Goal 9: Industry, Innovation and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

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ABSTRACT: *Among the three core aspects in Goal 9 – infrastructure, industrialization and innovation – resilient and sustainable infrastructure is crucial in the tourism context. Such infrastructure facilities are part of the tourism potential of a region, but also determine the living standards of the resident population to a certain extent. Planning, building and maintaining suitable infrastructure for all is a complex procedure and a big challenge.*

Introduction

A precondition for the functioning of tourism is a suitable and adequate infrastructure, which includes basic facilities such as (transborder) transportation (roads, airports, railway tracks and stations, harbours) for people and goods, accommodation, water supply, waste management and sewage treatment, energy supply, and even health care. In addition to “come, sleep and eat” (and go back home), more infrastructure is needed to make travel to a certain place attractive for people on holidays – people, who want to recover from work, expect to have a good time going out, want to relax on a beach, go on excursions, go shopping, travel around a country, do sightseeing, experience nature, visit cultural sites, communicate with family and friends at home, etc.

For other than leisure purposes, for example MICE (meetings, incentives, conferences, and exhibitions), special facilities such as convention halls are necessary; and capacities to accommodate and organize hundreds of people arriving at the same time.

Infrastructure – (not) only for tourism

Developing or upgrading infrastructure for tourism purposes is usually aimed at increasing the number of (foreign) visitors, creating (direct or indirect) job opportunities, establishing or improving supply chains, with the superior objective "to support economic development and human well-being, with a focus on affordable and equitable access for all" (target 9.1. which is formulated in general terms, not focused on tourism).

Infrastructure which is built to develop or improve tourism cannot be seen in isolation from the surrounding area and the people who live and work there. There is always an impact on local residents, positive or negative. Whether local people benefit from an improved road system depends on thoughtful planning and the living standards of local people. New roads connecting an airport with hotel areas are not helpful for the local population if they have no connections to the housing areas in the region. In case public transport is not expanded correspondingly, mainly local people who own a vehicle may benefit from new roads. An airport can be seen as "gateway to the world" – only if one can afford to buy a flight ticket. Although improved infrastructure could be a step towards better livelihoods, it might at the same time widen the gap between poor and rich. Similar patterns and interrelations as in the transport sector occur concerning water and energy supply, or waste water treatment.

Another aspect is the additional traffic and traffic jams caused by tourist buses or (hired) vehicles, either used for transportation or for excursions. The air pollution they generate in the destination cannot be neglected, although it is only a small part of the ecological footprint, compared to flights to the destination (FUR 2014).

Financing and investment for infrastructure

Planning, construction and maintenance of major infrastructure projects require medium and long-term investments. In general, investments in different kinds of transport, energy (power plants), water supply, or handling and treatment of waste and sewage are made by public authorities. These investments by the state, local governments or communities are usually based on public-sector loans, often involving international donors like the World Bank or regional development banks.

During the development of big multi-annual infrastructure projects, social impacts and sustainability are often not considered seriously, and local people complain that decisions on projects are made without consulting or informing them. Investors and local authorities sometimes see participation in decision making processes as a procedure which tends to make a project more difficult or even impossible to implement and costs time and money. The larger the gaps in living standards and education between the local population and the responsible officials (or tourists who shall to use this infrastructure), the less opportunities residents usually get to be involved in a meaningful manner.

Relatively recent models of (foreign) financing of (tourism) projects are the so-called public private partnerships (PPP), i.e. combined investments from the public and private sectors. They are aimed at a more efficient realization of projects (see also target 9.4). The money mainly comes from a private investor, reducing the need for public spending, while the public partner is responsible for ensuring that the project is in the public interest. The conflict is obvious: profit maximisation versus public welfare.

Major Challenges

It is mandatory that the needs of the local population must be part of tourism development plans. Tourism experts demand for a long time already: “Each region has to know and improve its potential and define limits of acceptable change by involving all in the development process (Gezici 2006).” In reality, this is rather the exception than the rule.

