



# SUSTAINABLE WATER SUPPLY AND ACCOUNTING

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# SUSTAINABLE WATER SUPPLY AND ACCOUNTING

## RESEARCHER PROFILES

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# INTRODUCTION

Water is essential to the sustaining of human life. It is “a crucial constituent of any society, including cases of excess, as in flooding, or drought, as in deserts; and cases of infrastructure, as in canals and cases of expertise, as in hydro-imperialism or US geopolitics” (Bijker, 2012, p.625). Every country needs to provide its citizens with a sustainable and safe water supply. This in most situations involves substantial infrastructure and a significant operating system that consumes a large amount of resources over time. It should not matter how a specific government chooses to operationalise the funding of these resources. However, in practice if an indirect approach - through for instance general taxation - is taken, there is always a possibility of a government utilising these resources elsewhere. As we will see below, this was the situation in the Republic of Ireland (hereafter Ireland) that provided the motivation for outside agencies to force the Irish Government to instigate a direct resourcing model for water. This direct model involved the setting up of a national water utility and the implementation of billing for domestic water users.

## AIMS AND OBJECTIVES

The aim of this research is to investigate how and why accounting concepts have been mobilised in the creation of a water utility, namely Irish Water, and the effects they have in this process. As such, the study highlights the broader nature of accounting and serves to remind practitioners that accounting can be applied at a societal level, as well as for normal day-to-day compliance and decision-making purposes.

An outcome of the establishment of Irish Water has been the establishment of a somewhat unpopular domestic billing system. In the establishment process, we examine the role of accounting concepts in bringing about a domestic water billing system. By accounting concepts, we are not referring to a technical meaning of concepts - such as accruals, prudence etc. - but a broader meaning of the term. For example, cost, investment, budgets and cash flows are all ‘accounting concepts’ in this research. We examine how accounting concepts were mobilised within the journey from a political hot potato in the past three decades, to a more general acceptance of domestic water billing today. At the same time, issues around the provision of a sustainable water supply remained largely invisible. The story is a complex one, involving politics, accounting, central and local government to name a few.

## RESEARCH METHODOLOGY

In this study, we follow key actors through time in their efforts to construct a water utility. We focus on non-human actors - particularly the notion of ‘cost’, but also legislation and other similar actors. We utilise secondary data only, from the public domain. While primary research data is generally preferable for any research project, domestic water billing has been a contentious and politicised issue in Ireland over the years, and is currently still so. We therefore recognised that access to primary data sources would be less forthcoming and instead utilised the rich secondary data available. We have utilised publically available documents such as Water Services Acts and other local government legislation, programmes for government, regulator publications, media reports and parliamentary records. All such material has been obtained through the primary website of publication as per Table 1. The period of analysis for this paper ends with the passing of the Water Services Act (2014), which was effective from 28th December, 2014. This Act included the charges to be paid by Irish households until 31st December, 2018.

TABLE 1 - DATA SOURCES

DOCUMENT TYPE	SOURCE
Legislation	www.irishstatutebook.ie
Programmes for Government	websites of political parties or www.oireachtas.ie
Regulator publications	www.cer.ie
Parliamentary records	debates.oireachtas.ie
Media reports	Leading daily broadsheets such as The Irish Times and Irish Independent; state broadcasting service (RTE).

By analysing the above data we have been able to trace associations that were made and how a water utility was formed. Within this we have been able to focus on the mobilisation of non-human actors, such as the concept of ‘cost’, in the attempts, as controversial and unsuccessful as many of these were, to gather widespread support for domestic water billing. While we did not conduct any primary research such as interviews, a small number of informants in the political arena did provide some guidance on key political debates and documents.

# MAIN FINDINGS

As our research follows a story through time, our findings are presented in three parts. First we summarise the period up to 2010, when domestic water billing was more or less a non-event. Second we then trace the story from 2010 to date, when accounting concepts entered the story in earnest. We finish with a discussion of how accounting concepts were used in the creation of Irish Water.

