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Bottling Water Differently, and Sustaining the Water Commons? Social Innovation Through Water Service Franchising in Cambodia

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ABSTRACT: Until recently, bottled drinking water was a cause for concern with regard to development in the Global South; now, however, it is embraced as a way to reach the United Nations Sustainable Development Goal target 6.1, which calls for the achievement by the year 2030 of "[u]niversal and equitable access to safe and affordable drinking water for all". Reaching the SDG 6.1 target through the use of bottled drinking water is controversial as there are broad questions about how any form of packaged – and therefore commodified – water can be ethical or consistent with "the human right to water" that was ratified in 2010 by the United Nations member states. By examining a social innovation enacted by a Cambodian NGO called Teuk Saat 1001, this research questions the polarising narratives of marketised and packaged water. Teuk Saat 1001 operates a social enterprise service franchise that delivers treated family-scale drinking water in refillable 20-litre polyethylene terephthalate (PET) plastic bottles directly to customers' houses. In contrast to literature that focuses on the strategic development of such organisations, this research combines a bottom-up view of community interaction with an analysis of hybrid institutional arrangements and ethical debates about the role of the state in water regulation. From a postcapitalist perspective, it considers entrepreneurial subjectivities fostered by bottled water as a 'service' and asks if this mode of packaged water can – contrary to the general arguments – actually help to sustain the water commons. The paper also considers temporality and water ethics; it concludes that models like this require close monitoring, considering the general history of commercial non-profits.

KEYWORDS: Drinking water, postcapitalism, Sustainable Development Goals (SDGs), social enterprise, social innovation, the commons, Cambodia

INTRODUCTION

The consumption of water that comes to the consumer packaged in differently sized bottles or sachets has proliferated across all continents in the Global South (Stoler, 2012; Greene, 2018; Kooy and Walter, 2019); this has been partially driven by governments' inability to deliver potable drinking water at a pace that keeps up with population growth (Stoler, 2012). But this is not the whole picture. Since the late 1990s, the packaging of water has also been supported by changing approaches to international development. This began after World Bank field workers started noting the poor quality of subsidy-driven infrastructure projects that were traditionally targeted at "improved water sources" such as piped networks and wells, that were also often hard to sustain and limited in outreach (WSP, 1999). From that time, the support of small-scale water vending enterprises, commonly operating from refill kiosks, came to be seen as a demand-driven intervention that yielded faster outreach while creating jobs and stimulating the local economy (WSP, 2005). This shift in thinking paved the way for the escalation of off-grid water enterprises and for bottled water in particular. Until at least the mid-2000s, United Nations agencies remained sceptical, seeing bottled water only as a temporary solution for communities without piped supplies (UN Water, 2006); by 2017, however, the World Health Organisation (WHO) and the United Nations International Children's Emergency Fund (UNICEF) were declaring bottled water to be a

suitable primary source of households' drinking water – that is to say, an unambiguously improved water source – as long as households could also access at least one other improved water source for cooking, cleaning and personal hygiene (UNICEF and WHO, 2017). In some parts of the Global South, communities' needs for safe drinking water are being increasingly met by a drinking water service whereby water is delivered to customers in 5-gallon (about 20-litre) plastic bottles (Walter et al., 2017). In Cambodia, for instance, UNICEF has been actively supporting this water-as-service model for almost ten years; that is the focus of this paper.

REVALUING DRINKING WATER: PROBLEMATIC POLITICS AND ETHICS

Packaged drinking water has been comprehensively revalued by international development; this can be traced back to 2010 when the "human right to water and adequate sanitation by 2030" was ratified by member states of the UN General Assembly and by the UN Human Rights Council. There has, however, been consternation ever since among academics and civil society organisations regarding how this right is to be guaranteed. Evidence gathered over the past ten years gives cause for cautious optimism that the 'right to water' remains a progressive force or a "profoundly important galvanizing call (...) at different scales" (Sultana and Loftus, 2020: 2); it has also, however, been labelled an "empty signifier" typifying a post-political consensus that mobilises progressives and conservatives alike while doing little to change the way water is governed (Swyngedouw, 2013: 832; Sultana and Loftus, 2015: 98). If the concept of the right to water succeeds in opening markets to suppliers of packaged water, then international corporations – including those owning best-selling bottled water brands – would be supportive of it.

From the politicised perspective of water justice – if we are to avoid the corporate determination of people's rights – the fundamental human right to water must be treated as a public good, while upholding the principles of it as a common resource (Barlow, 2013; Fattori, 2013; Pacheco-Vega, 2019, 2020). From this politicised perspective, the water commons is thus integral to the human right to water, for the historic reason that 'the commons' infers inalienable access to it, alongside a "focus on citizen participation" in managing it as a resource (Perera, 2015: 199-200). Contested notions of the 'commons' as a thing/noun, or as a process/verb in the sense of 'commoning' (Gibson-Graham et al., 2016) are considered later in the paper; the pertinent issue here is that, however framed, the water commons should imply participatory management. For Raúl Pacheco-Vega (2019: 9), it is nothing less than a "dereliction of duty" for nation states to hand jurisdiction over the right to water to the bottled water industry, as this alienates communities from decision-making. Taking scarcity as the central issue in water insecurity, and given the way private bottled water companies deny civic participation, Pacheco-Vega asks, "How is an industry that makes money from packaging a scarce resource compatible with our intentions to create the conditions for a global norm of the human right to water (...)" (ibid: 2).

But is bottling water and selling it always antithetical to the human right to clean and safe drinking water or, for that matter, to the water commons? This paper questions such polarising narratives. It considers if a social innovation whereby by the franchising of family- and business-scale enterprises that provide drinking water as a rural service using refillable vessels, offers something substantially different from what draws the ire of activists and academics alike: bottled water 'products' that are "fast-moving consumer goods" (Hawkins et al., 2015). This paper examines an entrepreneurial NGO called Teuk Saat 1001 (referred to hereafter as TS1001); *Teuk Saat* means clean water in Khmer, the majority language spoken in Cambodia. TS1001 was established in 2004 as the first project of a French international NGO called 1001fontaines; it specialises in constructing water refill kiosks using international development funding. It has also introduced an innovative social enterprise franchise (or a social innovation) through a branded 20-litre (hereafter 20L) bottled water line known across Cambodia as 'O-We Water'. O-We Water is the cheapest bottled water on the Cambodian market and is distributed directly to rural and peri-urban houses from a nationwide network of O-We Water refill kiosks. In this paper, it is argued that social innovations related to drinking water should be of significant interest to academics who are

concerned with water rights and justice (Sultana and Loftus, 2015; Sultana, 2018; Pacheco-Vega, 2020) and with strategies to support the 'water commons' (Barlow, 2013; Fattori, 2013).

To pave the way for analysis, some prior issues need to be brought into the frame. First, larger (family-sized) bottled water has not gone without research, particularly as related to its utility for policy in the Global South; its availability has raised questions about equity and choice (for instance Kooy and Walter, 2019). Second, and related to the first point, one cannot simply say that there is a difference between large family-sized bottles and single-serving bottles and assume that none of the same ethical concerns apply; regardless of the packaging there are still concerns, particularly with commodification and the role of the state (Pacheco-Vega, 2020; Sultana and Loftus, 2020). The third and final point to bring forward is the need for an appraisal of accumulated case studies of similar 'drinking water as service' situations in rural localities in the Global South; this is necessary in order to establish the relative originality of this research.

The revaluing of packaged water was compounded by the adoption of UN Sustainable Development Goal (SDG) 6.1, which called for "[u]niversal and equitable access to safe and affordable drinking water for all" by 2030 (Walter et al., 2017). For reasons outlined in the introduction, bottled water in 20-litre containers has particularly been deemed a productive policy choice. It has scope for innovation and can be enrolled into a demand-driven (consumer-oriented) approach which enables faster (and less costly) extension of safe drinking water than supply-driven infrastructure programmes (Hystra, 2011). Politically, however, 'distributed packaged water' (in whatever form it takes) still provokes critical analysis. Michele Kooy and Carolin T. Walter (2019), for example, question if the consumption of bottled drinking water by the poor truly reflects a 'consumer choice' or if, rather, it reflects the 'uneven choices' that arise from a political ecology of water that embeds affluent communities' privileges. Moreover, when World Bank officials adopt a post-political discourse of consumer choice, these uneven choices are sidelined (Kooy and Walter, 2019: 11-13). In the Global South, choice means very different things in affluent urban communities than it does in less-affluent slums and peri-urban and rural communities. As Pacheco-Vega (2020) points out, it is precisely the uneven flow of water that makes it a policy problem; by extension, the notion of water scarcity is brought into question. Scarcity clearly is impacted by population growth and meteorological concerns, including climate change; however, in contrast to the neo-Malthusian mindset, from a political perspective water scarcity is socially constructed, and its foremost cause is the unequal decision-making power with regard to safe freshwater resources that arises out of the broader social relations of class, race, sex and gender (Swyngedouw, 2013; Pacheco-Vega, 2019; Sultana and Loftus, 2020).

