

Women's Informal Water Vending as An Economic Activity and Its Effects on Household Bargaining Dynamics in Northern Ghana

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Abstract

This article elaborates the importance of informal women's work in northern Ghana in general and specifically in Tamale with particular attention to water vending. Particular attention is paid to an examination of the different forms of water vending and the ways in which they are gendered as well as their seasonal variations. The bargaining strengths of women who are engaged in water vending as an economic activity is also highlighted in this article. A combination of secondary and primary data is employed in the analysis of data for this article, to identify the opportunities and challenges that water vending poses for married women and to show how looking at wet and dry season water vending, offers an opportunity to examine how variations in the significance and value of women's informal work in this sector influences gender bargaining within households.

Keywords: Bargaining, Informal, Seasonal, Water vending, Women

1. Introduction: The Informal Sector

Since the 1960s the growth of the informal sector, particularly in the developing world, has been pronounced (Hart, 1973; Imraan, 2000; Hakim, 2005). Informal economic activities, of which itinerant street vendors are among the most visible, are symbolic of the informal economy in cities (Daniels, 2004). In most of the cities of some advanced economies, for instance, snack vending is a highly visible activity that serves a useful social purpose, just as water vending does in Ghana.

Informal employment, according to the International Labour Office (2003, see also Heintz, 2005), comprises half to three quarters of non-agricultural employment in developing countries; specifically, 48 per cent in North Africa, 51 per cent in Latin America, 65 per cent in Asia and 72 per cent in sub-Saharan Africa. Informal employment is generally a larger source of women's than of men's employment in the developing world (Barnabé, 2002; Wallace, 2002). Other than in North Africa, where only 43 per cent of women workers are in informal employment because of religious restrictions, 60 per cent or more of women workers in the developing world are in informal employment outside agriculture. In sub-Saharan Africa, 84 per cent of female non-agricultural workers are informally employed compared to 63 per cent of men; and in Latin America 68 per cent of women in comparison to 48 per cent of men (ibid). The Ghana Statistical Service (GSS, 2010) indicates that 68 per cent of women non-agricultural workers in Ghana are in the informal sector as against 32 per cent of men.

Bryceson (1999) argues that income diversification represents a fundamental change in the labour of a household from peasant production to wage labour, self-employment or reliance on remittances, pensions or other income transactions. She argues that subsistence-based activities are increasingly being substituted by monetised activities in rural populations (for urban populations as well). Citing survey results throughout Africa she contends that although it varies from country to country and community to community, approximately 40 per cent of income from the informal labour market, especially in rural areas, is today derived from non-farm sources. Water vending is one of these informal, non-farm sources of income.

The origin of the informal sector in Ghana's economy can be traced back to the very beginnings of colonial capitalism in the then Gold Coast (Haddad, 1991, Haddad & Hoddinot, 1995). The key features of the colonial economy included primary commodity production for export, investment in mining, transportation and related services, infrastructure and public works, and social development (ibid). On the one hand, a small formal sector covered mainly capital investment in mining, transportation, commerce, social services and administration, with wage employment characterising the existence and operations of labour therein. On the other hand, the promotion of production of primary commodities for export and the import of consumer goods for domestic trade gave rise to large contingents of the labour force in both agriculture and petty trading who were either self-employed or hired under traditional or informal arrangements (Peck, 1996; Heintz, 2005). Even at such an early stage an essential feature of labour in the informal sector was its heterogeneous character that provided for varieties of peasant properties and agricultural labourers, distribution agents, buyers, transport owners and employees, porters, repairers etc (Saris & Shams, 1991). In all of these, three components of informal sector work are identifiable. These are casual labourers (referred to as 'day workers' in Ghana), whose services are not

mainly seasonal in nature but are required as and when a need arises for someone to use their services; home-based workers who mainly ply their trade from their homes; and street vending (hawking) by informal workers who move from one place to another advertising their goods and seeking patronage from potential customers.

The informal sector has received increasing attention in Ghana's development discourse since the mid-1980s and the beginning of the '90s (Abu, 1993, Owusu, 2004). It has been the target of policy initiatives and activities by both governmental and non-governmental institutions and organisations, including trade unions. Attention to the sector at the policy and intellectual levels has arisen out of the realisation that the sector has not only persisted since Ghana became a new nation state, but has also dramatically expanded.

A thorough analysis of the informal sector shows that women play a key part in the dynamics of these activities, as indicated above. They are present in great numbers in the informal sector in income-generating activities and thus increase their family income; in some cases they are the only source of family income (Ewusi, 1997). Beneria (1979:211) indicates that a high degree of integration exists between women's domestic work in the household and their work outside the household, adding that they engage in activities that allow them to watch over their households (see also Sen, 1990).

Manuh (1993) identifies two main reasons behind the fact that there are many more women than men in the informal sector economy in Ghana. The first is that it is more difficult for women to access formal employment because it is assumed that their work is inferior according to the sexual division of work. Women undertake such 'inferior' work in part because of discrimination in education. In Ghana, it is estimated that about 60 per cent of women of 25 years of age or more have never gone to school (UN, 2008). Even where girls have access to education and vocational training, many institutions continue to offer them stereotypical courses such as typewriting, sewing, nursing or work in the catering and hotel business. In other words, girls continue to be restricted in areas of scientific and technical knowledge. This situation is worse in developing countries, where it is far more likely for girls than for boys to interrupt or abandon their schooling to take up household tasks, despite all evidence of the possible benefits to be derived from good training.

Manuh's (1993) second reason for the dominance of the informal sector by women is the fact that the very logic of the informal economy makes its access to women easy because it allows them the space to combine their productive activity with their reproductive roles.

At this stage, the main factor that helped to spread the growth of the informal sector in Ghana would be considered. In the past three decades Ghana has undergone economic transformations that have impacted dramatically on informal work and have affected both men and women. In the 1980s the government implemented neo-liberal reforms with the objective of making the economy more competitive in international markets. In order to reduce the impact of the economic crisis and in response to the international lending institutions, in 1983 the country adopted a Structural Adjustment Programme (SAP). This led to employment losses, a decline in real wage rates, and a reduction in public expenditure and social services (Manuh, 1993). The reforms of the 1980s involved a complete reorientation of the economy. Through the reallocation of resources, economic policies encouraged systematic attempts to increase production and income. Later, at the beginning of the 1990s, traditional mechanisms of trade protection were eliminated or reduced substantially. As a result, Ghana's economy became relatively open (Manuh, 1993). Neo-liberal policies and the SAP generated a sharp economic decline, although the impact of the economic policies varied in the different sectors. While there was less impact on the manufacturing sectors, the agricultural sector stagnated (ibid). The effect of the introduction of the SAP was cuts in the government employment sector and expenditure on health care and the introduction of user charges at hospitals, with an increase in food costs and a generally high cost of education (Manuh, 1993).

