the work carried out by NGOs in the field of conflict prevention". Some areas will have been worked on during the preparatory phase, while others belong in field research.

There is no restriction on the number of topics but they should be **limited to six or eight**. Ideally the objective system *outputs* will have been defined in such practical detail as to lead directly to the research topics.

> Determining the research areas is a question of definition, that is, the content is marked out and with it the dimensions of the work involved in the research cooperation. This step goes hand in hand with delving into specialized knowledge on the topic concerned. The scope and depth of each research area can only be duly determined (see subsequent steps) if the research team uses this content-defining phase to gain **in-depth knowledge** and thus an impression of the complexity of the topics to be addressed. This is best achieved by **allocating responsibilities**. In other words, team members take responsibility for research on certain topics and continue to do so in subsequent steps.

Here, too, **multi-dimensionality and multi-level** approaches should be considered. What information is needed at what level? An example of a multi-level approach can be found in Annexe II.

Excursus: cooperation with local partners

Local partners, experts, students and lecturers of partner universities are being involved more and more in applied research. This coincides with the wishes of cooperating partners in the case of *capacity development*. Here, the research team should consider advanced training for local partners and the general advantage to the latter of their participation in the study (e.g., use of the data for their own publications). Training must be well prepared and could involve training in effective work techniques (e.g., team work and moderation) or in planning and monitoring instruments. Counterpart training should be seen as a separate topic.

2.2 Acquiring knowledge

Some of the challenges involved in the study have already emerged in Phase 1 (Usage context), e.g., knowledge gaps in the team or lack of clarity on the concepts and terms used. It may not be feasible to narrow these gaps immediately. Prior to launching into actually determining the content, the research team should therefore address the following:

- What kind of knowledge is needed? What are the relevant theories and concepts, and which ones in particular should be relied on for the study? In what direction should they be worked on/developed further?

- Are there (still) gaps in information, where can we find out more?

- What material is (still) not available and needs research?

- Which team members or external/resource persons can deliver what kind of information?

- Which concept and/or term definitions can be established at this point.

- Ideally the team is interdisciplinary, allowing for multi-dimensional perspectives on the research.

- What is the sociological perspective on the research topic?

- What aspects should be analysed from an economic perspective?

- What questions should be considered from an agro-ecological perspective?

- And so forth.

Knowledge acquisition takes place as a team, on the one hand, and as a separate responsibility, on the other. All members of the team are obliged to read the basic literature in order to create a shared knowledge landscape. Other means of gathering knowledge should be covered in the form of divided responsibilities. Regular feedback to the whole team is vital here and should be a fixed component of the work plan.

> **!** Knowledge should be acquired systematically according to the current standard within the team and linked to the expertise of individual members. Knowledge requirements should be prioritized. What needs to be clarified immediately? What can be cleared up during the field phase later on? It is advisable to make an early start with definitions of specialist terms.

2.3 Research questions, sub-topics and information sources

The research topics are now expressed in more practical terms. This can be achieved with sub-topics or research questions for each topic. At this point, the members of the research team should continue to **work separately**: distribution of research topics, individual formulation of sub-topics or sub-questions, followed by a team meeting and discussion. A precondition for the successful narrowing down of the topic area and its practical expression is detailed knowledge of the study. This in turn involves reading important project documents, theoretical texts, and geographical knowledge. The idea is to confine the research dimensions and focus on aspects of the topic to be investigated in order to carry out the research in a professional manner.

Given the sheer endless number of sub-topics and sub-questions that could potentially arise from each research topic, restraint is needed. Priority should be given to the **assumed importance and feasibility of the required data**. Such assumptions are akin to a methodological hypothesis with regard to the restriction of research questions and the possibility of collecting information.

Importance should be assessed with reference to the users and objectives of the study: MUST (first business), CAN (then pleasure).

Feasibility is assessed in relation to existing research

constraints (time, professional, financial) and with careful consideration of cultural, political and other frameworks in the host country.

By the end of this step each group should have drawn up a paper containing sub-topics and sub-questions for each topic. At this stage detail is not paramount: this work step does not involve drafting the final version of the questionnaires!

The paper should be completed with the (preliminary) mention of **information sources, documents, and experts** where possible. A decision must be made as to whether members of the research team collect the information themselves or avail of secondary material. Important items can be noted in a **Remarks** column, e.g., 'must/can categories', where a decision has not yet been possible.

A key component of content definition is the **clarification of key terms** (what does the research team mean, for example, by operation, accountability, impacts or participation?). It is advisable to deal with this pragmatically! Definitions should be recorded separately. They are a key element of the report to be written at a later stage.

The content definition of two very different research areas is documented in Annexe II. One deals with a **concept design (Brazil**) and is therefore a methodological topic, while the second refers to a '**classic**' **survey (Liberia**). The approach in each case is quite similar since concept design, developing a set of instruments or conducting training courses can all be described as research topics, which are then expressed in more concrete terms through research questions.

> It should be remarked here that in the case of highly complex research areas it is useful – for pragmatic reasons – to organize them into sub-topics prior to working out research questions. In the Brazil study on vulnerability, for instance, exposure, susceptibility and the ability to adapt appeared as sub-topics.

The extent to which a team has to process research topics prior to the actual field research depends on the contents of the study. Research that deals with the creation of methods to be verified on the ground, for example, should draw up a concept prior to field research. The methodology design is then itself an integral part of the content definition.

2.4 Forming hypotheses

At the beginning of the research cooperation, there may well be assumptions about links between certain issues. If, for example, the KfW development bank initiates a study on poverty reduction and micro-credit systems, it will already have assumed that the two are connected.

In the course of determining the research topic and research questions, the team will make a range of similar assumptions.

- Rural households with poor manpower endowment do not accept the project measures;

- The decline in extension services coincides with an unwillingness to participate in communal activities for erosion control;

- Credit repayment morale is higher among women than men.

The following hypotheses for the Brazil study partly arose from the literature on environmental awareness and education, and vulnerability research:

- People who fail to perceive their own vulnerability are less willing to actively engage in risk reduction measures;

- Lack of awareness about the function of ecosystem services for risk reduction is the reason why the population fails to recognize their benefits and their value in this context;

- Low awareness of personal responsibility for the protection and restoration of degraded ecosystems leads to low levels of participation;

- Lack of knowledge about opportunities to engage leads to low civil society organization.

Statements of this kind are called hypotheses. They steer the research in a certain direction and give it theoretical orientation. Hypotheses are verified in the course of empirical research.

Much of the work in the social sciences is about testing hypotheses. This also holds true for a range of development-specific research projects and studies that deal with a system of hypotheses on a particular topic, as in the case of impact analysis.

A case by case decision should be made as to whether existing empirical and theoretical knowledge can serve as the basis for a hypothesis (usually the case). The field of impact analysis, for example, provides empirically verified hypotheses for a range of sectors, which serve as theoretical orientation. Care should be taken, however, to ensure that creating hypotheses does not overly confine the research area a priori or contain a bias. The extent to which the research is hypothesis-based depends not least on the nature of the study itself (e.g., on whether it is a baseline study with an investigative design or an impact study with a more experimental design).

In this step, the research team should clarify whether forming hypotheses is at all relevant to the study. Some topics require hypotheses, others do not. The Brazil study had no need for hypotheses for 'Socio-economic data' since it was dealing with facts. The 'Perception of Vulnerability' research area, on the other hand, required hypotheses because it addressed the matter of an assumed link between perception and action. It may suffice under certain circumstancees to formulate guiding questions. As a rule, hypotheses are not created for exploratory studies, e.g., baseline studies (cf. Liberia), as they involve straightforward stocktaking of empirical data. When it comes to concept validation, evaluations or methodology design, however, hypotheses can be anything from useful to indispensable. Extra care is needed to ensure that hypotheses are not worked out down to the last detail. And: hypotheses should be based on existing concepts and theories.

Some requirements for hypotheses and variables as orientation

- A hypothesis must be empirically verifiable. The hypothesis "All development measures are doomed to failure due to climate change" cannot be verified.

- Statements in a hypothesis system (empirical theory) are clearly interlinked and refer to the same research area: if the content of an impact analysis is health improvement, it will consistently ask about health in relation to other sectors.

- A hypothesis system must be consistent and not contradictory. The following system is inconsistent: a) Microcredit repayment rates are higher for women than for men; b) Women have no access to microcredit.

Excursus: variables

"Variables are conceptually defined traits (characteristics) of objects and can take several different values" (KROMREY 2009).

Measuring variables allows a hypothesis to be tested and research questions answered. In empirical social research, **variables are virtually anything you want to measure.** These could be concrete terms such as age of household heads, or theoretical concepts such as life experience. This distinguishes them from indicators (which must specify a latent – as distinct from a manifest – variable, e.g., life experience by age). Variables are so called because their measurement can take different values (at least two), i.e., they can vary (yes/no; 100m/150m/200m; farmer/mechanic/trader; woman/man etc.). In the course of creating variables we need to consider how nuanced the information should be. Is it sufficient to categorize the "age" variable into old, adult, youth or child, or do we require more specific data? This question should be clarified systematically at the latest when designing questionnaires.

As the relevant literature clearly documents, there are very different types[8] of variables.

2.5 Operationalizing: create indicators and indices

The aim now is to express the project in more **concrete terms (operationalizing)**. By this time the research team will have designed research topics and questions (and often hypotheses), some of them in rather abstract form. While several research topics/questions can be clarified directly, for example, via interviews or observation, others are still too abstract for immediate empirical observation. This also holds true for the concepts used by the

8 For an overview of types of variables, their characteristics and consequences for later analysis, see Annexe III.

research team. If the team intends, for instance, to measure whether strengthening civil society has enhanced the resilience of grassroots groups, it will need to discuss the feasibility of measuring resilience empirically. It will now become evident that this step has much to do with theory and interpretation, and calls for clarity about how to express the abstract concept of resilience in concrete terms, that is, how resilience manifests itself empirically.

Further examples of abstract research questions are "acceptance" of project measures or how "power" affects programme participation or the significance of "involvement" for the success of self-help activities. All of these are **theoretical terms**. They can only be linked indirectly to the empirical and must be **'made measurable'**. What is now needed is a set of indicators.

Indicators are "directly observable phenomena that allow reasonable conclusions to be drawn about facts that cannot be perceived directly" (Lamnek 1993: 389)

Designing indicators is key, since numerous facts and circumstances in social research cannot be immediately ascertained.

Indicators for acceptance of the question "Does the rural extension service accept the project measure 'innovative cropping techniques'?" could be:

■ The extension service staff are attending the respective seminars (participation yes or no: example of a simple indicator)

■ They convey the newly acquired information in the course of their extension work (yes or no, or data on quality, frequency etc.: example of a more complex indicator)

■ They speak positively about the new techniques (yes or no, or more detailed)

The above-mentioned characteristics show that the **choice of indicator** greatly depends on subjective **ideas and interpretations**. Workshop participation

by extension service staff could well be interpreted as "pressure" or the receipt of a "daily allowance" rather than as an indicator of acceptance. For this reason, indicators should undergo constant review. All too long, development cooperation in the past designed measuring tools that had little to do with the culture and values of the people concerned. As a result, indicators developed externally often carried out measurements that bore almost no resemblance to what was supposed to be measured. What should be done?

■ Indicator relevance should always be cross-checked in dialogue with the people concerned. This also means encouraging the latter to develop their own indicators. Is a tin roof, for example, an indicator of prosperity in a household in a remote African region?

■ Indicators should never be applied lightly or indiscriminately. They respresent a specific way of seeing reality (e.g., the 'living standard' indicator).

Despite these reservations, it can be assumed that no study can survive without the **operationalizating step** of creating indicators.

Research should be planned realistically. It makes little sense to formulate research topics and questions that cannot be measured. Operationalizing questions helps to keep the research concept firmly grounded.

The investigation of a great number of phenomena would be impossible without indicators. This is especially true in the case of complex concepts or questions dealing with opinions (e.g., local perceptions of vulnerability, hierarchies in social systems), i.e., issues that cannot be explored with simple questions.

There are several requirements attached to indicator design:[9]

Theoretical requirements: what abstract concept, construct or term is to be measured by the indicator? What dimensions of the concept does it cover and to what extent are these significant for our research questions?

Methodological requirements: what instruments can be used to measure the indicator? Does the quality of the measurement meet the requirements? How accurate is the measurement? Does the indicator measure precisely what is intended (validity) and does it do so repeatedly under exactly the same conditions (reliability)?

Practical requirements: what resources are available for implementation of the indicator, what financial/personnel resources? What are the measurement requirements?

> **!** Please note: ADR and the planning matrix for a development cooperation project are not identical. Indicators are required only where the research areas to be explored demand such a 'translation step'. This is not an easy task and will need discussion.

Indices

If an indicator fails to describe a characteristic adequately, further indicators are designed and summarized in an index. A person's vulnerability, for example, cannot be measured with a single indicator such as income level. Further indicators are required. Whether indicators have equal weight on the index or are weighted differently has much to do with 'theory formation' (e.g., the assumption that income has a greater effect on vulnerability than education or vice versa).

Empirical research contains many examples of indices based on complex calculations and composed of weighted indicators. These give insights into complex contexts such as the economic performance of a society (gross national product) or development progress (e.g., the Human Development Index).[10]

2.6 Structuring the report and adjusting the work plan

A first **draft of the report structure** should be prepared early on parallel to determining the research topics and specifiying them in sub-topics and sub-questions through allocation of responsibilities. The draft usually emerges from the research areas and their structuring with sub-topics and research questions. It makes sense that those assigned to specifiying research topics in more concrete terms also take **responsibility for that section** in the study. Allocating responsibilities at an early stage has major advantages: the team members concerned are more focused when it comes to reading and collecting the relevant material, documents and statistics.

A research project must be organized effectively. It is worth preparing a first **draft of the work plan**[11] early or adjusting the plan drawn up in the course of clarifiying the usage context. The plan should cover the entire project period (preparation, implementation, analysis, report writing) and contain the following elements:

■ Breakdown of the results into partial and interim results (e.g., 'printed copies of the preliminary draft of the study are available')

■ Activities to achieve partial results (e.g., 'analyse data', 'formulate recommendations') in terms of time

9 Detailed check lists can be found in Meyer 2004, CEval Arbeitspapiere 10. For useful remarks from the perspective of empirical social research, see Kromrey 2009.

10 For a detailed description of indicators and index design, see Neubert (2001).

11 See Annexe II for the Brazil project (2013) work schedule as a Gantt chart.

■ Responsibilities

■ Necessary resources (e.g., for translation of questionnaires into Kiswahili)

Appointments/events of particular significance for implementation of the study should also be recorded (milestones).

The work plan should be designed to allow for permanent updating and contain milestones as orientation for team work on interim results.

3

Choosing the methods (Phase 3)

3 Choosing the methods (Phase 3)

Now that the use of the study has been clearly defined and its contents specifically named, the research team can deal with the question of concrete research design, i.e. the methodology. Similar to previous phases, Phase 3 (Choosing the methods) consists of various steps that are described in more detail below.

■ Is it to be a snapshot of activities, a retrospective or a perspective?

■ Repeated discussion of the above questions helps to make a decision on the final research design. The choice of methods should always be geared to gaining maximum clarity about content-related issues. In other words, a set of

Phase 3: Choosing the methods

Phases	Steps
Phase 3 **Choosing the methods**	**1** Decide on methodological design **2** Determine survey units **3** Select samples **4** Choose empirical instruments **5** Pre-test and adjust to conditions on the ground **6** Present and adjust results

3.1 Deciding on the methodological design

As an introduction to the debate on methodology, the team should take time and – in the iterative sense – consider:

■ What type of research cooperation is required (e.g., baseline study, stakeholder analysis/ dialogue, method design/method testing, impact measuring)?