A particularly important text recently authored by Raúl Pacheco-Vega (2020) shows why the social construction of water scarcity cannot be approached ambivalently; engaging with the interconnected processes of water privatisation, marketisation and commodification (i.e. packaging), he persuasively shows how anything that erodes a government's function is a slippery slope. Moreover, while development actors may distinguish 20L containers from single-serving ones, Pacheco-Vega seems to see no reason for differentiation because it is the packaging of water per se (subsequent to its marketisation) that is the very essence of its commodification. The packaging of water feeds into more manipulative marketising (especially in times of crisis), which then further pushes aside regulatory functions, giving impetus to a further deepening of commodification through new forms of packaging (Pacheco-Vega, 2020: 121-22). For Pacheco-Vega, this includes 'socially responsible' packaged water lines where percentages of profits support water projects in the Global South. Indeed, positioning such bottled water lines as "conduits for the human right to water" does appear perverse when conducted by corporations that deplete aquifers and deprive populations of their local freshwater resources, which are then sold at a cost-per-unit that is thousands of times higher than tap water (Barlow, 2013: 97; Pacheco-Vega, 2020: 118). The best that can thus be said for packaged water in Pacheco-Vega's (2020: 121-23) view is that it is only ethical as a very short-term measure, such as in response to natural disasters.

If water insecurity, ethics and justice are deemed intrinsic to the right to water, and given that bottled water is therefore fraught with regulatory challenges, Pacheco-Vega thus rightly asks how we can we govern it; he also asks, "How can we ensure that a governmental function is not supplanted by a private actor?" (Pacheco-Vega, 2020: 114), considering the centrality of a government's responsibility for ensuring citizens' human right to water. This is a question that UN agencies should prioritise. Sultana and Loftus (2020: 4) note, for instance, that while "the UN may recognize the right to water, it is clearly the member states that are responsible for giving this right any meaning". A question with which to justifiably counter this statement, however, might be: What government functions are truly universal? Two good reasons to ask this question are set out below; both point to the need for collaborative solutions.

First, in higher income countries there is a much greater efficiency of municipal piped water as compared to bottled water; this is not matched in lower income countries like Cambodia, and especially in rural areas piped water supplies are scarce. The ubiquitous use of wood as fuel to boil water (including piped water, if available) before drinking incurs extra economic costs, poses risks to health from biomass smoke and drives deforestation (Andersson Sköld, 2010; San et al., 2012). In cases where drinking water is widely boiled, it seems reasonable to ask if all municipal water needs to be potable since a relatively small proportion of it is actually consumed. With that in mind, it makes sense to discern a hierarchy of needs with respect to available water supplies (Feitelson, 2017); in that case, it could make sense for multiple state and nonstate agents, including international development agencies, to collaborate specifically on safe drinking water.

Second, the simple choice between public service and private enterprise (or neoliberal governance) has been substantively disrupted by hybrid entities. In both the West and Asia, these include different types of social enterprises (Defourny et al., 2014; Bidet and Defourny, 2019); in Bangladesh for instance, entrepreneurial non-profit organisations provide more of the national welfare services than the state is able to (Nicholls, 2013). With this in mind, marketising water may not actually be a major ethical issue per se if we appreciate that markets, through the way they organise economic activities and actors, can solve problems by generating political, social and economic value (Callon, 2007).

Without denying that the state is critical to the human right to water, transferring this right from one context or site to another presents contextual challenges. The points above underline that nation states cannot always be considered to be completely coherent or static entities; this in turn means that the role of states in securing the right to water must be approached in nuanced ways (Sultana and Loftus, 2020). All things considered, the duty of municipalities in the Global South to deliver the kind of piped potable water found in rich industrialised countries is a water discourse that can be challenged; the question, therefore, is to what extent other particular efforts to make communities water secure "can be considered the same as affording the right to water" (ibid: 6) and what modes of business in this regard are capable of fostering ethical subjectivities that are conducive to civic participation and reciprocity. Accordingly, the focus in this paper is on how international development actors, entrepreneurial non-profit entities and government actors might work within a hybrid institutional configuration to ensure that the right to water is afforded while retaining it as a common resource for villagers.

EXISTING STUDIES OF BOTTLED WATER KIOSKS AS SERVICE PROVIDERS IN THE GLOBAL SOUTH

To date, studies of rural bottled water as a service involving water kiosks, particularly in the Global South, appear mainly in management literature that is focused on bottom-of-the-pyramid business opportunities and strategies for success; (Desa and Koch, 2014; Gebauer et al., 2017; Martin et al., 2019). Piramal Sarvajal works in 20 Indian states, creating value for private kiosk owners and communities by providing marketing and technical support that is adaptable to local contexts (Gebauer et al., 2017). Naandi Community Water Services has turned a kiosk network spanning five Indian states into a 'social venture firm' by combining grants for community-managed kiosk constructions with cost-recovery subscriptions from service users (Faeth and Weinthal, 2012; Desa and Koch, 2014). Meanwhile

longitudinal studies show how both Naandi (Desa and Koch, 2014) and TS1001 in Cambodia (Martin et al., 2019) have strengthened their value propositions and competitiveness in informal markets through strategic investments in capacities, product standards and alliances, while also making entrepreneurial adjustments to routine work. A complementary paper examines the technical merits of membrane-based water filtration in water refill stations in Southeast Asia; it also examines market competition and sustainability challenges in low income locations (Sima and Elimelech, 2013), which is to say markets at the bottom of the economic pyramid in other words.

In all the above research, the focus is primarily on strategic organisational development. The research which is the subject of this paper is different in that its focus is ethnographic; it considers communities, including kiosk operators, and takes a broader focus on the ethics of the service model that is supported by international aid. This contributes to the body of knowledge on this subject in that the strategic factors that underly the success of bottom-of-the-pyramid business models say little about the relations of care for people and resources in communities, and do not generally address particular ethical concerns pertaining to vital resources such as water. Before going into more detail about TS1001 and its O-We Water franchise, the next section gives the contextual background that underlines the potential contribution of this social innovation in Cambodia.

WATER IN CAMBODIA: URBAN/RURAL DISPARITY

Cambodia is a Southeast Asian country that made strong developmental progress since emerging from three decades of conflict and trauma in the late 20th century (World Bank, 2019); in many ways, however, there remains an obstinate disparity between the quality of life in urban and rural areas (OPHI, 2018). This disparity is starkly illustrated by uneven access to safe drinking water. According to data from the WHO and UNICEF Joint Monitoring Program (JMP), 72% of the urban population can access piped water, but this applies to only 8.3% of the rural population. Of Cambodia's rural population, 30% still drink from 'unimproved water sources' which offer no reliable protection against contamination; half of the time this means raw surface water is taken directly from lakes, ponds and rivers (WHO and UNICEF JMP 2019). Meanwhile, the Royal Government of Cambodia (RGC) countrywide budgetary commitment to rural water infrastructure is only US\$0.9 million per year (WSP, 2015: 73).¹ The impact of this is profound in rural Cambodia, where diarrheal diseases arising from drinking unsafe water are the foremost cause of infant mortality (Pink, 2016: 41).

A representative of the Department of Rural Water Supply within Cambodia's Ministry of Rural Development (MRD) said that despite the meagre public budget the government aims to achieve SDG 6.1 by 2025, five years ahead of the 2030 timeline. The strategy depends on private sector actors extending piped supply services; JMP data, however, shows little progress to date. Another avenue is bottled water, despite it being, until recently, explicitly excluded from the government's water and sanitation strategy (Ministry of Rural Development, 2010: 37). The representative added that, besides private sector actors, there is a heavy reliance on non-profit 'development partners' which includes a close strategic relationship with TS1001. TS1001's strategic importance was also stressed by a UNICEF representative in Cambodia's Water and Sanitation Program, who said that the agency's core concern is preventing waterborne illness among children under five years old.

