

For the Worry of Water:

Water, Women and Tourism in Labuan Bajo

Initial Policy Paper



Dr Stoma Cole and Marta Muslin, SH

Comments to [stroma.cole@uwe.ac.uk](mailto:stroma.cole@uwe.ac.uk)

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## Executive Summary

Tourism has added to a water crisis in the rapidly growing gateway town to Komodo National Park: Labuan Bajo. Residents are suffering from the scarcity and cost of water for basic human needs. Based on ethnographic research, over 100 people were consulted on the problems and potential solutions. Women are bearing the brunt of the burdens as they are responsible for the provision and management of water for domestic purposes. The present system is priced unfairly, is illegal, and unsustainable. Water supply is a significant factor in Labuan Bajo's inability to attract the type of tourists it deserves and needs. The immediate needs are for regulation of the quality and price of the tanker water that supplies many people in the town. Longer term needs, but require starting as soon as possible, are for water catchment protection and water conservation education. Essential to the success of water management in Labuan Bajo is the total overhaul of the state run water supply company, *PDAM*, and women need to be trained for leadership and monitoring to ensure solutions are enacted and women's voice on the provision and supply of water is heard.

## Acknowledgements

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## Introduction

### Aim

The study set out to understand:-

- How the water situation in Labuan Bajo intersects with tourism development
- How this impacts on women's lives
- What the socio-environmental consequences are
- What are the policy options and priorities for the "town of a thousand jerry cans" to become a National Strategic Tourism Priority Area (KSPN)

### How We Undertook the Research

The research was limited to the *Kecamatan* of Komodo but did not include the islands.

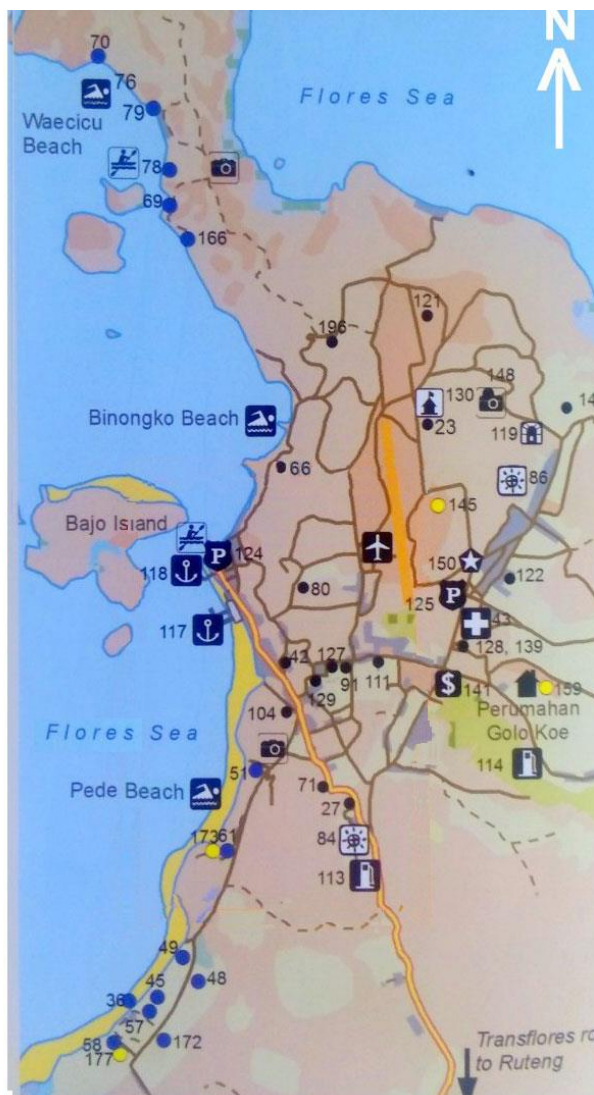


Figure 1 Map of Labuan Bajo research area. Source: Swisscontact

The research made use of a range of ethnographic methods including participant-observation, structured and semi-structured interviews and focus groups. Between April and July 2015 a total of 77 interviews took place and five focus groups were held with a further 31 participants. 18 participants also attended a multi-stakeholder meeting conducted to discuss some of the findings. Of the participants 51 were men and 57 were women; 44 were involved in tourism and 64 were not. Of those in tourism 16 were owners or managers and 28 were employees. 20 participants from nine government offices, five NGOs, two village heads, two community leaders and two priests contributed to the research<sup>1</sup>. The interviews were taped and later transcribed and analysed<sup>2</sup>.