■ What are the data requirements (extent, depth, width, level of accuracy)?

■ Are results to be generalized and/or transferable?

■ Is it a case study or a comparative study?

methods is not an aim in itself but should be subordinate to the content. Practical aspects and the resources available will be of major interest when it comes to deciding on the methodological concept design.

3.2 Determining survey units (SU)

During the process of clarifying the research topics and research questions we can already visualize the survey units (SU) relevant to the survey. In the case of social research, these are mostly **individuals, but could also be, for instance, groups, organizations or projects**. The choice of survey unit is dependent on the contents of the research question. Sometimes these units are already mentioned in the frame of reference. One research question could involve

several survey units. If, for example, the appropriateness of the rural extension system is under review, survey units may come from several sources, i.e., local population groups, agricultural advisers or cooperatives.

As shown in earlier examples from the Brazil and Liberia studies in the section on 'Defining the content', the research questions pertain to a variety of survey units:

Research questions in the **Brazil Study** refer primarily to the local population in Teresópolis and its perception of risk. The survey units in this case were individuals.

In the **Liberian Context** the main survey units were youth at local level, but also institutions and advice centres in the field of youth and employment promotion. In addition, formal and non-formal enterprises were selected as survey units.

Defining survey units is vital:

> **Example** (after BAKER 1994: 104)
>
> *"Let's suppose we want to investigate dropping out at universities. We find out that the student dropout rate is lower in areas with a high rate of "complete" families (mother and father). Can we assume from this that children from one-parent families are more likely to abandon their studies? No, at least not on the basis of our results. If we were to do so, it would be an example of a so-called ecological fallacy, which occurs, for instance, when group analysis results are transferred onto individuals. The dropouts in the current case could, for example, come from "complete" families in areas with a high rate of incomplete families."*

Not knowing the internal structure of local survey units is a further aggravating factor with particular reference to such units as 'village', 'household' or 'family'. In many African rural regions, for example, household sizes vary seasonally to a great extent. This raises the question of whether absent members of the household should be included in the survey units or only those present.

Survey units and information sources are not necessarily identical. If, for instance, data on savings and credit cooperatives is required, cooperatives can be questioned directly (i.e., the survey unit). Or data can be collected via the NGO in charge of the programme or through expert interviews. Information on each survey unit can also be gathered from secondary sources (articles, statistics etc.). In other words, information sources provide facts on the survey units. In this case survey units are units to which the information/data refers.

Information should be sought where it is easily accessible. Where it is available as secondary material, it should not be gathered directly.

3.3 Selecting samples

Research projects frequently deal with questions referring to large populations:

- Poverty reduction in rural households of the Inhambane District in Mozambique through tourism;

- Social perception of the local population in the Teresópolis region of Brazil

- Youth employment promotion in Liberia.

The same holds true for programme and project evaluations.

Due to scarcity of resources, a **'comprehensive survey'** of households, businesses, organizations etc. is **out of the question**. To lower costs (time, money, energy) a section (n) of the whole (N) is selected. In other words, a **sample** is taken. This procedure is adopted on condition that the sample is representative of the basic entity and allows for drawing conclusions that apply in equal measure to the whole.

Friedrichs (1985: 125) defines the preconditions for sampling as follows:

"The sample should be a miniature of the basic entity in terms of heterogeneity of the elements and in terms of the representativeness of the relevant variables.

The sample units or elements must be defined.

It should be possible to describe the basic entity and define it empirically.

It should be possible to describe the sampling procedure and fulfil requirement (1)."

These **requirements are difficult to fulfil in the case of ADR**. The key problem is usually lack of information on the basic entity or population. A complete list of the elements required for sampling is rarely available. It is therefore of the utmost importance for the sample to exploit all the available sources of information (key informants, qualitative descriptions, statistics) and to ensure a transparent procedure.

Within the framework of field projects abroad, a **multi-stage sampling procedure** – so-called **clustering** – is often possible. Large units, such as villages or organizations, are selected at first. These can be chosen at random (e.g., every third village in receipt of extension services from project xy on list Z) or according to specific criteria (e.g., villages with low extension input, at unequal distances from the project site, of a homogeneous/heterogeneous ethnic composition). These clusters serve as the basis for the sample selection.

The following is a brief overview of possible sampling procedures:

SAMPLING METHODS (from FAO 1990: 89)

Simple random sampling	When lists of households/businesses/individuals etc. exist. Each case is given a number. Elements are taken until the desired sample size has been reached.
Systematic sampling	See above. Then select, for exampe, every 5th, 10th, 15th household/business/individual.
Multi-stage random sampling	Goes through several levels. In a first step communities are selected at random and based on this, individuals are selected at random.
Stratified random sampling	When important sub-groups in the population would otherwise be excluded. When the heterogeneity of a parameter (variance) in the basic entity is high. Dependent on research question/hypothesis. Two or more groups are assembled, from which the sample is taken. Special case: disproportional sampling.
Cluster sampling	Possible when lists of people, households etc. are unavailable. Decide whether geographic or institutional clustering. The idea behind clustering is to break down large research areas into smaller, homogeneous units more suitable for sampling.

Quota sampling (quota = parameter value)	Decide beforehand on population sub-groups of interest for the research and their share (quota) in the total sample (e.g., age or gender distribution). In the next step people are interviewed until the quota is reached (e.g., men/women/age groups). Similar to stratified sampling with the significant difference that the interviewer chooses samples in the course of fieldwork. (Drawback: screening, strong influence of interviewer, subjective preferences.)

The **scope and design of the sample** for applied research purposes can only be judged **in the context of the research objective**. It furthermore depends on whether qualitative participatory or rigorous quantitative methods are preferred. Small, well-chosen qualitative and disproportional sampling can be more effective in the case of impact analysis than large sampling, which may not be able to verify vital hypotheses. It seems more plausible to verify the hypothesis "Rural road construction creates local industry" by 'rooting out' individual cases (e.g., bicycle repair shops) than by interviewing every tenth business. The five new bicycle repair shops may not turn up in the sample and thus be overlooked. On the other hand, statements will be more relevant if proven statistically (depth vs. width). Given the lack of knowledge on the basic entity, a representative approach based on random criteria is not feasible for larger populations. The approach is more suited to work with smaller groups of low heterogeneity (unless it refers to clearly defined groups, e.g., within the frame of saving and credit cooperatives already registered by name).

> Bear in mind accessibility and travel conditions when choosing a sample. Take personnel and time constraints into account from the outset when deciding on the scope of the sample, as well as during the analysis phase later on. The bigger the sample and the more complex the instruments, the greater the time and the effort required for analysis!

A plausible theoretical basis for the chosen sample and transparent documentation are of crucial importance to the study. Similarly important in the case of representative studies is the monitoring aspect and the debate on a possible saturation point.

The approach to taking samples in the Brazil and Liberia studies can be found in Annexe II. In a first selection step both decided on geographic clustering: Brazil in urban/rural areas affected/unaffected by the disaster, Liberia in rural and urban counties relevant to the future Welthungerhilfe programme design. In a second step, the Brazil study distinguished households by gender and age based on census data and chose random sampling. The Liberia study decided on a quota sample according to gender, age and social factors.

Excursus: Theoretical sampling and comparison groups

Theoretical Sampling: Apart from the sampling methods mentioned above, **qualitative research** uses what is called theoretical sampling, a method derived from grounded theory.[12]

Theoretical sampling simply means drawing the sample in loops. The sample is constantly redefined depending on the theoretical insights gained. After five interviews during a baseline study on agricultural businesses, for example, the research team noticed that the production systems of their interview partners varied con-

12 Grounded theory is a research approach found in interpretative social research (in the Chicago school tradition, from studies by A.L. Strauss and B.G. Glaser). Data sets are constantly compared with one another and successive 'theoretical sampling' is controlled by an accompanying theory-building process. (Glaser 1978)

siderably according to their ethnic belonging. Consequently further sampling took ethnicity into account. It emerged over the next ten interviews that the key characteristic for the difference in economic circumstances was the availability of a family work force, a variable that correlated with ethnic belonging. As a result businesses with a large or a small family workforce, wageworkers, leaseholders etc. were included in the sample. This **procedure** was continued up to the 'theoretical saturation level', that is, **until the research question was clarified or the hypothesis verified**.

Comparison groups: Studies that not only call for an up-to-date inventory but also a time-series comparison are faced with **the methodological challenge of comparing** start and finish. Panel research, which is commonly used in Germany for research on the country's socio-economic development, is not an option for studies based on ADR. At best, fresh data can be compared with past baseline studies. In almost all development cooperation programmes and projects, however, this is the exception rather than the rule. Assessments and impact studies, for example, are obliged to either use retrospective inquiry ("how did you manage food supplies before the road was built?") – with the well-known problem of potentially biased memories of interviewees – or find comparison groups not covered by the programme/project. The underlying assumption is that differences in, for example, the lives of groups with interventions and those without are linked to the programme/project impacts. Apart from the correlation gap (how can we be sure that observed change is the immediate result of an intervention defined in advance?), defining comparison groups is no small methodological challenge. Comparison groups must correspond with 'programme groups' in terms of basic characteristics, but

should not have been beneficiaries of interventions. This is **a challenging task** in practice. To circumvent the problem, comparisons are made between groups in receipt of interventions for different periods of time (e.g., villages that have been part of a programme for a long time and those recently covered). Furthermore, working with comparison groups calls for careful consideration of ethical aspects.

3.4 Choosing empirical instruments

Empirical instruments (data collection methods) are like tools, there is no point in dividing them into 'good' and 'bad'. **Instruments** should be **adequate, practical and adaptable,** and developed from the respective context (variables, indicators, survey situation, target group, researcher, objective). Required procedure in Ethiopia (e.g., anonymous treatment of interviewees) might well be rejected in Nigeria (examples from PAUSEWANG, 1973, and AY, 1980). Further criteria to assess **suitability** are **costliness** (input of time, money, material) and **accessibility**. Constraints on time and resources in some studies may make it necessary to use 'second-best' methods. Certain phenomena cannot be observed or measured (e.g., yields, if the research team's stay in the region is limited to the sowing period) but must be obtained through inquiry, although results may appear less reliable.

Whether quantitative instruments are applied or qualitative approaches depends on the research cooperation issue involved. A combination of both has frequently proved useful.

It makes sense to reduce the disadvantages of the various methods of collecting data by using **a wide range of instruments**. Today many sociologists stress the **advantages of a method mix** (cf., for example, DIEKMANN, 1995). Only by knowing the tools of the trade, however, will we succeed in handling these methods creatively.

Survey instruments:

Formal/Standardized	Not Formal/Not Standardized
■ easier to analyse	analysis difficult and costly
■ less qualification required of data collectors	highly qualified data collectors
■ subjectivity of data collectors carries less weight and is easy to verify	subjectivity of data collectors weighs heavier and is difficult to monitor
■ presupposes relatively good knowledge	allows for an exploratory approach

Qualitative and quantitative survey instruments:

Parameters	Qualitative Methods	Quantitative Methods
Type of data	Focus on differences, problems, perspectives	Focus on frequency, distribution, averages
Typical data collection methods	Participant observation, semi-structured interviews	Laboratory analysis, structured interviews
Formulation of questions/answers	Open questions, guidelines, checklists, possibility to add on during interview, two-way communication	Closed questions and standardized response categories, no deviation during interview, researcher asks, interviewee answers
Selection of interview partners	Who has special knowledge?	Representative sample of interviewees corresponding to characteristics of basic entity
Data analysis	Often parallel to data collection	After completion of data collection
Use of standardized methods of analysis	Seldom. Methods of analysis are developed during the process	Yes

Data collection methods are roughly divided into four categories:

- Interviews
- Observation
- Method testing
- Direct measuring

Special case: secondary analysis/documentary analysis (not a survey instrument but a vital method of gaining information)

> Pre-structuring research topics and their dimensions is recommended before tackling the methods to be used. It helps to structure questionnaires, for example, and work out specific content-related questions (open or closed).

3.4.1 The Interview

The interview is the most common method of data collection, whether in quantitative or qualitative research, as in the case of participatory surveys (e.g., RRA or PRA). Here, too, the wide spectrum of interview forms and techniques ranges from **unstructured interviews and focus group interviews to fully standardized questionnaires**, from telephone to written interviews. A distinction should be made between open-ended and closed-ended questions. Open questions tend to emphasize the interviewee expertise and serve to set up hypotheses, while closed questions refer to predesigned answers, that is, give authority to the interviewer and are of statistical value.

The particular method chosen in each case depends on the ultimate goal and content of the research and the person being interviewed. Surveys in the context of ADR studies are normally conducted at all levels, i.e., at macro, meso and micro levels. At the macro and meso levels, i.e., interviews with

government officials, representatives of research institutes, and experts, investigation is more important than comparability. In other words, this is about exploring the scope and depth of the research questions and looking at the perceptions of certain issues. Expert interviews are usually flexible in design and focus on the dimensions of a very small number of topics linked to the research. The degree of standardization and the interview method should be kept in mind when designing surveys at the micro level.

Since written and telephone or online surveys are more or less ruled out in the case of applied research in international development cooperation, the following passages concentrate on face to face interviews. These are distinguished according to the structure /level of standardization.

Standardized questionnaire

Quantitative empirical social research uses a **structured questionnaire with standardized response categories**. These questionnaires have several functions:

- to increase the comparability rate of results from a high number of interviews
- to guarantee a carefully considered and pre-tested procedure
- to collect data in a structured form
- to facilicate analysis and last but not least
- to ensure nothing important has been forgotten.

Given the unfamiliar setting research teams generally face abroad, it is difficult to plan interviews down to the last detail. Divergence and interruptions in the planned procedure may be necessary for social reasons or to obtain more promising information. Far more serious is the fact that predefined response categories can lead at worst to a selective perception of reality.

Pre-testing establishes whether the selected target

group has understood the questions in the desired way and the given response categories are exhaustive. Pre-tests are particularly vital when questionnaires require translation into local languages that may not contain the corresponding terms.

The qualitative interview: guideline, semi-structured interview

A qualitative interview seeks to establish the **interviewee's subjective outlook** rather than to collect quantifiable information and comparable results. The aim is to find out about attitudes, behaviour, wishes and interpretations. The **interview** has a fairly open design: it is less structured and primarily consists of **open-ended questions** tailored to the experience and living environment of the interviewees concerned. While the interviewer in quantitative social research is (ideally) seen as a neutral, 'objective' party, qualitative research relies on interaction between researcher and interview partner. The latter is seen as participating in the research and as actively influencing the research process.

The course of each interview may vary considerably. It can be conducted in a completely open manner or follow a catalogue of guiding questions. The principal items to be considered here are the purpose and the objective of the research and the available resources (notably the time budget). As a rule, interviews supported by semi-structured questionnaires are the preferred method in applied research. That said, a mix of fully standardized questionnaires with open sections can also be fruitful.

Below are some practical notes on planning and conducting guideline interviews and semi-structured questionnaires.

