

7. Water Relations: Customary systems and the management of Baucau City's water¹

Lisa Palmer

Introduction

In post-independence Timor-Leste people are seeking to rebuild the local and regional social and economic ties that were repressed under the violent 25 years of Indonesian military occupation (McWilliam 2005; Ospina and Hohe 2001; Palmer 2007a; Palmer and Carvalho 2008). Since the intervention in 1999 there has been a flood of aid and development-sector money into Timor-Leste, much of this directed to the water and sanitation sectors (ADB 2007; Schoeffel 2006). While customary practices are often explicitly acknowledged in the official governmental and donor discourses in Timor-Leste (Grenfell 2009), in the arena of water and sanitation the locally dynamic flows of water resources, customary rights and interests that 'sustain clan identity, maintain rights to land, redistribute income, and cultivate community' (Gibson-Graham 2004:415; cf. Langton et al. 2006) are largely invisible. The failure to address issues of resource ownership and control and to engage the strengths and importance of local customary institutions are having serious ramifications for the successful implementation of Timor-Leste's national water objectives in the city of Baucau and elsewhere in the country.

This chapter investigates the ritual ecology of water in Baucau and the ways in which diverse local water-management institutions coexist in management of the underground water resources that supply the city. I argue that in Baucau's distinctive karst (limestone bedrock) topography the local management of water, and the springs from which it emerges, is deeply embedded in the most important organising principles of Timorese (and Austronesian) social life: the wife-giver–wife-taker (*umane–fetosaun*) and older sibling–younger sibling (*maun–alin*) traditions. These foundational principles, which are consistently highlighted in local spring myth narratives, ensure that the norm of water management is one

1 The local cultural terms glossed in the national language of Tetum in this chapter are, depending on the speaker and context, referred to locally in either the Makassae or Waima'a languages. Because of this spatial and temporal ambiguity, here language translations for key cultural concepts are in all but two cases provided in Tetum (in two places, local Makassae terms are used and are identified by the placement of an 'M:' prior to the English translation).

of interdependence between water-sharing communities who are bound within relationships of obligation and reciprocity in relation to both water resources and a full spectrum of ceremonial life-cycle and livelihood activities. Grounded in an analysis of Baucau's complex diverse economy, this chapter asks how alternative social and economic practices might be meaningfully acknowledged and embraced by the state and the development sector in the negotiation and management of rural and urban water resources.

This research builds on the diverse-economy work of Gibson-Graham (2006), and demonstrates its relevance for environmental governance (Lemos and Agrawal 2006). Mapping the stories and customary institutions and exchanges that continue to circulate through Baucau's urban landscape in relation to water, it explores what importance these narratives and practices have for Baucau's ongoing development. By marrying together notions of environmental governance with those of a diverse-economy framework, it begins to analyse the varieties of knowledge (explicit and implicit), and ethical (who is obligated to whom) and aesthetic (what water to use and how) practices that come together in the everyday materiality of Baucau's water-management regimes. The chapter is based on fieldwork (interviews and participant observation) carried out by the author in Baucau between April 2004 and May 2009 (totaling eight months).

Why Water?

There are no published accounts of local people's customary management of karst hydrological systems—despite their existence throughout the world—which are distinguished from other groundwater aquifers by their unique open underground conduits developed in the limestone bedrock. Moreover, in Timor-Leste, while much academic and increasingly governmental focus has been placed on customary land-tenure issues (ARD 2008; Fitzpatrick 2008; Fitzpatrick and McWilliam 2005) and land-based resource management practices (D'Andrea et al. 2003; McWilliam 2003; McWilliam and Fitzpatrick 2005; Meitzner Yoder 2005), customary practices in relation to the governance of aquatic environments have attracted relatively little attention (see Jennaway 2008; McWilliam 2002; Palmer and Carvalho 2008; Costin and Powell 2006: 67-73). This chapter begins the task of undertaking a close and nuanced reading of a place-based instance of community water management and provides a critical counter to the enclosure and separation of water and the imposition of apolitical notions of 'community' common in 'community-based water-management models' currently deemed best practice around the globe (see Schoffel 2006). Nation-states and development practitioners have identified the water sector as an area of high priority (AusAID 2008; WaterAid and World Vision 2007), yet

to date there is little research on the social and cultural complexity and effect/impact of local indigenous life worlds and claims to water on the implementation of water policies (Altman 2008; Lansing 2007; Strang and Toussaint 2008).

In this way, the chapter is both an ethnography of a significant and never previously documented instance of environmental governance and a contribution to an opening up of an important site of politics in relation to the management of water in Timor-Leste. It demonstrates that ritual and ceremonial activities in relation to water must be taken seriously as performative practices that also 'bring forth, define, and empower social relationships' (Lansing 2007:15; cf. Palmer 2007c). Furthermore, it examines the ways in which effective collective decision making over resources is tied to a broader socio-cultural understanding of interdependence at the social, economic and environmental levels. Recognising and legitimising such interdependencies—which are deeply embedded in the life worlds of kin-based economic exchange and ethical decision making—could, I argue, be a potential catalyst for the engagement of community and the recognition of new regimes for natural resource management.

Baucau's Customary Water Governance

Jennaway (2008:28) has written in a review of the Timorese ethnographic literature that the '[c]ultural constructions of space, kinship affinities and social identity encoded in water and articulated in myth and ritual enactments constitute evidence of profound local affinities with water sources in the fluid social and cosmogonic economy of East Timor' (cf. McWilliam 2002). Hicks (1976:21–4) wrote about the karst formations in Baucau's neighbouring Viqueque region as being important conduits between the sacred and secular worlds, leading in local understandings down into the earth's womb. Ritual offerings must be made to ensure the harmonious relations between these two separate domains. In the Baucau region, local myth narratives demonstrate as well a complex understanding of the karst hydrology of the region and signal complex arrangements for inter-village cooperation across a wide area. Drawing together what some might see as the region's natural and social capital, these independencies give rise to governance processes grounded in collective decision making. This is perhaps both in spite of and because of the fact that conflict, even inter-regional wars, over water are said to have also historically featured in the governance landscape (Spillett 1999:270). The norms and nuances of local and regional governance interactions have, however, been disrupted through the colonial period and into the interdependence era by state regimes of water management that base their management of the city's water on their own configurations of knowledge, and ethical and aesthetic practices.