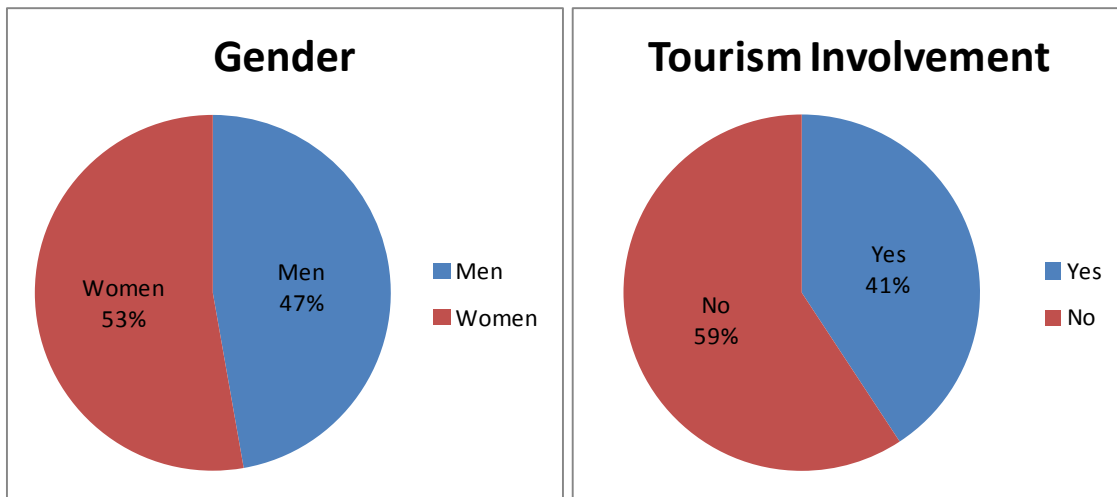


Figure 2a Gender of Participants.

Figure 2b Participants involvement with tourism

## Background

Water is fundamental to all forms of life and must be protected as a common resource, public good and human right. Sufficient, safe, affordable and accessible water is a human right. It is essential to sustain life and livelihoods, and it is also essential for the health and happiness of tourists. Water is one of the most critical and scarce resources for the tourism industry. In tourist destinations, new actors, such as tourism developers and tourists, have widely differing views and consumption patterns of water use and importantly, they lack knowledge of local water availability. These new water users can also have much greater social power than the majority of their local counterparts. The development of the tourism industry is also usually accompanied by many other transformations, including changes in traditional land use and tenure, urbanisation, and inward migration, all leading to concentrated human activity with a greater water footprint<sup>3</sup>.

<sup>1</sup> Informants were located by a combination of serendipitous meetings, strategic place-based conversations and snowball sampling.

<sup>2</sup> The data was analysed through discussions in the field, saturation, triangulation and the identification of themes.