A well-known dilemma of improving the accessibility and infrastructure of a region in order to get more visitors is that these improvements often entail negative effects on the environment and natural resources as well as on the social and cultural life of local people. Limiting the numbers of visitors or introducing visitor management systems might be necessary in some places.

Infrastructure-related impacts

When a region is to be opened up for tourism, direct negative impacts related to infrastructure might include

- (illegal) eviction or displacement of local people (without compensation),
- lack of water for farmland and cattle, changes in groundwater level, problems with water supply
- restricted access to beaches, protected areas (national parks) or fishing areas
- air and noise pollution caused by traffic (aircraft, buses, private vehicles)
- increases in prices of land and property, goods and services (not balanced by higher incomes).

KAZA - An African Development Example

The Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA) is one of the world’s largest conservation areas, spanning five southern African countries: Angola, Botswana, Namibia, Zambia and Zimbabwe, centred around the Caprivi-Chobe-Victoria Falls area, including the Okavango Delta. It was established in 2006 to harmonize the demand for natural resources with an enabling tourism infrastructure and benefits for local livelihoods. Current tourism infrastructure (including hotels, lodges, airports, etc.) and the potential to further develop infrastructure are basic for transforming the TFCA into a premier tourist destination. Communities are engaged as partners within the TFCA through comprehensive participatory planning processes.

www.kavangozambezi.org/about-kaza
www.giz.de/de/downloads/giz2015-en-tfca-kaza.pdf

Financing sustainable infrastructure

Another challenge is financing (more) sustainable and resilient infrastructure (for tourism purposes), evolved on well-thought models and solid plans, aiming at a more effective use of resources. This is why it is important to think about innovative ways of cooperation, especially in less developed rural or remote regions. Apart from a lack of knowledge and know-how, the lack of financial resources can be a limiting factor for small-scale development. Microcredit systems (with borrowings up to 1,000 US$) might be helpful, but sometimes a few thousand dollars would be necessary. Target 9.3 focuses on increasing the access of small-scale enterprises to affordable credit lines, as well as their integration into (local) value chains and markets.

Infrastructure-related evictions

Big infrastructure projects like new airports or the expansion of existing ones (e.g. new runways) sometimes result in serious negative impacts for local residents. The worst among these include the eviction of people from their homes, which may be regarded by the administration as “illegal settlements” if people lack property titles, although they may have settled there for decades. Such evictions happen mostly in countries with a lack of democratic structures.

Cambodia: Railway, Relocation and no Compensation

The NGO Forum on ADB is a network of civil society organizations (CSOs) that has been monitoring the projects, programs and policies of the Asian Development Bank (ADB) and the Asian Infrastructure Investment Bank (AIIB).

In Cambodia, the NGO Forum is monitoring the lack of compensation for more than 4,000 families who have been displaced due to the rehabilitation of the railway between Phnom Penh and Sihanoukville, operating again since May 2016. Most people who take this train are (domestic) tourists, heading to the popular beaches, tropical islands and mangrove jungles of Ream National Park. For them, the new service is a comfortable and safe transportation, compared to busses or cars.

However, many displaced families are now in so much debt that they have resorted to mortgaging their relocation homes even though they do not have land titles. They also face a whole range of displacement-related problems, including difficult access to transportation, job availability or new sources of income and livelihood, electricity and clean drinking water. Many of the families are indebted to different lending agencies or informal lenders. Some of them took a second mortgage to pay off the first mortgage, until it became a vicious cycle.

Further information:
www.forum-adb.org, www.forum-adb.org/project-monitoring-mekong-region
www.theguardian.com/travel/2016/jun/05/trains-phnom-penh-sihanoukville-kampot
and www.aidwatch.org.au/wp-content/uploads/2013/11/CambodiaReport-WEB.pdf

Resilience against natural disasters

There is evidence for an increase in the intensity and frequency of disasters such as earthquakes, hurricanes or tsunamis, and in the damages caused. After such incidents, tourism to the respective region may break down completely, immediately and unexpectedly. However, the resilience of infrastructure depends on careful planning, including earthquake-resistant construction and early warning systems, and insurance which covers damage caused by natural disasters.

