



**Draft Manual for Inter- and Trans-disciplinary research methods:
Relevance to urban transformation in Ethiopia and Mozambique.**

GIRT- project

**Strengthening Research & Educational Competences of HEIs for
Gender sensitive, InfoRmal settlements' Transformation" (GIRT)**

Presented by Atsede Desta Tegegne (BDU Team)

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OUTLINE OF The Manual



Section 1

1. Introduction to the manual

1.1. About the manual

1.2. Aim and objectives of the manual

1.3. The target audience /Beneficiaries./

1.4. How to use the Manual?

Section 2. Differentiating the concept of Disciplinary, Multi-disciplinary, inter-disciplinarity and trans-disciplinarity

Section 3.

3.1. Why we need trans-disciplinary research for GIRT-project?

3.2. TD principles

3.3. TD Practical problems (Global South)

OUTLINE ...

Section 4. GIRT TDR implementation process /Engagement procedures

Phase 1. Inter-disciplinary collaboration

Phase 2- TD methodological options for learning and knowledge generation.

Phase 3- Engaging researchers, stakeholders and communities for TDR Knowledge integration.



1. Introduction

1.1. About the manual

The manual is developed as one of the outcomes of the GIRT- project. “Strengthening Research and Educational Competences of Higher Education Institutions for Gender sensitive Urban (InfoRmal Settlement) Transformation”

It is a toolbox for the GIRT-project team members across the partners to provide practical guidelines for the implementation of Transdisciplinary as a framework for knowledge integration.

It is also a resource for university teachers, researchers and students who can offer alternative views through knowledge production and integration.

1.2. Aim and objectives of the manual

- The Purpose of this manual is to supports the GIRT- project team members in HEIs in Ethiopia and Mozambique for the implementation of TDR,
- With the application of inter-and Trans-disciplinary research approach, GIRT-project aimed to develop learning platforms and co-production of knowledge from academic researchers, policy makers and various stakeholders from government and non-government organizations.
- to be used for training purposes by partner higher education institutions to educate and train graduate students, staff members in the universities.
- We believe that the manual is also helpful for similar projects with other contexts and thematic settings to be familiar with the practices and challenges of TDR.

1.3. Target audience/ Beneficiaries

1. This Manual primarily serves as a guide to GIRT- project team members and students, who are responsible to implement TDR with heterogeneity of skills and expertise in problem-solving researches.
2. Offers basic information and guidance to academic researchers as well as graduate students in HEs who are committed to socially relevant issues.
3. To enhance cross-disciplinary and cross-institutional communication and mutual learning among participants of GIRT project to better deal with the problems of urban informalities.
4. Policy makers and practitioners for co-production and integration of knowledge in addressing multifaceted societal problems.
5. Communities- get a room to communicate & participate in a research

1.4. How to use the Manual?

Contains 4 different sections:

First section-

Introduction about the manual

Second section-

Differentiate the concept of disciplinary, multidisciplinary, inter- and trans-disciplinary research approaches;

Third Section-

Contains a detailed discussion why we need trans-disciplinary research as a right approach for GIRT-project, important principles to apply TD; Practical problems in the global south.

Fourth Section- potential TD engagement procedures and practical methods.

The procedures to be applied in GIRT-project discussed in three phases.

Phase 1- Inter-disciplinary collaboration (co-designing TDR concept and Capacity building)

Phase 2- potential TD methodological options for learning and knowledge generation.

To characterize perspectives of SHs -System knowledge

Phase 3- Engaging researchers, stakeholders and communities for TDR Knowledge integration.

2. Differentiating the concept of Disciplinary, interdisciplinarity and trans-disciplinarity

Disciplinary research

- scholars **only *think inside the box***.
- Research approached from the perspective of one discipline

Multidisciplinary research

- approaches a problem from the perspectives of a number of different disciplines, but where
- each discipline works in a self-contained manner &
- no integration across disciplines)

Inter-disciplinary research

- Merging concepts and methods from different sciences to approaches a problem
- from the perspectives of a no of diff disciplines
- the contributions of the various disciplines are formally integrated to give a synergistic outcome



Source: Jape 2020

Why we need TDR as a right approach for GIRT-project?

- Traditional research approaches (Mono, Multi- and Inter- disciplinary) are needed, but are not enough to address complex societal issues.
- unable to reflect the realities and not elicit the necessary information in the research field.
- The complexity of contemporary problems that fall into the domain of various disciplines.
- Traditional research approach usually formulate research problems, research questions and methods from international literature that is, in isolation with societal and experiential knowledge of local communities.
- Wicked problems faced by humanity require new approaches to generate various knowledge.
- Sustainability challenges and Systemic problems Synthesis and analyse in terms of: Structure, Hierarchy, Function, Causality
- Settlement Informality lacks conceptual definition; has structural, functional and multifaceted drivers interact in a sophisticated manners, demands critical integration of knowledge.
- With current rate of urbanization, informality is and seems to become one of the major problems in policy circles that urge collective actions in research, policy and practice.