Today, water supply and management are issues with major development implications for the city of Baucau (population 16 000; elevation: 300 m). The Government's water and sanitation department operates on an inadequate budget, lacking resources to address the myriad water-management and supply issues that the city faces. In addition to an inadequate water supply and large-scale infrastructure limitations, the department also struggles to deal with smaller-scale issues such as leaks and illegal connections by city residents. To date there have been no hydrological surveys to better understand the region's water resource flows—although it is widely believed that the source spring for much of the region's water resources is located some 20 km away near the village of Darasula on the Baucau Plateau (elevation: 500 m; see Figure 7.1).²

In contrast with the lack of scientific knowledge of this complex system, many local people associated with locally significant springs possess relatively detailed knowledge of these underground conduits (see Figure 7.1). It is widely believed, for example, that the Darasula spring (known in one local language, Makassae, as Wai Lia Bere [the great Wai Lia] and in another, Waima'a, as Wai Lia Oli) is a gateway for water flowing to many other springs in the region connecting springs lower down, on and off the plateau. While local myth narratives about these springs and their connections might vary (depending on who is telling the story, where they are from, and the purpose of their telling), all emphasise the interconnections between this 'parent' spring and other springs and peoples in other areas. It is also believed that the water from Darasula on the Baucau Plateau channels off through underground cave systems in four directions (an area of roughly 20 sq km): one to the western edge of the escarpment to the village of Bucoli, one to the eastern edge of the escarpment to the village of Wailili, one to Wai Lia spring in Baucau and a vertically parallel one directly to the coastal springs of Wotabo below Baucau City (see Figure 7.1). An underwater spring in the ocean off the coast from Wotabo is believed to be the final exit for much of the spring water that channels through the Wai Lia and Wotabo conduits. This ocean spring, like other sites along the Baucau coast, is considered sacred (*lulik*) by local peoples. Many people and boats are said to have disappeared along this stretch of coast, particularly near the spring, which is said to be guarded by water spirits or the owners of the sea (*tasi na'in*).

It is asserted by those from places lower down from the Darasula spring that elders known as *bee na'in* ('the owners/custodians of the water') from the parent spring have specific knowledge that enables them to ritually direct or divert water (*hamuluk*) and on occasions even to enter these underground conduits and manipulate the water flow to particular areas using woven palm matting, or,

2 At the time of writing, a hydro-geologist employed with the newly established Timorese Department of Water Resources had begun a dye-tracing experiment to try to understand underground water pathways and flows.

more commonly today, corrugated-iron sheeting. Local elders of one Baucau City village asserted that Baucau's water-supply problems are caused by diversions of water away from the underground conduit leading to the city's main spring to springs and agricultural communities elsewhere on the Baucau Plateau. Such actions were explained as 'sanctions' imposed by the source spring *bee na'in* for the failure of Baucau City's residents, government and businesses to properly acknowledge the interdependencies between the springs, and to carry out the requisite ceremonial activities.

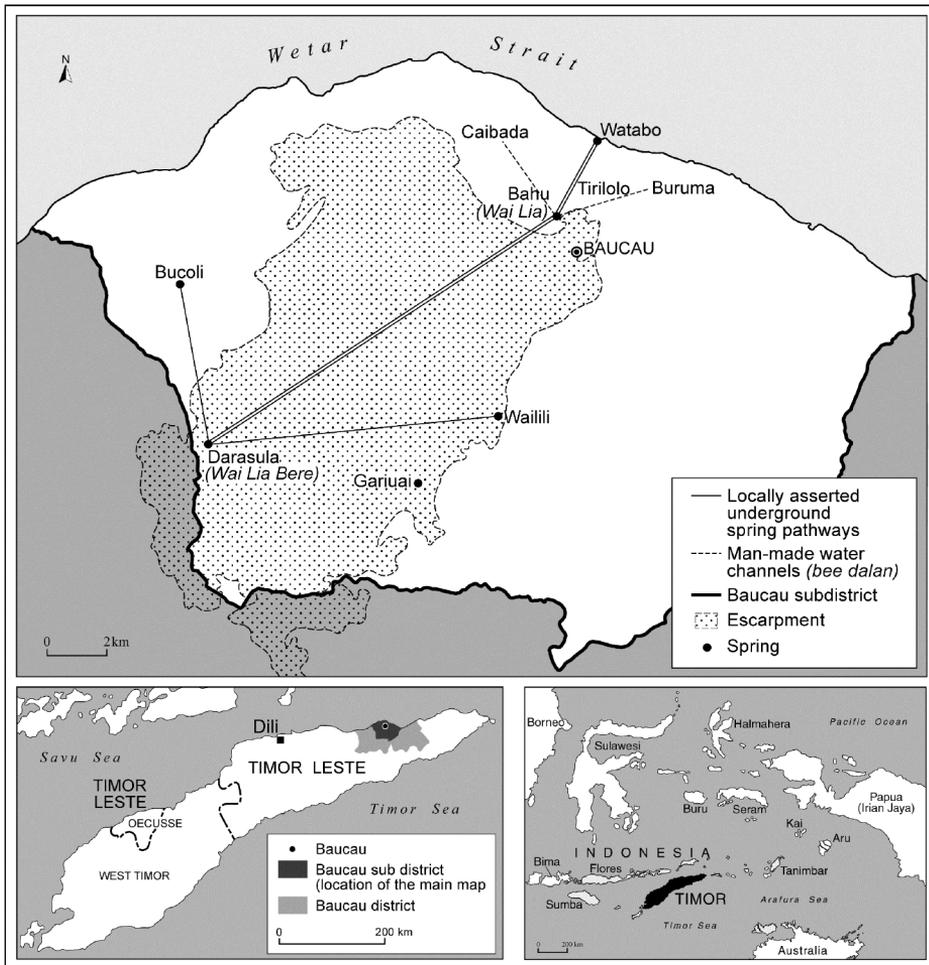


Figure 7.1 Locally asserted underground spring pathways

This capacity to actively divert water is, however, denied by the *bee na'in* of the Darasula spring. While they concede that the water flowing from Wai Lia Bere to other areas can be highly variable (and in the case of water flowing to Wai Lia in Baucau, counterintuitive, as the flow is weak in the wet season and stronger in the dry season), they maintain that this is a 'natural' process. By

'natural' they mean that nature or the water itself is responding to the presence or absence of the annual requisite gift giving and ceremonial activity of those lower down the water chain. The agents of this water-flow control are asserted to be the spirits of the underworld themselves—the true *bee na'in*.