<sup>3</sup> The water footprint is an indicator of freshwater use that looks at both direct and indirect water use of a consumer or producer. The water footprint of an individual, community or business is defined as the total volume of freshwater used to produce the goods and services consumed by the individual or community or produced by the business. Water use is measured in terms of water volumes consumed (evaporated or incorporated into a product) and/or polluted per unit of time. A water footprint can be calculated for a particular product, for any well-defined group of consumers (for example, an individual, family, village, city, province, state or nation) or producers (for example, a public organization, private enterprise or economic sector). The water footprint is a geographically explicit indicator, showing not only volumes of water use and pollution, but also the locations. (<http://waterfootprint.org>)

Climate change will have a varied impact on water availability, but on a small tropical island, such as Flores, it is anticipated to increase the pressures. As care givers, food providers, and health care suppliers in many societies, women are responsible for domestic water provision and management. These roles are often “naturalised”, unpaid, and unrecognised but mean that women live with issues of water scarcity and contamination on a daily basis. Not all women experience water scarcity equally: gender relations interact with class, material inequalities and other social power relations. As providers and managers of water at the household level, it is women who bear the greatest burden from a lack of supply.

## The Human Right to Water in Indonesia

### The Human Right to Water in Indonesia

Indonesia voted in favour of the UN resolution for the right to water and sanitation. This resolution determined that water has to be:

- sufficient (the World Health Organisation suggests this means between 50 and 100 litres per person per day);
- safe (free from micro-organisms or other hazards);
- physically accessible (it should be within 1000 m and collection time should not exceed 30 minutes);
- affordable (water costs should not exceed 3% of the household income).

The entitlements to water include the right to a system of water supply and management that provides *equality of opportunity* for all people to enjoy the right to water

It is the obligation of government to respect, protect and fulfil human rights.

The obligation to respect means States may not prevent people already enjoying the rights from continuing to enjoy them, for example by selling land with a water source on it, and preventing users from continuing to access the source without an adequate alternative being provided.

The obligation to protect the rights to water and sanitation suggests that States must prevent third parties from polluting a water source.

The obligation to fulfil the rights to water and sanitation requires that States ensure that the conditions are in place for everyone to realise their rights.

All economic, social, and cultural rights, including the rights to water and sanitation, are subject to the principle of “progressive realisation” i.e. to take “deliberate, concrete, and targeted steps” toward meeting their obligations.

Furthermore, The Right to Water and Sanitation is guaranteed in the Indonesian constitution. The State must guarantee individual access and availability of water for everyone residing within the territory of the Republic of Indonesia. The State is obligated to take legislative and other measures within available resources to ensure the progressive realization of water and sanitation rights.

## The Situation in Labuan Bajo

### Water Provision for Local People

Labuan Bajo has grown very rapidly from a small village in the 1980s to a global town with an increase in population from 10,000 to 52,000 and an increase in tourists from 20,000 to 56,000 in the past seven years.

