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CLEAN WATER
AND SANITATION



GSTC - Global Sustainable Tourism Council & Emerging Destination Workshop,
Yogyakarta 2017

Clean water provision for communities &
tourists

KHIRI
TRAVEL

Sharing our Passion for Discovery



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UNWTO SDG 6: Clean Water and Sanitation

ABSTRACT:

“Tourism can play a critical role in achieving water access and security, as well as hygiene and sanitation for all. The efficient use of water in the tourism sector, coupled with appropriate safety measures, wastewater management, pollution control and technology efficiency can be key to safeguarding our most precious resource”

(UNWTO 2015, Goal 6).

UNWTO SDG 6: Clean Water and Sanitation

This very idealistic statement by the World Tourism Organization emphasizes what could and should be the case.

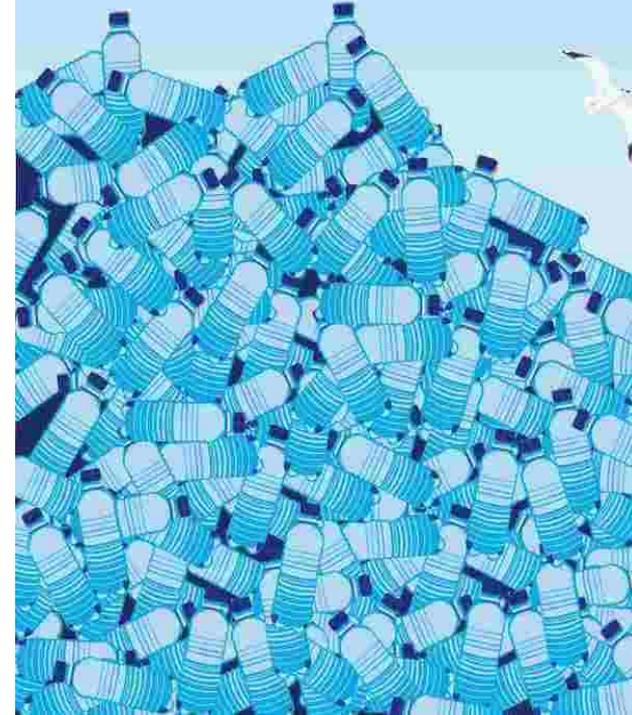
However, tourists in many areas actually contribute to water scarcity and inequity, through the appropriation of public water supplies, over exploitation of aquifers, lowering of groundwater tables, and contamination of freshwater by saltwater and sewage.

This leads to conflict and resentment among local people, and threatens the sustainability of tourism, which in turn further damages the economy of the places being visited.

To be sustainable, tourism to countries or areas with water supply problems needs to be carefully managed in a way that improves local conditions rather than adds more problems, e.g plastic bottles, single use disposable water cups and straws .

Think before you drink.

On average, only 10% of water bottles are actually recycled. The other 90% wind up in the landfill or littering the environment... That really piles up!





Water Shortages: A Potential Conflict Between Tourists And Locals.

Tourism is a thirsty industry

- Water is a critical resource for tourism
- Tourism = high demand for water: two showers a day, swimming pools, landscaped gardens, etc.
- 15,000l is enough for : 100 rural families for 3 yrs / 100 urban families for 2 yrs / 100 tourists for 55 days
- Competition with communities in destinations
- Rapid and unchecked tourism development can result in:
 - A falling water table
 - Salt water intrusion
 - Land subsidence
 - Increased flooding
 - Deteriorating water quality
 - Competition with agriculture
 - Increase in water borne disease
 - Conflicts over water resources
 - Single Use Plastic waste and pollution

Water Shortages: A Potential Conflict Between Tourists And Locals.

Overview: Global Tourism, Coastlines, and Water Practices

Just 3% of the Earth's water is fresh and approximately 70% of this water is frozen in the polar ice caps (Stockholm International Water Institute - SIWI). Water is a finite resource – it is impossible to increase the amount of fresh water on our planet.

- Global water use has tripled in the last 50 years and the demand for water is growing at twice the rate of the world's population.