To demonstrate these interdependencies, I relate here the story of the Wai Lia spring—Baucau City's main water source—told to me by a senior ritual leader (*lianain*) of one of Baucau's indigenous polities.

The Story of Wai Lia

Wai Lia spring has its *fuu* [M: trunk, origin] near a place called Darasula. In the beginning there were two brothers there tending buffaloes. One day they were hungry so they decided to dig, cook and eat some yams. But then they were very thirsty. While they were sitting down wondering where they could get water they remembered the day when their dogs went missing and came back all wet. They wanted to know where the dogs got this water. So they made a plan. They cooked some more yams to give to the dogs, but before they gave them to the dogs they made a bamboo collar—tied with string—for one of the dog's necks. Inside the hollow piece of bamboo they placed ash from the fire and made a small hole in the bamboo. Then they gave the yams to the dogs to eat. The dogs were thirsty and headed off. In about one hour they returned all wet. Now the brothers had a way to find the water. They followed the ash that had trickled from the bamboo collar until they came to a big cave with water inside. They both went down into the cave and drew water, which they carried back out of the cave to drink. After this they were still thirsty so the younger brother then went down again to draw water. Inside the cave there were two places to draw water. On one side was a big cave; on the other side was a small cave. From the large opening he could hear the water flowing very loudly. He went in to have a look at what was making such a loud noise. Suddenly someone came out of the water and pulled him down into it. He was underwater a long time until eventually he emerged in the still water of another cave—Wai Lia spring in Baucau. He was now naked, as he had lost his clothes in the water, so he decided to stay there beneath the surface and wait.

Then to the spring came two women, the daughters of a woman from Bahu. The sisters had come to draw water. The older sister entered the cave and drew water from what was a very clean spring. The man from Darasula was crouching beneath the surface and saw this woman drawing water but decided not to do anything. Then the younger sister came down to draw water, but when she got back up to the surface

she saw that in contrast to her older sister the water she had drawn was dirty. So she threw it away and went to draw water again. Again it was dirty. Next her older sister went down and drew water again, and again her water was clear. The younger sister went down again and drew water for the third time. It was still dirty. 'What is making my water dirty', she thought with frustration? She looked down into the water and beneath it she made out a naked man. The older sister came down to join her and the younger sister demanded to know where this naked man was from that he thought he could make her water dirty. The naked man explained: 'I am from Darasula; I was tending buffalo there when I was thirsty and went down into a cave to draw water. Then I somehow ended up here.' 'But what do you want?' asked the women. 'Could you go and ask your brothers to bring me some clothes to wear?' asked the man from Darasula. So the women went to ask their older brothers to take the man a *tais* [woven cloth] to wear. They did this and he got dressed in the water.

When he came out of the water the two sisters and their older brother who had brought the *tais* were still there. It was decided that the younger sister would now marry this man. So they got married and lived together at the woman's home and they had a child together. And then the woman said, 'Now it is time for us to go to try to find your place so I can see where you come from. Do you still have family there, I wonder?' So they set off to look for this place, telling his story along the way and asking people if they knew of his brother and if he was still alive. Eventually they found some of his possessions hanging in a tree: his carry basket, cotton spinning stick, spear and digging stick. 'This is the place where I was tending buffaloes the day I became lost', he said. He got down his possessions and they kept walking.

They kept asking people they met about his brother and finally one man responded: 'Yes, it is me, I am your older brother. I thought you were lost forever.' The two hugged each other and cried together. The older explained 'I am your older brother and you are my younger brother. You went down into the water and got lost, I thought you were dead. I waited seven days and seven nights but you didn't appear. I went down to look for you in the water but I didn't find you. I thought you were dead but now you have come back. In the past we looked after buffalo together and now you have come back. I am still here and you have come back.' The older brother explained that now as the younger brother had returned to his *fuu* [M: trunk/origin] he needed to make a traditional house here at this place by the water at Darasula. The house was needed so that offerings could be made to the water and the story would not

be forgotten. 'When the time comes for us to make offerings to give thanks to the water which we both found together, the people from Bahu, Caibada, Buruma, Tirilolo [the four villages in Baucau that receive water from Wai Lia] must also come together to kill goats, buffalo, pigs and chickens and then bring them here for us to make our offerings at Darasula.' 'You must also make a traditional house at Wai Lia,' said the older brother. This was so the four villages could also make the same collective offerings at Wai Lia spring in Baucau.

After the older brother explained all of this, the younger brother was also reunited with the dog who had led them to the cave and who had since had many puppies. He explained to the dog that he had married a woman from Bahu and had also had children. He hugged the dog and cried. He hugged his brother and cried. After this they made the traditional houses in both places so they could remember this story and give thanks to the water. Each year the local population would carry out ceremonies so that the two springs would never be dry. This meant that they could make fields and plant rice and have plenty to eat.

However, eventually the people from the four villages sharing the water from Wai Lia forgot to make their sacrifices. The water stopped flowing and many animals, crops and trees began to die. The people from Baucau went to the owners of the water in Darasula and asked, 'Why is our water dry?' The Darasula people explained the reason: 'You have not been making the sacrifices and you need to start doing this again.' So the people in Baucau started to make the required sacrifices again and after this their rice could grow again.

What this narrative highlights is the way in which the management of the Wai Lia water source is intimately embedded in the most important organising principle of Timorese social life: the wife-giver–wife-taker (*umane-fetosaun*) and older sibling–younger sibling (*maun-alin*) traditions. A man from the parent spring on the plateau marries a woman from the subsidiary spring lower in Baucau, creating an ongoing asymmetrical ritual and exchange relationship between the peoples from the two areas, linking together themselves and their water resources. In order to ensure the ongoing gift of life giving (a plentiful supply of water, crops, animals and children), ceremonies must be carried out at both springs. The people of the four Baucau villages must provide these sacrifices (and as we will see later, annual tribute) to their water's *hun* (trunk, origin) and the *bee na'in* at Darasula, and must also come together to carry out their own ceremonies at Wai Lia. The broader Wai lia complex in Baucau City is made up of seven sequential springs and each of these springs is the responsibility of one of the neighbouring villages. Coming together in a sibling relationship, they must organise the ceremonies required to properly manage the springs in the complex.