One of the overriding consequences of structural adjustment in Ghana since the mid 1980s, as indicated above, has been the shrinking formal sector and the expansion of the informal sector. This has arisen particularly as a result of public sector reform with massive retrenchment of labour as an important component of the SAP. While labour retrenchment was pervasive in the public sector as a whole, it is interesting to note that there was a decline in formal private sector employment as well. For instance, total formal sector employment fell from 464,000 in 1985 to 186,000 in 1991, a loss of 278,000 jobs over a 6-year period (Abu, 1993). Apart from the relatively few who opted for voluntary retirement or redeployment, the majority of those who were retrenched included young workers, labourers, cleaners, drivers, messengers and workers who generally belonged to the lower grades of the public sector. Among these were also many women workers because of their particularly low skills. Although women accounted for only 23.5 per cent of total formal sector employment, they comprised 31.7 per cent of those who lost their jobs between 1985 and 1991 (ibid). While formal sector employment was falling fast, the economically active population was estimated to be increasing. Of Ghana's labour force, 16.1 per cent is currently estimated to be in waged employment in the formal sector, with the remaining self-employed, including in the informal sector (GSS, 2010). The growth of unemployment for both men and women in the formal sector has created a large pool of unemployed people who have naturally gravitated towards the informal sector. These include the aged, young men, and women who are essentially low-skilled and are involved mainly in the services sector and to a lesser degree in the construction and

manufacturing sectors. The changes outlined above have had a number of important implications for women especially, with their multiple reproductive burdens as mothers and wives, in terms of increasing their workload and the conflicting demands on their time (Moser, 1992).

Ghana's urban informal sector is remarkable for its heterogeneity and variety. Besides agricultural activities, studies by the Ghana Trade Union Congress (GTUC) survey in 1995 (as cited by Bolt and Bird, 2003) revealed a wide range of operations that can be grouped under (i) services; (ii) construction; and (iii) manufacturing. The survey produced an interesting panorama of informal sector activities and the extent to which the informal sector in Ghana is highly segmented.

The division of the gender roles finds expression in this sector. Women undertake activities connected with their home-based reproductive work (cooking, cleaning and child care), while men do work that requires physical strength. This, to some extent, confirms the view of Edholm et al (1977:120) that the capacity of males to exhibit a strong and violent behaviour is often used to explain male superiority and/or interest.

The migration of men to cities due to the absence of job opportunities in rural areas places women in an even more difficult situation (see Hampshire, 2002b, 2006). When the men leave, women have to combine their countless reproductive tasks with additional productive activities. When women leave themselves, or follow their spouses, it is informal economic activities that enable them to provide for the needs of their families. The informal sector therefore ensures the survival of households since it curbs the effects of poverty generated by the inability of the formal sector to create jobs.

Need is largely determined by the degree of labour displacement. Bryceson (1996) identifies two concepts, deagrarianisation and depeasantisation, which bring to the fore the analysis of labour displacement associated with the marginalisation of the peasant smallholder sector (Bryceson 1996, 2000). Documentation of the scramble for non-agricultural earnings demonstrates the differentiated outcomes for those with favourable asset portfolios, as the traditional egalitarian values of the African countryside adjust to haves and have-nots. Some who have capital to invest in transport and services thrive in the transport business, hotels, mills, etc., whereas far larger numbers, especially women, engaged in petty trade and services and are lucky to eke out a sparse livelihood (Bryceson, 2002a, 2002b). In this context and in the process of experimentation with non-agricultural income-earning, small-scale informal economic activities have emerged as a diversified activity with a difference. Some of these activities, like water vending, have low start-up capital requirements with accordingly low returns (see also Bryceson 2002a & b).

2. Methodology

This study utilises a mainly qualitative methodology which involves a wide range of basic ethnographic field investigation techniques. The reasons for employing a primarily qualitative research method stem from the fact that the study involves an examination of how men and women negotiate terms in households in northern Ghana. A qualitative research strategy was adopted for this study because it emphasises the analysis of the behaviour of people in specific social settings (Holliday, 2002). This research is also primarily qualitative because it seeks to understand unquantifiable and immeasurable human behaviour. The information required for this study was gathered from primary and secondary sources. To collect data from primary sources, blends of several techniques were explored. These include focus group discussions (FGDs), one-to-one in-depth interviews within 16 selected water vending households which were visited during fieldwork, and non-participant observation.

FGDs were used to capture social norms, barriers, opportunities, perceptions and interests regarding gender relations and household reproductive activities. In-depth interviews were also used to discuss perceptions regarding women water vendors' reproductive roles in the household. Unlike general interviews or even focus group meetings, in-depth interviews allow researchers to 'see' behind the words that are spoken (Krueger, 1994).

Direct observations were equally used to understand intra-household gender relations and bargaining dynamics in Tamale. Direct observation thus gave insights into the ways in which subjects selected for this study lived their daily lives and went about their informal economic activities as water vendors.

Tamale, the northern regional capital of Ghana, was chosen for this study mainly because it is the setting that the researchers are most familiar with and it is our intention that this study will deepen knowledge of household gender relations in that part of Ghana. Tamale offers shelter to most of the migrants in northern Ghana escaping from the frequent and violent ethnic, religious, chieftaincy, and land conflicts which have become almost a ritual in most of the rural areas around it. The socio-cultural setting of Tamale therefore has some impact on women's and men's lives. Also, most research on household gender relations and roles in Ghana has been carried out in rural settings, and so the researchers wanted to explore gender relations in an urban context.

There are said to be improvements in the living conditions of most of the Ghanaian population, although great disparities still exist between urban and rural areas (see Owusu, 2004). As a result of this development the decision to situate this research in Tamale, an urban context, was based on the fact that water vending as an informal economic activity in Ghana thrives mainly in urban areas where as a result of water scarcity, unplanned neighbourhoods and population increases, people patronise water vendors.

