

Bali's Looming Water Crisis Threatens Tourism and Livelihoods

Bali is world famous for its white sand beaches, turquoise seas, picture-perfect paddy-fields. It has drawn visitors from far and wide for hundreds of years, with tourism now directly employing a quarter of the work force, supporting a further 55 per cent and contributing 30 per cent to Bali's GDP (BPS,2009). However, according to Bali's own government, Bali could face a water crisis by 2015 if urgent action is not taken to improve water management. Tourism is a major contributor to this impending crisis, as recent research by Tourism Concern and Dr Stroma Cole of the University of the West of England has confirmed. The industry on which this island depends upon so heavily also stands to collapse if the Bali's water challenges are not addressed.



How can a lush tropical island with a wet season spanning six months of the year be facing such water scarcity? Bali's water crisis is due to a range of factors. Ever increasing deforestation and concretisation of land for tourism and second homes means that water catchment systems are failing, causing groundwater levels to deplete as water courses straight out to sea. The existing groundwater resources are being exploited to critical levels, due to hotels and villas digging wells ever deeper. Most of these wells are unregistered and without water metres, as is required by law.

Bali's population of some 3.5 million is swollen by some 5 million international and domestic tourists every year, placing huge strains on the small island's groundwater resources and water-related infrastructure, including sewerage. Much waste leaches back into waterways, paddy fields, and onto beaches, threatening the health of local people and tourists. According to Bali's Ministry of Health, over 50 per cent of infant and toddler deaths are caused by diseases related to poor sanitation, water and environment. Meanwhile, piped water is unreliable, further encouraging people to dig boreholes to extract water.

Access to safe, clean water is a fundamental human right, critically underpinning our ability to live in dignity, ensure a livelihood, and protect food security. However, in Bali, tourism's crowning position in the economy and the wealth and power of the industry means that huge amounts of water are reportedly diverted away from fertile rice paddies towards the tourist resorts of Nusa Dua.



A recent study from the Udayana University in Bali estimates that Bali is already short of almost 200,000 hectares of agricultural land needed to feed its existing domestic and tourist populations. Productive land is being converted to second homes and hotels at a rate of up to 1000 hectares annually, despite a supposed moratorium on new resort projects implemented in late 2010. Part of the reason why farmers are selling their fields is because adjacent tourism development is causing land values to skyrocket. This means that poor farmers must pay more tax. Additionally, rice yields are reportedly declining due to changing weather patterns and decreasing water availability, which makes farming increasingly unviable for many.

Local villagers that Tourism Concern spoke to reported that lack of water is dominating their lives. “I cannot sleep because of worrying about water for our rice field. This is something we never had to think about [before]. At least for the last eight years we have had less water so that every night my husband has to stay in the rice field... because [the water] gets stolen by other farmers”.

Water has a great religious significance in Bali, which means paddy fields have been traditionally built around water temples. ‘Subaks’ are traditional organisations which manage local water distribution and irrigation. Thus the conversion of paddy to concrete also symbolises the erosion of an important aspect of Bali’s traditional social and cultural fabric.

Thankfully, alarm bells are starting to sound in Bali. The government has acknowledged that the island will face a water crisis by 2015. This would be disastrous for tourism, agriculture and the economy. A water purification and sewage network projects are planned, while Bali’s Environment Agency has threatened to revoke operating licences of hotels and restaurants that fail to properly dispose of their waste and sewage. However, it is unlikely that these measures alone will be enough.



Stronger water and tourism governance on the part of the government is crucial, including implementation of existing regulations designed to limit and monitor groundwater extraction. Local campaigning groups, such as WAHLI, are calling for tourism construction projects to be halted and for

more holistic planning that takes account of the critical challenges facing Bali.

Tourism Concern, under our Water Equity in Tourism programme (WET), would like to support and echo such calls. However, protecting water resources and ensuring that the water rights of local communities are respected is also the responsibility of the international tourism industry. It is incumbent upon them to engage with local stakeholders in tourism, government and civil society on this critical issue, and to take actions to redress the sector's unsustainable water consumption to prevent Bali going down the plughole.

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Tourism Concern works to promote more ethical, fairly traded forms of tourism. Please visit our website to find out more about our Water Equity in Tourism programme:

www.tourismconcern.org.uk

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