¹ During an interview a representative of Cambodia's Ministry of Rural Development pulled up data on the current government budget commitment; it corresponded to the budget currently in the public domain.

TS1001'S O-WE WATER REFILL KIOSKS: A SOCIAL INNOVATION

TS1001 specialises in the construction and initiation of branded O-We Water refill kiosks (Figure 1); it is not the only NGO building kiosks in Cambodia, but it is by far the most prolific.² The effort is supported by international development donors and larger NGOs including UNICEF, the French Development Agency, USAID, the Swiss Red Cross, Water Aid and (previously) World Vision; these agencies commission and pay for water refill kiosks which, according to TS1001's chief executive officer (CEO), cost an average of US\$33,000 each time to build and implement. Each kiosk services a specific administrative commune where suitable drinking water sources have been either absent or inconvenient;³ in some cases a kiosk serves an area where villagers rely on surface water from rivers, ponds or lakes, exposing them to biological pathogens and in other cases a kiosk serves an area where the groundwater is unsafe due to chemical contaminants such as arsenic.⁴

Figure 1. An O-We Water refill station.



Source: Isaac Lyne (2019)

O-We Water kiosks take in water from one of two sources: surface water from local lakes, ponds or rivers, using a mechanical pump; or groundwater – if it is available and suitable – from a borehole that is usually adjacent to the kiosk. The water goes through a preliminary prefiltration treatment process involving percolation and filtration through sand, and then – if needed to improve the colour and odour – activated carbon (Figure 2). It is then put through four filters that reduce pollutants to one part per million, and any remaining bacteria are killed using ultraviolet light (Figure 3). The water thus produced conforms to WHO standards. Every month, the water is tested at one of TS1001's three regional laboratories for

² In addition to TS1001, a Singaporean NGO called Lien Aid operates a community managed water kiosk programme in Cambodia.

³ Cambodia's administrative levels include provincial, district, commune and village. Commune councils are elected every four years.

⁴ This has become problematic since the year 2000, as high concentrations of naturally occurring arsenic sediments originating from the Himalayas have been increasingly found in low-lying areas close to the Mekong Delta (Fendorf et al., 2010). The Cambodian government set the safety standard for arsenic in groundwater at 50µg/litre, although the WHO standard is 10µg/litre (Andersson Sköld, 2010) and donors commission water kiosks based on the latter of the two measures.

numerous biological pathogens (including for instance coliform, E. coli and enterococcus faecalis) and chemical contaminants. Once treated, the water is decanted into 20-litre polyethylene terephthalate (PET) bottles and delivered on a motorised cart directly from the kiosk to consumers' houses (Figure 4).

Figure 2. Water storage, percolation, sand filtration and activated carbon treatment at an O-We Water refill kiosk.



Source: Isaac Lyne (2019)

Figure 3. Water filtration and ultraviolet treatment.



Source: Isaac Lyne (2019)

Figure 4. O-We Water delivery from a motorised cart.



Source: Isaac Lyne (2019)

Once an O-We Water kiosk is established, it becomes a franchised small business which TS1001's CEO calls a "micro social enterprise". It is operated by a locally recruited 'O-We Water entrepreneur' who employs at least two assistants to help with water treatment, filling bottles, distribution to villagers' houses, collection of empty bottles, and cleaning the bottles and refilling them. Their salaries are generated by water sales. TS1001 provides supportive services from one of three regional bases which are referred to as platforms; services include monthly water testing, and business and technical support, which are provided in return for an assistance fee of 20% of water sales revenue. These assistance fees provide the main source of sustainable funds for TS1001's routine operations. Each O-We Water kiosk is also supported by a commune-level Water Kiosk Committee, whose members are appointed by the commune chief and whose remit is to promote O-We Water in the community and ensure good kiosk governance. Committee members are paid modest monthly stipends by whichever donor initially procured the kiosk.

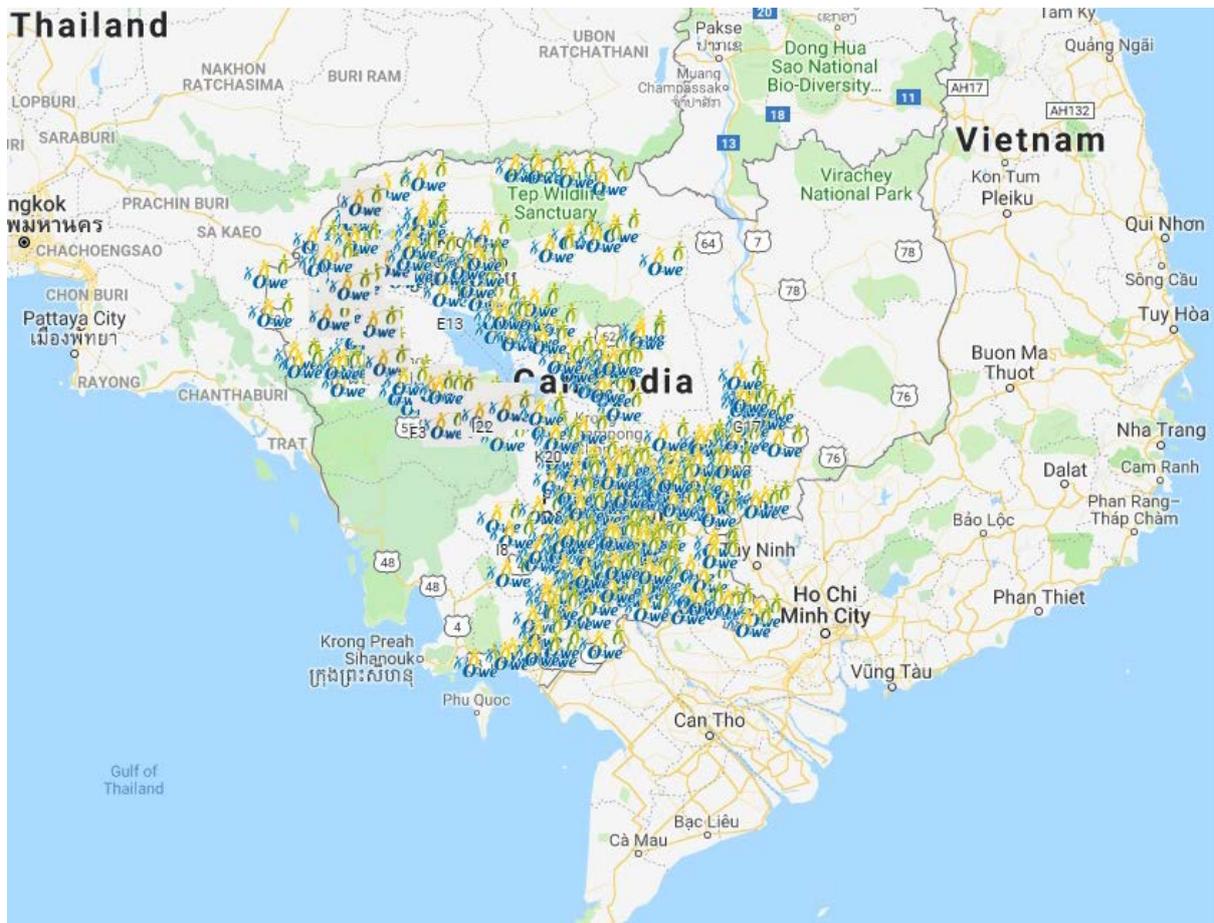
This kiosk franchise model has become popular; since starting up in 2004, and with the help of international donors, it has been replicated countrywide. Between 2011 and 2019, UNICEF alone provided funding for 105 TS1001 kiosks. Currently, 216 O-We Water kiosks in 17 Cambodian provinces collectively vend more than 10 million litres of water per month in more than 2000 villages (Figure 5); TS1001 aims to establish 280 kiosks and to be reaching more than a million consumers by mid-2021. TS1001 thus meets a key criteria upheld by academics who are interested in social entrepreneurship and social innovation: it has created a replicable model that is disseminated by market means (Desa and Koch, 2014). This model – which creates markets that meet otherwise neglected social needs – should garner interest among scholars and development institutions that are concerned with social innovation outcomes (Nicholls and Murdock, 2012: 18-19). In the process of questioning polarising narrations of bottled water, however, this paper is less concerned with outcomes per se; rather, it is more concerned with the entrepreneurial subjectivities that are instigated by TS1001's social innovation, with an inquiry into what is conducive to investment in the water commons, and with the ethical issues vis-à-vis the role of states.

