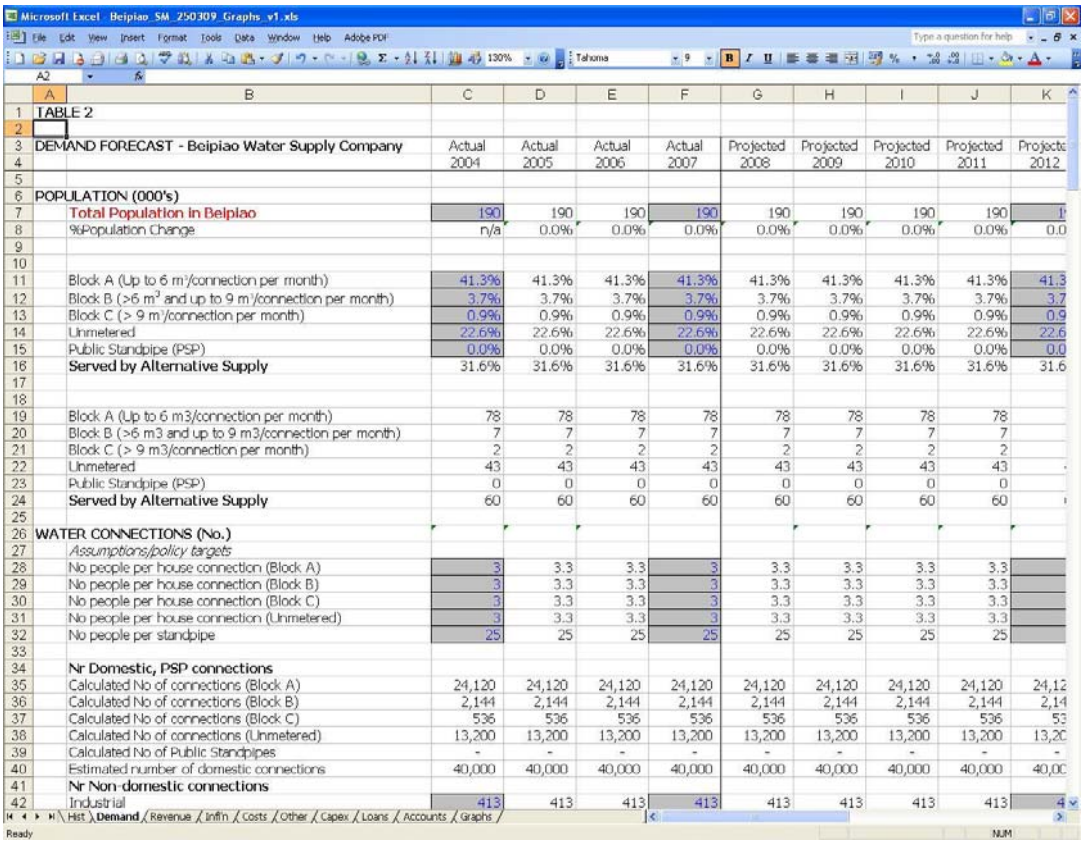
China – UK, WRDMAP
Integrated Water Resources Management Document Series

Thematic Paper 5.7: Financial Management and Modelling in Small and Medium Water Supply Companies