These sacrificial processes—known in Tetun as '*fo han*' (feeding)—involve small-scale annual sacrifices and larger seven-yearly collective ceremonies (*tinan hitu dala ida*), which involve people from all the water-sharing communities over a period of seven days and seven nights. During this time, there is much singing and dancing (*tebe*) and elders call forth and commune with the sacred eels that inhabit the springs (the eels are also a manifestation of the owners/custodians of the water or *bee na'in*). The ceremonies also mediate relations between humans and ancestral ghosts, metaphysical relations between the sacred and the secular, and geographical relations between the secular world and the sacred world (cf. Hicks 1976:108).

Yet while the knowledge of these underground water connections has remained vibrant, at the Wai Lia spring the customary ritual processes involved in activating these connections are just re-emerging. In the town's Portuguese era (effectively from the 1920s), the rice fields in the immediate vicinity of the Wai Lia spring slowly disappeared, making way for shops, markets and roads. Post World War II, elders were hampered in their efforts to carry out the requisite sacrifices by a colonial tax placed on the slaughter of animals and in the 1960s a water pumping station was built around the Wai Lia spring complex. Meanwhile, on the escarpment where the location of the Wai Lia Bere cave and underground spring had erstwhile been a closely guarded secret, in the 1960s a Chinese Timorese market gardener from Baucau town arrived in the area and attempted (unsuccessfully) to harness the underground water supply (see Palmer 2010). This was followed by an incident at a market cockfight in Baucau when an altercation broke out between members of the Darasula community and others from Baucau. Following this incident, the water at the Wai Lia spring complex ran dry, leading people to speculate that the Darasula *bee na'in* had intervened (either physically or spiritually) to shut off the town's water supply. It is said that the Portuguese administrator at the time was so incensed he sent an armed convoy of cars to Darasula to arrest those suspected of such acts. A group from Darasula was brought down and detained in Baucau until one of the elders descended and convinced the administrator that as he was not God, he was not in control of the water supply.

Following the above events, the water supply at Wai Lia remained intermittent at best and in the late Indonesian era it dried up again completely. In panic, the Indonesian administrators conferred with the village heads and money (and Indonesian Government permission) was provided to enable the organisation of a *tinan hitu dala ida* ceremony. The respective ritual leaders of the four villages were called together and an approach was made to the *bee na'in* in Darasula. The ceremony was eventually carried out in August 1999 and the water flowed again soon after. Following the Indonesian withdrawal from Timor-Leste in late 1999, however, the traditional political ruler (*liurai*) of Bahu village, where Wai Lia

is located, fled across the border to West Timor, adding yet another obstacle to the customary governance of the spring, and, at the time of writing, water flow continues to be intermittent. As discussed below, the surface water at the main Wai Lia spring in Baucau City was completely dry in April 2008. While water from other springs in the Wai Lia complex is still available to be pumped uphill to supply the storage reservoirs feeding the domestic water supply of the ever-growing 'new town' (above the 'old town' where the pumping station is located), the intermittent nature of the overall flow can have serious ramifications for the water available to other areas. The gravitational system piping domestic water to the villages below Wai Lia, as well as the flows through the pumping station to the man-made water channels (*bee dalan*) beneath it are particularly susceptible at these times. The water flow to these two major *bee dalan* is essential to the productivity of the irrigated rice fields below and disruptions to this supply lead to disgruntlement, and some say sabotage, on the part of the rice farmers.

Given the history of disruption yet ongoing rich complexity of the customary governance of these springs, there is a clear need for more research to fully understand their impact on Baucau's present day water supply and the materiality of water use. It is necessary also to map local karst spring pathways and the associated socio-cultural formations, including the complexity of the springs' interconnected ritual ecology. This requires detailed mapping of springs, underground channels, water infrastructure, irrigation flows and relevant sacred house (*uma lulik*) locations. A full map would establish water flows, allocations and the interlocking ritual cycles from relevant locations across the plateau. By researching the practices, contexts and scales through which negotiations and decision making over water occur, what would become clear is the range of market, state and non-state/non-market economic practices at work in the management of local water resources. Identifying precisely what individuals and households associated with the interconnected springs know—in both an explicit and a tacit sense—about water in the region and how they access it is critical to a better understanding of the customary governance process.

Custom and Nation Building

The *bee na'in* (of both the secular and the sacred worlds) at Darasula have not, it appears, taken kindly to the absence of ritual processes at Wai Lia, whatever the constraints on the local community. Baucau City is reportedly perceived by the upstream *bee na'in* and water users to be resource rich with access to markets, government and international aid money. Water users in Baucau are seen as expecting to receive water without returning anything to the upstream water owners. The Government takes the water for civic needs, some people illegally tap into this supply, and some even collect water in trucks and profit

from its sale.³ The *bee na'in* (temporal and spiritual) of the water at Wai Lia Bere see such activities as violating the foundational principles of interconnection, obligation and reciprocity related in local spring myth narratives. City people are not unsympathetic to this sentiment and many agree that something needs to be done. A traditional political leader of one of the city villages (himself a local businessman) explained that the Government and the non-governmental organisation (NGO) sector 'just take water, they don't know how to make it. They pick the fruit, but they don't know how to grow it. They have no interest in *lulik* [the sacred]' (Personal communication, May 2006). As this person understands it, the Government and the NGO sector do not help in the management of such resources, rather they exploit them and at the same time by providing these resources for free they put up disincentives for active community engagement in their management.

While the government officers are not unaware of the customary water-management system and its hold over issues of water supply at Wai Lia, the extent to which such sensitive issues are openly discussed in communications between the national and regional offices is difficult to gauge. Such issues are very sensitive and both government officers and customary leaders are generally reticent to discuss the matter outside formal processes. Moreover, conducting the requisite ceremonies and engaging in customary processes are complicated matters that must be properly negotiated by the ritual authorities across all of the water-sharing villages and this takes an immense investment of time, community coordination and money. Community members must also take the initiative to coordinate the preparation activities and collect the money. With money scarce in a testing post-independence economic environment, it is difficult for most households to contribute to such an undertaking. Moreover, for those in the population who are not engaged in rice farming and who are not dependent on significant water resources for their livelihoods, there is less incentive to give money to conduct rituals or pay tribute to customary owners. This is especially the case when they are today getting water largely for free from the Government or aid organisations.

