

SYSTEMS THINKING IN PARTICIPATORY RESEARCH ON SUSTAINABLE TOURISM

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Abstract. This paper presents the experience with using systems thinking and scenario development as an approach in participatory research and the involvement of local actors, students and young scientists in the participatory research process. It demonstrates how participatory approaches integrate academic and local/practical knowledge leading to comprehensive solutions for sustainable tourism development issues. It presents results from a teaching/capacity building project which aimed at integrating this type of research into the curricula of two universities in Armenia and Georgia, where participatory research is not common yet. Based on the experiences from the first year of fieldwork and outcomes, recommendations are made regarding teaching participatory methods, conducting real-life case studies, cooperation with local actors, as well as the limitations of such research and the student involvement. Furthermore, given the international context of the project, differences in experience with using participatory approaches and knowledge integration, as well as communication limitations are critically discussed.

Keywords: participatory research, system thinking, knowledge integration

1 INTRODUCTION

The aim of this study and the project it was part of, is to improve participatory research on sustainable tourism development in Armenia and Georgia by applying systems analysis to different communities and designing possible scenarios for their development as tourism destinations. By involving local actors, university students and teachers, all participants could profit from sharing different types of knowledge and gained experience in participatory research and systems thinking as a way of seeking solutions to complex issues.

1.1 Systems thinking as a participatory research approach

Systems thinking can be applied to various disciplines and the joint system understanding is a good foundation for the inter- and transdisciplinary dialogue. It improves the understanding of complex feedback systems by mapping its components and their relationships and it helps decision-makers to intervene and improve system performance (Mathews et al., 2008). The system model should integrate heterogeneous knowledge of different academics, experts

and local actors. Stakeholder workshops as well as focus groups and interviews can ensure constructing a functional system model and developing a joint understanding of the system under study, and thus create a basis for developing potential solutions to the addressed problems (e.g. scenario development). In addition, the system modelling process can constitute a learning process for both practice actors and academics, as they exchange knowledge, perceptions and understanding of the problem (Bergmann et al., 2012, p. 88). The aim of this participatory approach is to achieve a common comprehensive understanding of the system (understanding of a topic) for all persons involved in the research process (academics, students, experts, local actors etc.).

A tourism destination can be presented and analyzed as a complex system of social, economic and biophysical components. There are many external factors (e.g. global climate change, tourist demand, international/political regulations) influencing a tourism destination, as well as many internal ones (local residents' language skills, willingness to host tourists, available resources, infrastructure, etc.).

1.2 Sustainable tourism development and the role of universities

Tourism can play an important role in the livelihoods of many communities, which depend on it, especially in vulnerable regions and less developed countries. Principles of sustainable development are associated with ensuring long-term positive effects of tourism and balance between strengthening the regional economy, environmental and social aspects.

The Education for Sustainable Development (ESD) paradigm aims to bring education in this direction towards balancing the economic, social, cultural, and environmental dimensions (UNESCO, 2019a). ESD addresses transformation both on the individual and societal levels, in order to facilitate a holistic societal transition towards sustainable livelihoods by seeking integrative thinking and practice, and it requires transformations in teaching and research towards more participatory approaches (Mitrofanenko et al., 2020). Participatory research and planning are designed to collaboratively approach persistent problems with the active participation of actors relevant for the problem. It goes beyond researching actors and implies that actors can help shape the research and planning processes (Hubert and Bonnemaire 2000).

2 METHODS

The project Transdisciplinarity for Sustainable Tourism Development in the Caucasus Region (CaucaSusT) aimed at introducing participatory approaches to research and teaching in Armenia and Georgia and addressing real-life challenges of sustainable development in cooperation with local stakeholders. This was done by developing a transdisciplinary case

study course, focusing on sustainable regional development and piloting of the course in four different locations in Armenia and Georgia, together with two local universities.

Local actors were selected based on the local knowledge needed in the case study. Four communities were selected (Dilijan and Meghradzor in Armenia, Kazbegi and Tsagveri in Georgia) and needs analyses were conducted in order to collect background information in terms of sustainable tourism development. The types of academic and local knowledge needed for the case study were considered in order to select the respective teachers (from different disciplines) and actors (practice experts and local stakeholders). Due to the aim of a participatory case study course to jointly develop an understanding of problems and elaborate potential solutions, it was crucial to select relevant local actors and involve them from an early stage (the stage of defining problems). Furthermore systems, target and transformations knowledge were considered in order to achieve better knowledge integration (Table 1).