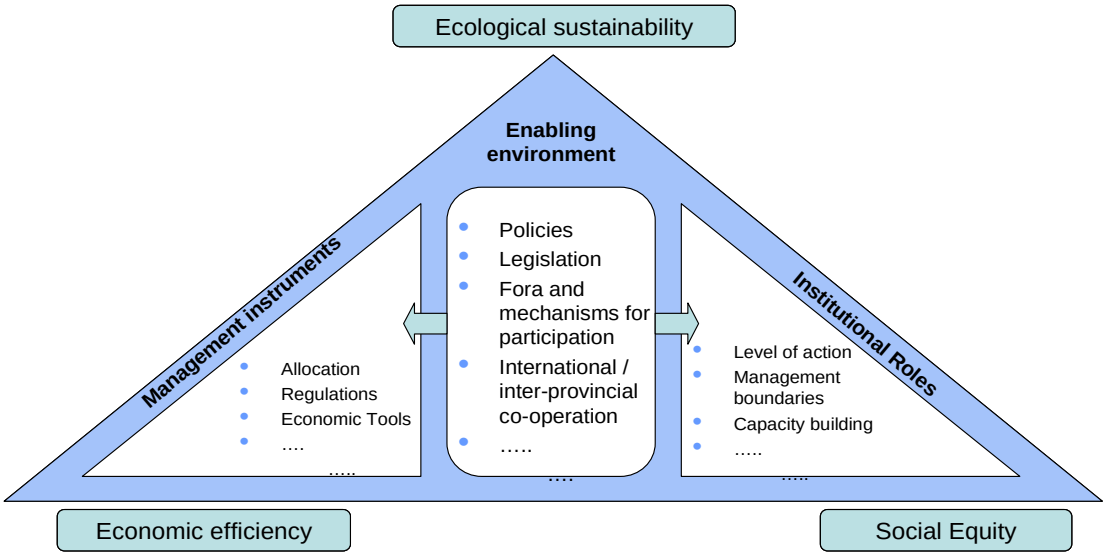
May 2010



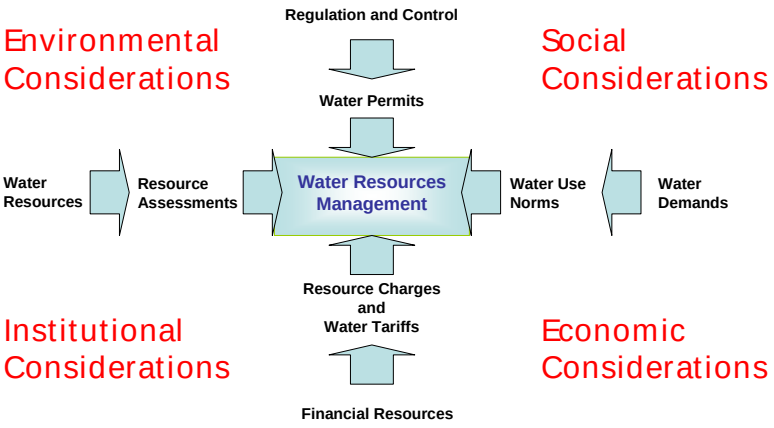
中国水利 CHINA WATER
DFID Department For International Development
Mott MacDonald

Integrated Water Resources Management (IWRM)

(Basics after Global Water Partnership)



Driving Elements of Integrated Water Resources Management



(Second figure after WRDMAP)

Summary: This document provides a background to financial management "best practice". Water Supply Companies (WSCs) should implement financial management in line with best practice to ensure that senior managers are provided with accurate and timely financial management reports that allow them to assess the financial performance of the WSC on a regular basis.

The document explains approaches to financial modelling. Here, experience is drawn from work carried out with Beipiao WSC, Liaoning Province, as part of the WRDMAP project. A manual has also been developed for users of the WRDMAP Financial Model, and is accompanied by a workable Excel Workbook. See References at the end of this booklet for more information.

The document has the following sections:

- Introduction
- Accounting information
- Financial management reporting
- Financial modelling
- Example – financial modelling for Beipiao WSC

The Ministry of Water Resources has issued this guidance because of the importance of WSC performance to the achievement of the government policy of Water Saving Society. The guidance is written for WSC management in small to medium size WSCs. It is intended also to provide professionals in Water Affairs Bureau with an insight into best practice for WSCs.

The document is one of a series issued by the Ministry of Water Resources which includes further topics related to urban water supply, such as demand management and tariff setting (see the document reference sheet at the end of this booklet).

1 Introduction

The Ministry of Water Resources has issued this guidance because of the importance of water supply company (WSC) performance to the achievement of the government policy of Water Saving Society.

The guidance is written for WSC management in small to medium size WSCs. It is intended also to provide professionals in Water Affairs Bureau with an insight into best practice for WSCs.

In the context of the water sector in China, financial management is the process of balancing the commercial needs of the WSC against the technical requirements to meet service standards imposed upon it.