3. Water Vending

This section starts with a brief discussion of how water vending in Ghana and specifically Tamale has become an important economic activity. This is followed by a discussion of water vending, the different types of water vending activities, and the involvement of women (and men) in this economic activity.

Ghana is said to be blessed with abundant water resources in that it receives adequate rainfall of between 1,200 and 1,500mm in the forest zone and more than 800mm in Northern Savannah ecological zone; yet many communities in the country, especially in urban areas, lack potable water for domestic use (Ayibotele, 1992; Yussif, 2006). For decades the Ghana Water and Sewerage Corporation (GWSC), now the Ghana Water Company Limited (GWCL), a parastatal organisation with official responsibility for both rural and urban water supply and sewerage, has not been able to find a solution to the perennial water shortage facing communities, especially during the dry season (CWSA, 2000; Khan, 2000; Yussif, 2006). The GWCL attributes part of the problem to the poor management of water resources. Throughout the country, the destruction of watersheds, contamination, unreliable rainfall patterns, and the overexploitation of underground water resources pose a serious challenge to water management in Ghana. Various governments past and present have considered the provision of water a critical element for the sustainable economic development of the country. However, the installation of water systems in Ghana involves difficulties regarding sourcing and the injection of adequate funds into the sector. As a result, water supply has been out of step with population growth (Collingnon & Vézina, 2000; GWCL, 2003a; Yussif, 2006).

Tamale in particular is expanding very fast with new settlements, most of which have not been properly planned and are not covered by the existing water supply network (GSS, 2014). Burst pipes and/or leakages are almost a daily occurrence, largely caused by people who have illegally connected pipes to their homes, and by ancient pipes, many of which have not been replaced since they were laid in the 1920s (GWCL, 2003a; Yussif, 2006). Tamale used to be a small town which depended only on water pumped from the Dalung Station near Tamale. This pumping station, situated on one of the tributaries of the White Volta in Ghana, is the main source of piped water for Tamale and its surrounding areas, but due to the expansion of the town the station is unable to meet its demand for water. The huge cost of rehabilitation and the even greater cost of constructing new supply and distribution lines to extend the system to all communities of the Tamale metropolis, especially new settlement areas, contribute to the scarcity of potable water in the area (Lovei & Whittington, 1993; Yussif, 2006). The GWCL has therefore adopted a system of rationing piped water among the various suburbs of the metropolis, but this is not sufficiently regular or reliable to resolve the water scarcity problem in the area (ibid). The location of Tamale is another factor in that its dams and reservoirs receive water seasonally but do not collect enough to supply water uninterrupted to the area for the whole year (ibid). According to the GWCL it produces 4.3 million gallons (plant capacity) of water per day for Tamale, while demand is for over 10 million gallons a day, therefore many inhabitants who do not receive piped water have to rely on other sources (GWCL, 2013).

The GWC has indicated that the pumps used to supply and distribute water to the people of Tamale were designed to last about 15 years and then to be replaced, but those currently in use were installed in the 1970s and have never been replaced (Yussif, 2006; GWCL, 2013). As a result they have become very weak and are not able to function as intended. Most areas in Tamale therefore depend on the GWCL's rationing policy. Rationing is equitable according to pressure zones in terms of production (ibid). High pressure areas are given water for two days, medium and low pressure areas for two and a half days. These measures are aimed at mitigating the water scarcity situation, but water remains scarce with demand far outstripping supply. Accordingly, water has become an expensive commodity.

Water vending is a paid informal economic activity and refers to any form of sale of water. An early and very important survey of water vending defines the practice as follows:

Water vending, the sale and distribution of water by container, ranges from the delivery of water by tanker trucks... to the carrying of containers by individuals...The water may be obtained from private or municipal taps, stand posts, rivers or wells and sold either from a public vending station or door to door. Vendors may either sell water directly to consumers or act as middlemen, selling water to carriers who in turn serve the consumers. (Zaroff & Okun, 1984 and cited by Kjellen & Mcgranahan, 2006:18)

This definition aptly captures the water vending situation in northern Ghana generally and Tamale in particular.

Water vending as an informal economic activity is a new sub-sector of the informal economy of Ghana. Like food vending, water vending appears to fit well with women's reproductive tasks which perhaps explains why they predominate in this informal work. There is however a range of ways of vending water involving men too, and these are identified below.

Whittington et al (1998) state that all vending systems include one or more of three types of vendors:

1. Wholesale vendors – mainly tanker truck delivery, tractor services and cart-operated, obtaining water from a source and selling it to distributing vendors (the primary vendors). In northern Ghana this is solely the preserve

of men because operating tanker trucks and tractors is socially constructed as a male activity.

2. Direct vendors – middlemen or women with large containers for storing water who obtain their water supply from wholesale vendors and in turn sell to distributors, who come to the source to purchase water (secondary or wholesale-retail vendors). These are mainly women in Ghana.

3. Distributing vendors – there are two types of distributing vendors: first, carriers or carters of water who obtain their water supply from direct vendors and sell it to consumers door to door (door to door vendors or head porters). These are secondary retailers. They are mainly women and female children. Men are not expected to carry water either for the household or for vending purposes since this is socially constructed as a female activity in northern Ghana. Secondly, distributing vendors, who mainly sell iced water in polythene bags (bagged ice water vendors). In Ghana, these are mostly women and children who operate at lorry stations and/or at the market centre selling to members of the public.

Members of the public can purchase water from these three points in the vending system. If they live in an area accessible to tanker trucks or tractors they may purchase a storage tank and buy water directly from a tanker truck. If they are willing to haul water by the bucket to their homes, they can buy it from a direct vendor. If on the other hand the value they place on their time is high or their status or willingness to do it themselves is at stake, they can have water delivered directly to their door by a distributing vendor. Water vendors generally get their supply of water from several sources. It is often easy for all types of vendors during the wet season because tanker services are readily available, since the tankers are served water by the GWC and they in turn distribute it to direct vendors. During the dry season, however, when even the tanker drivers struggle to get water from the GWCL due to the fact that the company is rationing it, direct vendors do not get an adequate supply of water which compels distributing vendors to look to other sources of water supply. Some of these include boreholes, wells, and dams.