Interview-tecniques

Interview **questions** should correspond to the research topic and research questions as defined in the research concept. To pre-empt producing a data graveyard, questions should have a content-related structure. Avoid at all costs "... that could be in-

teresting, too ...". Poor quality questionnaires are characterized by questions that have obviously not been derived from the research topics or hypotheses (generally the problem) with the tacit assumption that the answers will somehow produce the desired results and justify questions ex post. This is a false conclusion, since the response is largely determined by how the question is phrased. (Friedrichs 1985)

The general rules on how to **formulate questions** sound trivial, which is probably why they are so frequently ignored. Only a pre-test can (provisionally) confirm whether the phrasing of the question is correct.

Rules for the formulation of questions:

- Keep questions short and simple: strictly avoid several sub-questions

- Adapt questions: they should be relevant to interviewee experience

- Establish clear terms: they should be identical for all interview partners

- Questions should be phrased in informal language and be understandable but not intrusive

- Avoid leading questions so that neither the response nor the interviewee is manipulated

- Be logical: the interviewee should be able to bear the question in mind while considering the answer

Structure of guideline interviews/guidelines

- Flexibility is the key factor for a successful qualitative interview. Apart from the initial question, there is no fixed procedure. Interviewers should be sufficiently flexible to adapt to the talking pattern of their interview partners

- It is useful to begin the interview with a question that puts the interviewee at ease and does not touch on a 'sensitive' subject. Difficult or sensitive topics should be dealt with at a later date

- The topic sequence should follow the logic of the interviewee. Difficult subject matter should be dealt with in 'funnel' form

- Sensitive or painful subjects for the interviewee should not be addressed at the end of a guideline interview. Interviewees should be given the opportunity to ask follow-up or counter questions

- Hold the tension, but not for too long![13]

Expert interviews

An expert interview is a guideline interview with pre-formulated open questions. This allows for comparison of the interviews and at the same time gives structure to the sequence of questions, which can be repeated in each interview. The funnel principle from the general to the particular should likewise be applied here.

The 'expert' information source is determined by the respective research project and can vary considerably. A farmer who has been chairman of a co-operative for years is as much an expert in the field of risk reduction strategies as an official from the Ministry of Environment.

Expert discussions are also useful after completion of the survey in order to obtain feedback on the findings.

Group interviews and focus groups

Guideline interviews can be conducted with **individuals** or **groups**. **Group interviews** are high on the study agenda. They can be exploratory in nature and allow the interviewer to **cover the full breadth of a topic.** Or they are focused from the start and serve the in-depth discussion of specific questions and topics. In participatory research, the aim is also to achieve a common group result (e.g., in a PRA workshop).

Focus groups are moderated discussion rounds us-

ing a guideline or specific methods (PCIA, MAPP, PIM[14]). Participative instruments such as time-lines[15] or community mapping[16] are particularly suited to structuring focus group discussions. The participant point of view is key here, which is why it is of the utmost importance to create an atmosphere of mutual trust. One instrument often combined with group interviews is the Venn diagram. Circles or shapes are used to work out relationships and key drivers with target groups, such as the significance of state institutions. Yet another instrument is Transekt, which is used with target groups to illustrate spaces (e.g., fields, meadows etc.) and thus to outline processes of change[17].

The group composition can be heterogeneous or homogeneous, depending on the research topic objective.

A group interview comes closer to village reality, such as in rural areas of Africa, than individual interviews, since an individualized setting is often difficult to arrange. Those who conduct group discussions should ensure that all opinions – including those that diverge – are expressed and that sub-groups likewise have their say. Group discussions are not only possible at micro level but also take place within the scope of expert interviews. Non-participant observation is recommended for

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13 Literature tip: HELLFERICH (2009) gives a good overview of interview techniques.

14 *Peace and Conflict Impact Assessment* (PCIA), *Method for Impact Assessment of Programmes and Projects* (MAPP) *und Participatory Impact Monitoring* (PIM) are monitoring methods, particularly in the context of the impact assessment of development cooperation measures (cf. WHH, no date, Leitfaden Wirkungsorientierung, Deutsches Institut für Entwicklungspolitik, DIE 2004).

15 Timelines tell the story of a group or a place across time. This interview type establishes time units, which are recorded in table form as trend lines or scenarios.

16 Community mapping is a participatory method to research and analyse community problems, characteristics and resources (cf. KUMAR 2002; MINKLER & COOMBE 2007). It allows for identification of the local need for action and definition of the objectives of shared project work.

17 A variety of participatory methods can support and be combined with survey interviews. For information and instruments see, for example, Institute of Development Studies.

later analysis of the focus group interview. Various forms of observation are outlined below.[18]

3.4.2 Observation

Observation is a common instrument for data collection. It encompasses a long continuum ranging from random observation of everyday life to a heavily controlled experiment. Fundamental differences emerge depending on whether observation is open or concealed, whether the observer participates in the situation or not, whether the observation is systematic or unsystematic, whether people are being observed in a natural or an artificial setting (e.g., in psychological laboratory tests), whether the observation is internal or external (of self or of others). In the context of applied research studies the combination **open + non-participant + systematic + natural setting + external observation** has proved valuable.

Observation procedures have numerous advantages: they can reveal aspects hitherto overlooked, they can take ordinary phenomena into account, they can contribute to the understanding of interrelationships and thus encourage forming hypotheses. In addition they lessen the need to ask (perhaps embarrassing) questions.

Systemization is indispensable to observation analysis. It reduces the strong element of subjectivity inherent in observing and increases the comparability rate. Designing a grid to **standardize** observation is also helpful. This takes the form of observation sheets to facilitate categorizing and recording what has been observed; whether the actual observation span allows for taking notes depends on the situation and should be clarified beforehand.

Observation in research is mostly combined with other instruments:

- **As a preparatory step**: to make the local population familiar with the survey situation and to verify the relevance of the questions etc.

- **As an accompanying step**: to gain additional – qualitative – information, e.g., during an interview or a group discussion

- **As a corrective step**: to clarify inconsistencies

The **observation** tool is used during the **pre-testing of methods** (see next section). If the group wishes, for example, to assess the acceptance of its tools by all social groups involved in the project, systemized observation in group discussions (e.g., who talks when and how often, participation of women and boys) is a sensible approach.

3.4.3 Method testing

Application-oriented studies frequently deal with the design of methodological tools. Several examples have been mentioned in the previous sections on usage context and content definition. In many cases, these field studies cover concept design and the testing of instruments and tools, which in turn involves elaborating methods to judge the quality of the tools to be used. The Brazil study is a good example: measuring the perception of environmental risk among the population called for a set of methodological instruments. This was to be tested and later available for surveys in other contexts. Hence, the instrument itself had to be documented in such a way as to be of further use.

Another example: Welthungerhilfe required the design and testing of a set of instruments for its project management in order to self-evaluate its projects. For this purpose it defined a range of quality criteria on which to base evaluation of the set. These included 'simplicity', 'transferability', 'standardization', and 'participatory'. The team developed a methodology for self-evaluation un-

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18 A detailed description of the focus group method can be found in Schulz/Mack/Renn (eds) (2012).

der consideration of the above-mentioned criteria and for the test, i.e., in the course of self-evaluation workshops, had to work out how to measure these criteria. This meant choosing methodological tools and how they were to be used in order to assess, for instance, the 'simplicity' criterion. The group decided on observation, interviews and expert interviews, and received key information that led to enhancement of the set of instruments in line with the quality demands of the cooperating partner.

3.4.4 Direct measuring

Direct measuring of, for example, field sizes, distances and yields may be relevant for individual studies under certain circumstances. Some projects make use of a GIS (Geo Information System). **Acceptance** by the people concerned, cost (time, money) and logistics (e.g., weighing scales transportation) should be assessed in relation to the potential result. The need to translate local measurements, sizes and terms into general standards is a comparatively easy problem to solve.

3.4.5 Secondary analysis/document analysis

Secondary analysis evaluates material originally designed for other purposes and/or is easily accessible to the general public (e.g., maps, aerial photos, literature, statistics). It plays a significant role in applied research. **Content analysis** is a specific, almost standardized form of secondary analysis. Documents (e.g., literature, films, music) are analysed in quantitative or qualitative terms according to a predetermined pattern (Friedrichs 1985). Content analysis can be simplified by using a computer-based analysis procedure.

3.5 Pre-test: revising empirical instruments and interview training

The research team should begin thinking about the pre-test before embarking on the field phase. A pre-test verifies the research content and research methods. As an integral part of the research, pre-testing produces both methodological insights and preliminary results. It includes **all** aspects of the investigation ahead:

- ◾ Questions and their operationalizing: complete, realistic, important?

- ◾ Instruments: appropriate, manageable, understandable, comprehensive, unambiguous?

- ◾ Information sources: correctly assessed, complete, reliable?

- ◾ Interviewers: suitably qualified, language skills, sufficiently motivated, honest?

- ◾ Analysis: what is the best way to analyse the information in the team?

Between the pre-test and the actual survey there will be sufficient time for possible **revision of the survey instruments** and, if necessary, of the survey design itself. Since research procedures in the field will partly involve divided responsibilities, this is the last opportunity of achieving a reliable group consensus on the content and the methods. The clearer the research concept, the less likely difficulties will arise during the survey and the analysis of the survey.

Interview training should be planned prior to the research. The research team must decide on the methods to be used and the context in which local interviewers are to be trained.

Interview training should be carried out in two steps, i.e., **before and after the pre-test**. The pre-test also serves (see above) to test the selected local interviewers. Initial training could take place in the form of role-playing, and later under realistic

conditions. The survey procedure should be carefully documented during the pre-test. This helps to avoid mistakes in the second training phase.

If the research involves working together with local partners, as in the case of numerous SLE research projects in recent years, a kick-off workshop is recommended for joint adjustment of the instruments. This has a positive effect on working as a team and promotes ownership.

It is worth noting here that applied research usually involves a method mix. The 'classic' methods and tools described earlier are complemented by a number of methods developed for participatory approaches, such as transsect, ranking, and scoring, all of which have been described, for example, in the abundant publications of the Institute of Development Studies (IDS) in Brighton. Practical examples are given for each sector and each case, and can be verified in the usage context concerned.

Finally, a word on a particular pitfall: because method kits are so rich and varied today it is easy to lose sight of the context to which they apply. Bear in mind that a method is never an end in itself. Methods are the tools of the trade and should evolve from the research topic content. And the team should be well versed in using them.

4

Planning implementation

4 Planning implementation

The **work plan should be detailed and brought up to date** prior to the field phase. Planning implentation includes **structuring the study**. The work plan and report structure should be advanced enough by the time of departure to serve as a basis for discussion with partners in the host country. Both should be **fine-tuned locally**.

By now at the latest, the research team should also have prepared:

- a project **description** in the common working language (and, where possible, in the national language) that explains the background to the study and provides information on the cooperating partners. Where required, it can be used as a press release at a later date;

- the research concept as a basis for discussion with partners and a **presentation**;

- an **inception report** that outlines the research concept in concrete terms and allows for detailed arrangements with the cooperating partners.

Revision of the work plan should take the following into account:

- Time slot for instrument review and adjustment

- Kick-off workshop if cooperating with local partners and interview training where necessary

- Time and personnel resources if translators are required

- Revision loop where teams work in separate locations

- Accessibility and distance of research areas

- Appropriate time slot for survey phase (maximum four weeks)

- Appropriate time slot for data analysis and report writing (minimum four weeks)

5

Notes on data processing and data analysis

5 Notes on data processing and data analysis

The team **should plan at an early stage** how it intends to process and analyse the data that has been collected. This applies to all data types, regardless of whether data is taken from secondary sources, expert interviews or a broad framework of household surveys. In the case of standardized quantitative surveys, data can only be processed and analysed when the last interview has been completed. This is more of an exception in applied research, since the data is mostly a mix of qualitative and quantitative data. As a rule, data analysis in ADR is a **continuous process.** Data collection goes hand in hand with data analysis. It is the only way to approach the answers to research questions gradually, to formulate new questions, to discard some and deepen others.

In contrast, analysing data as soon as it is collected enables us to 'hop' back and forth between data collection and the analytical process. This approach leaves sufficient room for critical reflection (and possibly reorientation) of the methodological instruments in use.

This is all the more essential when the team is working in sub-groups. It must be ensured that key information is processed, made available to all and discussed. The **significance of feedback loops and iteration** speaks for itself here.

Regardless of how data analysis is organized individually, be it in sub-teams, for example, or evening sessions, **timely data processing and regular minutes** are helpful mechanisms to prevent drowning in a sea of information. In other words, the team should agree first of all on an appropriate system of documenting the data it has collected, as well as other information.

Data processing means first and foremost **data control**.

- Checking the survey itself: does the interview distribution correspond to the designated geographic cluster, number of interviews etc.?

- Data plausibility: does the information/do all of the figures make sense? Is the data credible?

- Is it accurate enough: in terms of research concept demands?

- Are they complete? Are there gaps in some questions? Why?

- Did interviewers perhaps interpret the questions differently? A possible explanation for systematic differences in the data.

Where necessary, mistakes should be corrected, fresh data collected, and the interviewers concerned coached again.

Only when the data produces results from which conclusions can be drawn should it be transferred into a table. For this purpose, information available in purely qualitative form, for example in interviews, must first be brought into a usable form. The magic word here is coding, which is described in detail in the next step.

5.1 Coding[19]

Coding data is key when it comes to processing and analysing qualitative data. As MILES and HUBERMAN claim, it is "... hard, obsessive work. It is not nearly as much fun as getting the good stuff in the field" (1984: 63).

Why coding?

Analysing guided interviews or notes from group discussions, for example, means dealing with a vast amount of information (quantitative and

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19 For a standard work on qualitative content analysis procedure, see MAYRING (2010)

qualitative) that cannot be immediately compared systematically.

Information on a particular subject can crop up at various intervals during an interview or discussion or there may be a wide range of attitudes and opinions in response to a particular question. In this

source management, VUL for vulnerability. Coding with coloured pencils has proved successful: text passages are marked with different colours depending on the subject matter. In a later work step, passages marked in this way can be correlated.

EXAMPLE: STEPS FOR CODING A QUESTIONNAIRE

Step 1	Read questionnaires already available, note down expressions suitable for systemizing (topic! question!) ■ Self-help ■ Soil erosion ■ Advice
Step 2	Go through the questionnaires for these key words and highlight the corresponding passages with the help of special software or manually with coloured pencils. Add new codes where appropriate.
Step 3	Select and combine the respective passages from the various questionnaires according to the individual codes. N.B.: Do not destroy the original questionnaires!!!
Step 4	If it seems reasonable, arrange in groups or clusters Develop topics and group codes
Step 5	Analysis Where necessary develop new questions, detect inconsistencies and contradictions, deepen individual aspects

case, it is useful to **systemize the data via coding**. Now is the time to decide whether to analyse the data with a computer programme or manually. The number of interviews and group discussions carried out serves as orientation here, since experience shows that using software programmes to cope with large data sets is well worth it.

The first step is to read the material already available and note down expressions, certain aspects of the content or descriptions ('good', 'bad', 'difficult'). The corresponding text passages are then given individual codes. Codes can be figures or, as suggested by MILES and HUBERMAN, 'mnemomics' = memory aids, as in eco for ecology, RM for re-

! The research team should allow enough time for feedback rounds. A shared understanding of the codes is vital to coherent analysis. Do a revision loop after 30 interviews, review the code system and adjust it if necessary. When setting up the code book, bear in mind the scope of the research and the personnel and time constraints involved. If necessary prioritize and exclude. Computer programmes such as MAXQDA are useful when it comes to creating codes. Although codes keep the work focused on the research topic and research questions, a code system is not an end in itself. Experience shows that working with almost fifty codes can be time-consuming.