Financial management and the associated financial management plan is one of several key areas forming the building blocks of the overall WSC BUSINESS MANAGEMENT PLAN. These key areas ought to include:

- Financial management (based on a financial management plan)
- Service standards (required by local government or national standards and based on a service standards plan)
- Asset management (based on various plans, including water demand management, leakage management, operations management, maintenance management, energy management etc.)
- Environmental sustainability (based on various management plans, including environment, sludge, effluent etc.)

- Risk management (based on a risk management plan)
- Performance management (based on performance and information management plans)
- Organisation management and development.

Each of the key areas described has a direct relationship with the financial management function and effectiveness in the WSC. These relationships can be summarised as follows:

- Service standards drive investment in assets and O&M strategies whilst effective financial management will ensure efficiency of service.
- Whilst infrastructure investments will be planned and made as part of the asset management function, financial management will ensure that financial targets associated with the infrastructure developments are achieved.
- Adequate risk management will ensure financial viability, both in the short and long term.
- Performance management measures will ensure efficient use of WSC assets and will use agreed key performance indicators (KPIs) linked to the financial management plan.
- Expenditure requirements on infrastructure derived from the infrastructure management plan must be met via identification of available internal and external funding sources identified in the financial management plan.
- Management information systems used as part of the overall organisational management and development function should be linked to and supported by financial systems resources, processes and procedures.

The financial management plan forms the qualitative component of the financial management strategy. The plan should identify and outline:

- The strategic direction for financial management, including goals, objectives, strategies, key performance indicators and action plans.
- Any potential external issues that will impact WSC financial management.
- Existing financial management systems and capability.
- Estimated revenue and cost projections.
- Financial model results
- WSC strengths, weaknesses, opportunities and threats (SWOT) analysis.

As part of the WSC financial management strategy a 15 year financial model should be developed. The financial model uses information from the financial plan to develop quantitative outputs such as expenditure and revenue forecasts. Financial modelling is one of the tools available to WSC management to assist them in the development of both a profitable and efficient utility, and make an effective contribution to local and national efforts to implement the objectives of Water Saving Society.

It should be the basis for the design and justification of tariffs. In the urban WSC setting tariffs, or economic regulation, is seen as a means of curbing demand as well as ensuring there are sufficient financial resources to both provide a good level of service

and to ensure that water wastage is kept to a minimum. Additionally good financial management is the basis for all of this.

The Finance Departments of most WSCs will deal with:

- Financial and management accounting
- Billing and collection
- Purchase ledger
- Sales ledger
- Salaries and wages
- Stores and stores accounting
- Fixed assets and depreciation
- Work in progress monitoring
- Operating costs and scheduled maintenance
- Production of financial information (reporting)
- Profit and loss plus balance sheet analysis

2 Why is Effective Financial Management Important?

2.1 Benefits of financial management

Considerable investment takes place each year in infrastructure associated with delivering water services and in operating and maintaining the assets used to deliver the services. Given that the assets are in effect state owned good financial planning and management will not only strengthen and increase the operational sustainability of the WSC concerned it will also be of benefit to the county, provincial and national economy.

Carefully planned and effectively implemented financial management will lead to a number of different benefits, including:

- A viable, sustainable business;
- Value for money to customers;
- Achievement of levels of service and legal requirements imposed on the WSC;
- WSC planners, managers and decision makers will have accurate timely information upon which to base management decisions allowing them to be more effective and efficient WSC managers.

The achievement of these benefits is realised by:

- Identifying the need for future capital investment and potential sources of funding to meet investment costs;
- Enabling the business to plan its future capital requirements;
- Assessing whether sufficient revenue is being generated to meet long-term financial obligations;
- Communicating effectively with management; and
- Indicating changes in the cash position, profitability and size of the business over time.

2.2 Risks from inadequate financial management

Without adequate financial management and planning it is likely the WSC will not meet its obligations, particularly in the medium to long term. Inadequacies in this area will expose the WSC to a number of actual or potential risks, including:

- The need to request increases in tariff at short notice due to unforeseen costs;
- Inability to comply with financial obligations;
- Lack of funding for agreed necessary capital developments;
- The need to request additional subsidy from local government; and
- A slower than anticipated increase in customers of all types, e.g. through lack of network expansion, or insignificant reduction in leakage.