## WATER IN IRELAND PRE 2010

Ireland has historically had a treated water problem due primarily to dated water infrastructure. This problem has become more intense due to a continued lack of investment, coupled with increased population and urbanisation. The water distribution system was increasingly under pressure (Irish Water 2015). For example, the increasing population of Dublin as with all large modern cities, has made the provision of water an ever increasing physical and logistical challenge. The ongoing lack of investment in water infrastructure resulted in several issues which can be described as features of an unsustainable water delivery system. As noted by the Commission for Energy Regulation (CER)<sup>1</sup>, Ireland was the only OECD country to not charge for domestic water services until recently.

The Local Government (Sanitary Services) Act 1962, allowed a local authority to charge businesses for water usage, but not domestic households. Instead, households paid rates for all services (including water) provided by local authorities. These rates were a major funding source for local authorities, who at that time provided water services in their local area. Domestic rates were abolished in 1978, following a 1977 general election promise. Increased direct taxes and borrowing were used to fund the local authorities which had previously relied on domestic rates. To replace rates, central government paid a rate support grant to local authorities, and in doing so, excluded the need for domestic billing for water (or other services).

A change of government in 1983 resulted in reductions to the rate support grant. To compensate the local authorities, the then government passed the Local Government (Financial Provisions) (No. 2) Act, 1983. This Act allowed local authorities to levy domestic water charges. This was received by the public as double taxation, as previously increased direct taxes were not reduced. From 1983 to the early 1990's some local authorities levied domestic water charges. The largest local authority, Dublin County Council, did not despite being the most highly populated part of Ireland. To deal with increasing population (and other strategic planning matters) in Dublin, the Local Government (Dublin) Act, 1993 divided Dublin County Council into four new local authority areas - Fingal, Dublin City, South Dublin and Dun Laoghaire/Rathdown. In early 1994, these new authorities - with the exception of Dublin City - introduced a flat water charge ranging from £50-90<sup>2</sup> (approx. €85-115). Intense public protests followed, and the government passed the Local Government (Financial Provisions) Act, 1997 in advance of a general election in June of that year. Section 2 of the 1997 Act states:

A sanitary authority may make charges for water supplied, whether within or outside their functional area, by them, but after the 31st day of December, 1996, a sanitary authority may not make a charge for a supply by them of water for domestic purposes.



<sup>1</sup> <http://www.cer.ie/customer-care/water/faqs>

<sup>2</sup> Irish Independent, 6 January 1994, p.3.



This 1997 Act outlawed local authorities from billing for domestic water. Given the failed efforts to charge for domestic water, local authorities relied on funding from central government for water services. A general economic boom from the late 1990's saw increased construction activity throughout Ireland. Local authorities imposed a development levy, and this was a major income stream from 2004 until the collapse of the construction sector in 2007/8.

During the time period described thus far, the late 1970's to 2008, water services in Ireland faced many on-going issues which, could be said, stem from under-investment. Examples include:

- In 2007 there was an outbreak of waterborne cryptosporidiosis in Galway, which caused illness to over 200 people.
- From October 2013 to early 2015, areas of Roscommon county were subject to boil water notices due to the same bacterial infection.
- Unaccounted for water (UFW) averaged 41% in 2008 which the Comptroller and Auditor General noted as "at levels twice the OECD average of 20%" (Report of the Comptroller and Auditor General, 2010, vol. 2, p. 313). Media reports in February 2015 based on data from Irish Water installed meters, put the estimated UFW at 49% nationally.

The Report of the Comptroller and Auditor General in 2010 noted investment in water services in Ireland had totalled €5.2 billion in the period 2000-2010. Most of this amount (€4.2 billion) was invested in new or upgraded water infrastructure in major urban areas, with €1 billion spent on public supply networks.