In their study of water vending in Onitsha, Nigeria, Whittington et al. (1998:14) find that water vending is doing very well as a paid economic activity in Onitsha because the Anambra State Water Company (ASWC) has not been able to meet the potable water needs of the population. They state that ‘the private sector vending system was responsible for over 95 per cent of the water sales in monetary terms.’ Thus there is a ready market for water vendors. The situation in Onitsha, as highlighted by Whittington et al. (1998:14), is not very different from that in Ghana.

A very popular form of water vending among women vendors in Tamale is distribution vending. All distributing vendors carry their containers on their heads and walk to where their water is needed. This type of vending is very tiring, time consuming (especially during the wet season when people buy little water from vendors) and energy sapping, yet it is the most common form of vending among women in Tamale. According to Yussif (2006:21), the ‘exact beginning of water vending in Tamale may be difficult to trace.’ An interaction with a GWCL engineer revealed that water was a free commodity with public standpipes placed at various places of the township for households to access from colonial times. However, after independence this changed from a free public service to a billing system (see Yussif, 2006). This failed to address the water needs of most households, especially those on relatively higher ground or far from the main water lines. It thus became necessary for some households without taps and or a regular supply of water to depend on neighbours who had an adequate supply in their homes. This was the beginning of a system of water vending by people in households with a regular supply of water (Yussif, 2006).

The following account by Gunu, a 56-year-old vendor in Tamale, throws more light on this historical aspect of water vending (see also Yussif, 2006:21).

“I am a native of Tolon (a village near Tamale). When I came with my family to Tamale around 1980, I decided to go into gardening. That required a lot of water so I managed to arrange for domestic tap connection from the then Ghana Water and Sewerage Corporation. I also bought a medium sized tank in which I stored water and kept it as buffer in the event that the taps did not flow, more so during the dry season. Anytime the taps ran dry, neighbours would walk to my house and beg for some water. Given this situation, I decided to always fill my tank so that neighbours could draw water in times of need. With time my water charges increased, so I discussed this with some of my neighbours who offered to pay for each bucket of water they fetched from my tank. In no time I became a regular water vendor and other members of the community also constructed reservoirs and started selling water. With time, I made my first wife sell the water so that I could concentrate on my gardening and she has since been the one who sells water to those of our neighbours who still depend on us for their supply of water”.

Gunu’s account gives an indication of the gendering of water vending as women’s work: although he started the water vending activity himself, he had to ‘make’ his wife take it up so that he could engage in an activity that was not gender restricted in Tamale.

A good number of people patronise water from water vendors in Tamale. In some communities in Tamale where it is even difficult to access rationed water, most members of the community depend on the services of water vendors. Consumers of water from vendors therefore greatly appreciate their activities, and this

is vividly expressed by HajiaAnatu (54 years old), a restaurant operator and consumer of water from vendors:

“Before I started engaging the services of water vendors it was almost impossible for me to stay in the market doing business as I had to spend the most part of my time looking for water. This situation not only affected my businesses, it also affected my ability to perform certain household chores and hence my relationship with my husband suffered as well” (HajiaAnatu, polygamously married, 1 co-wife, Choggu Community)

This shows the extent to which both women’s income and their reproductive roles affect their bargaining power in the household. Husbands expect their wives to perform their reproductive roles and also to contribute to the upkeep of the household, and when these are not forthcoming their relationship is threatened. Sen (1988) suggests that where women are active in earning a living it is possible to identify a degree of autonomy in their lives, but HajiaAnatu’s concern was not mainly that her business had been affected but rather that her inability to perform her reproductive roles was impacting on her relations with her husband.

Described below, in some detail, are some of the methods of vending water in Tamale. These include the sale of water from wells, from taps and reservoirs, by water tankers, iced-water sellers, sachet water sellers and head porters (see also Yussif, 2006). The most popular methods of vending water in the Tamale Metropolis are iced-water, head porter, and ‘sachet’ vending.

3.1 Sale of Water from Wells

Wells have been dug in households in some areas where water is not readily available, and water from these is sold to other members of the community in a form of direct vending. This is an easy and less tiring form of water vending as the vendor sells water from home – tending to make this kind of vending invisible – and is therefore able to combine it with other household chores. Some informants indicated that selling water from wells is their preferred form of vending water; the problem however is that not all water-vending households have wells, since digging a well is an expensive venture which most cannot afford. Another reason for their preference for selling water from wells is that it does not affect household reproductive activities and sales can still be good, depending, like all other vendors, on the time of year.

“I wish I could be selling water from a well in my household. It is the most convenient way of vending water because you do not spend a lot of time looking for water and you do not also have to carry your water and walk from household to household or from one place to another till you are lucky enough to get a buyer. You can still make some money by staying at home because once the customers know where to find you; they will certainly come to you, provided there is availability of water”. (Fulera, 36-year-old, polygamously married, distributing water vendor, 2 co-wives, Lamashegu Community)

This is a clear indication that selling water from wells is preferred to other forms of selling water. It also came to light during interviews that it can be expensive to dig a well as individuals could not determine how far they would have to dig before reaching the water table. So even though the indication is that selling water from wells is the preferred method, this was not an easy option for most water vendors. Of the 16 water vending households visited during fieldwork, only one had a well from which water was sold.

3.2 Sale of Water from Domestic Taps and Underground or over ground Tanks

With this method of sale of water, a vendor acquires a domestic tap from the GWCL which is fixed in the yard of the house on a concrete platform or in any convenient place within the household with a drainage facility. A concrete or plastic underground or over ground tank is constructed in the compound yard and filled with water from the domestic tap and some of the water stored is sold to members of the community (direct water vending) when the taps are dry, especially during the dry season (Yussif, 2006:23). When the taps are running, water is sold directly to customers from the tap.

As a result of the erratic flow of water from the taps, when water in the tank is sold out the vendors rely on water tankers (wholesale vendors) to fill the tank so that the direct vendors have a constant supply of water with which to serve their customers. The maintenance of the tanks can be arduous as both underground and over ground tanks are dirty and/or rusty and when water stays too long in the tank, it acquires a bad smell. If the tank is filled and the water is not sold soon enough it has to be emptied for cleaning, which is both tiring and expensive as the water is wasted (see also Yussif, 2006). This kind of water vending is undertaken by vendors in the community who are well-off with ownership either joint or by the entire household, as it is capital intensive. Here again it is women who control it, although men may own it. Data from the fieldwork show that all three women engaged in this method of vending water had spouses who worked in government institutions. While the men were at work the women were at home selling water.