Despite a healthy wet season in 2007–08, which should in a karst-fed spring system result in good water flows, the Wai Lia spring was still not flowing well. A local elder from Baucau City explained that this was due to water being actively diverted from the Wai Lia conduit to increase supply to rice fields in other areas. By February 2008, despairing at the lack of water available for his village rice fields, this senior ritual leader organised amongst his kinsfolk to take 26 bags of unhulled rice to the *bee na'in* in Darasula (under the exchange relationship between the two areas, such gifts are expected to be made annually

³ In 2009 the *bee na'in* for the spring where the water trucks now fill their tanks charged truck owners a levy of 50 cents per tank (a tank of water sells for US\$20).

to the Darasula *bee na'in* by the irrigation collectives sharing Wai Lia water). Following these activities, the water supply returned to Wai Lia in May 2008. The Baucau *lia na'in* was careful to point out that this timing coincided with the ripening and harvest of rice crops in areas elsewhere on the plateau that already had water. Although too late for the season's rice crop in the rice fields below Baucau, the increased flow was nevertheless seen to be a valuable source of water for the next season's corn crop in areas downstream from Wai Lia.

While the efficacy of these rituals and associated practices in addressing the actual water flows might be mystifying to outsiders, for local people, they are an essential means through which the community is engaged and compelled to take seriously their obligations and responsibilities to a water commons. It is asserted by some that if the Timorese Government and the aid sector were serious about fixing the water problem in Baucau, they would come together and formally talk with the ritual authorities and discuss the need for the requisite customary ceremonies and gift-giving practices to begin again. Until the population is actively involved in the management of water in this way, nothing will be resolved or properly implemented. The Darasula *bee na'in*, they assert, will continue to intervene with the water supply and city people will continue to abuse what is today a 'common property' resource alienated from its community of commons. Such a process needs to engage elders in formal agreement making about water-supply issues and management processes, and would require (at a minimum) the involvement of the Baucau water-sharing villages and the Wai Lia Bere *bee na'in* as well as the engagement and financial support of the national and district governments.

While the details of such agreement making remain to be negotiated, what is clear is that the process would potentially open up important sites of politics for the management of water in Baucau—constituting 'a place of encounter' between those in control of the formal system and those who normally have no part in that system (Dikeç 2004). Yet it is also possible that such engagements could be little more than a means of demarcating and controlling the customary economy. Zerner (1994:1107) has written of the risks for customary systems elsewhere in the region of becoming beholden to external regulatory control whereby 'the complicated ritual nexus in which these practices are embedded has been reduced to a sparse, functional system'. Lansing (1987) made a similar point in relation to the recognition of the role of religious institutions in the inter-village management of water in Bali. Furthermore, in Indonesian times while such ceremonies might have been carried out with the assistance of grants of money, the local Indonesian-appointed authorities (such as the village head) are said to have chosen inappropriate people to lead the rituals. This resulted in both a de-sacralisation of the process and ineffective, if not dangerous, ritual practices (see Carvalho et al. 2008). In the independence era, it is expected

that financial support for ceremonial activities would be ongoing rather than event based and that the Government would recognise that locally autonomous processes are what need to be fully engaged with if they are to achieve their aims: mutually harmonious relations.

The Power of the Diverse Economy

In recognising the existence of a customary water economy in Baucau, one is struck by the pervasive insistence on local autonomy embedded in the narratives and practices. Despite the post-independence rhetoric of economic development, most people in Baucau have little surplus wealth to reallocate. Yet local economic-exchange principles maintain such a hold over resource allocation and use as to pose a serious challenge to conventional understandings of economic development (cf. Yang 2000). These exchanges are based on understandings of power and of the world that enliven and connect both place and people. It is, in short, a socialised landscape where ritual performances constitute 'serious world making work' (Verran and Christie 2007: 219).

As noted at the outset of this chapter, the violence and control of the Indonesian era saw widespread suppression of locally autonomous rule. In the independence era, there is currently a revitalisation of indigenous custom and tradition where across villages and subdistricts the communal management of natural resources (fields, forests, fisheries) is being enhanced by the reinstatement of ritual prohibition and/or harvest ceremonies (Carvalho and Haburas Foundation n.d.; D'Andrea et al. 2003; McWilliam 2003; Meitzner Yoder 2005; Palmer 2007a; Palmer and Carvalho 2008). The reconstruction of sacred houses (*uma lulik*) is another example of this revitalisation process, although these 'houses' were also of great symbolic and functional importance in the organisation of the Timorese resistance during the Indonesian occupation (see McWilliam 2005). Since 2001–02, dozens of sacred houses have been constructed each year in the Baucau district, replacing many of the houses burnt down in Indonesian times (da Costa et al. 2006). Reconstruction of these houses involves a major undertaking of economic resources—money, building materials, time (dependent on the size and status of the house)—and there are prescriptive offerings that must be made by those associated with the house both during its construction and at the feast to consecrate the house. It is also a process that brings family (and their economic resources) back together from locations around the country. A further reason for this flurry of reconstruction is the pressing need to provide a place to rest for all the souls who passed away without a proper burial in Indonesian times—those who are still hovering around and causing trouble for the living (cf. da Costa et al. 2006; Hicks 1976, 2008; McWilliam 2008).

It is also important to note that such an economy is not without its negative aspects. For example, particularly in urban landscapes brimming with aspirational modernity, some feel customary obligations are a burden. People will often state that *lulik*—the sacred animist realm—is too greedy and excessive (see also Ospina and Hohe 2001:175). For city dwellers and wage labourers in particular, life-cycle and intergenerational customary exchanges between wife-giver and wife-taker (*umane* and *fetosau*) groups (of things such as buffaloes, pigs, horses, goats, swords, necklaces and woven cloth) are made not by drawing on family livestock resources but via monetary payments (which are either pooled and used in the exchange directly or used to purchase the livestock and goods to be exchanged). In local critiques of the excesses of the ritual economy, however, not only is the replacement or phasing out of customary processes with capitalist approaches being suggested, there are also initiatives emerging from within the customary repertoire that draw on the power of communal ritual processes to impose a reduction in the size of customary payments (see Palmer 2007a). Such cases further demonstrate the need for engaging with the full range of practices embedded in the customary economy. It is unclear whether this resurgence of the customary or community economy will remain a permanent feature of Baucau's diverse economy.

Where to Now?