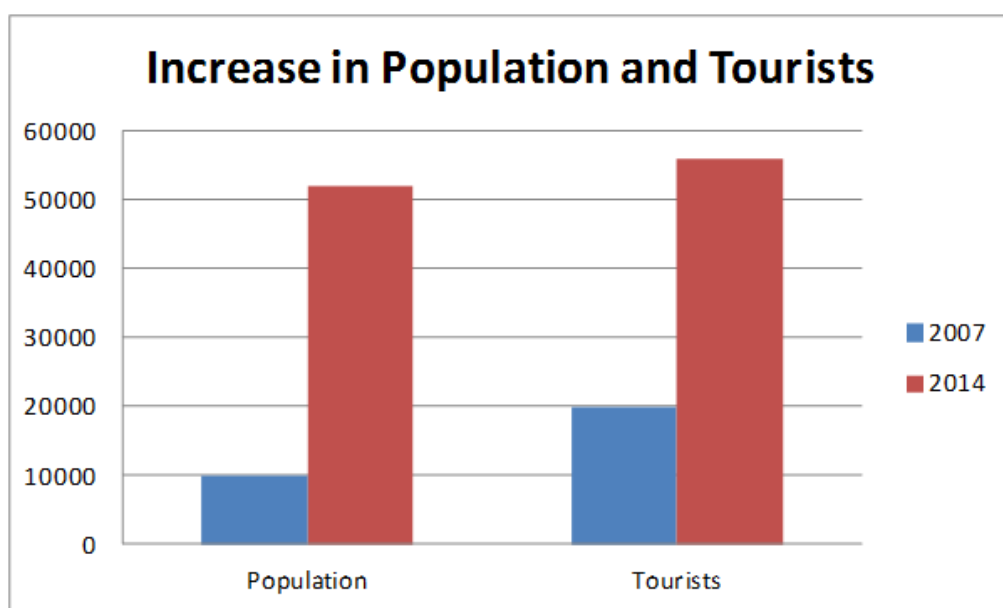


Figure 3 Population and tourism increases over seven years from 2007-2014

Only 24% of the population are connected to a piped water supply but the water generally only runs in the pipes twice a week and for a few hours at a time. This leaves most people dependant on unregulated, unreliable, private supplies often of doubtful quality, or having to collect and carry water from public supplies. The price paid for this water is exceptionally high, breaking international law. Many government officials and knowledgeable citizens claim this is not due to a lack of water. If this is the case the government of West Manggarai is directly implicated in an obvious breach of international law as it is not fulfilling its citizens' right to water. This is compounded by the claim that government officials are involved in the corruption of water supplies and its sale. This allegation was not researched in this study, but has been covered widely in the local and national media.<sup>4</sup>

<sup>4</sup> <http://nasional.tempo.co/read/news/2014/03/12/058561639/labuan-bajo-kesulitan-air-bersih>

<http://www.floresbangkit.com/2015/06/krisis-air-terus-menghantui-warga-labuan-bajo/>

<http://www.floresa.co/2015/06/09/ditanya-soal-korupsi-proyek-air-bersih-di-mabarkapolda-ntt-masalah-korupsi-kita-komitmen/>

<https://www.change.org/p/desak-gusti-dula-maxi-gaza-atasi-krisis-air-bersih-di-wilayah-kota-labuan-bajo>

<http://travel.kompas.com/read/2012/08/21/16160126/Labuan.Bajo.Kota.Seribu.Jeriken>

<http://www.suryainside.com/?mod=3&idb=1412>

<http://www.vnewsmedia.com/warga-labuan-bajo-kesulitan-air-bersih/>



Water in Labuan Bajo is cheaper the more you buy, this hits the poorest hardest. The smallest volumes cost Rp.75 per litre, costing a family Rp.15,000 per day which was 30% of income for a family on low income<sup>5</sup>. There are free sources of water in Labuan Bajo but these require collection and carrying, this places a huge burden on families both in time and energy. For those with sufficient funds and storage space for 5,000 litres the cost was Rp.26 per litre. This still represented between 5 and 10% of a high income family. This was also the normal purchase method for small and medium size enterprises. Three of the biggest hotels use all the water they wish from a local village well for only Rp.600,000. This demonstrates the enormous inequity of water pricing in Labuan Bajo.

## The Tourism Industry

Tourism is the only development being promoted in Labuan Bajo and it is well known as a thirsty industry. If water cannot be distributed to the local people how can it supply tourists as well? There are presently 1,355 rooms ranging from US\$5 to US\$80 per night. In addition there are 70-80 live-aboard boats each providing a further 4 to 30 bed spaces per night. There is an increasing trend for tourists not to stay in Labuan but to go directly from the airport to live-aboard boats. This results in a lack of tax revenue, lack of local employment, minimal “multiple effect” from lack of tourist spend, and the mounting costs of externalities. These are beyond the scope of this paper but need to be discussed and considered. The Department of Tourism and DPR<sup>6</sup> should sponsor the necessary research and take action as a priority.

## Women and Water

Both the largely Catholic Manggarai community and the largely Muslim Bajo/Bugis/Bima communities’ resident in Labuan Bajo are highly patriarchal. This means that in Labuan Bajo women’s roles are clearly culturally defined. As in many places “water has a woman’s face”<sup>7</sup> in that the responsibility of water is largely the responsibility of women. Women are the providers and managers of water at the household level. The lack of water is felt most by women; it is their struggle and their worry. While there is “gender bargaining”<sup>8</sup> in the private sphere this is very rarely the case in the public sphere. It is culturally unacceptable for a man to undertake the family’s washing. Men, whose wives earned more than them, would wash clothes but not hang them out unless a garden was enclosed. It was clear that gender roles were being negotiated and circumstances were shaped by modernity. Men will collect water in jerry cans by motor bike, for example, but they wouldn’t be seen carrying water or bowls of washing. This means that it is the women of Labuan Bajo that bear the burden of the water problems.