5.2 Data presentation/data matrix

Analysis data and results should be presented clearly. There are several formats (matrix, table, checklist etc.). The choice of format depends on what is to be achieved with the data in question. As a rule of thumb, we should keep in mind that "Laying out your data in table or matrix form and drawing your theories out in the form of a flow chart or map helps you understand what you have and is a potent way to communicate your ideas to others" (Bernhard, 1995 :325).

5.3 Computer-based data analysis

Quantitative and qualitative data analysis is far more efficient today and almost inconceivable without computer software. Complex and often cost-intensive statistical programmes such as SPSS are recommended, and free software such as PSPP or Grafstat. The latter is particularly easy to operate and facilitates simple stages of analysis. To achieve smooth data analysis, the **general rules of quantitative social research** should be strictly observed when designing the standardized survey instrument (cf., for example, Diekmann 2004).

Software not only simplifies the analysis of quantitative data. The Maxqda or Atlas.ti software programmes also facilitate analysis of qualitative data collected in focus group discussions or expert interviews. Highly different types of documents (e.g., group discussions, expert interviews, secondary material) can be coded and analysed. But be careful: application-oriented studies are not doctoral theses. Interview minutes are kept but they are not recorded and transcribed, a time-consuming task and costly as well.

Example: Data Matrix[20]

Question	1	2	3	4	5	6	...
Age							
In extension services since							
Number of HH to advise							
Means of transport							
Village accommodation							
Participation in training XY							

5.4 Triangulation[21]

Triangulation in applied research serves to increase data validity, as an approach to generalization and a path to new insights.

"Triangulation is always the attempt to find several approaches to the research question and compare results" (Mayring 2002: 147).

A research question can, for example, be explored with various methods or data sets. This allows for comparison of the different data sources, group opinions or even methods.

Method triangulation is the most commonly used form, a combination of different data collection methods. As a rule, quantitative and qualitative methods are combined (as in the case of the Brazil and Liberia examples, which saw the use of questionnaires, expert interviews and observation). **Data triangulation** combines information collected from different sources at different times and in different places or from different people (Mayring 2002).

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20 A detailed example of a data matrix and the associated code plan can be found in Annexe II.

21 Cf. remarks in the introduction to this HANDBOOK.

5.5 Presentation of results in the host country

Research results have to be acknowledged. It frequently happens that important results are not utilized – or not sufficiently – for the simple reason that they fail to reach the target group. ADR is a methodological approach that considers the recipients of the research results every step of the way.

Accordingly, the research team must carefully consider when, what and to whom results are to be presented. The following should be taken into account prior to presentation:

- Check what information is to be made accessible to whom.

- Check when users need the information. Should they, for example, be woven into a planning workshop that takes place during the field survey stage? Where appropriate, present interim results.

- Use opportunities for interim presentations. This allows for inclusion of possible corrections in the research.

- Adapt the presentation to the respective users (e.g., Prezi, PowerPoint, flip charts, photographs, pictures).

- Make sure the presentation is:
  > stimulating, i.e., choose a form of communication that holds the attention of the audience

  > understandable, i.e., pitched to suit the audience

  > convincing, i.e., delivers substantial facts and verified information rather than individual opinions

  > clear and simple, i.e., focused on the essential

  > participatory, i.e., designed to give the audience an opportunity to express their own views and ask critical questions

A vital issue: feedback on results

A key component of ADR studies is the local feedback on results (or interim results). As a rule, those invited to a presentation are cooperating partners, national counterparts, interested parties or ministries affected directly or indirectly by the results, organizations, experts, representatives of donor organizations and possibly the press. The aim of the presentation and discussion is to validate the results (or interim results) and allow for adjustment of the statements and recommendations in the study.

Unfortunately it seems to be normal procedure that interviewees are not informed of results. Although they yield a vast amount of information, they are not invited to presentations. The research team should ensure that **feedback on results reaches the immediate target group**. This could be solved by assigning two team members to drive to the respective villages and arrange a presentation at district level or by inviting target group representatives to presentations. This is a rare opportunity for members of the target group to become familiar with observations, analyses and recommendations that concern their own lives. It also allows for correction of certain interpretations. **In accordance with good 'triangulation'**, this type of procedure is highly relevant ("is our data interpretation actually correct?"). After all, insights gained from the feedback on results will affect the report yet to be produced![22]

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22 Useful hints on producing the inception report can be found in Annexe III.

Concluding Remarks and Literature

Concluding remarks

We have now reached the end of the ADR process. The concept has been applied and tested in numerous SLE studies. For the results see, for example, the list of publications on the SLE website www.sle-berlin.de.

That said, applying the ADR concept can be an arduous task. Given our academic background, focusing the research gaze on the usage context rather than on personal research interests is not always easy. Understanding the problem context of the future recipients of our research, the constraints involved in their adopting innovations and introducing processes of change is a huge challenge. Although solutions are frequently more efficient, more comprehensive, more rapid and of greater impact, they must be understood, accepted and implemented by the cooperating partners, target groups and organizations concerned. The goal of action- and decision-oriented research is to support this procedure. It is ambitious and at times demanding, but it is always worth it.

Literature

ANDERSON, Mary B. (1999): Do No Harm: How aid can support peace – or war. Lynne Rienner Publishers, Boulder Colorado

AY, Peter (1980): Agrarpolitik in Nigeria, Hamburg: Arbeiten aus dem Institut für Afrika-Kunde

Bacher, Johann, **PÖGE**, Andreas, **WENZIG**, Knut (2010) (3 ed.): Clusteranalyse. Anwendungsorientierte Einführung in Klassifikationsverfahren. München: Oldenbourg Wissenschaftsverlag

BAKER-DEGLER, Therese L. (1994) (2. ed.): Doing Social Research, New York: McGraw-Hill

BERG, Christian et al. (2018): Anstoß oder Aktenschrank? Die Wirksamkeit der Auslandsprojekte des Seminars für Ländliche Entwicklung (SLE). Berlin: comit GmbH

BERNHARD, H. Russell (1995): Research Methods in Anthropology. Qualitative and Quantitative Approaches, London: AltaMira Press

BOHNSACK, Ralf; **Nentwig-Gesemann**, Iris; **NOHL**, Arnd-Michael (Hg.) (2007): Die dokumentarische Methode und ihre Forschungspraxis. Grundlagen qualitativer Sozialforschung. 2., erweiterte und aktualisierte Auflage. Wiesbaden: VS Verlag für Sozialwissenschaften

BROWN, Mitchell, **HALE**, Kathleen (2014): Applied Research Methods in Public and Nonprofit Organizations, San Francisco: Jossey-Bass

CARRUTHERS, Ian, **CHAMBERS,** Robert (1981): Rapid Rural Appraisal for Rural Development, in: Agricultural Administration, Volume 8/6, Brighton, p. 407-422

CHAMBERS, Robert (1992): Rural Appraisal: Rapid, Relaxed and Participatory, IDS Discussion Paper No. 311, Brighton

CHAMBERS, Robert (1980): Understanding Professionals: Small Farmers and Scientists, IADS Occasional Paper, New York: International Agricultural Development Service

DeGEval, Gesellschaft für Evaluation (2010)**:** Handbuch Verfahren der Wirkungsanalyse, Hamburg: Arnold Bergstraesser Institut (ABI)

DIE, Deutsches Institut für Entwicklungspolitik (2004): Wirkungsanalysen der entwicklungspolitischen Zusammenarbeit sind machbar, in: Analysen und Stellungnahmen, Vol 2,2004, Bonn, https://www.die-gdi.de/uploads/media/4_2004_DE.pdf (letzter Zugriff: 08.09.17)

DIEKMANN, Andreas (2004) (11. ed.): Empirische Sozialforschung, Reinbeck: Rowohlt

ELLIS, Timothy J., **LEVY**, Yair (2008): Framework of Problem-Based Research: A Guide for Novice Researchers on the Development of Research-Worthy Problem, in: Informing Science: the International journal of an Emerging Transdiscipline, Volume 11/2008, Florida, pp 17-33

FAO, Food and Agriculture Organization of the United Nations (1990): The Community's Tool Box, Rom: FAO.

FIEGE, Karin, **RAUCH**, Theo (2012): Entwicklungszusammenarbeit gestalten. Inhalte und Methoden für ein erfolgreiches Wirken in einem komplexen Berufsfeld. Entwicklungspolitische Themenreihe des SLE.Bd.1. Berlin: SLE Publikationsserie

FIEGE, Karin, **GRUNDMANN**, Gesa, **HAGEDORN**, Michael, **BAYR**, Monika, **HEIDHUES**, Dorothee, **LANDORFF**, Florian, **NOVAK**, Waltraud, **SCHOL-ZE**, Michael (2004): Zusammen bewerten –- gemeinsam verändern. Instrumentarium zur Selbstevaluierung von Projekten in der Internationalen Zusammenarbeit (SEPIZ). Berlin: SLE

Flick, Uwe (2011): Triangulation. Eine Einführung. Reihe Qualitative Sozialforschung. Bd 12. Wiesbaden: VS Verlag

FRIEDRICHS, Jürgen (1985): Methoden empirischer Sozialforschung, Wiesbaden: VS Verlag

GLASER, Barney G. (1978): Theoretical Sensitivity.

Advances in the Methodology of Grounded Theory, Mill Valley: Sociology Press

HALBMEYER, Ernst (2010): Einführung in die empirischen Methoden der Kultur- und Sozialanthropologie. Institut für Kultur- und Sozialanthropologie. Universität Wien. Online: www.univie.ac.at/ksa/elearning/cp/ksamethoden/ksamethoden-30.html (letzter Zugriff: 05.10.2017)

HELLFERICH, Cornelia (2009) (3. ed.): Die Qualität qualitativer Daten. Ein Manual zur Durchführung Qualitativer Interviews, Wiesbaden: VS Verlag

Hillmann, Karl-Heinz (2007) (5. ed.): Wörterbuch der Soziologie. Stuttgart: Kröner Verlag

IDS BULLETIN (2016): Engaged Excellence. Transforming Development Knowledge, IDS Volume 47/Number 6/December 2016, Brighton

KAMIN, Anna Maria (2014): Dokumentarische Methode. Forschen im Praxissemester. Überblick, Methoden, Beispiele. Universität Paderborn. Online: https://blogs.uni-paderborn.de/fips/2014/11/26/dokumentarische-methode/(letzter Zugriff:05.10.2017)

KHON KAEN UNIVERSITY (1987): Proceedings of the 1985 International Conference on Rapid Rural Appraisal, Khon Kaen, Thailand

KÜRSCHNER, Ekkehard et al. (2012): Empowering Youth, Opening up Perspectives. Employment Promotion as a Contribution to Peace Consolidation in South-East Liberia (SLE), Berlin

KROMREY, Helmut (2009): Empirische Sozialforschung, Stuttgart: UTB

KUMAR, Somesh (2002). Methods for community participation: A complete guide for practitioners, Warwickshire: ITDG Publishing

LAMNEK, Siegfried (1993) (2. ed.): Qualitative Sozialforschung (Band 1 und 2), Berlin: BeltzPVU

LANGE, Wolfram et al. (2013): HumaNatura. Percepção social de riscos e adaptação à mudança climática baseada nos ecossistemas na Mata Atlântica, Brasil (SLE), Berlin

MAYRING, Phillip (2010) (11. ed.): Qualitative Inhaltsanalyse. Grundlagen und Techniken, Weinheim: Beltz

MAYRING, Phillip (2002): Die Qualitative Inhaltsanalyse. Eine Einführung, Weinheim: Beltz

MEYER, Wolfgang (2004): Indikatorenentwicklung: Eine praxisorientierte Einführung (2. Auflage), Saarbrücken Ceval Arbeitspapiere 10. http://www.ceval.de/modx/fileadmin/user_upload/PDFs/workpaper10.pdf (letzter Zugriff: 07.09.2017)

MILES, Mathew B., and **HUBERMAN,** A. Michael (1984): Qualitative Data Analysis, Beverly Hills: Sage

MINKLER, Meredith, **COOMBE**, Chris (2007): Using force field analysis and SWOT analysis as strategic tools in community organizing, in: Minkler, Meredith (ed.): Community organizing and community building for health (2. ed.), New Brunswick: Rutgers University Press, 444-447

NEUBÄUMER, Renate (1982): Die Eigenschaften verschiedener Stichprobenverfahren bei wirtschafts- und sozialwissenschaftlichen Untersuchungen. Frankfurt a.M.: Verlag Peter Lang

NEUBERT, Susanne (2001): Methodische Orientierung für kurze und praxisnahe Forschungsprojekte in Entwicklungsländern, Bonn: Deutsches Institut für Entwicklungspolitik

OSWALD, Katy, **GAVENTA**, John, **LEACH**, Melissa (2016): Introduction: Interrogating Engaged Excellence in Research, in: IDS Bulletin Vol 47 No 6 December 2016, 1-18

Porst, Rolf (2000): Praxis der Umfrageforschung. Wiesbaden: VS Verlag

RAUCH, Theo (2009): Entwicklungspolitik: Theorien, Strategien, Instrumente, (1. Auflage), Braunschweig: Westermann

SCHMITZ, Ginger Lena (2008): Krisenpräventiver Wiederaufbau in Norduganda. Eine Analyse friedensfördernder Maßnahmen der deutschen staatlichen Entwicklungszusammenarbeit. Magisterarbeit. Westfälische Universität Münster. Online: https://www.uni-muenster.de/imperia/md/content/ifpol/sic/abschlussarbeiten/schmitz.pdf (letzter Zugriff: 05.10.2017)

SCHÖNHUTH, Michael (2005): Entwicklung, Partizipation und Ethnologie. Implikationen der Begegnung von ethnologischen und partizipativen Forschungsansätzen im Entwicklungskontext. Habilitationsschrift an der Universität Trier, Fachbereich IV, DDC Sachgruppe Ethnologie

SCHULZ, Marlen, **MACK**, Birgit und **RENN**, Ortwin (Hrsg.) (2012): Fokusgruppen in der empirischen Sozialwissenschaft. Von der Konzeption bis zur Auswertung, Wiesbaden: Springer

SEIFERT, Josef (1995): Gruppenprozesse steuern. Als Moderator Energie bündeln, Konflikte bewältigen, Ziele erreichen. Offenbach: Gabal Verlag

STRAUSS, Anselm, **CORBIN**, Juliet (1996): Grounded Theory. Grundlagen qualitativer Sozialforschung, Weinheim: BeltzPVU

TVEDT, Terje (2002): Development NGOs: Actors in a Global Civil Society or in a New International Social System?, Voluntas, Vol. 13, 4, Wiesbaden: Springer VS, 363-75

UNGER, Hella (2014): Partizipative Forschung. Einführung in die Forschungspraxis, Wiesbaden: Springer VS

WELTBANK (2006): Glossary of Key Terms. Glossary of Key Terms in Social Analysis. Elektron. Dok.: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTSOCIAL ANALYSIS/0,contentMDK:20489637-menuPK:1231049-pagePK:148956-piPK:216618-theSitePK:281314,00.html (Letzter Zugriff: 01.07. 2016)

WHH, Welthungerhilfe (2008): Leitfaden Wirkungsorientierung (I u. II), Hintergründe und Definitionen, Berlin/Bonn, http://www.welthungerhilfe.de/ueber-uns/mediathek/whh-artikel/leitfaden-wirkungsorientierung-i.html (letzter Zugriff: 07.09.2017)