Suhuyini, a 36-year-old water vendor talked about her job:

“...unlike other vendors, I mainly stay at home and my customers come to me to buy water. Sometimes they have to wait for me to finish what I am doing before I come to serve them. In this way, I am always able to combine both my household chores and my work as a vendor”. (Suhuyini, 36 years old, monogamously married, direct

vendor, Choggu Community).

3.3 Sale of Water by Water Tanker

Some wealthy people have bought water tankers and use them to sell water wholesale. There are also a few institutions and/or organisations in Tamale that have bought water tankers for commercial purposes. That is, apart from supplying the water needs of the institutions that own them they are also used to serve interested members of the general public for a fee. Such water tankers mostly supply users of tanks. Building contractors rely very much on water tankers for their water needs. This type of water vending is mainly a male preserve.

3.4 Iced-Water Vendors

Iced-water vendors in Tamale sell cold water during the day and are mostly female (Yussif, 2006). This category of vendors is usually found at marketplaces and lorry stations. These vendors put blocks of water frozen in deep freezers into containers of water for cooling. The water that has been so cooled is dispensed in aluminium or plastic cups or packaged in a cellophane bag for sale (Yussif, 2006).

The main consumers of iced water are people who ply their trade in the marketplace. These include drivers and their mates at the various lorry stations, market women who stay at the market all day, truck pushers working around the marketplace and artisans who work in the market. This category of water vendors receives quite good patronage.

The processes involved in packaging iced water for sale has led people to question how hygienic it is. The breaking of blocks of ice by people who may not have washed their hands properly and putting the broken ice into water-filled containers before packaging it in cellophane bags risks contamination. As a result, consumers have turned their attention to the consumption of 'sachet' water (discussed below) which is considered pure. This shift has seriously affected the activities of iced-water sellers, as a result of which most have also gone into selling sachet water.

3.5 Sachet Water Sellers

Sachet water has become very popular in the whole of Ghana in recent times, especially in urban centres such as Tamale. It has virtually replaced the iced-water business (Yussif, 2006). Only one out of the eight sachet-water vendors the authors interacted with sold both iced water and sachet water. The other four exclusively sold sachet water which, according to them, is preferred by their customers. This is mainly due to the fact that consumers consider sachet water to be well treated and machine packaged and hence the risk of contamination is less. In spite of the fact that sachet water is much more expensive than iced-water, all four consumers of vended water the authors interacted with indicated their preference for sachet water over the cellophane-bagged iced-water. Some consumers indicated that they did not know the conditions under which the iced-water was packaged, but believe that the consumption of sachet water has been approved by the Ghana Foods and Drugs Authority (GFDA) and the Ghana Standards Board (GSB), since producers have to register with the board before they can start production and can therefore be held responsible in case of any contamination. As a result of the high patronage by consumers sachet water is now produced by many people in Tamale.

3.6 Head Porters

Head porters are another group of water vendors in Tamale. They are mainly women and may ask their young daughters to assist them, especially during the dry season when water vending is at its peak. Water scarcity in most parts of Tamale has compelled most residents to depend very much on this category of water vendors for water. All the twelve head porters of water vendors that the authors interacted with were married. Eight lived in polygamous households, and none had any form of employment other than vending water. This method of water vending involves carrying water in aluminium/plastic pans or containers known locally as *gariwa*. Some *gariwas* can contain about two large buckets of water and this is sold for one Ghana cedis, the equivalent of thirty cents on a normal day during the wet season (as at 2015), but the same quantity of water is sold for twice as much in the dry season. Head porters carry water on a regular basis to 'chop bar' (restaurant) operators in the central part of Tamale. As mentioned earlier, most parts of central Tamale do not receive piped water, especially during the dry season; therefore most commercial businesses depend on head porters for water. The owners of chop bars sometimes contract the services of head porters for their water needs (see Yussif, 2006). Some of these head porters have thus been employed by chop bar operators to supply them with water on a daily basis and are paid weekly, fortnightly or even monthly by their customers. According to Tayiba (39), a married woman with five children who lives with her husband and two other co-wives:

"Hajia Maria has contracted me to supply her with water every day and at the end of the month she pays me between 120 Ghana Cedis and 240 Ghana Cedis (the equivalent of \$30 and \$60 respectively) every month, depending on the time of year. What she gives to me is very useful to me. My husband does not earn much, considering the fact that he is a subsistence farmer who only provides us [his three wives] with maize for the

preparation of *TuoZaafi* [a popular staple food]. The money to buy other soup ingredients for the preparation of soup and even soap is ours to sort out. My co-wives are lucky to have rich parents who are still alive so they often go to assist their parents and at the end of the day they are able to bring something home for their children. In my case I have to sell water to Hajia Maria to get money to support my family. Even though it is very tiring to carry water, especially from long distances, I still have to endure this in order to get money to cater for the affairs of my family” (Tayiba, 39 years old, polygamously married, 2 co-wives, distributing vendor, Lamashegu Community).

Hajia Maria, a well-known chop bar operator in Tamale, confirmed that she has contracted Tayiba and three other women to supply her water on a daily basis since it is much cheaper than buying from a water tanker. Tayiba and her head porter colleagues are lucky to have been contracted by Hajia Maria because many other head porters are not employed by anybody and therefore have to move from place to place looking for prospective customers, even though they may have regular buyers. Faiza (30 years old) is one such vendor who has no specific daily customers, therefore she roams with her water on her head looking for someone to sell it to. Sometimes, especially during the wet season, it can be several hours before she sells one *gariwa* of water. She makes regular sales mainly during the dry season when the rains have stopped and the taps run dry. Even at such times it is difficult for her to find water, and she and her colleagues rely on water from boreholes and wells.

There is a group of head porters who sell water mainly to *pito* (a locally brewed alcoholic beverage) brewers in Tamale (Yussif, 2006). A lot of water is used in the brewing of *pito*. In areas where the tap does not flow on a regular basis, *pito* brewers depend largely on head porters for their supply of water.

Head porters are also the main providers of water to various mosques in Tamale, which is predominantly a Muslim community. There are a number of large mosques which keep large pots filled with water for the ablutions for the daily Muslim prayers, and these pots are usually filled by head porters. Some of the big mosques arrange with particular head porters to provide water on a daily basis. These head porters are either paid on delivery or at the end of the month. A number of small mosques buy water from individual head porters who roam around with water because such mosques have little patronage and therefore use less water.