Paying attention to the development of a thorough financial management strategy, backed up by adequate financial management systems and a financial management plan, closely linked and related to other WSC management plans will identify and mitigate financial and other risk faced by the WSC which would otherwise impact on performance and make it more difficult to achieve company objectives.

3 Accounting Information

3.1 Introduction

There are two broad types of accounting information:

- Financial Accounts: geared toward presenting the historical performance of the organisation for internal and external users of the accounting information
- Management Accounts: aimed at internal users of accounting information

Although there is a difference in the type of information presented in financial and management accounts, the underlying objective is the same - to satisfy the information needs of the user.

3.2 Financial accounts

Financial accounts describe the performance of a business over a specific period and the state of affairs at the end of that period. The specific period is often referred to as the "Trading Period" and is usually one year long. The period-end date is known as the "Balance Sheet Date".

Financial accounts concentrate on the business as a whole rather than analysing the component parts of the business. For example, rather than producing detailed analyses of sales for a particular product or market, sales are aggregated to provide a figure for total sales.

Most financial accounting information is of a monetary nature.

By definition, financial accounts present a historical perspective on the financial performance of the business.

Almost all organisations should be operating a computerised financial accounting and billing system wherein all elements of financial accounts are provided for.

Financial accounts normally include the following elements.

(i) Profit and loss account

This measures the financial performance of the business over a given period of time, usually one year. This period is known as the Accounting Period.

It compares the income (or revenue) of the business against the cost of goods or services and expenses incurred in earning that revenue.

For a WSC the Profit and Loss account is produced by taking the total revenue (water sales plus any other revenue) for the given Accounting Period and deducting from it all the direct expenditures which make up "Cost of Sales", such as wages, materials, chemicals, transport, power, fuel, etc, which can all be directly attributed to water production. This gives the Gross Profit. Indirect expenditures, such as, telephones, heating, lighting, office costs, salaries, sales costs, etc., are then deducted from this Gross Profit to give the Net Profit.

(ii) Balance sheet

This is a snapshot of the assets of the business (what the business owns or is owed) and the liabilities of the business (what it owes) on a particular day, eg. the last day of the financial year.

(iii) Cashflow statement

This shows how the business has generated and disposed of cash and liquid funds during the period under review. A cashflow statement is different from a cashflow forecast, which is used to predict the expected rises and falls in cashflow over the coming year.

(iv) Statement of recognised gains and losses

This records all gains and losses since the previous set of accounts. For example, changes caused by currency fluctuations, property revaluation, profits earned by associates and joint ventures not included in the normal accounts.

3.3 Management accounts

Management accounts are used to help the management of a company to record, plan and control the activities of their business and to assist in the decision-making process. They can be prepared for any period (for example, many retailers prepare daily management information on sales, margins and stock levels).

There is no legal requirement to prepare management accounts, although few (if any) well managed businesses can survive without them. There is also no pre-determined format for management accounts. They can be as detailed or brief as management wish.

Management accounts can focus on specific areas of an organisation's activities.

Management accounts usually include a wide variety of non-financial information.

Management accounts largely focus on analysing historical performance.

However, they also usually include some forward-looking elements, eg. a sales budget or cash-flow forecast.

Management accounts will enable a business to:

- compare its accounts with original budgets or forecasts
- manage its resources better
- identify trends in the business
- highlight variations in its income or spending which may require attention

They should be used for the following:

Record keeping

- recording business transactions
- measuring results of financial changes
- projecting financial effects of future transactions
- preparing internal reports in a user-friendly format

Planning and control

- collecting cash and billing
- controlling stocks
- controlling expenses
- co-ordination and monitoring of strategy/performance

Decision making

- tariff pricing and capital investment planning, etc.
- evaluating profitability
- evaluating the financial effect of strategies and plans

4 Financial Management Reporting

Financial management reporting to senior WSC management should be done through a defined Management Information System (MIS). The MIS should use the financial accounting information recorded by the WSC's Finance Department.

A well structured MIS should report monthly the amounts spent by each department of the WSC against the expenditure heads of the Profit and Loss account. Thus, an MIS should report against headings such as, but not limited to:

- salaries - an overhead figure, charged against cost centres as an expense
- wages - a direct cost of sales, shown against production centre budgets
- transport cost - could be an indirect or direct cost depending on circumstances
- material cost - direct cost attributable to production cost centres
- maintenance cost - both direct and indirect depending on area where maintenance is done
- chemicals - direct cost as chemicals are a production expense
- power cost - direct cost of electricity or fuel for pumps.