It is critical that further information be sought on this spring ritual ecology—namely, the enduring cultural beliefs that shape individual and social action and the role of particular ritual processes, springs, sacred houses and associated material objects in water management. Also important to understand is the degree to which water ritual exchanges are organised around political and linguistic boundaries. For example, it appears that the human representatives (the *bee na'in*) of the sacred houses primarily associated with the various springs are not possessory owners of the water but custodians, messengers between the secular world and the sacred world of the water ancestral spirits (also known as *bee na'in*). In the case of Darasula, it is said by those who assert that the practice of closing the underground water channels occurs, that detailed knowledge of the cave and gating system is highly secretive and sacred, and is prohibited from being passed outside the lineage through fear of spiritual retribution such as sickness, infertility or death. For this reason, they say that any changes to water flows within the cave systems require the *bee na'in* to first carry out ceremonies and seek permission for their activities from the ancestors. These are not trivial matters and research must proceed with caution, bringing to the public arena only those aspects of knowledge and practice that can be properly shared. To enter into serious discussions about the ritual management of water

is to embark on a process that demands proper protocols be observed.⁴ Adding to the complexity of researching the importance of water rituals in village and regional formal governance arrangements is the fact that, following the Manufahi uprisings against the Portuguese colonial powers (c. 1895–1915), the Portuguese administration ensured that ritual power was formally emasculated at the sub-village level and above, and vice versa in relation to political power at the *knua* or hamlet level (Personal communication, Antonio Vicente, May 2006).

Recognising the above issues, mapping must also be concerned to document the range of relevant practices for water management, the consequences of different water flows and allocation processes and quarrels over water, the timing of ceremonial and gift exchanges, links with agricultural rites, and the impact of modernising agricultural practices (cf. Lansing 2007). Furthermore, questions must be asked about how the city is being incorporated into customary exchange process and the range of uses of the city water supply that is claimed to be 'illegal' in either a formal or a customary sense. Also important to assess are state practices of legibility—what narratives about water does the state tell? What are the intersecting dynamics of the full range of state, market and non-state/non-market uses and practices in relation to water and the relationship with wider social, political and economic issues?

Attention, too, needs to be paid to the agency ascribed to water in customary configurations and the ways in which wider societal relationships to water are potentially reconfigured through notions of the 'land as citizen', or environmental citizenship (Borrows 2002:138–58). In local understandings, recognising the materiality and agency of water constitutes recognition of a 'sentient' environment wherein water is an essential partner in community negotiations, not an entity separated from land and people and readily available to be traded through virtual abstractions such as water quotas. Examples of this pervade anecdotal accounts of water management in the region. It is widely reported that immediately after the Indonesian departure in 1999, the Wai Lia spring began suddenly gushing water—the spirits expressing their pleasure at this turn of events. Likewise, spirit-world actions can also be frequently disruptive of events that transgress orderly relations between the sacred and the secular; it is said that attempts in the Indonesian era to put in place a large-scale water facility and infrastructure at the Darasula spring triggered a large explosion and the project was abandoned after very little water was able to be extracted. It is unclear whether such occurrences are attributable only to specific spirit actions or whether in some cases people hold to a more generalised

4 Following my interview with the senior ritual leader who offered the Wai Lia narrative, a chicken had to be sacrificed to *taka naran* (literally, 'close the name' of the ancestral beings who were spoken about) to properly close a discussion of such ritually important matters. Failure to close proceedings in this way could lead to serious ramifications including sickness or other misfortune.

notion of the landscape as a subjective entity, alive and in communication with its inhabitants through the agency of the spirit world (cf. Bovensiepen 2009; McWilliam, this volume).

Negotiating Water

The customary domain's desire for the Timorese Government to engage with kin-based ethical decision making and the ritual domain in the formal management of Wai Lia is not a call to codify structured sets of relationships, but rather is asking them to embrace performative practice and to reframe the state's normative expectations of social relationships. Such a process would need to recognise the considerable slippage and overlap that today exist within local community notions of water as a public good provided by the state, as a community commons and as a commodity available for private sale. Local water users find no logical reason to delineate secular or sacred water-management practices, and notions of ownership and possession are (if relevant at all) subservient to the recognition and performance of interdependence. In such agreement-making proposals there are considerable tensions already between the customary political realm's acknowledgment and involvement in always in-process customary practices and the need of the state and the market sector for both 'legibility' (Scott 1999) and certainty through 'definitive valid representations' (Verran and Christie 2007:225). As Verran and Christie have argued in an extra-regional context, indigenous 'knowledge work does not produce effective representations of an external world; rather it produces effective worlds in place as performance' (2007:219).

Situated in the heart of a region long engaged in trade and alliance making (Gunn 1999; Van Engelenhoven and Hajek 2000), Timorese people have a history of engagement in both capitalist and customary economic exchanges. For example, as well as engaging in intra-island trade and alliances, the people of Baucau forged longstanding traditional alliances and exchanges with the nearby island population of Kisar until the beginning of the twentieth century (Correa 1944). Local oral histories also recount trade (of cloth, alcohol, foodstuffs), marriage and ritual relationships with the nearby island of Wetar as well as intermittent trade and ritual exchange with visitors from islands beyond. Hence, (extra-) customary notions of agreement making and alliance building are nothing new—and these are processes and practices that 'politically' marginalised people in the region have long employed to respond to and influence the various regimes of governance they have encountered. These are processes in which tradition and custom are always responding to and embracing something more than the local and are embedded in a long history of regional and more recently nation-state level influences and dialogues (see Palmer and Carvalho

2008; cf. Tsing 1993; Zerner 1994). What is needed is for these practices to be made credible in a development landscape where they are rendered largely non-credible, if not invisible. It needs to be recognised that the dynamic flow of commodities, customary rights and interests constitutes a unique and finely nuanced form of economic—including property—relations. Such economic relations 'are markedly distinct from, yet not incommensurate with, the normative conception of economic relations' (Langton et al. 2006:307) in the modern marketplace. Hence, a reformulation of ideas about economic life is necessary for the recognition of both diverse indigenous economic institutions and the negotiation of integrated and sustainable natural-resource management regimes.

Conclusion

In Baucau's water-management and supply sector, a customary economy is actively undermining a weak capitalist/development sector. It would seem, however, that foregrounding and engaging with the foundational customary economy under whose auspices local water politics play out could be one potential catalyst for 'new economic becomings' in Baucau, opening up 'a politics of possibility' (Gibson-Graham 2006) for economic development and the recognition of the legitimacy of custom in resource management in the city.