TRANSDICIPLINARITY

- Moving across, going beyond, blurring boundaries. At the *academy-civil society interface*.
- TD intellectual work involves creating a space for shared perspectives and dialogue, leading to a joint analysis using new approaches that could not have existed without the crisscrossing of ideas to weave together a new web of knowledge.
- Integrate many levels of truth while generating new knowledge.
- Cross-fertilization of insights from the many levels of reality

TD principles/requirements

The application of TDR needs to comply with several principles or requirements:

- Should emphasis on societal problems,
- Trust and willingness to collaborate & knowledge exchange
- Symmetrical/balanced power relations
- Focusing on solution-oriented knowledge creation and integration
- Enabling mutual learning among various disciplines and stakeholders

Practical problems (Global south)

- TD principles are the result of global North experiences.
- too general and insufficient TD principles for designing TDR,
- volatile circumstances in developing world contexts
- Commitment to engage
- Unbalanced ownership
- Different stakeholders' expectation and managing the expectations

- The traditional research formulate research problems, research questions and methods from international literature.
- TDR has not generated an adequate set of context-relevant methodologies for dealing the complex and uncertain societal problems.
- However, reviewed literature (Carew and Wickson 2010; Hernandez-Aguila, 2018) demonstrate that **TDR process** and **product** are connected loops that are open to each other and **articulated within a problem context** being addressed.
- Thus, our TD process focus on contexts to select methods and tools.

Section 3.

TDR implementation process /Engagement procedures /

- Based on the problem context, the ff methods and tools would apply during the implementation of TD research process.
- The core steps and tools in the application of TDR approach in BDU-GIRT project as exemplary guideline categorize across the following phases.
- But, flexible to be changed on the nature of the problem context

Phase 1- Inter-disciplinary collaboration

(Conceptualization TD process, Framing, and capacity building)

A. Initiation and TD conception

- Team TD orientation and define problem field as a focus area of GIRT- project, understanding the problem context (level of uncertainty and complexity) is relevant and necessary precondition to design quality TDR process and product Carew & Wickson (2010).
- Discussion and conceptualization of complex and socially controversial question (Trans-disciplinarity; urban transformation; urban informality) through literature reviews.
- **Capacity building** - consecutive short-course trainings on QR and TD through effective virtual team meetings across institution and, manual prepared for explorative qualitative interview guiding.

B- TD need assessment of team members - the capabilities and TD needs of the project team members identified and assessed by using a survey method.

- Thematic area selection for QR and team formation across partner institutions.

B. SHs Identification and mapping- SHs who have a stake in the problem field of the project.

- considering their influence and respective interest in the system, stakeholders identified systematically using **power-Interest matrix**.

C. Review of TD method options and formulation of research questions

- Staff- exchange and Kick of meeting in Krems: project coordinators from partner institutions met in Krems/Austria/ to discuss range of methods to co-design TDR processes.
- GIRT- team experience sharing on various method options

E. GIRT- TD Conceptual FW development – (still open for comments)

Phase 2-TD methodological options for learning and knowledge generation

- Knowledge co-production process is sensitive to power-relations between SHs involved in TDR (Lang et al. 2012).
- Variety of communication and knowledge generation methods designed to involve SHs (GO and NGOs) and communities (including women) in the TDR process.

Expert interview- with SHs

Purpose-

- to approve the defined interest-power matrix
- Joint problem framing
- to understand their decisions to involve (willingness/reluctant) and
- We need to maintain contact and commitment for future workshops

Participative workshop I-actor constellation

Purpose WS1

- To understand their problem perception and analyze the system, -> **specify area of study/ joint problem**
- To visualize stakeholders' paths of interaction and their role alignment in the system.
- Their vision in the city planning and transformation (**Target knowledge**).
- The method moderated role-play placing societal actors and disciplines around a research question.
- collaborations can be established with new thoughts, and concerns.

Community

Variety of methods designed to involve communities (including women) in the TDR process.

Steps:

a. informal rout to link with the community- .

- Project site visit and pre-existed networks with the community will be used as first entry to the community.
- informal communication with the community
 - How do people feel or understand the changes going on around them?
 - who are the actors (internal/external) in the changing system
 - Vulnerability of people in the process of urban plan as well as informal settlement?

B. Organizing field trip and workshop Semi-structured group interview

official meetings with community representatives will undertake

meeting areas (e.g. nearest school compound) will arrange with lunch and refreshment

The WS will have two parts:

Part 1. the meaning of informality in urban settlement /perspectives

Part 2. Participatory mapping exercise to analyse individual/collective everyday life of the women.

- Development of everyday life on a map, every woman has to locate her home and the public spaces and the services they uses.
- Then, group assessment and reflection on their individual work
- Researchers identified important points and concerns of the community in written form /record

Core team served as the leader in the TDR

Purpose-

- to understand their problem perception
- Reflection their own living experience
- how they dealt with complexities related with informality (women)
- To understand their vision as a community (target knowledge)

- Then, core researchers will jointly synthesize the most important findings and generated knowledge (i.e. system knowledge and target knowledge) from previous participatory community meeting and workshop 1 with SHs).
- Jointly produced posters visualizing the key findings/knowledge from different knowledge system (from science and local knowledge from community and SHs)

Workshop 2-

Information event for Integrating the created knowledge

- Knowledge from communities will be elicited, analyzed, and mirrored back through translated presentations/ posters and discussion.
- In the discussions, a joint understanding of issues emerged from both community members, other SH and researchers.
- Those, research products would appropriately be judged by those with a stake in the problem.
- Acknowledge and reconcile diverse perceptions from community and SHs to integrate them.
- Jointly evaluate knowledge that can be relevant for policy and practice.
- Jointly evaluate the future goals and visions for urban management practices, planning tools (transformative knowledge).
- Validated result will be published in scholarly journals.