These should be compared against the budgeted figures for the month so that a comparison can be made.

Technical information should also be included in the MIS so that senior management has quick and easy access to all the basic details of the WSC, such as monthly data on:

- raw and treated water volume pumped
- power consumption
- chemical consumption
- maintenance work
- procurement.

Non-financial information should also be provided, eg. human resources reports so that any fluctuations in the work force are noted and their impact on the financial accounts explained.

5 Financial Modelling

Financial modelling is a tool widely used in businesses to define and compare the impact of specific business initiatives and alternative scenarios on a company's financial position. The technique requires the building of a financial representation of the business on a spreadsheet, and the identification and manipulation of key assumptions to assess the impact of different operational and financial options.

For small WSCs an appropriate model would be based on a series of linked Excel spreadsheets, the contents of which are described in Section 4.

The purpose of the financial model is to attempt to closely mirror the financial performance of the WSC by using historical financial data to project the future financial performance of the WSC. In this way future tariff structures to finance the operations of the WSC can be identified. This will include an assessment of the WSC's capability to finance capital expenditure on refurbishment and renewal of assets and development of new assets. The impact of differing income and expenditure scenarios may also be investigated using the model.

The model's performance depends very much on the input data. It is extremely important that all financial input data supplied to the modelling staff are as accurate as possible, which is why reliance is placed on the Audited Accounts (general term to cover profit-loss account, balance sheet, cash flow account etc) at each year end. In addition, accurate stock checks, human resources records and accurate billing and receipting returns are vital to allow the model to generate realistic projections of future financial performance.

Financial records must be detailed enough for use in the model and in a format that allows the model to be populated easily. Recording financial information electronically will ease the task of collating information to input into the model.

The model would be capable of being fed directly from an accounting system if the financial data held by the WSC is at an appropriate level of detail and available in electronic format for input into the model. This may require changes to the way WSCs manage their financial accounting systems. Computerised Finance Accounting and Billing systems would enable automatic population of the model. International industry standard software is available in China. Such software will be supported by the supplier with regular updates, etc. and is preferred to development of "in-house" software which often fails to be updated on a regular basis.

The model will produce projections for a number of financial statements, such as balance sheets, cash flow statements, flow of funds and income, along with key financial indicators.

6 Financial Model for Beipiao WSC

As part of the Water Resources Demand Management Assistance Project (WRDMAP), a financial model was set up for Beipiao WSC, Liaoning Province.

Water Resource Demand Management Assistance Project (WRDMAP)

WRDMAP is a large cooperation project implemented (2005-2010) by the Ministry of Water Resources with funding from the UK government through its Department for International Development (DfID). The project focused on demand management and integrated water resources management (IWRM) through six case studies carried out at the provincial level in northern China.

As part of WRDMAP studies on urban demand management tools were carried out in Beipiao, Liaoning Province, in collaboration with the local water supply company.

It was demonstrated that where detailed financial data was available the model could be used to project the potential future financial position of the Beipiao WSC. For example, the model showed that if increases are made to the water tariff and unaccounted for water levels are decreased in line with targets that could be reasonably expected with the introduction of an active leakage control programme then the profitability of the WSC could be improved significantly compared to the current position. The WRDMAP project demonstrated the processes and techniques for implementing an active leakage control programme. The outcomes of this programme will be to increase the volume of water available for sale (since demand is not satisfied at present) for the same operating costs, leading to improved profitability which could be enhanced by approved tariff increases.

Further development work on the model data and assumptions is required for Beipiao WSC to ensure that the assumptions, input data and future projections accurately reflect the current and future financial position of the WSC.

6.1 Model overview

The model comprises a series of linked Excel spreadsheets comprising a mix of data input, calculation and output sheets and can be operated in either English or Chinese. The input data provides the information for the model to calculate the financial projections into the future whilst the calculation and output sheets present the historical position and projections of future performance. The main output sheet provides detailed accounts (income statement, cash flow statement and balance sheet) along with physical and financial performance indicators.