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<sup>5</sup> We met a variety of people who only earned Rp.800,000 per month – e.g. cleaners in the airport, for these citizens, where there was only one earner in a family, water costs were 50% of their income!

<sup>6</sup> Elected council

<sup>7</sup> UN 2004 United Nations (2004) ‘United Nations Secretary General’s Report on Failure of Water Privatisation, and Betchel’s Failure to Provide Water in Iraq,’ United Nations Commission on Sustainable Development, Geneva.

<sup>8</sup> Cleaver 2000 Analysing Gender Roles in Community Natural Resource Management *Negotiation, Lifecourses and Social Inclusion* IDS Bulletin *Volume 31, Issue 2*, pages 60–67, April 2000  
<http://onlinelibrary.wiley.com/doi/10.1111/j.1759-5436.2000.mp31002008.x>

## Problems of the Present System

### Illegal and Unfair

- People in Labuan Bajo are suffering for the lack of water, are fed up, feel powerless and are angry
- The private supplies are extremely expensive and break international law
- The poorest people pay the most for water while businesses, including the tourism sector and the rich pay the least
- Both the quality and price of private supplies are entirely unregulated

### Unsustainable

- The environmental costs of the present system are very high
- Hundreds of electric pumps are used to pump well water
- Trucks use diesel to deliver water and bottled drinking water is brought up to 15 hours by road from inland well water
- There is a minimal use of rainwater catchment and storage
- Deforestation is still occurring while a single NGO is involved in forest catchment protection
- Underground sources are used with impunity and withdrawal rates are unknown
- There is no control over the placement of septic tanks or sufficient consideration of sanitation and waste management, leading to significant health and environmental risks (e.g. flooding)
- No single government department is taking responsibility for an increasingly severe problem. There is a lack of clarity of which government department is responsible for what

### Tourism

- Tourism cannot thrive in a destination that lacks water and cannot deal with its waste
- Investors are forcing the price of land out of the hands of local people and causing a huge external price strain on rents. Other costs, the human costs, are being forced down
- As regulations are not enforced, labour laws such as: the minimum wage, contracts, maternity, holiday or sick pay, etc. are commonly absent
- Tourism provides employment but the costs of living, especially water, means there is a growing resentment against the industry
- Labuan Bajo needs to be a sustainable destination in order to have sustainable tourism. To be a great place to visit it must also be a great place to work and live too

## Considerations

### Re-Thinking Privatisation

Water privatization treats water as a commodity and its management is driven by the objective of maximization of private profit. Privatization involves pricing of drinking water for sale and profit making. There is a company, presently negotiating with the West Manggarai government to supply water for Labuan Bajo<sup>9</sup>. As the company's negotiator told us "Business knows no mercy". Water privatisation results in loss in both the quantity and quality of water available for the poor. The worst affected are poor women as these factors of privatization interact with their already gendered social status and have adverse impacts in terms of their drudgery, income, health, hygiene, nutrition, productive and reproductive tasks, and personal well-being. Privatization of water has eroded women's water rights. Where water is treated as a commodity and rights to water are defined through rights to capital or political power, no responsibility is taken for destroying water resources. Rivers dry up because their catchments are mined, deforested or over cultivated to generate revenue and profits. Privatization of water clearly implies that water is being assigned a market value. Since men control the market, women's values are excluded and their water rights are undermined.