The questions guiding this paper are:

1. Does the TS1001 model help to effect prosocial entrepreneurial subjectivities that bring enterprise and communities closer together?

2. Does the TS1001 social enterprise franchise model facilitate common access to an appropriate water resource and distribute its benefits widely in communities?
3. How does the TS1001 model help to enable pro-poor water policy and the human right to water presently and in the future?

Figure 5. Google-assisted map of O-We Water kiosks across Cambodia.



Source: Teuk Saat 1001 (2019)⁵

METHODOLOGY

Fieldwork took place in two phases between December 2018 and March 2019. The first phase involved informant interviews with the CEO of TS1001 and with a representative of UNICEF in Cambodia's Water and Sanitation Programme (one of TS1001's primary sponsors) in Phnom Penh; an interview was also conducted with a TS1001 regional business manager in eastern Cambodia. For the second phase of fieldwork, two O-We Water kiosks were identified with the help of the regional business manager. At kiosk sites and in surrounding villages, semi-structured interviews took place with kiosk operators (or 'O-We Water entrepreneurs'), Water Kiosk Committee members, commune chiefs and school principals. Ten O-We Water customers were also interviewed in each locality (20 in total), and four group discussions

⁵ The interactive Google map showing TS1001 kiosks is accessible at www.teuksaat1001.com/where-we-are/ (accessed on 26 November 2019).

took place with three male and three female customers in each locality (12 customers in total). Participant observation to understand and assess operations was undertaken at kiosks and on delivery runs to villagers' houses. A concluding key informant interview took place in Phnom Penh with a representative of the Department of Rural Water Supply within the Ministry of Rural Development; in that interview, there was some reflection on tentative findings.

Three of the four key informant interviews took place in the English language; all other interviews and group discussions took place in the Khmer language with assistance from an interpreter/research assistant who had experience in rural social research. (My intermediate command of the Khmer language was useful but not strong enough for that depth of conversation.) The interpreter helped not just with translation but also with clarifying metaphors and heightening my sensitivity to cultural dynamics. All interviews and group discussions were recorded, and notes were taken; key informant interviews in English were transcribed. Critical data from interviews and group discussions was initially identified in the personal notes and then relevant sections of recordings were revisited with a Khmer speaker and transcribed, ensuring that translated quotes were given accurately.

Two O-We Water kiosks in eastern Cambodia

The first kiosk visited was classified by TS1001 as a Tier 3 Kiosk (hereafter T3K); this means the kiosk was failing to hit TS1001's sales target of 120 bottles per day. The second kiosk visited was classified as a Tier 1 Kiosk (T1K); it was comfortably exceeding targets all year around, including through the rainy season when demand is less due to cooler weather and because significant numbers of villagers drink harvested rainwater. In the commune where T3K was located there were wells and boreholes, but access was not comprehensive; in this commune, before 2016 when UNICEF commissioned the kiosk, drinking surface water from ponds was pervasive. T1K was commissioned by UNICEF in 2012; until the establishment of this kiosk, villagers had been consuming raw surface water pumped from the Mekong River. Tube wells were drilled in the 1990s, but high arsenic contamination was subsequently discovered and, following the advice of government officials, villagers reverted back to drinking river water. T3K achieves barely half of the sales achieved by T1K. The reason for visiting a more, and a less, successful kiosk was to look for the underlying factors that might impact whether or not this innovative solution works. This is important because a social innovation must gain credibility as a 'replicable model' if it is to gain enough support from within a wider network of ecosystem actors to enable its systematic dissemination (Desa and Koch, 2014: 158-59).

Limitations

In this paper there is limited discussion of the way 'water ethics' relates to the discursive concerns of bottled water. There are, for instance, broad concerns about how the discourse surrounding bottled water takes hold at the expense of other options for clean drinking water, including rainwater harvesting, ceramic water filtration, and clean piped water (Andersson Sköld, 2010; Hawkins et al., 2015). There are also controversies about the impact of plastic bottles on the environment (Thompson, 2013). These concerns were all raised in the fieldwork but a more extensive discussion of them is reserved for other papers.

THE ENTREPRENEURIAL SUBJECTIVITIES INSTIGATED BY TS1001'S O-WE WATER MODEL

The TS1001 NGO has varied objectives; foremost among them are reduced infant mortality, public health improvements, and improved children's school attendance; a secondary, but still important, objective is community improvement through enterprise. It is hard to sustain the integration of such social objectives into a capitalist business franchise because investors' profits always come first, which is very relevant to this research as private bottled water enterprises in the Global South commonly are subsidiary ventures of international corporations (Greene, 2018; Pacheco-Vega, 2019). In Cambodia this is less the case,

however, and the relative strength of the country's entrepreneurial non-profit sector provides a good avenue for exploring alternatives (Khieng and Dahles, 2015). The central management concern for non-profit sector social enterprises, as compared to capitalist ones, is how a "double [financial and social] bottom line" is enacted and then sustained (Doherty et al., 2014); it is a process that involves tensions that should instigate critical inquiry into the ethical subjectivities embodied by social enterprise, which are too often taken for granted (Dey and Steyaert, 2016). This section of the paper looks at the way entrepreneurial subjectivities of two O-We Water entrepreneurs are impacted by TS1001's business franchise model.

TS1001 personnel follow two steps when they recruit an O-We Water entrepreneur for a new kiosk: candidates must first be nominated by other community members; they then undergo the recruitment process, and TS1001 has the final say. According to TS1001's CEO, they ideally want people with "experience in selling something and creating surplus (...) in order to make the micro social enterprise sustainable faster". In essence, TS1001 seek entrepreneurs with hybrid positionality, that is to say, a good standing among villagers and – in the words of the TS1001 regional business manager (RBM) – "a creative business mindset". Interviews and observations at the water refill kiosks indicated that the more successful T1K entrepreneur does have a far more positive entrepreneurial disposition than the T3K entrepreneur. The T1K entrepreneur welcomes competitor companies who are selling 20L bottled water to local merchant stores; in his view, competition incentivises higher standards. He laughs while saying, "I am happy if they fail"; he senses two big differences to private competitors – on one hand the locally situated kiosk where customers can see the water treatment which builds trust, and on the other hand is the convenience of the O-We Water home delivery service, which sets it apart from other suppliers of bottled water products. In contrast, the T3K entrepreneur who is not able to reach sales targets, squarely attributes his failure to 'four or five' competing companies which predate O-We Water in selling 20L bottled water containers to local stores. He also claims that the groundwater where T3K lies has a bad odour, while competitors are able to access better water sources that are further away. He is convinced that villagers who have been buying 20L bottles from other companies before his kiosk started will not switch to O-We Water regardless of its lower cost and home delivery.

The disposition of the T1K entrepreneur was most strongly evidenced after a chlorinated piped water supply (set up by a private company) came to the commune late in 2017, soon after a new highway was built through the locality. While wet season sales did not change much, dry season sales dropped from 180,000 to 120,000 litres per month. But his kiosk remained classified as Tier 1 even so, due to exceeded sales targets. The T1K entrepreneur is optimistic that the business will remain viable if his team works hard. He believes the piped water network is unclean, and that villagers must expend time and wood fuel on boiling it before drinking and would therefore continue buying O-We Water. The interviews with villagers more or less confirmed this. Only two out of ten customers said they sometimes boil their piped supply for drinking nowadays. The T1K entrepreneur has also now incorporated the benefits of the private piped supply into his own business by connecting it to his kiosk (Figure 6). Paying for this piped water raises his production cost, but he no longer has to pump water from the Mekong River, which lies 150 metres away along a path that gets waterlogged in the rainy season. The time saved by simply putting piped water through the further kiosk treatment and then selling it on to villagers in bottles allows him to focus more on distribution rounds, which now also include local businesses and the offices of several microfinance institutions.

Figure 6. T1K now uses piped water, selling it onward to villagers after further treatment.



Source: Isaac Lyne (2019)

During an interview prior to the field visits, the TS1001 RBM said that in his view the different levels of success of T1K and T3K boil down mostly to the entrepreneurs who are running them. Regarding the T3K entrepreneur, the RBM says that, "his physical condition (...) is not good", and that "he has no mindset of the business owner". The RBM concludes that TS1001 is stuck with this entrepreneur because they cannot find someone else. While there are clear differences in the dispositions of the T1K and T3K entrepreneurs, however, other factors also seem to be in play. The T3K commune has 69% of the number of households that the T1K commune has; meanwhile, according to government data, 27% of the households in the T3K commune can access protected wells, compared to only 7% in the T1K commune (NCDD, 2017), possibly due to arsenic contamination there. It thus seems that the relative density of households and the diversity of water options in the two communes may be significant. Without further pursuing proven causes of success or failure, what is clear is that these O-We Water entrepreneurs have different mindsets; however – as is discussed in the next section – despite their differences, their prosocial entrepreneurial subjectivities are not dissimilar.