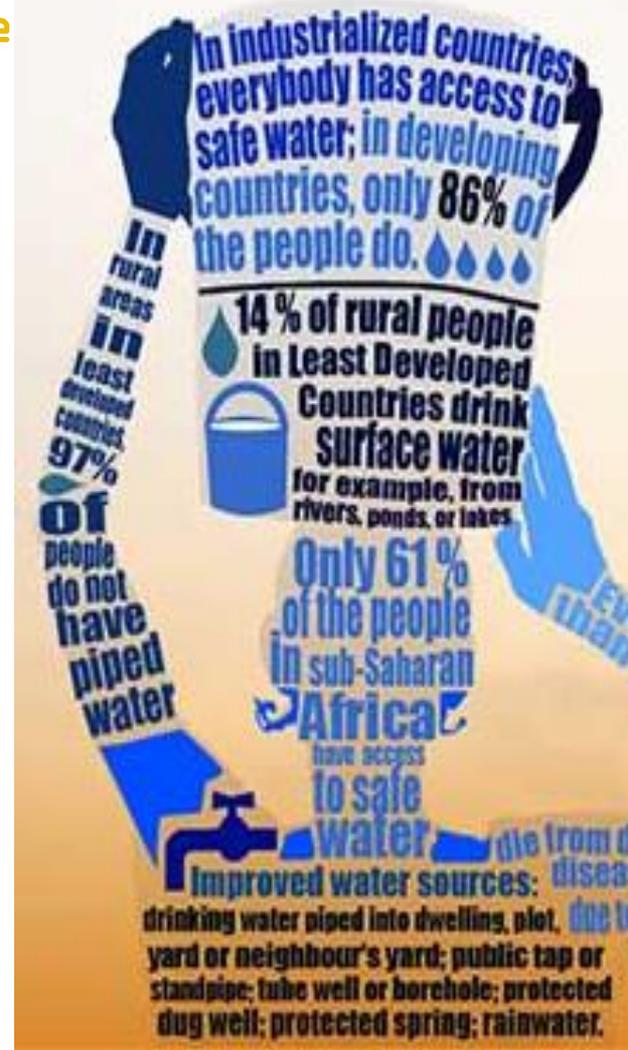
- Demand for water exceeds available supply from sustainable sources in a growing number of tourist destinations.

- Climate change is expected to account for about 20% of the global increase in water scarcity this century (2050 Project). While no specific data is collected nationally on the consumption of water by the tourism sector, international tourism is estimated to account for less than 5 per cent of national water use. However, water consumption has become increasingly important in tourism planning and development worldwide, and is particularly critical along coastlines where rapid growth of tourism often leads to conflicts over water scarcity and water equity (UNWTO 2012).

- In 17 coastal and island destinations in the Caribbean and Mediterranean regions, the “demand for water exceeds available supply from sustainable sources thus leading to water shortages.”

- In Jamaica, each tourist uses 4 to 10 times more water daily than each local resident. In the Mediterranean, a tourist uses 1.5 to 2.5 times more water per day than a local resident.

- A tourist uses from 84 to 2,000 liters of water per day, depending on length of stay, size and amenities in the hotel, type and amount of food consumed, and other factors.



Water Shortages: A Potential Conflict Between Tourists And Locals.

- Globally, the world's 32,000-plus golf courses use an estimated 9.5 billion liters of water per day to irrigate their greens. An average golf course in Spain uses as much water as a town of 12,000 people.
- In Mexico, 17.1% of renewable water resources have already been exhausted. In the Yucatan Peninsula, rapid urbanization and unregulated tourism development "is both straining and causing the contamination of freshwater supplies by untreated waste, and tourism water consumption in relation to water availability is becoming more severe."
- Bad example: Bali, Indonesia: "Bali is an important case study, because 80 percent of its economy depends on tourism and tourism depends on a healthy [fresh] water supply, which uses 65% of the island's fresh water resources"
- The tourism sector employs 25% of the work force providing 481,000 direct jobs and contributes 30% of Bali's GDP. However, it is estimated that 85% of the tourism economy is in the hands of non-Balinese.
- Tourism and agriculture are the sectors that together compete the most for water, and the distribution of water is skewed from agriculture to tourism, thus generating inequitable shares between tourists and locals.



Water Shortages: A Potential Conflict Between Tourists And Locals.

- Golf courses in Bali use 3 million liters of water every day, while over 1/3 the population -- 1.7 million of the island's 4.5 million residents -- have inadequate access to clean water. Some villagers have to walk up to 3 kilometers to collect water from a well. Conflicts over water-use are growing, especially at the village level.
- Good examples: Water and energy, along with salaries constitute the top expenses at most hotels. By instituting water use and conservation management plans and installing water -efficient fixtures, hotels can reduce indoor water consumption by 30 per cent and outdoor water consumption by up to 45 percent.
- Holiday Inn in Flinders, Australia, recouped its USD \$19,500 investment in low flow technology after only 18 months and cut its water usage by 50%.
- Soneva's two luxury resorts, one in the Maldives and the other in Thailand, have the priority to obtain their water from sustainable sources: no water is taken from the public water supply with 60% coming from rainwater collection or wells and 40% from desalination.
- Starwood Hotels have committed to reduce water consumption by 20% by 2020. All hotel brands owned by Starwood in the U.S. offer a \$5 voucher to spend in the shop / restaurant / bar if guests don't have their room cleaned every day.