YOUNG, John, **SHAXSON,** Louise, **JONES,** Harry, **HEARN,** Simon, **DATTA,** Ajoy, **CASSIDY,** Caroline (2014): Rapid Outcome Mapping Approach (ROMA). A Guide to policy engagement and influence, London: Overseas Development Institute

ZOJER, Eva, **FAUL,** Eva, **MAYER,** Hanna (2013): Aktionsforschung – "Be part of it". Gemeinsam die Praxis durch Forschung verändern, in: ProCare, Vol. 18, 9, Wien, 12-16

ZUPAN, Natascha (2005): Gruppe Friedensentwicklung, BMZ, 07/2005 Briefing Nr. 3: Methoden der Evaluation im Konfliktkontext

Further reading

BARLEY, Nigel (1990): Traumatische Tropen, Notizen aus meiner Lehmhütte, Stuttgart: Klett-Cotta

BARTZ, Jürgen, DÖRING, Nicola (2006): Forschungsmethoden und Evaluation für Human- und Sozialwissenschaften, Heidelberg: Springer

CARDEN, Fred (2009): Knowledge to Policy: Making the Most of Development Research, Ottawa: International Development Research Centre (IDRC)

CASLY, Dennis J. and LURY, D.A. (1987): Data Collection in Developing Countries, 2nd ed., Oxford: Oxford University Press

CASLEY, Dennis J., KUMAR, Krishna (1988): The Collection, Analysis, and Use of Monitoring and Evaluation Data, Baltimore: Johns Hopkins University Press

CASSELL, Catherine; SYMON, Gillian (1994): Qualitative Methods in Organizational Research, London: Sage

COFFEY, Amanda; ATKINSON, Paul (1996): Making sense of qualitative data. London: Sage

CONWAY, Mimi (1985): Better Writing Made Easier, Washington: The World Bank (Mimeo)

CRACKNELL, Basil E. (2000): Evaluation Development Aid, New Delhi: Sage

CRESWELL, John W. (2002) (2. ed.): Research Design. Qualitative, Quantitative and Mixed Methods Approaches, London: Sage

DEVEREUX, Stephen, HODDINOTT, John (eds) (1992): Fieldwork in developing countries. London: Lynne Rienner Publishers

EVANS-PRITCHARD, Eduard E. (1988): Einige Erinnerungen und Überlegungen zur Feldforschung, in: ders.: Hexerei, Orakel und Magie bei den Zande. Frankfurt am Main: Suhrkamp

FEUERSTEIN, Marie-Thérèse (1995): Partners in Evaluation, London: Macmillan

FIEGE, Karin, ZDUNNEK, Gabriele (Hrsg.) (1993): Methoden - Hilfestellung oder Korsett? Erfahrungen empirischer Sozialforschung in Afrika, Asien und Lateinamerika, Saarbrücken: ASA Studien 27

FINK, Arlene, KOSECOFF, Jacqueline (1985): How to conduct surveys, Newbury Park: Sage

HINKEL, Jochen, BISARO, Alexander (2014): Methodological choices in solution-oriented adaptation research: a diagnostic framework, Berlin-Heidelberg: Springer

MIKKELSEN, Britha (2005) (2. ed.): Methods for Development Work and Research - A New Guide for Practitioners, New Dehli: Sage

MILLER, Thaddeus R., WIEK, Arnim, SAREWITZ, Daniel, ROBINSON, John, OLSSON, Lennart, KRIEBEL, David, LOORBACH, Derk (2013): The future of sustainability science: a solutions-oriented research agenda, Japan: Springer

OXFAM (1992): Choosing Research Methods, Oxford (UK): Oxfam Publication

PATTON, Michael Q. (1997): Utilization-Focused Evaluation, Thousand Oaks: Sage

PERIPHERIE. Zeitschrift für Politik und Ökonomie in der 3. Welt (1994): Zählen und Verstehen - Anstöße zur Methodendiskussion, Jg. 53, Frankfurt am Main: Verlag Barbara Budrich

ROBSON, Colin (2000): Small-Scale Evaluation, London: Sage

ROCHE, Chris (1999): Impact Assessment for Development Agencies, Oxford: Oxfam Publication

RÖLING, Nils (o.J.): Problem Solving Research: A Strategy for Change, Paper presented at the International Seminar on Extension Education, Helsinki

SCHÖNHUTH, Michael und Uwe KIEVELITZ (1993): Partizipative Erhebungs- und Planungsmethoden in der Entwicklungszusammenarbeit: Rapid Rural

Appraisal; Participatory Appraisal; eine kommentierte Einführung, Eschborn: GTZ Publikation

SILVERMAN, David (1993): Interpreting Qualitative Data, London: Sage

STOCKMANN, Reinhard (Hrsg.) (2006): Evaluationsforschung. Grundlagen und ausgewählte Forschungsfelder, Münster: Waxmann.

STRINGER, Ernest T. (1996): Action Research. A HANDBOOK for Practitioners, Thousand Oaks: Sage

ANNEXE I

ADR
Instruction Sheets

Phases and Steps: Overview

Action- and Decision-oriented Research (ADR)

Phases	Steps
Phase 1 **Clarifying the usage context**	1 Identify and define core issue 2 Objective system and impact analysis 3 User analysis 4 Guiding research questions 5 Define activities (roughly) 6 Negative side effects 7 Forms of communication 8 Present and adjust results
Phase 2 **Defining the content**	1 Define key research topics 2 Acquire knowledge 3 Specify with research questions or sub-topics, identify information sources 4 Form hypotheses 5 Operationalize: indicators and indices 6 Prepare report structure and work plan 7 Present and adjust results
Phase 3 **Choosing the methods**	1 Decide on methodological design 2 Determine survey units 3 Select samples 4 Choose empirical instruments and analysis techniques 5 Pre-test and adapt to conditions on the ground 6 Present and adjust results
Research concept	▪ Outline research concept, present to audience, adjust if necessary
Inception report	▪ Write inception report and consult with cooperating partners

How ADR Works

Action- and Decision-oriented Research is based on team work. In the SLE context, four to five people work together on a study, accompanied by an experienced team leader. Team work requires organization to ensure constructive and goal-oriented cooperation. The active cooperation of all concerned is crucial. Participation not only means working through each ADR step, presenting interim results, adjusting individual steps following feedback, and writing a report. It also means actively shaping the research process. In practice it involves the moderation of each step. The following instruction sheets will help to structure the work process and pave the way for smooth application of ADR.

> Moderation should be decided upon prior to undertaking each step so that enough time is left for the moderator to prepare the next step. This HANDBOOK and the following guidelines serve as support.

Instruction sheets – introduction

Aim: The instruction sheets presented here serve as orientation for moderation and give the work process the necessary structure. They are aligned to the objectives for each step and should be woven into the preparatory phase.

Structure: The desired *result* is stated at the beginning of each instruction sheet for each step in each of the three ADR phases (usage context (I), content definition (II) and choice of methods (III)), that is, the objective to be reached by the end of each step and the direction in which moderation should be working. Crucial here are the *guiding questions*. These must be clarified for each step and help the moderator to give the team direction. The *notes* are points to be aware of during the work process and are followed by *material* for moderation and visualization, and how to *document* each step clearly.

Moderation: The moderation is responsible for preparing each work step and steering group work. This includes deciding which member of the research team is to be responsible for group work visualization and the documentation of each step. The moderation keeps tabs on the time and obtains an overview of the possible interim results of group work. Unlike in other contexts, the person who moderates in ADR takes an active part in the work involved in each of the steps. It is advisable to carry out moderation on a rotation basis (daily, half days etc.).

Visualization: The person in charge of visualization makes sure that results are continually documented in written form. Blackboards, presentation walls and flip charts are useful work tools. Minutes can be taken if required. The aim of visualizing should be agreed upon with the person responsible (does it involve visualizing a group brainstorming, for example, or taking detailed minutes).

Safeguarding results: It is important to document all facets of the research work clearly. The person responsible in this case is usually the person who visualizes or takes minutes (e.g., drawing up a matrix, storing photographs of work in progress in a common storage space etc.). These documents frequently find entry into the inception report and/or the study.

How ADR Works

PHASE 1 CLARIFIYING THE USAGE CONTEXT

- Identify and define core issue

- Objective system and impact analysis

- User analysis

- Guiding research questions

- Define activities (roughly)

- Negative side effects

- Forms of communication

- Present and adjust results

Phase 1 – Step 1

Identify and Define Core Issue

Result	The research team has reached a common understanding of the reason for the research cooperation. The core issue to be resolved with the aid of the study has been identified.
Guiding questions for moderation	Discuss the following questions in the team based on the available material (frame of reference, project reports, other documents) and other information (experience of team leader preliminary trip, counterpart knowledge): ■ What is (are) the problem(s) at target group level (social problem)? ■ What is (are) the problem(s) in the organization/project that call for the research cooperation (organization-related problem)? ■ What is the information problem (information deficit) to be resolved by the research? ■ Discuss the logical connection between the three levels
Note	■ Use the HANDBOOK to prepare for moderation ■ Allocate responsibilities at the beginning (visualizing etc.) ■ Prepare in advance suggestions on how to work out the procedure for each step (e.g., by using mind maps)
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Write down the result (minutes, presentation wall, flip chart etc.), photograph this if necessary and store centrally ■ Document the result in a clear format, for example as a mind map ■ Minutes: unresolved questions, controversial issues, knowledge gaps ■ Photograph (interim) results where required

Phase 1 – Step 2

Objective System and Impact Analysis

Result	The team has defined the results (*outputs*), aims (*outcomes*) and overall goal (*impact*) of the research project, and carried out an impact analysis.
Guiding questions for moderation	Based on the results of clarifying the usage context (notably analysis of the core issue) discuss the following questions: ■ What is the aim of the study (*outcome*), i.e., how will the project/ cooperating partner use the results? ■ What results (*outputs*) are to be produced? ■ What *impact* can be defined, i.e., what is the anticipated benefit for the target group? ■ Check consistency of the three levels
Note	■ Use the HANDBOOK to prepare for moderation ■ Allocate responsibilities at the beginning (visualizing etc.) ■ Become familiar with the objective system and impact analysis ■ Define results (*outputs*) clearly and focus discussion on project aims (*outcomes*) ■ Several *outcomes* are possible, as are several *outputs* for one *outcome*
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Write down the result (minutes, presentation wall, flip chart etc.), photograph it if necessary and store centrally ■ Document the result in a clear format (objective system etc.) ■ Minutes: unresolved questions, controversial issues, knowledge gaps ■ Photograph (interim) results where required

Phase 1 – Step 3
User Analysis

Result	Based on the reference frame, the team has identified the key users of the research results and established the implications for the study.
Guiding questions for moderation	■ Identify the key users of the *outputs*: ■ How will they use the results in practice and to what benefit? ■ What are the implications for our research work? ■ Who will evaluate the results, along what criteria? What are the consequences? ■ How do these insights affect our research work? ■ Apart from direct recipients, what other groups could profit from the *outputs*?
Note	■ Use the HANDBOOK to prepare for moderation ■ Allocate responsibilities at the beginning (visualizing etc.) ■ Revise objective system/impact analysis and frame of reference ■ Concentrate on direct users
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Write down the result (minutes, presentation wall, flip chart etc.), photograph it if necessary and store centrally ■ Document the result in a clear format (matrix etc.) ■ Minutes: unresolved questions, controversial issues, knowledge gaps. ■ Photograph (interim) results where required

Phase 1 – Step 4

Formulate Guiding Research Questions (Can, not Must)

Result	The team has formulated six to eight guiding questions relevant to the research.
Guiding questions for moderation	Research questions will emerge while working on the objective system and the impact analysis. These serve as orientation and help the team to stay focused in subsequent steps. ■ What guiding questions can be defined with the current level of knowledge?
Note	■ Use the HANDBOOK to prepare for moderation ■ Allocate responsibilities at the beginning (visualizing etc.) ■ Revise objective system and impact analysis ■ Can, not must ■ Limit guiding questions to 6 or 8
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Write down the result (minutes, presentation wall, flip chart etc.) photograph it if necessary and store centrally ■ Document the result in a clear format (tables etc.) ■ Minutes: unresolved questions, controversial issues, knowledge gaps ■ Photograph (interim) results where required

Phase 1 – Step 5
Define Activities (roughly) (Can, not Must)

Result	The team has made a rough draft of activities vital to achieving its objectives.
Guiding questions for moderation	Based on the results of clarifying the usage context (notably objective system and impact analysis) discuss the following questions: ■ What activities are indispensable to achieving the set aims? ■ Can they be linked to the objective system/impact analysis?
Note	■ Use the HANDBOOK to prepare for moderation ■ Allocate responsibilities at the beginning (visualizing etc.) ■ Revise objective system and impact analysis ■ Can, not must
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Write down the result (minutes, presentation wall, flip chart etc.), photograph it if required and store centrally ■ Document the result in a clear format (tables etc.) ■ Minutes: unresolved questions, controversial issues, knowledge gaps ■ Photograph (interim) results where required

Phase 1 – Step 6

Negative Side Effects

Result	The research team is aware that unintended side effects may occur and has documented the potential consequences.
Guiding questions for moderation	■ What are the potential consequences of the research work? ■ How can we minimize the identified risks?
Note	■ Use the HANDBOOK to prepare for moderation ■ Allocate responsibilities at the beginning (visualizing etc.) ■ Revise objective system/impact analysis and frame of reference ■ No worst case scenarios!
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Write down the result (minutes, presentation wall, flip chart etc.), if necessary photograph it and store centrally ■ Document the result in a clear format ■ Minutes: unresolved questions, controversial issues, knowledge gaps ■ Photograph (interim) results where required

Phase 1 – Step 7
Forms of Communication

Result	The team has worked out communication channels with counterparts and the interested public
Guiding questions for moderation	■ Discuss as a team how to organize communication and with whom, and the necessary steps to ensure successful planning: ■ How can we capture the interest of cooperating partners? ■ How can we involve them in preparing for the study?
Note	■ Specify time frames and assign responsibilities (organize skype meetings etc.) ■ Search for contacts and keep a record ■ Regular contact with cooperating partners at an early stage to discuss, for example, objectives and possible methods ■ Collect feedback, be open to criticism and, where necessary, revise or adjust steps and results
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Write down the result (minutes, presentation wall, flip chart etc.), photograph it if necessary and store centrally ■ Document the result in a clear format ■ Minutes: unresolved questions, controversial issues, knowledge gaps ■ Photograph (interim) results where required

Phase 1 – Step 8

Present and Adjust Results

Result	The team has presented, debated and revised the results of Phase 1 (Clarifying the usage context).
Guiding questions for moderation	■ Who is preparing what for the presentation? ■ Who is presenting what? ■ Who is writing the minutes of the presentation discussion?
Note	■ Allocate responsibilities and clarify procedure in the run up to the presentation ■ Avoid inconsistencies during the presentation
Material	■ Presentation techniques ■ PowerPoint, Prezi ■ Flip chart, Metaplan etc. ■ Camera
Documentation	■ Write down the result (minutes) ■ Document the result in a clear format ■ Minutes: unresolved questions, controversial issues, knowledge gaps

How ADR Works

Phase 2 Defining the Content

- Define key research topics

- Acquire knowledge

- Specify with research questions or sub-topics, identify information sources

- Form hypotheses

- Operationalize: indicators and indices

- Prepare report structure and work plan

- Present and adjust results

Phase 2 – Step 1

Define Key Research Topics

Result	The team has defined the topics for which data is to be collected in the course of research and the questions to be answered.
Guiding questions for moderation	■ Recap on a) reason for the study, b) desired results and c) guiding questions (if available) ■ On the basis of a), b) and c), define specific areas to be worked on with ADR (where in depth/width?) ■ How are research topics to be distributed within the team?