4. Why Water Vending?

Water vending as a productive activity has become popular in Tamale for two main reasons. Both supply and demand factors are responsible for the surge in this productive activity. The first reason people engage in supplying water is that they see it as an avenue to earning some income and thus being able to provide their household needs. I indicated in Chapter Five that several conflicts abound in northern Ghana. Some members of conflict-prone communities have moved to Tamale, and finding themselves in a new community they have to fend for themselves. The easiest way to do this, especially for the women, is to sell water as head porters, which does not require any capital to start (see Yussif, 2006). Kande, a 36-year old water vendor, explained why she had become a water vendor:

“I am a native of Bimbilla and I lived there with my husband. I had to migrate from Bimbilla to Tamale with my husband and children as a result of an ethnic conflict that took place in Bimbilla. When we got to Tamale settling with my family was very difficult for us and things came to a head when my husband decided to marry a second wife shortly after we had settled in Tamale, so I had to start vending water for a living” (Kande, 36 years old, polygamously married, 1 co-wife, direct water vendor, Choggu Community).

Another water vendor, 30-year-old Faiza, gave her reason for going into water vending as a productive activity: “I was brought up by one of my father’s sisters because I lost both my parents when I was a child. My aunt is not well- to-do so she could not enroll me into any school. When I became old enough to fend for myself, she told me she could not afford to take care of me any longer. I had to take full responsibility for my life myself and the only way for me to do this at that time was to start selling water and even though I am now married to a man who already had two wives, I still sell water” (Faiza, 30 years old, polygamously married, 2 co-wives, distributing vendor [sachet], Kanvili Community).

The second reason that water vending is flourishing is the demand factor. As indicated above, the water situation in Tamale is such that most residents depend on water vendors for their water supply, especially those who are either too busy to draw their own water or who need water in large quantity. These consumers employ the services of water vendors and as a result many more people have gone into water vending to meet this demand. A customer of a water vendor, 41-year-old Laminu had this to say:

“My area hardly gets water and so most of us residents rely on water vendors for water. Without these vendors I do not know how some of us would have survived. I am a very busy person so I have contracted a water vendor to supply me with water on a daily basis” (Laminu, 41 years old, monogamously married, driver, Choggu Community).

4.1 Sources of Water for Vendors

The source of water for water vendors in Tamale is important since it ultimately determines the consumer’s

preference as to what kind of water to buy and hence the water vendor's ability to sell water and make some money. The safe quality of water supplied to communities is an important consideration in the protection of human health and well-being (WHO, 2006; Yussif, 2006). As a result, where a water vendor gets her water from has an effect on consumers' patronage. Iced water vendors in Tamale, for instance, usually fetch their water directly from domestic taps, especially when they have taps in their houses. Two of the iced-water vendors interviewed, Khadija (36 years old) and Samira (32 years old), admitted that in times when the taps do not flow they fetch water from boreholes and wells in certain households in the community. According to Khadija:

"I have sold iced water for some time now and admittedly no customer of mine in this community has ever complained about the water I sell. This is because I try as much as possible to fetch water from taps and I am always very careful not to contaminate the water when I am packaging the water into cellophane bags. During times when the taps do not flow I fetch water from boreholes which are also very clean and not contaminated" (Khadija, 36 years old, polygamously married, 1 co-wife, distributing vendor [sachet], Kanvili Community).

Head porters have several sources of water depending on the use to which it is to be put. For instance, head porters who serve households and restaurants usually fetch their water from public or communal standpipes since they are aware it is for human consumption. Tayiba (39 years old), whose narrative, presented earlier, about how she supplied water for Hajia Maria's chop bar, commented as follows:

"I and a few other water vendors sell water to Hajia Maria. We are aware that the water we supply to her is used to prepare food for sale; as a result we always ensure that we fetch water from the tap. During times when the taps do not flow, we fetch water from boreholes. Hajia Maria is a very strict woman, she will not buy water from you when she knows that the water is not from either the tap or the borehole and since we depend very much on the sale of water to be able to cater for our families, we always ensure that we do the right thing by getting her water from the right sources" (Tayiba, 39 years old, polygamously married, 2 co-wives, distributing vendor, Lamashegu Community).

There is another dimension to Tayiba's account which has to do with trust and patron-client relations. Since Tayiba and her colleagues know that Hajia Maria prepares food with the water they sell to her they are careful always to bring her clean water. Hajia Maria gives Tayiba and her colleagues some of the food she prepares, as well as from paying them, thus ensuring that she will always be served with clean water since the vendors partake in the food she prepares. During the author's interactions with head porters it was discovered that they (head porters) all make conscious efforts to get clean water from a tap or borehole regardless of the use to which the buyer intends to put the water (see Yussif, 2006).

Some consumers of water from vendors indicated that they liked dealing with the same water vendor for their daily water needs because this establishes a level of trust between them. As a result they can satisfy themselves that the water they purchase has not been contaminated. A consumer of water from vendors summed up the feelings of all consumers when he said that:

As much as possible, I get my water supply from the same woman. Having patronised her water for some time now she is sincere enough to let me know the source of the water she supplies to me. Sometimes she gets to my house tired and after she has supplied me with water, she will ask for a cup from me and then drink some of the water she has just supplied. This action of hers may or may not be deliberate, but it has convinced me beyond any doubt that she can be trusted (Obeng, 28 years old, single, teacher, Kanvili Community).

4.2 Women and Water Vending

This section begins with a look at the involvement of women in water vending, after which shall be discussed seasonality and female water vendors' use of time. Women in Tamale are active players in the management of water and sanitation in the household because they are the main drawers of water. It is women who decide where to collect water from for household use, how much to collect and the use it should be put to (Mujwahuzu, 2000; Yussif, 2006). In times of water shortage women suffer most because they have to travel long distances in search of water and still have to perform other reproductive roles. During such times they are usually seen with their children looking for or drawing water. It is therefore not surprising that the business of water vending has been dominated by women and their children. The effects of water scarcity are most severely felt in low-income urban areas, especially among women (Yussif, 2006), and this is exactly the situation in Tamale. During discussions with a subject, Amina (40 years old), a head porter, about the involvement of women in water vending she indicated thus:

"Dagomba men do not go to fetch water, whether from the tap or borehole. The provision of water is the job of women. Men may go for water with their bicycles when they are building new mud houses and when they want to water their livestock. Some other times, men will only go for water with their bicycles for the household when their wives are engaged in other household chores or when the source of water is very far, particularly in the dry season. But the sale of water is solely the preserve of women since no man will ever entertain the idea of vending water. The sale of water is therefore predominantly a woman's business" (Amina, 40 years old, distributing vendor [head porter], polygamously married, 2 co-wives, Choggu Community).