In developing and newly industrialized countries, the share of insured losses and damage is still very low – even though most of the (natural) disasters happen in these countries. According to Munich Re, between 1980 and 2014, in countries with a per capita GNI of up to 4,126 US$, 61 per cent of incidents happened, 84 per cent of deaths, but only three percent of insured damages were registered (Höppe 2015). There is a tremendous gap in cover, which makes the affected countries dependent on international aid and disaster relief.

The Global Anti-Aerotropolis Movement (GAAM)

In March 2015, campaigners from across the globe came together to fight so-called 'airport city' or 'aerotropolis' schemes, which have been spreading rapidly in recent years. The Global Anti-Aerotropolis Movement (GAAM) has been raising public awareness and taking action on socially and ecologically harmful mega airport developments. An aerotropolis is an airport-centric development with a new or existing airport surrounded by luxury hotels; shopping and entertainment facilities; convention, trade and exhibition complexes; golf courses and sport stadiums; and industrial parks. Such massive airport developments often entail forced evictions and make people lose access to land, water, and other resources. https://antiaero.org

Tangible Ways Forward

In many countries, civil society is mobilising against big infrastructure projects, for example new airports or the expansion of existing ones, or facilities for mega sports events. International networking has increased enormously, thanks to the internet, and needs to be strengthened further.

There is an increasing awareness of the need to reduce the negative social and environmental impacts of tourism, also at policy level, as one can read for example from BMZ – German Federal Ministry for Economic Cooperation and Development: "Expansion of the touristic infrastructure must not result in environmental degradation, excessive resource use, discrimination against the local population or exploitation or expulsion of local people". What needs to be done to make tourism-related infrastructure development sustainable depends on the respective situations in the destinations. Some important aspects are (GIZ 2014, USAID):

- participation of the local population in planning and decision-making processes (no decision-making behind closed doors)
- infrastructure priorities in line with the needs of local residents (roads, buses, energy, water, waste management, health care, housing/accommodation, restaurants, shopping, cultural sites, natural resources, walking trails)
- improvement of capacity building for planning, constructing and maintaining infrastructure
- access to fair financing and (foreign) investment (e.g. public private partnerships which are reliable and are based on fair conditions)
- information for the community about expected advantages and possible disadvantages of tourism development (e.g. job opportunities; training/education needed; inflow of people/contact with other cultures, risk of increase in prices, including land and housing prices)
- 'common fund' of financial resources (from earnings through tourism), which can be used for community needs
- insurance to cope with weather related disasters (establish affordable insurance pools)

Developing infrastructure in a resilient and sustainable way for the benefit of all, with no one left behind, is a major challenge. Managing it successfully can lay the ground for improving resilience and sustainability in other fields of development. Infrastructure is not all that is needed, but without it, development is not possible, and neither is travel and tourism.

References

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» FUR Forschungsgemeinschaft Urlaub und Reisen e.V. (ed) (2014): Abschlussbericht zu dem Forschungsvorhaben: Nachfrage für Nachhaltigen Tourismus im Rahmen der Reiseanalyse. Kiel. http://www.fur.de/fileadmin/user_upload/externe_Inhalte/Publikationen/20140912_RA14_BMU_Nachhaltige-Nachfrage_Bericht.pdf (p. 56)

» Gezici, Ferhan (2006): Components of Sustainability. Two Cases from Turkey, in: Annals of Tourism Research, Vol. 33, No. 2, pp. 442–455. See https://eurekamag.com/pdf.php?pdf=004410085.

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» Höppe, Peter (2015): Naturkatastrophen – immer häufiger, heftiger, tödlicher, teurer? (Presentation for Munich RE Foundation) See https://www.munichre.com/en/reinsurance/business/non-life/natcatservice/significant-natural-catastrophes/index.html

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» USAID – US Agency for International Development (undated): Tourism Investment and Finance. Washington DC. See https://www.usaid.gov/sites/default/files/documents/2151/InvestmentWorkbook_4%5B2%5D.pdf