To be clear, TS1001 does not seek to generate a great deal of wealth for O-We Water franchisees. O-We Water is Cambodia's cheapest 20L bottled water; it costs KHR 1500 (US\$0.35) while private companies are charging around KHR 4500 riels. While the incentive of a decent income does drive success, even the most successful kiosk is never vastly profitable. As TS1001's CEO says, "we are not here to enrich communities; we are here to provide a safe drinking water service". For this reason, in addition to income incentives, TS1001's model also relies heavily on franchisees' prosocial motivations towards health and well-being in their communities. Such motives are undeniably present in both the T1K and T3K entrepreneurs and they are also quite strongly connected to Buddhist spiritual beliefs. The T1K entrepreneur equates his work with Buddhist merit-making and his view was shared by more than half of the T1K customers who were interviewed. As one female customer said, "I had thought about that (...) it is making merit with water"; she went on elaborate on the home delivery and how kiosk workers carry heavy bottled water up steep stairs to the door of her house, which rests on concrete stilts. The T3K

entrepreneur firstly invoked Buddhist beliefs related to honesty with customers regarding the quality of his water; merit-making became more explicit when he mentioned an important additional duty of every O-We Water entrepreneur, which is that they must deliver one free 20L bottle of water to every classroom in every school in the commune on every school day. The cost of this is reimbursed by TS1001, and the T3K entrepreneur delivers to three schools and 37 classrooms in total; however, a local kindergarten in the village where the entrepreneur lives is not included in TS1001's subsidised programme but, despite their meagre incomes on account of failing to hit sales targets, the T3K kiosk staffers still deliver to the kindergarten every day and pay for it themselves. In this instance, the T3K entrepreneur locates Buddhist merit-making firmly in the context of the free water deliveries, saying, "I hope one day it will be good for me, I hope I get blessings".

During the dry season when sales are good, the T1K entrepreneur and his assistants usually draw monthly dividends of 40% from declared after-sales profits, in addition to their monthly salaries; alongside this, 40% of surplus revenue goes into a maintenance fund for repairs to the kiosk building and motorised cart, and 20% of surplus is also contributed to the commune development fund. Even though the commune development fund payment is usually only around US\$20 per month, the T1K entrepreneur sees this as an important gesture of solidarity. The T3K entrepreneur regrets that, because his kiosk is not profitable, he has not "done duty [donated] to the community"; he is at pains, however, to mention his donations to community ceremonies. He also gives water to some of the poorest villagers at a discount or on credit, without any real expectation for the money. He says that, "[the poor families] are willing to pay eventually, but I let it go".

The way T1K's surplus is distributed is commensurate with TS1001's recommendations; their willingness in this respect, however, could have much to do with TS1001's hands-off approach to the kiosk's affairs. According to TS1001's CEO, successful kiosks commonly report lower profits than those selling far less water, but this is of little concern. The operating costs, including salaries and retained earnings for repairs, are strictly a matter of deliberation for kiosk workers alone, without outside interference. As TS1001's CEO said in a private follow-up email, what matters is that worker motivation and hard work are sufficient in each instance to sustain the enterprise and thus the TS1001 model. This can be considered to be an ethical commitment on TS1001's part because it stimulates ethical reflection among kiosk staff. As J. K. Gibson-Graham (2006: 89) writes, necessity (what people need in return for their labour) and surplus labour (profit after all costs) are never predefined; instead, they are both established "relationally at the moment of surplus appropriation itself". When TS1001 allows kiosk workers to autonomously deliberate what is necessity, what counts as surplus, and how surplus should be used and distributed, the NGO is also adopting a position conducive to the cultivation of reflective and ethical economic subjectivities (Gibson-Graham and Roelvink, 2013). Intuitively, this compounds prosocial motives within kiosk staffers' everyday decisions, given that their surplus labour hours are being worked in the service of their communities rather than capitalist investors.

THE WATER COMMONS OR COMMONING WATER?

Social enterprise and social entrepreneurship are positively appraised as ways to bring underutilised assets (or 'antagonistic assets', which for-profit companies generally avoid) into public use in new ways (Di Domenico et al., 2010; Hockerts, 2015). This is a form of bricolage that creates 'social value' or, in other words, a positive impact on society which would not otherwise exist (Di Domenico et al., 2010). This can be discerned in the O-We Water kiosk's treatment of raw surface water and sometimes groundwater sources; in return for a modest payment, hazardous water resources are brought into circulation as safe drinkable water. The fact that water kiosk construction is subsidised by economic redistributions – that is, by international aid transfers from rich to poorer countries – also means construction costs do not have to be recovered from customers through higher prices. In theory, this redistributive flow of international aid, which enables cheap, safe drinking water, should appease those

claiming that, in the name of a normative human right to water, governments (especially rich ones) should overtly "invest in and protect the water commons" (Barlow, 2013: 73). It may not, however, appease critique; access to the water commons still depends on villagers' payments in high enough numbers to make the kiosk business viable. Among T1K customers, there was no sense of safe drinking water being a right, per se. The consensus was that the cost of O-We Water was so low that everyone who wanted it could afford to pay for it. In a group discussion with female customers it was claimed that payment is "a duty among the villagers". In this instance, the right to water is individualised while also being a collective responsibility, which invokes the sense of governmentality whereby villagers' "exercise of sovereignty means the end of sovereignty" (Foucault, 1991: 95). Villagers seem susceptible to pressure from others, including authority figures, to accept and pay for O-We Water in order to be counted as both responsible household carers and as community citizens, an element of coercion which is problematic given how the uptake of O-We Water also serves to legitimise the government's use of bottled water to achieve SDG 6.1 with a minimal budgetary outlay.

In response to the above critique, it might also be contended the 'water commons' should be reframed. Firstly, to focus on the commons as a *thing* (or *water as a noun*) fails to consider the community of actors or 'actants' that create and sustain the commons, and which is also created and sustained through the process of doing so. J. K. Gibson-Graham et al., (2016) call this relational and political process of cocreation 'commoning'. Commoning involves the establishment of protocols through which access to a resource becomes shared and widespread and where benefit is distributed across a community that has an active role in managing and caring for it. By this description, all kinds of property can be commoned. The actual resource is not of foremost concern; it is instead the process of commoning that really counts. Gibson-Graham et al., (ibid) also acknowledge the work of Peter Linebaugh, who writes that, "[t]o speak of the commons as if it were a natural resource is misleading at best and dangerous at worst" (Linebaugh, 2008: 279). This is relevant to the circumstances at T1K, where the kiosk stopped using surface water, switching to treatment of private piped water which was then bottled and sold to villagers; in this case – following Linebaugh – the real attention (from a commoning perspective) is not on water but on the processes and protocols related to kiosk infrastructure and its business activities.

O-We Water kiosk infrastructure is a conduit for international aid flows; it is also the infrastructure through which water flows on the way to households in villages, by which some community members garner a modest but hopefully secure livelihood. Following Gibson-Graham et al., (2016), the kiosks are the focus of commoning protocols for a process that in theory leads to commoned resources; they yield low-cost subsidised drinking water which reaches hundreds of thousands of rural consumers across Cambodia. Importantly, O-We Water kiosks are built on community land rather than on any individual's private property; the T3K kiosk, for instance, is built on land belonging to the local pagoda. This use of public land avoids conflicting claims of ownership and embeds the sense that O-We Water belongs to the community. TS1001's CEO and the eastern RBM both stated that the villagers "will tell you that O-We is the community water". This was certainly found to be true in the T1K commune, where villagers expressed a profound affinity with the kiosk and had readily donated their labour towards its construction. Furthermore, promoting O-We Water in the community is the responsibility of the appointed Communal Water Kiosk committee whose members receive stipends; this generates shared interest in the business success of the kiosk and helps to ensure that its benefit extends as far into communities as possible.

DISCUSSION

A process view of entrepreneurial ethics: Does the TS1001 model help to effect prosocial entrepreneurial subjectivities that bring enterprises and communities closer together?