Men who are engaged in water vending are often those who operate tanker services. Men are hardly ever seen carrying water on their heads for sale. Apart from the traditional belief that they are not supposed to carry water, some of the respondents the researchers interacted with, said that there was a high level of women's unemployment as opposed to that of men. This is because it is believed that men are able to do certain menial jobs like being security men, labourers in construction sites or even drivers, all of which are stereotyped in favour of men, while women must not engage in some of these aforementioned stereotypical menial jobs.

4.3 Household Bargaining Dynamics

A number of themes relevant to the research argument can be identified in the examination of women's role in water vending. These relate to differential access and control over resources among women and men; perception biases that render women's productive work invisible; the influence of cultural or traditional factors and gender ideology on women's livelihood strategies; and the extent to which women can call upon their personal resources to make decisions about their livelihood strategies independently.

Women's contribution to household resources is often overlooked and regarded as relatively less important than men's for one main reason; that women's productive work in the domestic domain is invisible (see Nanda and Warms, 2009). This is also true of women who are direct vendors, but those who work as distributing vendors are seen to be working because they are out the whole day selling water. As one respondent, Zara (41 years old) said:

"My husband often thinks that water vending gives me very little money, even though I spend the whole day at home vending water" (Zara, 41 years old, polygamously married, 1 co-wife, distributing vendor, Choggu Community).

Atu (36 years old), a water vendor in a polygamous household with two other co-wives, told of her bitter experience with her husband as a result of water vending:

"My husband does not understand why I leave the house in the morning and only return in the evening to cook supper. He is a fitting mechanic, but most of the time he does not work and only sits at home playing games with his friends, and yet he says I do not stay at home to do my domestic chores. Meanwhile his other two wives who both have stalls in the market also leave in the morning and return in the evening, yet I never hear him complain about that. He even thinks that I could be flirting with men since I move from house to house vending water, but in the end I am able to still make money to prepare meals for him to eat" (Atu, 36 years old, polygamously married, 2 co-wives, distributing vendor, Choggu Community).

Another water vendor, Latifa (41 years old, monogamously married, Choggu Community), the wife of a tanker driver, does not consider water vending to be her own livelihood activity. Instead, she says she is helping her husband in his income-earning activity even though she has absolute control over her vending activities. In other words, perception biases portray some women's contribution to water vending as lower than they actually are.

4.4 Women Water Vendors' Time Use and Seasonality

In this section, the discussion focuses on seasonality and its effects on water vending and time use by women water vendors, both of which affect household gender relations. The marked seasonality of rainfall that characterises northern Ghana means that the availability of resources changes throughout the yearly cycle and has a profound impact on women's water-vending activities.

Table 1: Weather conditions in Tamale

Month	Average sunlight hours	Temperature		Discomfort from heat and humidity	Relative humidity		Average precipitation (mm)	Wet days (+0.25mm)
		Min	Max		am	pm		
January	8	15	39	Medium	36	20	3	0.6
February	9	17	40	High	56	33	3	0.4
March	8	19	41	High	62	37	53	0.4
April	8	20	41	Extreme	80	52	69	4
May	8	19	39	High	88	62	104	10
June	7	19	36	High	92	69	142	12
July	7	18	34	High	94	72	135	14
August	6	19	33	High	95	74	196	16
September	6	19	30	High	95	74	226	19
October	8	19	32	High	94	66	99	13
November	10	16	37	Medium	78	42	10	1
December	10	15	38	Medium	54	27	5	0.7

Source: BBC Weather Centre: World Weather 2014

The table above shows that the seasonal nature of rainfall means that for the six months from May to October which represent the peak of the wet season, water vending activities ebb because residents who would otherwise patronise water from vendors are able to harvest rain water. Investigations by the authors show that during the dry season from November to April, however, residents depend on water vendors for their supply of water. Demand is so high that most water vendors have to leave their homes very early and return quite late in the day, while during the wet season they are sometimes unable to leave their homes to sell water for a considerable number of hours, sometimes even days, due in part to the reduced demand for water. In both seasons women must take care of and maintain their households. Their constant absence from the household, especially in the dry season, has implications for gender relations in the household, and shows that women's informal economic activity is not always restricted to the household and is not always compatible with domestic work. One such water vendor, 38-year-old Memuna, said about her work as a vendor:

Water vending has very obvious effects on my domestic chores. For instance, in the dry season, I leave my house very early to sell water and I delegate my other duties like cleaning the house and the preparation of breakfast for my husband to my 14-year-old daughter, who usually does not do them properly, or sometimes to my co-wives. The negative effect of my trade on my marriage is great because I am unable to perform my domestic chores properly, which compels my husband to always eat the food prepared by my other co-wives and not what has been prepared by my daughter, even when it is my turn to cook (Memuna, 38 years old, polygamously married, 1 co-wife, distributing vendor [sachet], Kanvili Community).

It is to be noted that in polygamous households in Tamale, co-wives cook in turn for their husband. In some households they cook for two or three days each depending on the number of women involved. The husband spends the night with the cooking wife. Memuna's account therefore, is one of several about the effects of water vending on reproductive roles. But according to many of these water vendors, in spite of the effects of their work on their reproductive roles they cannot stop selling water since it is their only source of sustenance. In spite of the fact that these distributing water vendors are away from home all day, the policy implication is that there are no social support systems in place for such women (see Nanda and Warms, 2009).

All the head porters the authors interacted with indicated that the head portage trade is more lucrative in the dry season, since during that period most settlers in Tamale depend mainly on their water. Harvested rainfall is a major source of household water in the wet season and as a result most households do not buy water from head porters during the wet season. According to Karima, a 38-year-old head porter:

"Head portage is very seasonal in nature. I make quite some money selling water during the dry season, and even though I spend long hours away from home, my husband hardly complains about my absence from the house. In the wet season however, I do not make much money because our customers do not buy water from us. Sometimes I am even unable to go out to sell water when it is raining. I often have problems with my husband because he gets the impression that I am idling at home, but it is normally not my fault" (Karima, 38 years, polygamously married, 1 co-wife, distributing vendor [head porter], Lamashegu Community).