Note	■ The frame of reference frequently gives an adequate description of the topics
	
	■ Topics are divided into three categories:
	
	  › Empirical topics
	
	  › Concepts and theories
	
	  › Methods and instruments
	
	  › Limit the number of topics to 6 or 8
	
	  › Work with separate responsibilities in subsequent steps

Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form (e.g., matrix) and allow for regular updating and revision (appointments, responsibilities, resource persons etc.) ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 2 – Step 2

Acquire Knowledge

Result	The team is aware of the current knowledge gaps and has worked out a procedure to narrow these down so that topics can be researched satisfactorily.
Guiding questions for moderation	■ Discuss the following questions in the team: ■ What do we need in terms of knowledge and theories? ■ What concept definitions should be established at this point and what can be dealt with later? ■ How much knowledge is (not) available? ■ What material is (not yet) available? ■ Who can provide what information?
Note	■ Allocate responsibilities for each research topic. Take the expertise of each team member into account. Work out a schedule ■ Prepare topics individually and tie in with existing knowledge ■ Set deadlines for consideration and discussion of interim team results. Adjust topics accordingly and even out the level of knowledge in the team ■ Consider key terms that need defining
Material	■ Flipchart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form ■ Ensure documentation is comprehensible and allows other team members to follow the content ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 2 – Step 3

Specify with Research Questions or Sub-Topics, Identify Information Sources

Result	Each team member responsible for a research topic has drafted what needs to be researched (either in question form or as an activity) or named sub-topics, and identified information sources.
Guiding questions for moderation	■ Discuss for each research topic what the team needs to know and the activities to be conducted by the team ■ Identify information source for research questions or sub-topics ■ Always bear in mind: priority and feasibility (must, can)! ■ Prepare a document (see Section 4.3) containing research topic, sub-topics or questions, information source, remarks associated with each result
Note	■ Continue to work separately ■ It is advisable to begin with key terms and concepts ■ Set deadlines for consideration and discussion of interim team results so as to adjust topics where appropriate and even out level of knowledge in the team.
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form ■ Ensure documentation is comprehensible and allows other team members to follow the content (short minutes and matrixes). ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 2 – Step 4
Form Hypotheses

Result	Where necessary the team has formed assumptions about problem contexts and defined variables to verify hypotheses.
Guiding questions for moderation	■ Are hypotheses necessary and, if so, for which research topics? ■ Based on a review of the research areas and questions, discuss whether implicit or explicit hypotheses are required
Note	■ Revise research topics and sub-questions or sub-topics ■ Form hypotheses only where it makes sense. Not always necessary ■ Continue working individually but remember to present interim results to the team for discussion ■ Avoid minute detail at this stage. Limit the number of hypotheses. This is best achieved by referring hypotheses to a higher aggregated content level rather than to individual questions or sub-issues
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form. ■ Ensure documentation is comprehensible and allows other team members to follow the content (e.g., additions to existing matrix). ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 2 – Step 5

Operationalize: Indicators and Indices

Result	The research team has operationlized theoretical concepts and/or abstract questions with indicators and created indices where required.
Guiding questions for moderation	■ What theoretical concepts need operationalizing (e.g., participation)? ■ What abstract, i.e., non-measureable questions, have been worked out (e.g., how do people perceive their vulnerability?)? ■ What quantitative/qualitative indicators can be defined for these questions? ■ Do the indicators measure what is intended?
Note	■ Revise research topics and sub-questions ■ Consider which questions are too complex, i.e, need breaking down, and define additional sub-questions if required ■ Continue working individually and discuss further task assignments that make sense
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form. ■ Make sure documentation is comprehensible and allows other team members to follow the content (e.g., additions to existing matrix). ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 2 – Step 6

Prepare Report Structure and Work Plan

Result	The team has made a rough draft of the work plan and devised a provisional structure for the report.

Guiding questions for moderation	Create a work plan that considers the following time aspects:
	
	■ What time frame is involved?
	
	■ What activities are to be carried out and when?
	
	   › Counterpart training where required, pretesting and adjustments, length of survey phase, analysis phase, report writing phase
	
	   › Submission date for draft, milestones, excursion week
	
	   › Presentation of results in host country and final presentation
	
	■ Who is in charge of which activity?
	
	■ Where are activities to take place?
	
	■ What resources are available?
	
	■ Use the ADR steps as orientation for the report structure. Each team member should take over a research topic, work out a structure based on initial review of the literature, project documents etc., and present it to the team.

Note	■ Design a work plan that allows for regular updates and revision ■ The report structure clearly specifies the responsibilities of each team member. Remember: individual responsibilities for research topics should be consistent with the respective team member's knowledge and expertise.
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form (e.g., table or matrix). ■ Minutes: unresolved questions, controverisal issues, knowledge gaps

Phase 2 – Step 7
Present and Adjust Results

Result	The team has presented, discussed and revised Phase 2 (Defining the content).
Guiding questions for moderation	■ Who is preparing what results for the presentation? ■ Who is presenting what? ■ Who is taking the minutes of the presentation discussion?
Note	■ Allocate responsibilities and clarify procedure in the run up to the presentation ■ Avoid inconsistencies during the presentation
Material	■ Presentation techniques ■ PowerPoint, Prezi ■ Flip chart, Metaplan etc. ■ Camera
Documentation	■ Write down the result (minutes) ■ Document the result in a clear format ■ Minutes: unresolved questions, controverisal issues, knowledge gaps

How ADR Works

Phase 3 Choosing the Methods

- Decide on methodological design

- Determine survey units

- Select samples

- Choose empirical instruments and analysis techniques

- Pre-test and adjust to conditions on the ground

- Present and adjust results

Phase 3 – Step 1

Decide on Methodological Design

Result	The research team has decided on the methodological design for the study and discussed the advantages and disadvantages of their choice.
Guiding questions for moderation	■ What reasearch cooperation is involved (baseline study, perception analysis etc.)? ■ Should the results be generalized and/or transferable? ■ What data standards are required? ■ What are the personnel, financial and time limitations?
Note	■ Bear in mind the level of knowledge in the team ■ Consider instrument development and possible analysis methods when discussing the methodological approach (here, too, remember knowledge level)
Material	■ Flip chart, moderation cards, blackboard, Tafel ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form (e.g., Metaplan, minutes etc.) ■ Minutes: unresoved questions, controversial issues, knowledge gaps

Phase 3 – Step 2

Determine Survey Units

Result	The team has clarified for each research topic, and sub-question or sub-topic, what information can actually be extracted from the survey response and about whom.
Guiding questions for moderation	■ Consider to whom or what each question/topic refers (extension service in general, individual staff members etc.) ■ About whom or what is specific information to be gathered? ■ Where is it to be found? ■ At what level is it required (individual, household, business etc.)? ■ Consider who or what is to serve as the information source for clarification of the question (documents, individual advisers, director of the extension service, inhabitants etc.)
Note	■ Discuss in depth the level at which data is to be collected. Data can be aggregated at a later stage but not disaggregated (e.g., data on individuals can be aggregated to specific groups but not vice versa) ■ In many cases the survey unit (to whom or what does the question refer?) and the information source (who or what can provide answers to questions about the survey unit?) will be identical. But they can also differ. E.g., survey unit: staff members of a GIZ sectoral programme; information source: director of the programme
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form (e.g., matrix–question–survey unit–information source) ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 3 – Step 3
Select Samples

Result	The team has determined the study requirements in terms of representativeness and how survey units are to be selected.
Guiding questions for moderation	■ How representative must your results/data be to meet your cooperating partner's requirements (refer back to objectives, research topics etc.)? ■ Is this realistic? ■ What are the criteria for selection?
Note	■ Plan a realistic procedure to select survey units (villages, organizations, individuals etc.) and according to what criteria. If this is only feasible on site, now is the time to decide when this step is to be carried out and with whom. ■ Multi-level cluster sampling has proved useful in ADR
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form (where necessary make additions to the document in the previous step 'Survey Unit') ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 3 – Step 4

Choose Empirical Instruments and Analysis Techniques

Result	The team has made a choice of methodological instruments and possible analysis techniques.
Guiding questions for moderation	■ Based on the information sources and survey units already identified, consider the methods to be used for each research topic (guided interviews, group discussions etc.) ■ Work out the methodological procedure (e.g., guided interviews for project staff members) ■ Weigh up the pros and cons in the team and keep time and personnel capacities in mind ■ Discuss choice of instruments and methods of analysis, bearing in mind personnel and time constraints
Note	■ Discuss both empirical instruments and possible analysis techniques ■ Discuss in detail the pros and cons of using quantitative and qualitative instruments ■ If necessary the team should acquire further specialized knowledge ■ Work separately here, too, and arrange fixed dates and feedback loops
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 3 – Step 5
Pre-Test and Adjust to Conditions on the Ground

Result	The research team has planned a pre-test to assess empirical instruments.
Guiding questions for moderation	■ The pre-test covers the entire planning phase of the methodology: ■ Are the research questions and their operationalizing complete, realistic and relevant? ■ Are the empirical instruments adequate, applicable, understandable, comprehensive, unambiguous? ■ Informations sources: well assessed, complete, reliable? ■ Interviewers: sufficiently trained, in possession of a common understanding of procedure? ■ How can interviewers be trained so as to reach this common understanding
Note	■ A pre-test should be carried out prior to departure under consideration of the above-mentioned points, but also on site in the host country ■ The suitability of the empirical instruments can only be measured in relation to the target group concerned (e.g., educational attainment etc.)
Material	■ Flip chart, moderation cards, Metaplan, blackboard ■ Laptop, beamer ■ Camera
Documentation	■ Document the result clearly in written form ■ Minutes: unresolved questions, controversial issues, knowledge gaps

Phase 3 – Step 6
Present and Adjust Results

Result	The research team has presented, debated and revised the results of Phase 3 (Choosing the methods)
Guiding questions for moderation	■ Who is preparing what results for the presentation? ■ Who is presenting what? ■ Who is taking the minutes during the presentation discussion?
Note	■ Allocate responsibilities and clarify procedure in the run up to the presentation ■ Avoid inconsistencies during the presentation
Material	■ Presentation techniques ■ PowerPoint, Prezi ■ Flip chart, Metaplan etc. ■ Camera
Documentation	■ Write down the result (minutes) ■ Document results in a clear format ■ Minutes: unresolved questions, controversial issues, knowledge gaps

ANNEXE II
Examples of work steps: Brazil and Liberia

Preliminary note: Not all work steps are shown below for each of the two projects. Examples of individual work steps were selected. Steps already illustrated with empirical examples in the body of the text are not repeated in the Annexe. In some cases, original versions of research concepts and inception reports were adapted slightly for this HANDBOOK.

Phase 1 Clarifying the usage context

Step 1: Identify and define core issue

Problem analysis **Brazil** 2013
(Social perception of environmental risks/climate change adaptation)

Frequency and intensity of extreme weather events will increase as a result of climate change

Serious material, ecological and social consequences

Brazil relies on infrastructural/technical rather than ecosystem-based measures for risk reduction

Natural disaster in 2011 with grave consequences

The importance of ecosystems for environmental risk reduc-tion has not been recognized by the local population or decision-makers. Preventive measures for risk reduction are not in place.

Need for environmental awareness to protect and maintain ecosystems

Degrading of ecosystems due to human activity

Low awareness about significance of protected areas and intact ecosystems

The local population is mostly unaware of the link beetween risk reduction and the function of ecosystems

Rare inclusion of local population in risk reduction up to now

The result is low participation of the local population

The **Brazil** problem analysis could also focus on the issues above as follows:

Target group problem	■ High risk level due to extreme weather events, high material loss, high physical danger
(Partner) organization problem	■ Low adoption of measures for disaster prevention by target group or lead executing agency
Information problem	■ Knowledge problem: lack of information on target group and its perception of environmental risks

Problem analysis **Liberia** (Youth employment promotion)

Core issue: Welthungerhilfe (WHH) lacks knowledge of requirements and opportunities for youth employment in Liberia

PROGRAMME STATUS QUO	PROGRAMME DEVELOPMENT	WHH INFORMATION DEFICIT
■ Current programms have insufficient impact on long-term job creation for youth ■ *Reintegration and Recovery Programme* (RRP) does not address youth as a target group effectively	■ WHH intends to widen focus on youth in the future ■ Separate component or cross-sectoral issue in new RPP phase ■ Strategic interest in lead role in the region in the field of RRP	■ WHH has little experience of youth topics ■ WHH needs background information and orientation for future programmes ■ Concepts/policy on youth and employment non-existent

STEP 2: OBJECTIVE SYSTEM AND IMPACT ANALYSIS

Objective system **Brazil** study on social perception of environmental risks/climate change adaptation

IMPACT	The local population takes a more active part in ecosystem-based measures for risk reduction in the context of climate change		
OUTCOME	Direct users apply and disseminate **methods** to survey the perception of risks and ecosystem services	Direct users know and use the study **data** on risk perception to design activities for climate change adaptation and risk reduction	Multipliers at different levels apply the **concept** and the **environmental awareness strategy** to attune the local population to valorizing ecosystem services
OUTPUTS	A transferable methodology to measure risk perception has been developed (toolkit)	Empirical data on the perception of risks in the context of extreme weather events has been collected and analysed	Awareness concept and strategy for environmental education and communication have been developed

The following diagram is another way of illustrating the objective system of the Brazil study.

Objective system **Brazil** study on social perception of environmental risks

IMPACT
The local population participates actively in ecosystem-based risk reduction in the context of climate change

OUTCOME

Users apply and disseminate the method package

Users are familiar with and disseminate the data

Multipliers use the concept and implement the strategy

OUTPUT

Transferable method package (toolkit)

Empirical data on social perception collected and analysed

Concept and strategy for environmental education and communication

ACTIVITIES

Content definition

Prel.study partner Uni Rio

Design methods and instruments for data collection

Test (Pre-tests)

Adjust methods

Data analysis

Apply methods to data analysis

Identify potential multipliers, training workshop

Recommendations for awareness concept and strategy

RESULT 1   RESULT 2   RESULT 3

Objective system Liberia
(Youth employment promotion)

IMPACT

WHH and its cooperating partners implement gender-sensitive measures to promote youth employment in southeast Liberia. This serves to improve job opportunities for youth. WHH and its partners thus contribute to young people's empowerment, but also to the peace process. Youth employment is an integral part of WHH and KfW portfolios.

OUTCOMES

Outcome 1:

WHH und its partners use the study results to advance sustainable and holistic youth employment promotion in RRP

Outcome 2:

The results of the study have been woven into the conceptual work and portfolio development of WHH and KfW.

Outcome 3:

WHH and other actors have methodological procedures in place to analyse key aspects of youth employment in fragile contexts

Outcome 4:

Relevant stakeholders have been made aware of youth employment promotion and the importance of dialogue

OUTPUTS

For *outcomes* 1 & 2

a) Analysis of the overall Liberian context relevant to the promotion of youth employment, including analysis of the urban and rural bias, policies and development strategies

b) Analysis of development policy concepts, particularly those relevant to youth empowerment and employment promotion in a post-conflict environment

c) Analysis of the intervention landscape and lessons learned in the area of youth employment promotion and youth empowerment

d) Analysis of youth situation at local level, notably in relation to livelihood strategies, employment and education, violence experience, urban-rural migration, needs, attitudes, motives and values

e) Analysis of the potential and limitations of formal and informal sectors of the economy and their structures with reference to youth employment

f) Analysis of institutions and services for the promotion of youth employment

g) Recommendations for concrete interventions and improvements

h) Study results have been communicated to WHH and

its partners (as a study report and final workshop)

For *outcome* 3

Design, use and documentation of quantitative and qualitative methods that are comprehensible, feasible and transferable, and allow for analysis of changes relevant to youth employment

For *outcome* 4

a) Key stakeholders for effective youth employment promotion have been identified

b) These stakeholders will be included in the study

c) The study contains concrete recommendations for cooperation/ communication between the stakeholders concerned

Step 3: User analysis

The **Brazil** project described users for each *output*. Users of *output* 1 are illustrated below as an example.