Conventional capitalist enterprises appropriate labour surplus and reinvest it into creating yet more surplus, while seeking to enclose productive public resources. This captures the way Pacheco-Vega (2019)

looks at the bottled water industry when raising legitimate questions about its commensurability with "a global norm for a human right to water" (Pacheco-Vega, 2019: 2). From a postcapitalist perspective, however, enterprises are not governed by economic processes alone but also by political, social and cultural processes, and there is no reason to assume that one process in particular is more essential than the others (Resnick and Wolff, 1987: 168-70).

In this paper, questions are raised regarding the various processes governing the development of TS1001's franchised O-We Water kiosk enterprises. Wage setting and determination of surplus are not purely personal economic acts, they are also "social and political act[s]" (Gibson-Graham, 2006: 89). Kiosk workers' autonomy has instigated mindfulness regarding their legitimacy and their expected role in benefitting the community. If villagers think the kiosk operator is doing well at the expense of fulfilling his obligations, disenchantment can quickly grow; this echoes the balances in legitimacy that have historically sustained or eroded patron – client relationships in Southeast Asia (Scott, 1972). This type of balance is reflected at the T1K kiosk; it turns a profit for its workers while retaining loyalty among villagers who view O-We Water as 'community water' and who go as far as seeing it as being synonymous with religious merit-making. A service-based modality may also play a role in this; in contrast to fast-moving products, services imply obligations by personally implicating customers and providers in a "system of action" that has anticipated benefits for both sides (Hawkins et al., 2015: 91-92). In T3K the picture was more varied; this could have something to do with the lower level of acute need that was suggested by commune-level data (NCDD, 2017); it may also have something to do with the T1K commune chief, who appeared to have been a galvanising force in the T1K commune, mobilising villagers and gaining labour contributions towards the kiosk's construction.

The water commons: Does the TS1001 social enterprise model enable common access to appropriate water resources, and does it distribute benefits widely to communities?

It is widely claimed that governing water for the benefit of the poor requires that the water commons is maintained; in other words, even if the private sector has a role, people's access to water should not be determined by the private sector (Barlow, 2013; Sultana, 2018). Focusing on what is needed to maintain a commons also provides an intrinsic opportunity to reframe the water commons; according to this reframing, water is an agent that is entangled with other agents in crystallised configurations which make common access possible. This paper is concerned with only one such contextual configuration. Because the benefits of subsidised kiosk infrastructure are widely distributed in the form of Cambodia's lowest-cost 20L water bottle, and because kiosk usage is managed by a community that also assumes some responsibility for the ventures' success, there is an intuitive adoption of some key protocols of commoning or "commons negotiations" (Gibson-Graham et al., 2016: 196). If villagers derive a sense of well-being from the kiosk's presence, it can impact positively on their affective registers; this resonates with another expressed benefit of social enterprises in the form of the enhanced community resilience that is produced by the co-management of facilities and the building up of pride in community controlled assets (Di Domenico et al., 2010). In the context of this research, this has important implications for local water governance. Although the introduction of 'resilience' into discussions presents an ethical problem if the right to water itself becomes contextual or just a matter of "moral luck" (Sultana and Loftus, 2020: 5), if one is to speak of pro-poor governance at all then surely the agency of the poor must come into it. In this sense, resilience – achieved via water delivery as a service where customers and providers are implicated in a 'system of action' – could be synonymous with a positive and empowering 'resourcefulness' (Petrescu et al., 2020).

Water ethics: How does the TS1001 model enable pro-poor water policy and the human right to water presently and in the future?

Considering economic ethics and commoning, it is so far reasonable to argue for a positive appraisal of TS1001's bottled water service; however, the question of water as a policy problem – the elephant in the room in terms of 'what role for the state' in democratically governing its distribution – cannot be

avoided. Pacheco-Vega (2020: 121) insists that there needs to be further probing of the questions of, "Who chooses the communities?" and "How can we ensure that these allocation and selection processes are fair?" This paper tentatively answers these questions. First, state officials – not a private company – choose the communities, or communes. Second, while sufficient population density in a commune is an important factor, it is the established need that is decisive rather than the likely market size. It should at least be acknowledged that the state is able to generate some level of response – which takes place with the help of an MRD-led technical working group that includes the civil service, TS1001 and international donors. This point was made by an MRD representative in an 18 February 2019 interview; his opinion was that TS1001 "seems like the right hand of the Ministry. It is a mechanism to make things happen, to work closely with Communes to (...) resolve disputes about where to put the kiosk".

At present, the model looks fair and ethical from a policy perspective; the active role of civil servants in the model, however, does not address all of the long-term ethical concerns related to the human right to water, particularly because it neglects the view that packaged water is only ethical as a temporary measure (Pacheco-Vega, 2020). The model appears to be a way for civil servants achieve SDG 6.1 ahead of schedule, but TS1001 certainly does not view it as a 'temporary measure'. TS1001's CEO insisted that O-We Water's future cannot be weighed against piped supply because the two things are non-competitive; he went on to say that, "piped water is not really directly related to health, or safe drinking water, it is more collated to modernity and convenience. Okay, you can have a shower, you can have a modern toilet, you can cook with it, but people don't drink it".

Given how the boiling of water is so deeply embedded in rural communities, one can put aside controversies regarding bottled water companies' routine instigation of public mistrust of piped drinking water in this instance (Hawkins et al., 2015; Pacheco-Vega, 2019, 2020). It is hard, however, to imagine that bottled water services and piped supplies are not in competition to some degree, as that implies that the one has no impact on the other. This is disproven by the lower dry season sales in T1K after the arrival of a piped supply. There is also tension between the views of TS1001's CEO and those of the UNICEF representative; the latter was candid about water kiosks and bottled water, saying "I think it is not the long-term solution. It is definitely not". He continued to say that, "[i]n 60 years, people will still drink bottled water (...) the demand is still there you know [laughs]. But if you look at Phnom Penh (...) every household, they have a piped water supply in their house".

The UNICEF representative spoke about "the tendency over time", and speculated about other possibilities, including the supply of piped water into villager's homes that in turn are fitted with their own filtration devices. However, what Pacheco-Vega (2020: 121-22) means by a temporary measure (for instance, after natural disasters) and what the UNICEF representative means (packaged water during Cambodia's transition to a higher-middle-income country) are temporal meanings on completely different scales; the difference in meaning is, even so, understandable. Cambodia is nowhere close to countrywide piped supplies. Furthermore, the state's priorities are very clear if one compares the meagre rural water infrastructure budgets to its vast yearly security and defence budgets; the latter are directed at the economic appeasement, co-optation, and "command[ing of] the loyalty" of the heads of the security forces to Prime Minister Hun Sen personally, Cambodia's authoritarian leader who has held power for the last 35 years (Chambers, 2015: 194). In this regard, the state stands accused of a dereliction of duty regarding safe rural drinking water provision; whether this implies a dereliction of duty regarding drinking water regulation, however, is not so clear cut.

TS1001's model, at this point, does not conform to the worst fears of privatisation. However, extending it further into the future than would probably be desired by social movements advocating for the human right to water raises a significant concern; this concern emerges from the questionable record of the 'commercial turn' among Cambodian non-profits to date. On one hand, this commercial mindset is positively appraised as a route to greater independence for NGOs and to greater downward accountability to constituencies instead of upward accountability to donors' priorities (Khieng and Dahles, 2015); on the other hand, however, commercialisation is synonymous with the 'neoliberal turn'

that is criticised for turning NGOs into entrepreneurial service providers that hire business people and institute economic values as fundamental principles of civic action (Norman, 2014: 249-52). Such a shift to water 'service provision' by civil society would probably deprioritise the advocacy for, and public consciousness raising of, the human right to water; as UN Special Rapporteur Léo Heller (2020) writes, this observably damages the chances of the right to water becoming properly incorporated into the political sphere.