The Wai Lia myth recounted in this chapter constitutes poetic politics—an insight into the workings of Baucau's customary economy and the relationships and social institutions through which at least some water resources in the region are managed and controlled. In these customary practices, people are not passive recipients of projects and programs but active players in their own life worlds and as such are critical participants in the pursuit of 'development'.⁵ My account is not meant to imply idealised traditional communities capable of managing their resources if only the state and/or the development sector would butt out. Rather, recognising that ecological resources are embedded in complicated socio-historical contexts is also to recognise 'tangled threads, difficult to unpick' (Mosse 2003), especially in a country as culturally diverse as Timor-Leste. Moreover, the story recounted is not an unfamiliar story of water politics, replete with jealousies over resource use and access (see Mosse 2003). There was, as even the myth makes clear, never a 'golden age' of harmonious cooperation; rather there were and are always varying degrees of 'uncertainties, disharmony and disruption' (Mosse 2003:4) as well as cooperation in the ongoing processes of social and political negotiation that address the changing

5 Although as Mosse (2003:308; see also Batterbury 2005) notes, the opposite can also be the case with development interventions of all kinds offering 'material and symbolic resources for use in the ongoing renegotiation of social relations (within villages and with the state)'.

economic circumstances of water-resource use. In the new nation of Timor-Leste, institutional changes and pressures in relation to water management have created circumstances where more than ever before the institutions of the 'state', 'international development' and of 'community' intermingle in the practices of statecraft (cf. Mosse 2003, 2005; Tsing 1993, 2005). Critical to their role in such processes will be the ability of local-level leaders to draw outsiders into their own ritual ecology of water-resource management while at the same time finding ways into the conversations of state and non-state development interests around water (see Tsing 2005).

To recognise the persistence of customary models in a post-development context is to acknowledge the embeddedness of Timorese organising principles, their binaries and symbolic operators, and to take them seriously. Yet, the power and opacity of customary law, practices and strong kin-based allegiances are not things that can be easily accepted by liberal-democratic capitalist values. Such processes are threatening to other entities whether they are the state, the church or the rational economic and community development planning of many national and international development agencies. Yet recognising that full engagement with a diverse economy is enabled when local people are able to draw on and activate their own understandings of power based in customary processes opens up political spaces for the negotiation of local economic development and resource management (Gibson-Graham 2006). In the customary economy of Baucau, local people's understandings of the intricate power relations at work between relational spheres are the substance of everyday life—something in which all can engage. Yet currently this economic reality is elided in official discourses in favour of a dominant model of development that has a tendency to alienate or disengage the very people it is supposed to benefit. Unless the customary economy is given a place in the development economy, it will continue to be a dangerous and powerful undertow—sweeping out to sea the unsuspecting.

Acknowledgments

Fieldwork for this chapter was carried out with the assistance of an Australian Research Council Grant (LP0561857). I would like to thank all the Baucau families and individuals who hosted me and contributed in many variable ways to the insights and understandings that form the basis of this chapter. Particular thanks go to those elders (*lia na'in*) in the region who shared with me elements of their knowledge of the regional waterscape; in particular, thank you to Antonio da Costa Gusmao. Louisa Freitas and Quintiliano Mok provided invaluable assistance as interpreters of the Makassae language. Also thank you

to Katherine Gibson, Brian Finlayson, Andrew McWilliam, Pyone Myat Thu, David Hicks and Simon Batterbury for their comments on earlier drafts of the chapter. All errors and omissions are mine.

References

- Altman, J. 2008, *Fresh Water in the Maningrida Region's Hybrid Economy: Intercultural contestation over values and property rights*, Centre for Aboriginal Economic Policy Research, The Australian National University, Canberra.
- Asian Development Bank (ADB) 2007, Proposed ADB Fund Grant RDTL: Dili Urban Water Supply Sector Project, Asian Development Bank, Dili.
- Associates in Rural Development (ARD) 2008, Strengthening Property Rights in Timor-Leste Project (Ita Nia Rai), ARD/USAID, Burlington, Vt, and Washington, DC.
- Australian Agency for International Development (AusAID) 2008, *Water and sanitation initiative*, Draft for Public Comment, November, AusAID, Canberra.
- Batterbury, S. 2005, 'Development, planning, and agricultural knowledge on the central plateau of Burkina Faso', in R. Cline-Cole and E. Robson (eds), *West African Worlds: Paths through socio-economic change, livelihoods and development*, Pearson Education, Essex, pp. 259–80.
- Borrows, J. 2002, *Recovering Canada: The resurgence of indigenous law*, University of Toronto Press, Toronto.
- Bovensiepen, J. 2009, 'Spiritual landscapes of life and death in the central highlands of East Timor', *Anthropological Forum*, vol. 19, no. 3, pp. 323–38.
- Carvalho, D., Palmer, L., Delimas, A. and noVieira, P. 2008, *Koserva Natureza Liu Husi Tara Bandu*, Draft report prepared for Concern, Dili.
- Carvalho, D. and Haburas Foundation (in preparation), *Tara Bandu Sebagari Salah Satu Kearifan Ecologi Timor Leste*.
- Correa, A. P. 1944, *Timor De Lés a Lés*, Agencia geral das colonias, Lisboa.
- Costin, G. and Powell, B. 2006, *Situation analysis report for Timor-Leste*, Australian Water Research Facility, Brisbane.
- da Costa, C., da Costa Guterres, A. and Lopes, J. 2006, *Exploring Makassae Culture*, Instituto Catolico para Formacao de Professores Baucau, Publicacoes Matebian-Grafica Diocesana Baucau, Baucau, Timor-Leste.