LINENS AND TOWELS



Most of the witty travelers who stay in this room reuse their towels at least once during their stay.

Last year, this was a savings of over 72 gallons of water, 39 barrels of oil and prevented nearly 480 gallons of detergent from being released into the environment.

Thank you for your consideration.

BEDROOM

Our standard is to change your bed linen every third day of your stay and again at check-out. If you would like your linens changed sooner, we will gladly do so. Just place this card on your pillow.

BATHROOM

A towel on the hook or rack means "I'll use it again."
A towel on the floor means "please replace."

Water Shortages: A Potential Conflict Between Tourists And Locals.

- Access to clean water is a basic human right recognized by the United Nations General Assembly.
- It is essential to ensure that coastal communities have adequate supply of clean water. This is crucial to minimize the negative effects of climatic variability, and to make water use sustainable
- Tourism developments must have sufficient infrastructure and monitoring systems in place for conserving and managing potable water, sewage treatment (preferably tertiary treatment), untreated local wastewater, and final deposition of solid and liquid waste
- Water tariffs need to reflect accurately the real cost of service provision and maintenance . This will ensure that water use by the tourism sector is compatible with the water requirements of the destination community i.e., meet tourists' expectations and satisfy local residents' livelihoods.
- Enforceable policies and legal frameworks should be in place to regulate and monitor water Waste and energy use.
- Tourism enterprises (especially hotels) should be given incentives to adopt water management, energy conservation, and waste reduction strategies. These best practices are available through the International Tourism Partnership's (ITP) Environmental Management Manual for Hotels.



Khiri Reach

Khiri Reach is Khiri Travel's foundation to help the disadvantaged in Asia by improving living conditions in a sustainable way. The organization's **People** and **Planet** projects share sustainable development as a common theme, raising funds and awareness for non-profit organizations, social enterprises and grassroots projects.

Khiri Travel employees at our sixteen offices elect to participate and support these partners who otherwise lack the resources to prosper.



Thakala, Hteetan Pago River, Myanmar



Arriving at the village during
the rainy season - boat
access only





Welcome to Thakaleh, an agricultural trading town a few hours' drive from the city of Yangon along narrow, potholed roads. Our final destination would be Hteetan, a tiny rural farming community located in the middle of rice and bean fields, hidden by thick jungle on the Pago River plains. Hteetan is only reachable by longtail boat for most of the year, but especially during the monsoon season. It can also be reached by bicycle from Kawa village when it's not raining too hard. From practically floating for many months the year it becomes completely arid - without water - in the dry season.

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their only water source during the dry periods.

This is

Khiri Reach Water Well Initiative

After Jack, a Khiri Travel employee, took the team to visit his family home, the water situation in his village was noticed and brought up. As a real solution was needed, the concept of building a well was discussed and everyone immediately agreed it would be a wonderful and much needed investment for the village - and one that they would never be able to afford themselves. An expert was brought in with the relevant drilling machinery and a 600ft-deep well was built and paid for through donations and funds allocated by Khiri Travel and local villagers U Nyunt Han and Daw Tin Tin Latt, via Khiri REACH at the cost of US\$3,000.



Khiri Reach Water Well Initiative

But it is not enough to just build a well, it has to be maintained: the pump has to be operated twice a day during collection times and any cracks or leaks in the building need to be repaired and so on. Who would run the project? Who would take care of it and how do you stop someone potentially taking advantage of it? So a 'water council' was formed with people of different roles in the village. It was decided that the water council should charge villagers a small 100 kyat fee for four big buckets of water (approx. US\$ 0.07 cents). The fees collected could be used to improve systems, repair broken pumps and cover the cost of maintenance, so that people in the community would not have to pay out of their own pockets. As a result, Khiri Travel does not need to keep on finding donations for this project and the precedent can be used to help other villages in desperate need of clean water.



Khiri Reach Water Well Initiative

The positive results started showing almost immediately. When everybody is better off with access to clean water, they are all willing and able to give what they can to benefit others. The village's old water hole is now stocked with fish and night blooming lotuses have been planted to clean the water so that it can be used for livestock and farming, rather than for human consumption. People are no longer getting as sick as they used to, so they don't need to make the three-hour journey to see the doctor at a cost they couldn't afford. More importantly, they do not have to spend their money to go and buy water 40 miles away and other villagers in the area are also coming to get water from their well.