Looking to the future, concerns are also justified if one compares the record of Cambodia's microfinance institutions (MFIs); this is a reasonable comparison given how the need for credit is possibly as widely understood as the need for water. Indeed, microfinance pioneer and Nobel Prize winner Mohammed Yunus – who is, incidentally, a TS1001 'Ambassador' – once declared credit to also be a 'fundamental right' that unleashes survival skills (Yunus, 1987). In Cambodia in the 1990s, microfinance institutions sprung up from a small group of NGOs whose commitment was to the sustainable positive socio-economic advancement of communities, in which the poor are empowered to achieve better living with dignity (Clark, 2006). In the mid-2000s, however, after these NGOs were afforded greater access to international capital markets, they quickly changed, and their branches proliferated. Nowadays Cambodia has what is probably the world's highest level of per capita indebtedness to MFIs (Bateman, 2019); moreover, instead of the group-based lending that typified loans in the earlier years, MFI loans today are overwhelmingly individual and are collateralised against land titles or property. With rising indebtedness and the stakes of non-payment so high, debt-induced migration has risen (Bylander, 2014); it has also been connected to indentured labour, for instance in brick factories (Bateman et al., 2019). The Cambodian Microcredit Association recognises over-indebtedness as a problem; even so, recent research documents the continuing highly aggressive practices used by MFI fieldworkers who peddle (often unnecessary) loans in pursuit of bonuses (Bylander et al., 2019).

A non-profit water service franchise needs to be concerned about the propensity of commercial service provision to hollow out civic initiatives; what might happen, for instance, if the international aid that now subsidises TS1001's kiosk constructions was to decrease substantially in the post-Covid-19 development climate? Would TS1001 encourage new franchisees to take microfinance loans as a means to building a kiosk? TS1001's CEO explained that for some time change has been deemed desirable within the model in order that their water entrepreneurs "have some skin in the game"; moments later he speculated that, "possibly working in partnership with microfinance or banks (...) could definitely be something that we develop in the future". In that case, however, with O-We Water franchisees having to incorporate loan payments into their operating costs, how could they continue setting the price for their bottled water service so low? Their problem would probably be similar to that facing private piped water operators, that is, relatively low price elasticity (Jaffee and Newman, 2013); in particular, where a piped supply does emerge locally (such as at T1K), any price increase cannot be imposed without drastically compromising consumption. This may cause communities to be left without safe drinking water when kiosks fail; it could also risk conflicts within or between communities, particularly during the lengthy droughts which are projected – possibly because of climate change – to become more frequent in Cambodia (Son and Thanh, 2020).

CONCLUSION: THE HUMAN RIGHT TO DRINKING WATER?

Water is a fundamentally political concern because agents with power over water decide whether other people's lives matter or not (Sultana, 2018; Pacheco-Vega, 2019); this makes water a human rights concern as well. Paradoxically, since the United Nations General Assembly ratified the human right to safe and clean drinking water in 2010, there has been consternation about its depoliticisation. Commercialisation may indeed be one way of achieving SDG 6.1 (Walter et al., 2017), but justifiable concerns can be raised if this perpetuates a technical discourse of rights being fulfilled by water commodities whereby dispossession of people's water resources may ensue and their involvement in

decisions may not be considered necessary (Sultana and Loftus, 2015; Pacheco-Vega, 2020). TS1001's franchised social enterprise service model does help to resolve some concerns; in order to see how it does so, however, we must appreciate how marketisation can sometimes instigate hybrid public – private arrangements of diverse actors and resources that generate social, political and economic value (Callon, 2007) and mitigate against privatisation's worst instincts. Civil servants are enrolled as key decision makers, and need – rather than potential profits – is decisive in determining which communities are served. With a focus on resource flows through the water refill kiosk infrastructure, we are reminded that any economic arrangement is, in theory, conducive to creating resilience and common or shared access if protocols of commoning are being upheld, that is to say, if its benefits are being distributed across a community that has an active role in managing and caring for it (Gibson-Graham et al., 2016). The prosocial motives instigated among the O-We Water entrepreneurs by TS1001's franchise model are also extremely helpful in mitigating the mentality of privatisation.

Sceptics may still argue that people's choices are narrowed rather than broadened by initiatives like O-We Water and that a 'user pays' model is inevitably exclusionary; I contend, however, that at present the model does establish a prosocial equilibrium because it is not entirely true that the 'user pays'. The kiosk resource, rather, is subsidised by economic redistribution (i.e. aid transfers) from the rich to the poorer world without costs being passed to consumers through the price of O-We Water. The temporal dimension is concerning, however; it underlines that a 'commons' is not static, but instead strengthens or recedes according to the embodiment of the protocols of process and according to the ebb and flow of civic action. Perhaps controversially, I side with the UNICEF representative in that refill kiosks should be viewed as a provision for reducing the risks of waterborne illness and mortality as Cambodia advances economically; in other words, the kiosks have a more justifiable, ethical presence in the longer-term distribution of packaged water than what is usually deemed ethical by advocates for the right to water (Pacheco-Vega, 2020). There are strong caveats and TS1001's service model should be closely watched. It raises questions that need further probing in the future, perhaps through longitudinal work that extends beyond the achievement of SDG 6.1 by 2025. Such probing could have positive results which cannot yet be predicted. Who is to say, for instance, that – as the UNICEF representative also speculated on – the affective value of kiosks, with community voices strengthened and resilient dispositions fostered, might not pave the way for other drinking water solutions that are not yet envisaged?

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REFERENCES

- Andersson Sköld, L. 2010. Water usage behaviour and discourse in Cambodia. PhD thesis, Linköping University, Linköping, Sweden.
- Barlow, M. 2013. *Blue future: Protecting water for people and the planet forever*. New York: The New Press.
- Bateman, M. 2019. In the business of doing good? Some insights from a Cambodian social enterprise. Paper presented at 9th International Scientific Conference "Tourism, Innovations and Entrepreneurship", Poreč, Istria, Croatia, 26th -27th September 2019.

- Bateman, M.; Natarajan, N.; Brickell, K. and Parsons, L. 2019. Descending into debt in Cambodia. *Made in China Quarterly* 4(1): 107-13.
- Bidet, E. and Defourny, J. 2019. *Social enterprise in Asia: Theory, models and practice*. London and New York: Routledge.
- Bylander, M. 2014. Borrowing across borders: Migration and microcredit in rural Cambodia. *Development and Change* 45 (2): 284-307.
- Bylander, M.; Res, P.; Jacoby, L.; Bradley, P. and Pérez, A.B. 2019. Over-indebtedness and microcredit in Cambodia: Moving beyond borrower-centric frames. *Development Policy Review* 37(S2): O140-O160.
- Callon, M. 2007. An essay on the growing contribution of economic markets to the proliferation of the social. *Theory, Culture and Society* 24(7-8): 139-63.
- Chambers, P.W. 2015. Neo-sultanistic tendencies: The trajectory of civil-military relations in Cambodia. *Asian Security* 11(3): 179-205.
- Clark, H.A. 2006. *When there was no money: Building ACLEDA Bank in Cambodia's evolving financial sector*. Heidelberg: Springer Berlin.
- Defourny, J.; Hulgård, L. and Pestoff, V. 2014. *Social enterprise and the third sector: Changing European landscapes in a comparative perspective*. London and New York: Routledge.
- Desa, G. and Koch, J.L. 2014. Scaling social impact: Building sustainable social ventures at the base-of-the-pyramid. *Journal of Social Entrepreneurship* 5(2): 146-74.
- Dey, P. and Steyaert, C. 2016. Rethinking the space of ethics in social entrepreneurship: Power, subjectivity, and practices of freedom. *Journal of Business Ethics* 133: 627-41.
- Di Domenico, M.; Haugh, H. and Tracey, P. 2010. Social bricolage: Theorizing social value creation in social enterprises. *Entrepreneurship Theory and Practice* 34(4): 681-703.
- Doherty, B.; Haugh, H. and Lyon, F. 2014. Social enterprises as hybrid organizations: A review and research agenda. *International Journal of Management Reviews* 16(4): 417-36.
- Faeth, P. and Weinthal, E. 2012. How access to clean water prevents conflict. *Solutions* 3(1): 70-76.
- Fattori, T. 2013. From the water commons movement to the commonification of the public realm. *South Atlantic Quarterly* 112(2): 377-87.
- Feitelson, E. 2017. A hierarchy of water needs and their implications for allocation mechanisms. In Ziegler, R. and Groenfeldt, D. (Eds), *Global water ethics: Towards a global ethics charter*, pp. 149-165. London and New York: Routledge.
- Fendorf, S.; Michael, H.A. and van Geen, A.J.S. 2010. Spatial and temporal variations of groundwater arsenic in South and Southeast Asia. *Science* 328(5982): 1123-27.
- Foucault, M. 1991. Governmentality. In Foucault, M.; Burchell, G.; Gordon, C. and Miller, P. (Eds), *The Foucault effect: Studies in governmentality*, pp. 87-104. Chicago: University of Chicago Press.
- Gebauer, H.; Saul, C.J. and Haldimann, M. 2017. Business model innovation in base of the pyramid markets. *Journal of Business Strategy* 38(4): 38-46.
- Gibson-Graham, J.K. 2006. *A postcapitalist politics*. Minneapolis, US: University of Minnesota Press.
- Gibson-Graham, J.K. and Roelvink, G. 2013. Social innovation for community economies: how action research creates 'other worlds'. In Moulaert, F. (Ed), *The international handbook on social innovation: Collective action, social learning and transdisciplinary research*, pp. 453-65. Cheltenham, UK: Edward Elgar.
- Gibson-Graham, J.K.; Cameron, J. and Healy, S. 2016. Commoning as a postcapitalist politics. In Amin, A. and Howell, P. (Eds), *Releasing the commons: Rethinking the futures of the commons*, pp. 192-212. London and New York: Routledge.
- Greene, J. 2018. Bottled water in Mexico: The rise of a new access to water paradigm. *WIREs Water* 5(4): 1-16.
- Hawkins, G.; Potter, E. and Race, K. 2015. *Plastic water: The social and material life of bottled water*. Cambridge, MA: MIT Press.
- Heller, L. 2020. Foreword. In Sultana, F. and Loftus, A. (Eds), *Water politics: Governance, justice and the right to water*, pp. xiii-xv. London and New York: Routledge.