Karima's account suggests that head porters in Tamale make a substantial amount of money selling water in the dry season and not much money in the wet season. Since water vending is the main source of income for most of them, they work very hard in the dry season to make enough money to save some for the wet season. Karima also mentioned what would be referred to as 'seasonal cooperation and conflicts'. When she makes money during the dry season there is cooperation at home with her husband, but conflict arises in the wet season when she does not go out to work and is thus unable to bring money home. This shows the extent to which women's economic contributions to the household from informal economic activities influence bargaining in the household. This again goes to show that even informal economic activities have the potential for influencing women's bargaining power. Karima's account shows that her absence from the house during the dry season, implying that she may be unable to perform some of her reproductive roles, does not bother her husband. When she stays home during the wet season, however, where she can perform her reproductive roles, she has problems with her husband.

Memuna supplies water regularly to a *pito* brewer in Tamale. She is able to supply as many *gariwas* a day as required. In the dry season this is on average eight *gariwas*, decreasing to an average of five in the wet season. She normally leaves her home in the morning and returns in the evening. For most of the day therefore she is absent from home and this has some serious implications for reproductive activities in her household in the sense that her co-wife has to prepare dinner for their husband and other members of the household on a daily basis because her husband does not like food prepared by her daughter. In spite of this, and as indicated above, Memuna still has to go out and sell water to get money to contribute to the upkeep of the house. She stated that she has devised a strategy whereby she uses part of the money from vending water to buy food for her co-wife to cook with, adding that this is mutually beneficial, and a kind of reciprocity. Proceeds from Memuna's water vending are therefore very useful in the upkeep of the household.

In Tamale, women water vendors are involved in what Moser (1992:89) refers to as a 'zero-sum game,' a closed system in which time or energy devoted to any new effort must be diverted from another activity, the effect of

which is reflected in Table 2 in relation to seasonal time use.

Table 2: Average Daily Time Spent on Reproductive and Productive Work by Women in Tamale

Activity	Wet Season	Dry Season
Cooking	1.7	2.3
Child Care	1.2	1.4
Water Collection	0.9	1.9
Cleaning/Washing	0.8	1.0
Total Housework	4.6	6.6
Water Vending	4.2	8.3
Total	8.8	14.9

Source: Fieldwork 2014/2015

In their multiple roles as mothers and wives, women are most affected by increasing workloads and conflicting demands on their time (Moser, 1992; Walby, 1997; Nanda & Warms, 2009). Time use studies, can be used to measure the degree of women's involvement in different types of productive and reproductive work and help to reveal daily and seasonal fluctuations in the kinds of activities they engage in. The assumption is that the amount of time used for work can provide a reliable measure of the workload of various household members and its effect on their bargaining strengths. In Tamale the sexual division of labour in the households visited for this study is noticeable from the age of six onwards and gradually becomes more rigid with age, with women in charge of almost all domestic chores.

Table 2 shows that cooking, including food preparation is the most time-consuming reproductive activity and also the most gender-specific task. It was the activity with the least equitable distribution between and among members of the case study households. Most women water vendors indicated that they do the cooking themselves with a few receiving help from daughters, or from co-wives in polygamous households. In the wet season cooking for the entire household is done only in the evenings; cooking that might be done at any other time of the day will be for children and the elderly in the household. In the dry season however, when food is more plentiful, (which is why cooking in the wet season is done only once a day), a morning meal as well as an evening meal is usually cooked. Cooking and food preparation are laborious tasks involving pounding vegetables and dried fish in a mortar and winnowing millet, maize or sorghum before taking the grain to the mill for grinding into flour. This explains why cooking takes a long time in both the wet and dry seasons and especially in the dry season.

Collecting water takes about an hour of women's time each day on average, but this varies with family structure and size and with the season. Cleaning, washing clothes and utensils and other housework are the least time-consuming activities. The thatched mud houses do not require much cleaning or sweeping, which is normally shared out among the female children. In the dry season the housework takes longer than in the wet season as it is a dusty period with trees shedding their leaves thus requiring more sweeping, washing and dusting. Therefore for certain categories of water sellers their reproductive roles do not easily fit around their vending activities, especially for head porters, while for others, like the direct vendors, reproductive roles do fit around their vending activities.

Women spend less time in the wet season than in the dry season on all kinds of reproductive and productive work. This suggests that apart from being a period used by water vendors to generate income, the dry season is also a period when reproductive work and thus their double burden workload increases for women. All of these developments affect women's bargaining in the household. A respondent at a focus group discussion captured women's workload and its effects in these words:

"We work more than our mothers used to do in the past. In the past our mothers had to busy themselves with household work only, which is preparing food and cleaning. They had time to relax in the dry season when there was no farm work. It is not the same today; we work from sunrise to sunset in both the wet and dry seasons. We work and work and we are tired and still poor but we have to keep working for the sake of our families" (Azara, 43 years old, FGD).

5. Conclusion

This study has examined informal economic activities with an emphasis on selling water and the gendered nature of this informal economic activity. The aim has been to set the context for the analysis of intra-household relations to investigate the implicit and explicit processes of negotiations among women and men. The study illustrates the extent to which the productive and reproductive roles of urban women can influence intra-household decision-making.

Other issues that have examined in this study include types of water vending activities in Tamale; the involvement of women in water vending; the effect of seasonality; and time use by women water vendors.

It is evident from this study that some forms of distributing vending are linked to the neglect of

reproductive responsibilities and to intra-household gender roles and obligations. The findings of this research suggest that women appear to have influence in intra-household negotiations, but perception biases sometimes render water vending insignificant. It is important to understand whether women's contributions are seen as unimportant because of the nature of their seasonal contribution or because their earnings are constricted by gender, or both. Some support, however is provided for a notion of greater bargaining power for women vendors where contributions by these women are greater in the dry season than they are in the wet season. This raises the need to reconsider the perceived low bargaining power of women who are engaged in an informal economic activity such as water vending as this study has revealed that the position of women water vendors and their contributions to household resources should not be underestimated.

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