They now have more time to focus on the crops and the animals they breed, while enjoying better hygiene and so on. It's like a ripple effect spreading across the water, starting from a single drop.



Khiri Reach Water Well Initiative

The final proof the project was a success and also sustainable. The village collected and saved all the fees charged and built on their own initiative, a 50ft extension from the main well. Their new project includes a second pump station so the first pump is not worn out and there's a backup system. A second water collection tank and filling station with taps has also been built, to allow people to fill up their buckets and bottles with ease. The total cost was around 150,000 kyat (US\$120) but they didn't have enough to build a strong roof over the new water collection tank, and so the school which has also recently been repaired and upgraded through generous donations, chipped in and gave the roof.



Khiri Reach Water Well Initiative

Since its commencement in 2015, Khiri Reach has coordinated the building of 20 wells and 2 rainwater collection and storage facility. These basic yet vital wells, which include a pump and reservoir, provide clean water for entire villages in numerous poverty stricken areas which suffer from 3-4 months of drought every year.



THANK YOU!

- What are the initiatives you think are needed to provide local solutions for water for communities and tourists?
- Waves for Water and other water filters
- Refillable bottles and water stations

- Ensuring availability and access to water for all
- The right to water constitutes one of the most fundamental human rights. For many communities, particularly those living in the Global South, this right is being compromised by tourism development. The inequities of water access and availability between resorts, large hotels and golf courses on the one hand, and local communities and small-scale
- tourism entrepreneurs on the other, are starkly played out in holiday destinations in some of the world's poorest countries. While hotels ensure their guests can have several showers a day, swimming pools, a round of golf and lush gardens, neighbouring households, small businesses and agricultural producers can regularly endure severe water scarcity.
- As long as hotels are prioritised over communities, conflict and resentment will grow, so undermining the potential for tourism to contribute to sustainable development.
- Hotel development needs to be carefully regulated to ensure that hotels and resorts do not syphon off – quite literally – much needed water from local communities. Developments in places like Bali, Goa, Zanzibar and the Gambia have led to the privatisation of water supplies, placing poorer sections of the communities in serious health risk, not to mention financial distress. Scarcity of water is rarely about its complete absence; it is much more often about its misappropriation.

- Sustainable management
- Part of any new regulatory framework must be recommendations concerning sustainability of water supply and sanitation. This cannot be left to hotels themselves, or to developers, for such concerns do not immediately rise to the top of their list of priorities. Sustainability entails costs, and these need to be borne by everyone in a fair way. Government has to mediate on behalf of its citizens to ensure that this is achieved.
- Education is likely to play a large part in raising awareness of sustainability, and this will
- apply to schools, businesses, planners and architects, and property developers. Engineers
- will need to be trained and employed to ensure that good systems are put in place, maintained and improved. The tourist industry will have to play its part; it must become part of the solution rather than a large part of the problem.

- Sanitation for all
- Good water supplies are also essential to sound sanitation. It is imperative that waste is disposed of safely and that water supplies are not contaminated in the process. Diseases like cholera and typhoid are endemic when this is not the case. These matters hit the headlines when natural disasters like earthquakes strike and destroy elements of the
- water infrastructure.
- Water contamination is a problem in many parts of the world. The improper disposal of sewage and dry waste, as well as increasing saltwater intrusion caused by groundwater over-extraction is contaminating groundwater and waterways, forcing communities to increase dependence on erratic public supplies or unregulated private vendors. The absence of monitoring here means there is limited knowledge of existing and future water availability. This is a massive problem that is posing risks to community health and well-being (>> Goal 3), impeding socio-economic mobility, harming livelihoods, threatening food security and undermining the sustainability of the tourism sector itself

- Major Challenges
- Universal availability and access to pure water supplies for all is a human right. It should be enshrined as such in any government policies regarding water and sanitation. It should be the duty of all citizens and law enforcement agencies to maintain these rights to the utmost of their abilities.
- Improvements will be gained where there is close collaboration between all users of water and a common sense of purpose regarding access, sustainability and conservation.
- Close monitoring and inspection regimes will be essential in this process, together with properly understood sanctions for violations of codes. A healthy tourist industry will be one that plays its part in supporting sound water policies across the globe. Tourists themselves should exercise sanctions regarding areas of the world in which water is not taken seriously for all. As citizens of the world we all share a moral imperative to support the human rights of others, in this case concerning access to water.
- Tourism cannot thrive in a destination that lacks water and cannot deal with its waste.
- Tourists surely have a moral duty to ensure that their travel does not endanger others.