User analysis **Brazil** (Social perception of environmental risks/ climate change adaptation)

Direct User Result 1: Transferable Method Package for Social Perception	Usage Context: How Will Users apply the Results?	What are the Implications for Research?
GIZ Brazil	■ Dissemination of innovative approach to risk reduction	■ Communication with partners during research work
State ministry of Environment of Rio de Janeiro, Department of Environmental Education (Superintendência de Educação Ambiental SEAM-SEA)	■ Application of methodology in other programmes/projects as example of good practice	■ Sound documentation of results (interim reports) ■ Reflection:
Brazilian Federal Environmental Ministry (Ministério do Meio Ambiente MMA)	■ Dissemination of topic and innovative approach to risk reduction ■ Application of method in other projects as example of good practice ■ Information for report on biodiversity convention	› What are the criteria for a transferable methodology? › Can a method package be customized to suit the needs of cooperating partners and other organizations to the benefit of the target group
Committee of the Piabanha River water basin (Comitê Piabanha)	■ Application of toolkit and integration of results into research work	
Council for Regional Protected Areas (Conselho do Mosaico Central Fluminense)		
Teresópolis City Hall		
NGOs in the environmental sector		
SLE	Publication of study	Target-oriented documentation of results (illustrate results of analysis clearly)

User analysis **Liberia** (Youth employment promotion)
User analysis: direct users (selection)

Users	Utilization of results	Consequences for the study	Criteria	Consequences for the study
WHH	■ Basis for reorientation of the programme and integration of youth employment ■ Basis for interventions in other contexts	■ Concrete recommendations (entry points) ■ Solid quantitative information base ■ Generalization of results	■ Feasibility ■ Basis for feasibility study ■ Feasible and transferable methods and indicators	■ Plausibility ■ Qualitative/ quantitative methods/tools ■ Analyse and consider portfolio and lead concepts ■ Transferability of methodological approach
KfW	■ Portfolio development ■ Basis for reorientation of the programme ■ Basis for interventions in other ■ contexts	■ Sound quantitative information base ■ General application of results	■ As WHH, with ■ Reference to financial cooperation ■ topics such as infrastructure	■ As WHH

STEP 7: Forms of communication

Forms of communication **Brazil**
(Social perception of environmental risks/climate change adaptation)

What	Activity	Who
Send preliminary results to GIZ for feedback	Send a progress report every two weeks	Everyone (rotation system)
Contact counterparts	Arrange skype meetings	Team leader
	Send progress reports	Everyone (rotation system)
	Document contact details	LC

3. ....

PHASE 2 DEFINING THE CONTENT
STEP 1: DEFINE KEY RESEARCH TOPICS

Research topics **Brazil** (Social perception of environmental risks/climate change adaptation)

RESULT	TOPIC	WHERE/WHO
Result 1 Transferable methodology	▪ Methodology to survey perception of environmental risks ▪ Transferability of methodology ▪ Concepts: perception, vulnerability, ecosystem services	Berlin/CP Berlin/LD Berlin/LD, AS
Result 2 Social perception of environmental risks (empirical results)	▪ Socio-economic situation in Teresópolis ▪ Region: environment and environmental risks ▪ Legal framework ▪ Institutional structures	Berlin/LC Berlin/CP Berlin/LC
Result 3 Awareness concept for environmental education and communication	▪ Opportunities for participation in environmental protection ▪ Environmental education and communication	Berlin and Teresópolis/LC Berlin/AS
Capacity building of local partners	▪ Training in techniques	Berlin/AS

Example of a multi-level approach – knowledge preparation **Brazil**
(Social perception of environmental risks/climate change adaptation)
Topic: Environmental education and communication

LEVEL	WHAT	OVERLAPPING QUESTIONS
National	National strategies, concepts and activities	▪ What are the competencies at each level? ▪ Which ministries, institutions and/or organizations are active in this field? ▪ Who are the partners relevant to the study? ▪ Who should be taken into account when making recommendations?
Regional	Regional strategies, concepts and activities	
Municipal	Municipal strategies, concepts and activities	
Local	Local strategies, concepts and activities	

Step 2: Acquire knowledge

Documentation of knowledge gaps and responsibilities **Brazil**
(Social perception of environmental risks/climate change adaptation)

What	Who	By	Remarks
Concepts and definitions: vulnerability and ecosystem services	LD	20 June	Discuss with GIZ, check Environment Ministry website
Definition of social perception, concepts on environmental education	AS	20 June	Research use of terms and concepts in Brazil
Measuring instruments: vulnerability, risk and perception	CP	25 June	Summaries to be read by all
Socio-economic structure of research areas	LC	16 June	Refer to preliminary study of partner university in Rio

Step 3: Specify with research questions or sub-topics, identify information sources

Specification of a 'methodological' and a 'substantive' research topic **Brazil**
(Social perception of environmental risks/climate change adaptation)

Result 1: A transferable method package to measure risk perception and ecosystem-based adaptation measures have been developed

Topic	Research Question	Information Source	Remarks
1. Transferable method package	1.1 What are the criteria for a transferable methodology? 1.2 Can existing good practice be adapted to this context? 1.3 To what regions and target groups is the method package to be transferred? 1.4 What are the needs of the users of the results?	Research via secondary sources	Use libraries Where necessary discuss region and target group with GIZ
2. Perception of vulnerability	2.1 How can the dimensions of vulnerability (exposure, susceptibility, adaptive capacity) be defined? 2.2 Can existing good practice be adapted to this context? 2.3 How can the perception of vulnerability and its dimensions be measured?	Research via secondary sources, analysis of the topic in existing studies and, if necessary, resource persons	Make use of libraries Attend specialist events Invite GIZ resource persons

Result 3: Multipliers at the various levels apply the concept and implement the environmental education strategy in order to sensitize the local population to valorizing ecosystem services for risk reduction.

Topic	Research Question	Information Source	Remarks
3. Concepts for environmental education and communication	3.1 Do environmental education concepts with a focus on risk reduction exist? 3.2 Can existing good practice be adapted to this context? 3.3 What regions and target groups are the future recipients of the concept? 3.4 What are the needs of the users of the results?	Research via secondary sources Where required, local resource persons/experts	If necessary, discuss region and target group with GIZ Research via experts on environmental education and communication, obtain contact details and write to them in good time

Specification of a 'substantive' topic: **Liberia** (Youth employment promotion)
Analysis of the overall Liberian context relevant to youth and employment

Topics	Research Questions
Historical background and consequences of civil war for youth and their employment in Liberia	1. What are the main consequences of the fourteen-year civil war? What challenges do young people face in this post-conflict environment? 2. What other historical aspects impact on youth and their employment? 3. How have recent demographic developments affected youth and youth employment?
Current youth and youth employment policies and development strategies in Liberia	1. What are the relevant government structures and capacities? 2. What are the key government policies on economic growth (incl. agriculture and trade), youth, gender, etc. and how can these strategies contribute to youth employment? 3. What other key policies and trends affect employment opportunities, particularly for young people? (e.g., financial system regulations and strategies) 4. Does the Liberian Poverty Reduction Strategy promote youth and does it create employment opportunities? What has been achieved? What is the next step? 5. What are the underlying principles of the Disarmament, Demobilization and Reintegration (DDR) programme and what progress has been made in this regard, incl. contributions to youth security? 6. Do national and international strategies and programmes take ex- combatants into account? 7. What are the major achievements of these strategies in terms of enabling young ex-combatants to enter the labour market? What difficulties had to be overcome?
Urban-rural bias in Liberia	1. What are the principal development strategies at regional level? 2. What are the relevant challenges in the regions under review and what is their development potential? What role do young people play in this context? 3. Is there a distinction between urban and rural regions with reference to youth and youth employment policies?

Analysis of pertinent development cooperation concepts

TOPICS	RESEARCH QUESTIONS
Concepts on youth employment promotion	1. What are the key components of youth employment promotion (e.g, language training, life skills training, career counselling, micro-finance services, private sector promotion, self-employment)? 2. What conceptual differences should be considered for employment promotion measures in urban and in rural areas? 3. Are there concepts in place for the promotion of employment in agriculture, infrastructure, and the formal and informal sectors?
Concepts on youth promotion	1. What concepts exist on youth promotion? 2. What is the approach to youth empowerment? 3. Is there a strategy on youth empowerment via employment?
Concepts on the implementation of youth employment measures in post-conflict environments	1. In the context of recommendations for youth employment in Liberia, a country marked by post-conflict fragility and weak institutional structures, what factors are relevant to minimizing unintended harm/mistakes and maximizing the positive effect on the peace process? 2. How can youth and youth employment promotion contribute to peace-building processes in a post-conflict environment?

Step 6: Work Plan

Work plan **Brazil** (Social perception of environmental risks /climate change adaptation)

Date	Activity	Who	Where
30/07 - 02/08	Arrival in Rio		Rio de Janeiro
	Cick-off workshop with partner university (UFRRJ)	LD, AS	
05/08 - 23/08	Data collection phase (Result 2)	Everyone	Teresópolis
26/08 - 30/08	Data analysis	Everyone	Teresópolis
	Preparation of initial results	LD, CP	
02/09 - 06/09	**Visit to GIZ**	Everyone	Brasília
09/09 - 20/09	Development of awareness measures (Result 3)	LC, AS	Teresópolis
	Expert interviews		
23/09 - 27/09	Analysis of results	LD, CP	Teresópolis
	Testing, evaluation and adjustment of material	AS, LC	
	Multiplier training		
30/09 - 27/10	Beginning of report writing phase	Everyone	Teresópolis
	Presentation of results to local partners		
15/10	**Submission of first draft**	**Everyone**	
28/10 - 01/11	Excursion week		To be defined
05/11 - 15/11	Complete report	Alle	Berlin
18/11 - 19/11	**Final presentation**	Alle	Berlin
21/11 - 22/11	Final evaluation	Alle	Berlin
09/12 - 13/12	Presentation to cooperating partners	Alle	GIZ/Eschborn

Work plan **Liberia** (Youth employment promotion)

Duration	Activity	Where
2 weeks	Start-up and survey at national level/in urban context	Monrovia
2 weeks	Field test and field survey	Zwedru
2 weeks	Parallel field survey	Fishtown/Greenville (2 sub-teams)
4 weeks	Evaluation of research results and supplementary data collection Data analysis and report writing (DRAFT)	Zwedru Monrovia
1 week	Excursion	Robertsport
2 weeks	**Final presentation and finalization of report**	Monrovia

Phase 3 Choosing the methods
Step 1: Decide on methodological design

The following survey units were determined for **Brazil**:

Result	Survey Unit
Result 2 Risk perception survey and ecosystem-based measures for climate change adaptation	■ Individuals ■ Socio-economic criteria ■ Over sixteen years of age

> Theoretical explanation: perception is subjective and differs according to socio-economic capital

> People over sixteen years of age in Brazil are considered politically relevant

Liberia: Information sources and survey unit youth

Source of Information

Local Athorities

Youth

Training and Education Institutions

Youth Organisations

Youth

Unit of Analysis
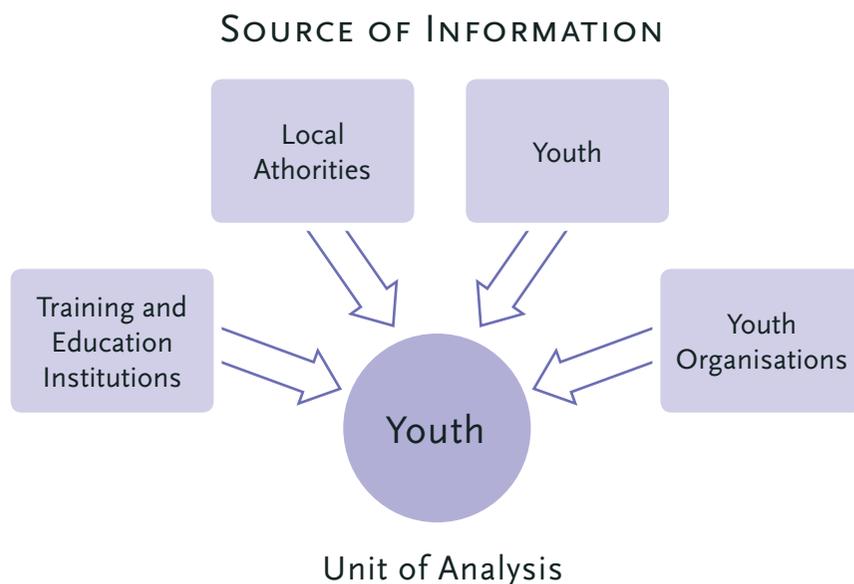
Step 3: Select samples

Sampling procedure **Brazil** (Environmental risk perception/climate change adaptation)

Sample

1. Geographic cluster sampling

Areas with a high potential for valorization of ecosystem services

2. Geographic cluster sampling

Rural area affected by disaster in 2011	**Rural area unaffected** by disaster in 2011
Urban area affected by disaster in 2011	**Urban area unaffected** by disaster in 2011

3. Quota sampling

Socio-economic criteria: gender and age (representative in accordance with census data from selected areas 1 + 2)

4. Systematic and random sampling

A respresentative sample of 10% is obtained by surveying every fourth house. Counting begins with random choice.

Sampling procedure **Liberia** (Youth employment promotion)
Sample

Geographic cluster sampling: counties
Rural and urban areas: Zwedru, Fish-Town, Greenville

Quota sampling: Youth and young adults	
Gender	50% men
	50% women
Age	1/3 aged 15-21
	1/3 aged 22-28
	1/3 aged 29-34
Social factors	Education
	Work situation etc.