The Comptroller and Auditor General noted:

While some caution needs to be applied in interpreting the results of a limited examination of water leakage carried out over 15 years ago, present-day losses may be, in many local authorities, as high as those found in the mid-1990's notwithstanding an investment of over €1 billion in water supply and conservation in the last ten years. In the light of the potential cost of UFW it is necessary that the factors that give rise to UFW be reviewed and strategies and operational programmes to address the underlying issues contributing to the problem be re-evaluated (Report of the Comptroller and Auditor General, 2010, vol. 2, p. 313).

Although we provide only a brief summary above, a major potential source of funding needed to sustain (and/or improve) a water supply was untapped, namely revenues from domestic consumers. As the above extract from the Comptroller and Auditor General illustrates the concept of cost was already being mobilised in efforts to justify the need for change that would eventually lead to the establishment of Irish Water.

## WATER IN IRELAND POST 2010

In November 2010, the Irish government accepted a bailout package to rescue a problematic economy. This would be a critical moment in the events that led to the formation of Irish Water and a brief outline of some events leading up to it is useful.

A general election in 2007 saw a change of government. A coalition government was formed, in which a Green Party member was Minister for the Environment. This government continued to not charge domestic users for water services. The combined Programme for Government<sup>3</sup> drawn up by the two parties did include an entry entitled Protecting our Water, but did not mention billing. It did lay out plans and goals that would move Ireland towards having a sustainable water supply through upgraded infrastructure and measures to protect the quality of supply. Hence while 'cost' was inferred in these plans, the emphasis was strongly on the sustainability of water. In October 2009, a Renewed Programme for Government<sup>4</sup> between the two parties first mentioned the introduction of domestic water charges:

We will introduce charging for treated water use that is fair, significantly reduces waste and is easily applied. It will be based on a system where households are allocated a free basic allowance, with charging only for water use in excess of this allowance. In keeping with the allocation of greater responsibility to local government, local authorities will set their own rates for water use (Renewed Programme for Government, 2009, p.5).

In September 2008, the Irish banking sector faced a crisis and on September 30th, 2008, the government guaranteed the liabilities of the main high-street banks to the tune of €440 billion. In addition to this local banking issue, the global economic crisis effected government revenues. The government's budget increasingly went into deficit. This, coupled with the bank guarantee given in 2008, increased government borrowing costs to an unsustainably high level. On November 21st, 2010 the government accepted a bailout package from the European Union and the International Monetary Fund.

The 2010 Budget speech which was presented by the Minister for Finance on 9th December 2009<sup>5</sup> to Dáil Eireann noted:

The Renewed Programme also contains a commitment to introduce a system of water metering for homes. Preparations are underway. Water charges, when introduced, will be based on consumption above a free allocation.

The government also published a National Recovery Plan 2011-2014 around the same time. This plan made it clear that the government wished to introduce a new revenue stream to "improve the general government position" (p.78). It also noted that domestic water charges will be introduced to cover local authorities' operational costs and a proportion of the capital costs of providing water services to domestic consumers (p.78).

At the same time the government was agreeing a Memorandum of Understanding (MOU) with its bailout partners. Within

the MOU, the commitment to recover the cost of water service provision was noted as "we are also planning to move towards full cost-recovery in the provision of water services". March 2011 saw a change of government and a new government programme spanning 2011 to 2016. This programme introduced a differing view on operationalising the previous government's commitment to levy domestic water charges.

The programme states:<sup>6</sup>

The new Government will create Irish Water, a new State company that will take over the water investment maintenance programmes of the 34 existing local authorities. It will supervise and accelerate the planned investments needed to upgrade the State's inefficient and leaking water network (Programme for Government, 2011-16, p.14).