- Hockerts, K. 2015. How hybrid organizations turn antagonistic assets into complementarities. *California Management Review* 57(3): 83-106.
- Hystra. 2011. *Access to safe water for the base of the pyramid*. Paris: Hybrid Strategies Consulting.
- Jaffee, D. and Newman, S. 2013. A more perfect commodity: Bottled water, global accumulation, and local contestation. *Rural Sociology* 78(1): 1-28.
- Khieng, S. and Dahles, H. 2015. Commercialization in the non-profit sector: The emergence of social enterprise in Cambodia. *Journal of Social Entrepreneurship* 6(2): 218-43.
- Kooy, M. and Walter, C.T. 2019. Towards a situated urban political ecology analysis of packaged drinking water supply. *Water* 11(2): 225.
- Linebaugh, P. 2008. *The Magna Carta manifesto: Liberties and commons for all*. Los Angeles: University of California Press.
- Martin, G.; Liouville, J. and Méreaux, J-P. 2019. Optimisation of resources, skills and organisational capabilities in the BOP environment: Application of the 'entrepreneurial bricolage' concept to the social enterprise 1001fontaines in Cambodia. Paper presented to 7th EMES International Research Conference on Social Enterprise, Sheffield Hallam University, UK, 24-27 June 2019.
- Ministry of Rural Development. 2010. *Rural water supply, sanitation and hygiene strategy 2010-2025*. Phnom Penh, Cambodia: Royal Government of Cambodia, July 2010.
- NCDD (National Committee for Democratic Development). 2017. *Commune data base – 2016*. Phnom Penh: NCDD.
- Nicholls, A. 2013. The social entrepreneurship – Social policy nexus in developing countries. In Surender, R. and Walker, R. (Eds), *Social policy in a developing world*, pp. 183-214. Cheltenham: Edward Elgar.
- Nicholls, A. and Murdock, A. 2012. The nature of social innovation. In Nicholls, A. and Murdock, A. (Eds), *Social innovation: Blurring boundaries to reconfigure markets*, pp. 1-30. Basingstoke, UK: Palgrave Macmillan.
- Norman, D.J. 2014. From shouting to counting: Civil society and good governance reform in Cambodia. *The Pacific Review* 27(2): 241-64.
- OPHI (Oxford Poverty and Human Development Initiative). 2018. *Global MPI country briefing 2018: Cambodia (East Asia and the Pacific)*. Oxford: OPHI, University of Oxford.
- Pacheco-Vega, R. 2019. (Re)theorizing the politics of bottled water: Water insecurity in the context of weak regulatory regimes. *Water* 11(4): 658.
- Pacheco-Vega, R. 2020. Human right to water and bottled water consumption: Governing at the intersection of water justice, rights and ethics. In Sultana, F. and Loftus, A. (Eds), *Water politics: Governance, justice and the right to water*, pp. 113-28. London and New York: Routledge.
- Perera, V. 2015. Engaged universals and community economies: The (human) right to water in Colombia. *Antipode* 47(1): 197-215.
- Petrescu, D.; Petcou, C'; Safri, M. and Gibson, K. 2020. Calculating the value of the commons: Generating resilient urban futures. *Environmental Policy and Governance*, DOI: [10.1002/eet.1890](https://doi.org/10.1002/eet.1890)
- Pink, R.M. 2016. *Water rights in Southeast Asia and India*. New York: Palgrave Macmillan.
- Resnick, S.A. and Wolff, R.D. 1987. *Knowledge and class: A Marxian critique of political economy*. Chicago: University of Chicago Press.
- San, V.; Sriv, T.; Spoann, V.; Var, S. and Seak, S. 2012. Economic and environmental costs of rural household energy consumption structures in Sameakki Meanchey district, Kampong Chhnang Province, Cambodia. *Energy* 48(1): 484-91.
- Scott, J.C. 1972. The erosion of patron-client bonds and social change in rural Southeast Asia. *The Journal of Asian Studies* 32(1): 5-37.
- Sima, L.C. and Elimelech, M. 2013. More than a drop in the bucket: Decentralized membrane-based drinking water refill stations in Southeast Asia. *Environmental Science & Technology* 47(14): 7580-88.
- Son, N.T. and Thanh, B.X. 2020. Remotely sensed drought evaluation over rice cultivated areas in Cambodia during 2000 to 2019. *Geocarto International*, DOI: [10.1080/10106049.2020.1773546](https://doi.org/10.1080/10106049.2020.1773546)
- Stoler, J. 2012. Improved but unsustainable: accounting for sachet water in post-2015 goals for global safe water. *Tropical Medicine and International Health* 17(12): 1506-08.

- Sultana, F. 2018. Water justice: Why it matters and how to achieve it. *Water International* 43(4): 483-93.
- Sultana, F. and Loftus, A. 2015. The human right to water: Critiques and condition of possibility. *WIREs Water* 2(2): 97-105.
- Sultana, F. and Loftus, A. 2020. The right to water in a global context: Challenges and transformations in water politics. In Sultana, F. and Loftus, A. (Eds), *Water politics: Governance, justice and the right to water*, pp. 1-14. London and New York: Routledge.
- Swyngedouw, E. 2013. UN water report 2012: Depoliticizing water. *Development and Change* 44(3): 823-35.
- Thompson, R.C. 2013. Plastics, environment and health. In Gabrys, J.; Hawkins, G. and Michael, M. (Eds), *Accumulation: The material politics of plastic*, pp. 150-68. London, UK: Routledge.
- UN Water (United Nations Water). 2006. *Water – A shared responsibility: The United Nations World Water Development Report 2*. Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO) and New York: Berghahn Books.
- UNICEF (United Nations Children’s Fund) and WHO (World Health Organisation). 2017. *Safely managed drinking water – Thematic report on drinking water 2017*. Geneva: World Health Organization.
- Walter, C.T.; Kooy, M. and Prabaharyaka, I. 2017. The role of bottled drinking water in achieving SDG 6.1: An analysis of affordability and equity from Jakarta, Indonesia. *Journal of Water, Sanitation and Hygiene for Development* 7(4): 642-50.
- WHO and UNICEF JMP. 2019. Water and Sanitation Joint Monitoring Programme database. <https://washdata.org/data> (accessed on 22 November 2019)
- World Bank. 2019. *The World Bank in Cambodia*. The World Bank. www.worldbank.org/en/country/cambodia/overview (accessed on 29 May 2019)
- WSP (Water and Sanitation Programme). 2015. *Water supply and sanitation in Cambodia: Turning finance into services for the future*. Manila, The Philippines: World Bank Group.
- WSP (Water and Sanitation Programme). 2005. Rogues no more? Water kiosk operators achieve credibility in Kibera. Field Note, World Bank Report Number 33063. Nairobi, Kenya: WSP, The World Bank.
- WSP (Water and Sanitation Programme). 1999. Improving water services through small scale private providers: Water vending in Chennai (Madras). Field Note, World Bank Report Number 23973. WSP, The World Bank.
- Yunus, M. 1987. *Credit for self-employment: A fundamental human right*. Dhaka: Grameen Bank.

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