Table 1. Examples of preliminary research questions (focused on sustainable tourism)

Systems knowledge	<ul style="list-style-type: none"> • What are the key elements/components contributing to the tourism development in the case study area and how do they interrelate? • Are there existing tourism initiatives? Are they community-based? • Who are the key actors and decision makers in this field, and who are the main consumers of the tourism products?
Target knowledge	<ul style="list-style-type: none"> • What sustainable local tourism products could be developed? • How can participatory governance on the local level be organized? • What is the preferred long-term (5 years) scenario for sustainable tourism development in a specific location (i.e. community, region)?
Transformations knowledge	<ul style="list-style-type: none"> • Which resources and actions are needed in order to implement sustainable tourism products? • How to ensure the local population benefits from the tourism initiatives? • How can the existing challenges of and barriers to achieving sustainability in tourism be overcome?

Source: Mitrofanenko et al., 2020, p.84.

3 EVALUATION

In the first year of the case study course four main topics were identified based on the needs analysis to be researched in detail as tourism systems: 1. Tourism services; 2. Tourism resources; 3. Tourism experiences; 4. Participatory management & governance, and students worked in thematic groups. Regular meetings, in-depth interviews and focus groups allowed to integrate views, attitudes and local knowledge of relevant stakeholders in each research stage. Students were able to map the local tourism systems, to observe links between subsystems and to identify internal and external factors influencing them. Furthermore, they gained experience with conducting systematic analysis of tourism potential of the respective

destinations. Afterwards scenario development and assessment techniques helped the students organize their policy and practice recommendations and to create different scenarios for destination development (e.g. Scenario 1 - Anticipated Scenario: Tsagveri remains focused on the already existing tourism segment of family tourism and recreation; Scenario 2 – Preferable scenario: Touristic offer of Tsagveri embraces new tourist segment – active recreation and travel based on its natural and cultural resources.). They also considered necessary preconditions and possible outcomes of these scenarios and shared these with local stakeholders. Recommendations for increasing diversity and quality of local products, strengthening local tourism supply chains, marketing activities etc. were given to local stakeholders, who expressed their interest toward future cooperation with the universities.

Using systems thinking improved students understanding of sustainable tourism development not as a discipline but as a complex system requiring academic, expert and local knowledge. It improved their ability to identify conflicting perspectives of different actors involved in a tourism system (tourist hosts, farmers, municipality etc.) and to understand how they would respond to changes in the system, before they develop scenarios and policy recommendations.

4 CONCLUSION

Involving students and local actors in the participatory case study course lead to manifold benefits for both groups. Students enjoyed working with their peers and teachers from different disciplines. The fieldwork not only improved their methodological and soft skills, but also their understanding of real-world problems and increased awareness of cooperation with local actors. While in the first days they were keen on “collecting data”, after some meetings with local actors, students’ perception of locals shifted from “informants” towards “stakeholders” actively participating in the research process. Additional topics also emerged during the fieldwork based on the case and the stakeholders’ inputs, such as gender-related issues and power relations in the community.

An intensive student training on sustainability issues and on participatory research concepts and methods was needed. The duration of such case study courses is usually limited to one semester, so it should preferably build upon knowledge from previous courses and the research aim should be feasible within the fieldwork timeframe. Small-scale projects/activities within the fieldwork can increase participants’ satisfaction and contribute to problem-solving on a practical level (example: students shot a short image video of the village as a tourist destination and contributed with some online marketing activities).

Trainings were needed also for teachers, so the time to prepare students for the pilot case studies was limited. Due to different understandings of participatory research in different academic traditions and some communication limitations, it was challenging to establish a

common ground for the aims and activities of the case study course. Teacher training workshops were conducted in order to share “western” participatory approaches and methods (e.g. systems thinking and scenario development) to integrate teachers’ expertise and knowledge by adapting these approaches to the Armenian and Georgian realities.

There were also limitations in the cooperation with local actors. In some communities, negative experiences from previous projects and cooperation with international NGOs, leaving the impression they use of local communities to reach international funding, while providing little outcomes for the communities, lead to trust issues towards the NGO sector. It was important to consider and openly communicate to the local actors the possible benefits as well as the limitations of such case study courses and available resources (i.e. the expertise students and teachers can provide, time constraints and financial resources available) and to clearly inform them about the aims and scope of the project. Local actors should be aware that in such projects solutions to (tourism) development issues are limited to recommendations and scenarios, or implementation of short-term activities within the fieldwork. The overall complexity of theory and practice and the fact that most regional (tourism) development problems cannot be solved within a case-study course and a two-week fieldwork should be considered when planning such participatory research involving students.

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