### How Do We Build Greater Resilience?

Resilience is the capacity to deal with change. 'Resilience is the capacity of individuals, communities and systems to survive, adapt, and grow in the face of stress and shocks, and even transform when conditions require it'<sup>10</sup> Systems are the combination of people with their environment and way of life. Governments have a responsibility to develop and resource resilience strategies<sup>11</sup>. There are a number of 'low regret' or 'no regret' options which could provide Labuan Bajo with multiple benefits (in addition to increasing resilience).

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<sup>9</sup> Privatization maybe unconstitutional. The Right to Water and Sanitation is guaranteed in the Indonesian constitution. The State is obligated to take legislative and other measures within available resources to ensure the progressive realization of water and sanitation rights. The constitutionality of privatization will depend on whether it contributes to the progressive realization of relevant socio-economic rights. Failure to satisfy either of these demands would mean that the policy is unconstitutional, and that the State is in violation of its constitutional obligations.

<sup>10</sup> Rockefeller Foundation, 2009 Building Climate Change Resilience. (See <http://www.rockefellerfoundation.org/uploads/files/c9725eb2-b76e-42eb-82db-c5672a43a097-climate.pdf>, accessed 10 October 2014).

<sup>11</sup> The World Bank 2014 Building resilience: integrating climate and disaster risk into development. Washington DC: The World Bank (See [http://www-ds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/11/14/000456286\\_20131114153130/Rendered/PDF/826480WP0v10Bu0130Box37986200UO090.pdf](http://www-ds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/11/14/000456286_20131114153130/Rendered/PDF/826480WP0v10Bu0130Box37986200UO090.pdf), accessed 6 October 2014)

*Mangrove* protection, forest preservation, and flood defence will all help Labuan Bajo's sustainability and resilience as these are strongly linked<sup>12</sup>. Seeking sustainable solutions will help Labuan Bajo's resilience to climate change.

## **Involving Women**

The meaningful involvement of women in water resources development, management and use can: (a) lead to the design of effective new solutions to water problems; (b) help the government avoid poor investments and expensive mistakes; (c) make projects more sustainable; (d) ensure that infrastructure development yields the maximum social and economic returns; and (e) further development goals on hunger, child mortality and gender equality<sup>13</sup>. By building the capacity of women through leadership (and technical training) in West Manggarai, women could monitor the performance of the government's water supply activities and ensure democratic and transparent processes in water distribution. As women bear the burdens of water scarcity they should be engaged as professionals, managers and decision makers to increase the likelihood of finding equitable solutions.

## **What Type Of Tourism Should We Be Promoting?**

Labuan Bajo is the gateway to one of Indonesia's premier National Parks, tourists come for the natural wonders surrounding the town (as well as the cultural wonders that lie inland – for the few but increasing numbers that venture east). Labuan has the potential to attract high end eco-tourists (it does but they do not stay and spend in town). This tourist profile will not want to stay in a concrete block for US\$10 per night; they desire quality and are prepared to pay for it. To reach them Labuan Bajo must become a sustainable destination. Water and waste management must be the very first steps on that path. Labuan Bajo should plan for its future taking into consideration its population growth both permanent and transient (tourists); the resource demands this will entail and the impacts climate change will bring. While tourism is likely to be part of the future of Labuan Bajo, other development options must also be cultivated. Tourism is fickle and should never be a destination's sole source of revenue! Planning for Labuan Bajo as a sustainable destination must include consideration of the carrying capacity limits. Quality should be sought over quantity. To be a sustainable destination the town must also be a sustainable place to live and work.

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<sup>12</sup> [http://www.unep.org/disastersandconflicts/portals/155/dnc/docs/drr\\_training/Eco-DRR%20InstructorManualApril2013.pdf](http://www.unep.org/disastersandconflicts/portals/155/dnc/docs/drr_training/Eco-DRR%20InstructorManualApril2013.pdf)

<sup>13</sup> The Global Water Partnership (2006) 'Gender Mainstreaming: An Essential Component of Sustainable Water Management,' Sweden.