This government programme commitment was followed through with the passing of the Water Service Act 2013, which was the basis for the establishment of Irish Water and domestic billing. In October 2014, the Commission for Energy Regulation (CER) published charges based on volumes used and a free allowance. A period of nationwide protest followed. By the end of November 2014, the Minister for the Environment announced new flat charges. These new charges over-ruled the CER's recommendation, and were embodied into the Water Services Act, 2014. The flat charge applies until the end of 2018. Domestic consumers with meters installed can choose to pay based on the volume used if lower than the standard charge.



3 [http://www.taoiseach.gov.ie/attached\\_files/Pdf%20files/Eng%20Prog%20for%20Gov.pdf](http://www.taoiseach.gov.ie/attached_files/Pdf%20files/Eng%20Prog%20for%20Gov.pdf)

4 [http://www.defence.ie/WebSite.nsf/72804bb4760386f380256c610055a16b/2a49a2267d0f095b80257754004d3e17/\\$FILE/94315182.pdf/Renewed\\_Programme\\_for\\_Government\\_October\\_2009.pdf](http://www.defence.ie/WebSite.nsf/72804bb4760386f380256c610055a16b/2a49a2267d0f095b80257754004d3e17/$FILE/94315182.pdf/Renewed_Programme_for_Government_October_2009.pdf)

5 <http://budget.gov.ie/budgets/2010/FinancialStatement.aspx>

6 [http://www.taoiseach.gov.ie/eng/Work\\_Of\\_The\\_Department/Programme\\_for\\_Government/Programme\\_for\\_Government\\_2011-2016.pdf](http://www.taoiseach.gov.ie/eng/Work_Of_The_Department/Programme_for_Government/Programme_for_Government_2011-2016.pdf)



## USE OF ACCOUNTING CONCEPTS

As shown in the brief historical reflections above, funding of water supply in Ireland has been less than perfect over the years. With the beginning of the economic recession in 2007/8, funding sources for local authorities began to weaken. This was not good news for the ongoing funding of a sustainable water supply in Ireland. As we shall now explore, the accounting concept of cost entered the scene.

The Programme for Government in 2007 was one of the few examples over the time of our analysis to focus on providing a sustainable water supply. As we noted, 'cost' was inferred within this document but only as a 'means' to providing a sustainable water supply. However by 2009, the Renewed Programme for Government placed the focus back on domestic billing, with 'cost' again being noted. An issue arises with the concept of 'cost' in that it will not adequately represent the underlying issue of a sustainable water supply. To the domestic water user, rather than cost representing the need for direct resourcing to build a sustainable water supply, it represents an extra burden upon their household.

The focus on direct domestic billing, and away from the underlying issue of sustainable water supply, was strengthened by events originating outside of Ireland, specifically the bailout partners. The MOU between the bailout partners and the Irish government gave the latter the ability to state that direct billing was at the bequest of the bailout partners. The MOU wording focused fully on 'cost' of provision and 'cost' recovery through domestic billing. Hence, the focus began to be fully on 'cost' and 'cost' recovery rather than on what 'costs' were a representation of. 'Cost' is commonly understood to be a representation of resources consumed – normally the resource is money. It does not fully represent the provision of a sustainable water supply and becomes invisible within the ongoing process when the focus remains on cost.

# CONCLUSION

To sum up, we have provided some insights into the broader role of accounting and accounting concepts (in particular 'cost') in society. While accounting is more often considered in the context of transaction recording and compliance reporting, those basic accounting concepts familiar to all practitioners can be applied to any resource, including water.

We have shown that accounting concepts like 'cost' are important to issues like sustainable water supply. However, we should also recognise that accounting is a representation of something else and not lose sight that what is truly important is the thing that is being represented. In the case of Irish Water (or any water utility), it is water that is being represented through the accounting concepts we have noted. If what some global bodies suggest is correct, namely that water will become increasingly scarce, we must ensure our focus remains on this scarcity and not be side-tracked by accounting concepts such as 'cost'. It is likely that accounting concepts will always be present in the debate about sustainable water supply, but concepts such as 'cost' should be treated as a means to providing a reliable and sustainable water supply, not an end itself.



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