Step 4: Choose empirical instruments and analysis techniques

Choice of methods **Brazil** (Environmental risk perception/climate change adaptation)

Methods	Aims	Results
Semi-structured questionnaires	To collect data on risk perception and socio-economic factors	Result 1+2
	To identify target groups for awareness measures	Result 3
Focus groups (PRA methods)	To pre-test instruments with a focus group	Result 1+2
	Triangulation: to deepen understanding of questionnaire results	Result 1+2
	To test PRA methods of raising awareness about the environment and risk reduction	Result 3
Expert interviews	Triangulation: to survey risk perception among the local population	Result 1+2
	Recommendation for design of environmental awareness concept	Result 3
Workshops	Design of concept and strategy for environmental education and communication with the users/local partners concerned	Result 3
Document analysis	Triangulation: analysis of existing concepts and strategies in this field and in the region	Result 3

Choice of methods **Liberia** (Youth employment promotion)

Methods	Aims/Focus
- Qualitative and quantitative methods - Disaggregated data by gender, age etc. - Instruments consider Do-No-Harm principles and gender as a cross-cutting issue	
Secondary data	- Context and concepts - Lessons learnt from other projects - Economic sector
Group interviews and group discussions	- Information - Stakeholder awareness-raising
Semi-structured expert interviews	- To obtain initial information that will also inform other questions - To delve more deeply into the relevant issues
Semi-standardized questionnaire	To collect information on the dimensions involved: Livelihood assets: - Human capital (education/professional background etc.) - Social capital (membership in associations/clubs, generational conflicts etc.) - Physical capital (access to education centres and other markets etc.) - Financial capital (income, access to financial services etc.) - Natural capital (access to natural resources, e.g, land) - Attitude, motivation and values of youth - Push und pull factors of rural exodus
Focus group discussions	To collect in-depth information - Youth in the urban/rural context - Homogeneous and heterogeneous groups
Workshop	After completion of data analysis Presentation and discussion of results

ANNEXE III
Instruction Sheets

Do-No-Harm Matrix

	Divisive Factors/Potential for Violence		**Project**		**Unifying Factors/ Potential for Peace**	
Options (for action)	> Systems & institutions > Attitudes & actions > Values & interests > Experience > Symbols & events	**Resource transfers & implicit ethical messagees**	■ Mandate ■ Finance ■ Organizational structure ■ Motivation ■ Objectives ■ Place ■ Time ■ Duration ■ Measures ■ Target groups ■ Partners ■ Personnel ■ Approach	**Resource transfers & implicit ethical messages**	> Systems & institutions > Attitudes & actions > Values & interests > Experience > Symbols & events	**Options (for action)**

or

or

Weakening = positive effect	Strengthening = negative effect		Weakening = negative effect	Strengthening = positive effect

Source: ANDERSON (1999): 74
(SLE translation)

Work Plan Gantt Chart

Work Plan – Example Brazil 2013: Gantt Chart

	1. 29.07.– 02.08.	2. 05.08.– 09.08.	3. 12.08.– 17.08.	4. 19.08.– 23.08.	5. 26.08.– 30.08.	6. 02.09.– 06.09.	7. 09.09.– 13.09.	8. 16.09.– 20.09.	9. 23.09.– 27.09.	10. 30.09.– 04.10.	11. 07.10.– 11.10.	12. 14.10.– 18.10.	13. 21.10.– 25.10.	14. 28.10.– 01.11.	Place
Arrival and kick-off workshop	■														Rio
Result 2: **Data collection**															
Expert interviews	■	■	■	■											Rio/ Terê
Survey preparation	■														Terê
Field visit and pre-test		■													Terê
Data collection (questionnaire)		■	■												Terê
Focus group discussions			■												Terê
Analysis and adjustment Method			■	■											Terê
Minutes															Terê
Data analysis															Terê
Excursion week						■									
Result 3: **Awareness concept**															
Concept design					■		■								Terê
Workshop									■						Terê
Adjustment									■						Terê
Strategy design									■						Terê
Final presentation										■					Terê
Report writing										■	■	■			Rio
Vacation														■	

Types of Variables: Overview

 "A variable is a trait or characteristic of a group, organization or other trait carrier. Examples are gender, standard of education, social status, income, a person's visual acuity or hair colour, degree of social integration, duration of marriage and number of hierarchy levels in organizations and states. Important here is the distinction between

- ■ variables (characteristics, characteristic dimensions)
- ■ forms of variables (categories, characteristic expressions)
- ■ and 'trait carriers' " (Diekmann, 2007, 116).

Variables (characteristics, characteristic dimensions)	

Espressed as categories
■ Continuous
■ Discrete
   › Dichotomous (two categories)
   › Polytomous (more than two categories)
	■ Response times, speeds
	■ Gender (woman, man)
	■ Smoker (smoker, non-smoker)
	■ Family status (expressed as single, married, divorced, widowed)

By scale	Nominal scale, ordinal scale (qualitative), interval scale, ratio scale (quantitative)

By characteristic level
■ Individual characteristics
   › absolute
   › relational
■ Collective characteristics
   › Global
   › Analytical
   › Structural
	■ Person's age, education, income
	■ Person A is a friend of Person B
	■ Type of political constitution in a country
	■ Average income of a community, percentage of SPD electorate in a constituency, percentage of women in a profession
	■ Social integration in a school class (defined, for example, by the number of friendships in proportion to the highest number of relationships possible)

By position of hypotheses	Independent or dependent variable

Example of code plan and data matrix (Excel) (Kromrey 2009: 214ff.)

Indicator abbreviation	Meaning	Characteristic	Intended Column No.
ID No.	Identification number of interviewee	Serial no.	1
Nation	Nationality of interviewee	1 – German 2 – Greek 3 – Italian 4 – Swiss 5 – Spanish 6 – Turkish 7 – Other 9 – not specified	2
Age	Age of interviewee	Years 98 – age 98 and older 99 – age not specified	3
Gend	Gender	1 – male 2 – female 9 – not specified	4
FamSt	Family status	1 – single 2 – married 3 – widowed, divorced 9 – not specified	5
Education	School-leaving certificate of interviewee	1 – no certificate 2 – compulsory schooling 3 – secondary school 4 – post-secondary school 5 – vocational school 6 – technical college or university 7 – university 9 – not specified	6

Indicator abbreviation	Meaning	Characteristic	Intended Column No.
PosI	Position of interviewee	1 – unskilled worker	7
		2 – skilled worker	
		3 – foreman	
		4 – employee	
		5 – non-executive employee	
		6 – executive employee	
		7 – official (interm. civil service)	
		8 – official (higher intermediate civil service)	
		9 – official (higher civil service)	
		10 – freelancer	
		11 – self-employed (small business)	
		12 – self-employed (medium to large-scale business)	
		13 – farmer	
		98 – unemployed	
		99 – not specified	
PosP	Position of partner	As PosI and:	8
		88 – not applicable, lives alone	
IncI	Net monthly income of interviewee	€ amount	9
		999.999 – not specified	
IncHh	Net household income	As IncI	10

ID No.	Nation	Age	Gend	FamSt	Education	PosI	PosP	IncI	IncHh
1710	6	20	2	1	1	1	88	850	850
1711	3	27	1	2	2	98	9	0	3200
1712	1	36	2	2	4	5	4	1600	2900
1713	1	18	2	1	5	2	88	1300	1300
1714	5	42	1	3	3	4	88	1300	2900
1715	2	24	2	1	2	1	88	890	1300
1716	1	60	1	2	2	98	12	0	1450
1717	4	28	2	1	3	11	88	2600	890
1718	1	62	2	2	6	12	98	12800	7600
1719	1	27	1	1	4	8	88	2400	2600
1720	6	48	2	2	2	1	1	940	2600
1721	3	32	1	2	2	1	2	910	12800
1722	1	54	2	3	7	6	88	2700	2400
1723	1	33	2	2	2	4	7	1600	1820
1724	5	99	1	2	2	1	2	720	2450
1725	2	27	1	1	2	11	88	2330	2700
1726	1	64	2	2	5	3	98	2800	3300
1727	4	41	2	2	9	10	8	4100	1850
1728	1	19	1	1	2	4	88	1200	2450
1729	1	18	2	1	5	2	88	1300	2700
1730	5	42	1	3	3	4	88	1300	3300

Team writing and team editing
(Anja Kühn)

Research concepts and results are documented in reports or studies. Structuring the content and making it comprehensible for the reader is not an easy task. The task becomes all the more challenging when reports or studies are a team production:

- Content and objective of the report must be agreed upon by the team as a whole;

- a common understanding of the content and the terminology is essential (clarification process);

- a process of negotiation to reach agreement is required and means striking a balance between individual interests and those of the team as a whole;

- writing and editing needs organization (the structure of the report is worked out together and each member of the team is given a writing assignment) – it is important here to take the personal strong points of each team member into account;

- style rules should be agreed upon (style sheet, how to handle quotations and sources etc.);

- a sensitive and respectful approach towards the work produced by the members of the team is crucial.

The written products to be delivered by an ADR research team are:

- the inception report (approx. 10-15 pages + annexes)

- the study (approx. 100–120 pages + annexes)

The *Inception Report* (IR) is the elaboration of the ADR concept in concrete terms and in written form. The IR contains the overall research topic and research context, problem analysis, theoretical and conceptual framework, key guiding questions, objective system, research sub-topics and research questions (incl. hypotheses), methodological approach (survey units, samples, instruments), work plan, team composition, literature etc.

Writing the IR makes the team explore the research concept systematically and present it in a structured form. The subsequent coordination with cooperating partners ensures transparency of the concept for both sides (research team and cooperating partners) and acts as a safeguarding agreement. In addition, the IR serves as preliminary work for the project study to be produced later on.

Excursus: *Inception report*

Writing an *Inception Report* (IR) is a regular but vital step in the work of many development cooperation organizations. Every project or research undertaking begins with an IR, regardless of whether the initiator is a UN organization or a development consultancy. The IR discusses the research project in concrete terms and is the research concept elaboration in writing. It can therefore be understood as a concept paper that describes the procedures involved in working towards specific results or recommendations for the research project concerned. An IR is first produced when material relevant to the context and the project have been reviewed, agreement with the cooperating partners has been reached, and the concept designed.

Textualizing the research concept in the IR goes hand in hand with an in-depth team discussion. Elaborating the concept in written form is first and foremost a process of clarifying the content of the research.

ADR: Team Writing and Team Editing

This section is a practical guideline for efficient and well-organized team writing and team editing. It is divided into four parts

■ Structuring the report as a team

■ Writing

■ Editing

■ Revising

 all of which are presented in detail in the following.

1. Structuring the report as a team

Structuring the report together is a process of negotiation that demands agreement on content and structure, and therefore time-consuming.

Procedure/Steps	Notes/Questions
Define the objective and recipients of the report	■ What is the purpose of the report? What do we want to convey and to whom? ■ Make the readership aware (expectations, previous knowledge, attitude to the research topic) ■ State your own objectives clearly where appropriate
Define the content	■ Collect topics, aspects (big and small) ■ In the team, in sub-groups or individually ■ Brainstorming, flashes, list individual topics ■ Chaos (at first, anything goes) or order (discuss key words as they come)

Procedure/Steps	Notes/Questions

Determine the structure (rough to annotated structure)	■ Devise your own structure from research topics
	
	■ Structure must harmonize with topics and objective
	
	■ Flesh out the structure with topics:
	  > 1) using cards on a pin board or
	  > 2) digitally with a projector
	  > draw up a binding detailed plan: determine the content of the head section, sub-section ("annotate")
	  > fill out and sort the cards or digital document down to the last sub-section and include every aspect of importance
	  > ensure notes are clear, no ambiguities
	  > clarify terms and definitions
	  > accommodate changes, rearrange or rephrase cards/digital document where appropriate
	  > alterations to the structure are possible at a later date if it means improvement

Check the structure	■ Is the structure consistent with and appropriate to the content? ■ Does the structure have a common thread? ■ Are the approach, depth and content of each section clearly visible? ■ Are the transitions/confines of each section obvious?
Allocate responsibility for each section	■ Decide who writes what ■ Bear in mind previous distribution of tasks/familiarity with the respective content ■ If possible allocate a whole section or at least a sub-section to one person
The person responsible gives an account of the section	■ Give a verbal account of what the section contains ■ Organize transition to the next section ■ Giving a verbal account of the section is a vital step, as it renders inconsistencies conspicuous more quickly

2. Writing

Writing calls for structure and if the content is to be conveyed successfully, the text must be both coherent and cohesive. Reader guidance and the 'common thread' are of major importance here.

Procedure/Steps	Notes
Preparing to write (prior to writing, do research and then structure/fine-tune sections/paragraphs)	■ Select content, quotations, sources, diagrams, tables, illustrations ■ Where necessary, coordinate with other writers (previous or subsequent sections) ■ Continue annotated structure with key words, reconsider sub-topics and their order where required, create sub-headings if necessary, enough to see the finished product in your mind's eye ■ Think about the fine structure of the paragraphs, for example > Introduction–assumption–argument for assumption–example–further argument–if necessary another example–transition to next section > Introduction–assumption/argument– (example)–summary–transition > Example/question as an introduction, then argument/assumption–summary–transition > List: introduction–aspect 1, aspect 2, aspect 3–transition
Writing (and checking)	■ Aim for a good text flow: write the first section (sub-section) in one go, take a step back, examine, improve ■ The text should be understandable to outsiders. Structure/logic and reader guidance is key. In the course of writing bear in mind > Logical structure, linear thought process, recognizable common thread, transitions for orientation > Work out theories clearly, supported by examples and arguments > The language should be precise and unambiguous (understandable rather than flowery) > Preferably courageous rather than vague statements > Specifying the content makes it more interesting > Name the actors concerned > Active rather than passive > Only one statement per sentence, one thought per paragraph > Verbs rather than nominalisations > Alternate the length of the sentences and the syntax: no convoluted sentences, more short sentences with long sentences in between > Make use of illustrations, diagrams, tables and weave them into the text without explaining or repeating them. Interpret them occasionally or focus on a particular aspect

3. Editing

Editing (as a team) calls for respect for the product/text and style of others. Writing texts is time-consuming and demanding, more for some than others. Fair treatment of other people's text passages and constructive criticism makes it easier to handle corrections and suggest improvements. Being open to positive aspects of other writing styles can be highly beneficial to our own writing process.

Procedure	Notes/Questions
Assign text editing tasks	■ Assign text passages for editing to members of the team. If possible allocate complete sections or sub-sections to one team member. Ideally the section that comes before or after that person's own text assignment. ■ The team leader edits the entire text
Reflect on and check the content	■ Think the text through /go through the text: ■ Does the section correspond to the guideline in terms of content? ■ What is missing? What belongs in a different section? ■ Is the train of thought logical and understandable? ■ Are there mental leaps or loops? ■ Dramaturgical framework: Should, for example, paragraph 3 come directly before paragraph 5? Does this section fit in with the previous section? Is the transition consistent?
Enhance the text	■ Use the track changes mode for commentaries /corrections /suggested changes to the text in the computer (remove format changes for better visibility) ■ Shift text passages around, phrase more clearly, rewrite transitions from one section to the next, add examples ■ Be as specific as possible with suggested changes ■ Stay positive and constructive ■ Should visibility of changes to the text lead to confusion, store a copy with accepted changes and continue working with this version

4. Revising texts as a team

General rule: draw attention to positive aspects, be constructive!
Editing and revising texts is time-consuming and takes up at least 50% of the allotted time frame

Procedure/Steps	Notes/Questions
Each team member reads the edited version of the inception report	■ All of the team members must read the entire text in order to discuss the content and general impression of the report
Exchange of views in the team on general impression of the IR	■ Exchange about content, missing or superfluous aspects, section composition, order, comprehensibility etc.
Reworking the text in tandem with editing partner (If the team so desires, the first section can be discussed and jointly revised as practice)	■ Joint discussion of changes/remarks ■ Where required, explain (pros/cons) ■ Decide what to accept and what not ■ Complete the text as far as possible ■ Despite tandem work, stay close to the team in order to clarify structural and substantive questions ■ Create a modus operandi with the team leader, who is responsible for feedback to each team member
Final editing	■ The team leader edits the final version of the text (with a team member if necessary) ■ Further steps: ■ Complete missing passages ■ Complete annexes ■ Reading and commentary via backstops ■ Dispatch to cooperating partners for feedback ■ Incorporate feedback into the text

5. Evaluation as a team

Each work step should be evaluated as a team at the end of ADR and lessons learned clearly stated. Useful questions are:

■ How satisfied are we/is everyone with each product or the product as a whole?

■ How did the process work? What went well? What were the hurdles and/ or time guzzlers?

■ What can we learn for the process of writing up the study?