- D'Andrea, C., da Silva, O. and Meitzner Yoder, L. 2003, *The Customary Use and Management of Natural Resources in Timor Leste*, Oxfam, GTZ & DTP, TL, London.
- Dikeç, M. 2004, 'Space, politics and the political', *Environment and Planning D*, vol. 23, pp. 171–88.
- Fitzpatrick, D. and McWilliam, A. 2005, 'Waiting for law: land custom and regulation in Timor-Leste', *Development Bulletin*, vol. 68, pp. 58–61.
- Fitzpatrick, D. 2008, 'Mediating land conflict in East Timor', in *Making Land Work. Volume 2*, AusAID, Canberra, pp. 175–98.
- Gibson-Graham, J. K. 2004, 'Area studies after poststructuralism', *EPA*, vol. 36, pp. 405–19.
- Gibson-Graham, J. K. 2006, *A Postcapitalist Politics*, University of Minnesota Press, Minneapolis.
- Grenfell, L. 2009, 'Harnessing local law in the post-conflict state: the case of Timor-Leste', in W. Binchy (ed.), *Timor-Leste: Challenges for justice and human rights in the shadow of the past*, Clarus Press, Dublin, Ch. 2.
- Gunn, G. 1999, *Timor Loro Sae: 500 years*, Livros do Oriente, Macau.
- Hicks, D. 1976, *Tetum Ghosts and Kin*, Mayfield, Palo Alto, Calif.
- Hicks, D. 2008, 'Glimpses of alternatives—the Uma Lulik of East Timor', *Social Analysis*, vol. 52, no. 1, pp. 166–88.
- Jennaway, M. 2008, 'Aquatic identities, fluid economies: water affinities and authenticating narratives of belonging in East Timorese myth and ritual', *Oceania*, vol. 78, pp. 17–29.
- Langton, M., Mazel, O. and Palmer, L. 2006, 'The spirit of the thing: the boundaries of Aboriginal economic relations at Australian common law', *Australian Journal of Anthropology*, vol. 17, no. 3, pp. 307–21.
- Lansing, S. 1987, 'Balinese "water temples" and the management of irrigation', *American Anthropologist*, vol. 89, no. 2, pp. 326–41.
- Lansing, S. 2007, *Priests and Programmers: Technologies of power in the engineered landscape of Bali*, [Revised second edn], Princeton University Press, Princeton, NJ, and Oxford.
- Lemos, M. and Agrawal, A. 2006, 'Environmental governance', *Annual Review of Environment and Resources*, vol. 31, pp. 297–325.

- McWilliam, A. 2002, 'Timorese seascapes: perspectives on customary marine tenures in Timor Leste', *Asia Pacific Journal of Anthropology*, vol. 3, no. 2, pp. 6–32.
- McWilliam, A. 2003, 'New beginnings in East Timorese forest management', *Journal of Southeast Asian Studies*, vol. 34, pp. 307–27.
- McWilliam, A. 2005, 'Houses of resistance in East Timor: structuring sociality in the new nation', *Anthropological Forum*, vol. 15, no. 1, pp. 27–44.
- McWilliam, A. 2008, 'Fataluku healing and cultural resilience in East Timor', *Ethnos*, vol. 73, no. 2, pp. 217–40.
- Meitzner Yoder, L. 2005, Custom, codification, collaboration: integrating the legacies of land and forest authorities in Oecusse enclave, East Timor, PhD thesis, Yale University, New Haven, Conn.
- Mosse, D. 2003, *The Rule of Water: Statecraft, ecology, and collective action in south India*, Oxford University Press, Oxford.
- Mosse, D. 2005, *Cultivating Development: An ethnography of aid policy and practice*, Pluto Press, Ann Arbor, Mich., and London.
- Ospina, S. and Hohe, T. 2001, *Traditional power structures and the community empowerment and local governance structures*, Project Final Report, The World Bank, Dili.
- Palmer, L. 2007a, 'Developing Timor Leste: recognising the role of custom and tradition', in L. Palmer, S. Niner and L. Kent (eds), *Exploring the tensions of nation building in Timor Leste: proceedings from the forum, 15 September 2006*, SSEE Research Paper No. 1, <<http://www.pasi.unimelb.edu.au/research/papers/SSEE-papers/rp-01-Timor-Leste.pdf>>
- Palmer, L. 2007b, 'Interpreting nature: the politics of engaging with Kakadu as an Aboriginal place', *Cultural Geographies*, vol. 14, pp. 1–19.
- Palmer, L. 2007c, 'Negotiating the ritual and social order through spectacle: the (re) production on Macassan/Yolngu histories', *Anthropological Forum*, vol. 17, no. 1, pp. 1–20.
- Palmer, L. and Carvalho, D. A. 2008, 'Nation building and resource management: the politics of "nature" in Timor Leste', *Geoforum*, vol. 39, no. 3, pp. 1321–32.
- Palmer, L. 2010, 'Enlivening development: water management in the post conflict Baucau city, Timor Leste', *Singapore Journal of Tropical Geography*, vol. 31, pp. 357–70.

- Schoffel, P. 2006, *Community-Managed Water Supply and Sanitation: A case study from the 2004 Project Performance Audit Report for Water Supply and Sanitation Rehabilitation Project Phase I and Phase II, Timor Leste*, Asian Development Bank, Manila.
- Scott, J. C. 1999, *Seeing Like A State: How certain schemes to improve the human condition have failed*, Yale University Press, New Haven, Conn.
- Spillet, P. 1999, The pre-colonial history of the island of Timor together with some notes on the Makassan influence in the island, Unpublished manuscript, Museum and Art Gallery of the Northern Territory, Darwin.
- Strang, V. and Toussaint, S. (eds) 2008, 'Water ways: competition and communality in the use and management of water', *Oceania: Special Issue*, vol. 78, no. 1 (March).
- Tsing, A. L. 1993, *In the Realm of the Diamond Queen: Marginality in an out-of-the-way place*, Princeton University Press, Princeton, NJ.
- Tsing, A. L. 2005, *Friction*, Princeton University Press, Princeton, NJ, and Oxford.
- Van Engelenhoven, T. and Hajek, J. 2000, 'East Timor and the southwest Moluccas: language, time and connections', in *Studies in Languages and Cultures of East Timor. Volume 3*, University of Western Sydney, Sydney, pp. 107–24.
- Verran, H. and Christie, M. 2007, 'Using/designing digital technologies of representation in Aboriginal Australian knowledge practices', *Human Technology*, vol. 3, no. 2, pp. 214–27.
- WaterAid and World Vision 2007, *Getting the Basics Right: Water and sanitation in South East Asia and the Pacific*, WaterAid and World Vision Australia.
- Yang, M. 2000, 'Putting global capitalism in its place: economic hybridity, Bataille, and ritual expenditure', *Current Anthropology*, vol. 41, no. 4, pp. 477–509.
- Zerner, C. 1994, 'Through a green lens: the construction of customary environmental law and community in Indonesia's Maluku Islands', *Law & Society Review*, vol. 28, no. 5, pp. 1079–122.