## Recommendations – Top 8 Actions Required

A range of options, to help bring about solutions, have been considered. Many of them were presented and discussed at the multi-stakeholder forum in July 2015. Attendees had participated in the research. The head or deputy of the major government stakeholders (apart from the Bupati) attended, as did representatives from industry and community. Each objective was then scored according to **Effectiveness** (likelihood it can be achieved), **Efficiency** (benefits in relation to costs), **Equity** (fairness and justice distribution), **Feasibility** (political/administrative likelihood) and **Level of importance**. For the full set considered see table 1 in the appendix. Some of the options are more important in the short term (action to be taken in the next 18 months) while others have longer term objectives (but should begin as soon as possible).

The following is a list of the top eight most important recommendations to act upon in order of priority:

### 1. Regulation of Water Quality

Given the potential major health hazard of water trucks distributing water of any quality from anywhere, the regulation of the quality of this water should be attended to immediately. All water providers should be licensed by the department of permits (*perizinan*) and random, on the spot testing should take place by the department of health. Anyone found distributing substandard water should have their licence removed. This will require co-ordination between the department of permits and the department of health. A DPR sponsor should be publicly nominated to provide a democratically accountable person.

### 2. Watershed Protection

As the future of all Labuan water depends on watershed protection, this needs to be given far greater emphasis. As Burung Indonesia, the NGO working on this, state the people around the forest need to be given higher priorities and proper incentives for their role in forest protection. In watershed management, there are a variety of challenges ranging from the complexity of governance, weak enforcement of environmental laws, lack of community participation, and so on. Water resource development must become central to the political agenda to alleviate these problems<sup>14</sup>.

### 3. Water Price Regulation

The price of water in Labuan Bajo needs to be regulated. Price variation by quantity, season, relationship, and power is unjust. The present differences are unfair and the prices charged break international law. Distributors clearly need to cover costs but the prices far exceed this and some are making large sums from the misery of others. The maximum cost of water per litre can easily be calculated based on the maximum 3% law the price should be between Rp.2 and Rp.3 per litre<sup>15</sup>.

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<sup>14</sup> <http://canadians.org/sites/default/files/publications/RTW-Indonesia-1.pdf>

<sup>15</sup> 3% of the minimum wage (RP.900,000) for 100 litres per day x 4 people x 30 days would be Rp. 2.25 per litre (Rp.3 litre could be tolerated).

#### **4. Water Conservation Education**

Water conservation education is needed across the spectrum of Labuan Bajo society from school children and community to the Industry. Only one hotel has a strong record on water conservation. Very few are catching rainwater; other water conservation methods could make significant water savings; eco-certification which should be encouraged to support this. Burung Indonesia has a program for schools, this needs greater support and expansion through all schools. The community also needs to understand the basics of water and its conservation. Many residents come from the mountains where rain is abundant. They are unaware of the limits of ground water, they are unaccustomed to rainwater catchment and they are unaware of the risks of placing septic tanks close to wells.

#### **5. Differential Pricing Between Tourism Industry and Locals**

Given the huge disparity in the water use per tourist per day and that of the community a differential pricing between the tourism industry and the local people would help make Labuan's water system more equitable. This is especially the case given that 3 hotels can use unlimited supplies for only Rp.600,000 per month and this also represents unfair competition in the industry which is unhealthy.

#### **6. Research and Information**

Planning for development and the future is very difficult when there are so many unknown factors. The research uncovered a number of areas where vital information is lacking. Information which is held by government departments should be publically available. Critical information includes: the amount of ground water including the size and depth of the aquifer(s); the number of wells and the amount of water being withdrawn, the health indicators resulting from poor quality and quantity of water and the rates of the associated illnesses; the number of tourists (presently this is estimated on the number of tickets to the National Park) and where they stay; and the number of live-aboard boats and where they are registered. There is also a complete lack of knowledge about climate change and the likely impacts it will have on Labuan Bajo and therefore the strategic resilience development needs.

#### **7. Revitalising PDAM<sup>16</sup>**

PDAM has clearly failed. The head has resigned and is being investigated for corruption. As a Kabupaten, PDAM in West Manggarai suffer from rules made at the provincial level in Kupang. Many of the water pipes in Labuan are old and in disrepair, however many areas have many new pipes but no water flowing in them. There is a lack of technically qualified personnel in PDAM and there is a lack of coordination with the public works department (PU). Everyone complains to PDAM but nothing ever changes so it was surprising that at the multi-stakeholder meeting all participants believed that the organisation should be revitalised (not scrapped). However, there were strong views that the leader should be chosen on merit and possibly brought in from outside the region to ensure competence; that clear milestones should be set and that the role holder should be immediately accountable to a named person in the local parliament.

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<sup>16</sup> Perusahaan Daerah Air Minum – the state drinking water distribution company

This role should be backed and monitored by a group of women monitors given the evidence that “water has a women’s face” and women’s agency needs to be enhanced in Labuan Bajo. Improving their capacity to initiate action by providing women with leadership and technical training will enhance their agency. The women should also monitor the projects, roles and finances at *PU* and there coordination with *PDAM*. Women proved to be excellent monitors for building projects in the post Tsunami reconstruction of Banda Aceh. With suitable technical and leadership training they could ensure transparency, democracy, value for money and an efficient water supply scheme for Labuan Bajo.

## **8. Monitoring and Human Rights**

Tourism can make a positive contribution to the human rights of destination communities, freeing them from poverty by providing work, well-being and opportunities to enhance cultural heritage. However, it is often the case that the rights of local people take second place to the needs and expectations of foreign tourists. When local inhabitants have to compete with the tourism sector over the access, allocation and use of water for their personal and domestic daily needs it can pose a direct threat to people’s right to health and life, and it also exacerbates existing poverty, and it can be a source of conflict and societal instability.

Priority in water allocation should be given to the right to water for personal and domestic uses, and to preventing starvation and disease. The present water system in Labuan Bajo breaks International Human Rights law. The state and its institutions bear primary responsibility for ensuring that human rights are respected. They are the legal duty bearers. Their duties include creating clear and reliable legal frameworks, enforcing existing laws and policing violations consistently and coherently. This is not happening in Labuan Bajo at present. If women were trained in Human rights by an appropriate NGO, the situation could be continuously monitored and reported upon to enhance the speed of improvement.

## Conclusions

Labuan Bajo should embrace its position as a multinational town at the gateway to Komodo National Park. The intersection between water and tourism and the role women play are central to Labuan Bajo being a sustainable destination. Water management must be made central to the political agenda and actions to ameliorate the present situation should be taken immediately, while medium and longer term plans are formulated. This requires:

- A. Regulation of the quality and price of water accompanied by robust watershed protection plans and resources.
- B. Water conservation education across society including tourism businesses.
- C. A significant research plan so that effective planning can be undertaken.
- D. PDAM revitalisation with root and branch reform and a clean slate.
- E. Provision of leadership and technical and Human Rights training for women to enhancing their agency, so they can monitor the government performance to ensure that the recommended actions happen in a timely an appropriate fashion.



## Appendix

**Table 1 – Policy Option Scoring**

Option	Effectiveness Short, medium and long term	Efficiency	Equity	Feasibility Political legal admin framework for implementation	Level of importance 5=high 1= low	
Revitalise PDAM	M 5	5	5	1	3	19
Privatize supply	M 5	5	1	3	3	17
Regulation of price of non PDAM supply	S 5	5	5	3	5	23
Regulation of quality	S 5	5	5	3	5+	24
Increase of industry price	S3	4	5	4	5	21
Water conservation education (School, society, and industry).	L 4	4	5	4 Burung Indonesia have a program for schools.	5	22
Watershed protection	S5 M5 L5	5	Community have not been considered	Burung Indonesia and community	5	24
Commission at DPR	S 3	4	3	5	4	19
Research	S 5	2	4	5	5	21
Desalination	L 2	5	1	2	1	11
Monitoring HAM	M 3	3	5	4	4	19