This section provides a very brief explanation of the structure and function of the financial model developed. More details can be found in the manual prepared for users of the WRDMAP WSC financial model (see bibliography).

Various historical data is required to set the model up for projecting the WSC future performance. To undertake the projection of future performance various assumptions have to be made. Sample views of typical worksheets in the model are presented on page 6 below. Data requirements along with the sheets in the model where it should be entered are described as follows:

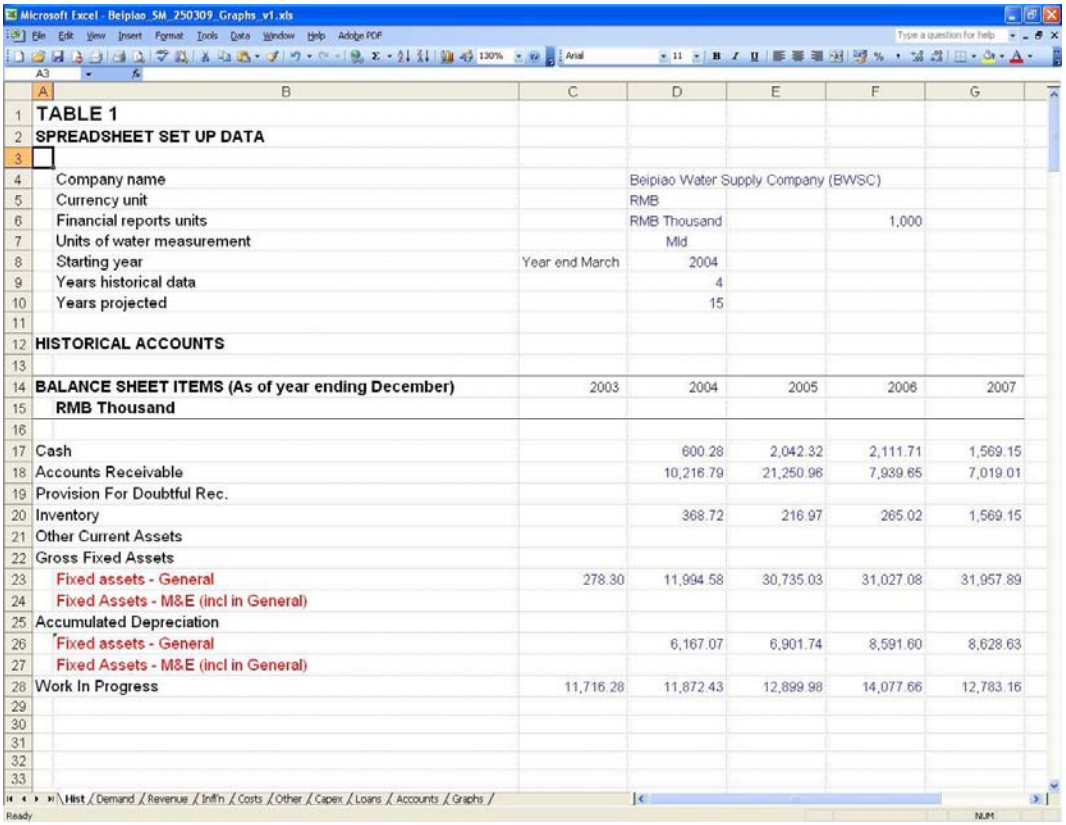
(i) Set up data and historical accounts

This worksheet is used to set up basic information, including: WSC name, currency, financial reporting units (Thousand RMB), units of water measurement (Mld) and starting year for projections. Historic (actual) balance sheet, profit and loss, sales revenue, production, staff, population served, inflation and capital expenditure data should be entered on an annual basis for the previous four years of WSC operation. Accounting information should preferably be obtained from the audited accounts of the WSC. Refer to Figure 1 for an example.

(ii) Demand, production and sales forecast

Basic parameters are input for every 5 years to develop a forecast of demand. This is then compared with production capacity and losses to develop a sales forecast. The basic assumptions will be tuned to current year conditions using the best available information. and then policy decisions with respect to future conditions made, as a basis for the projection. Refer to Figure 2 for an example.

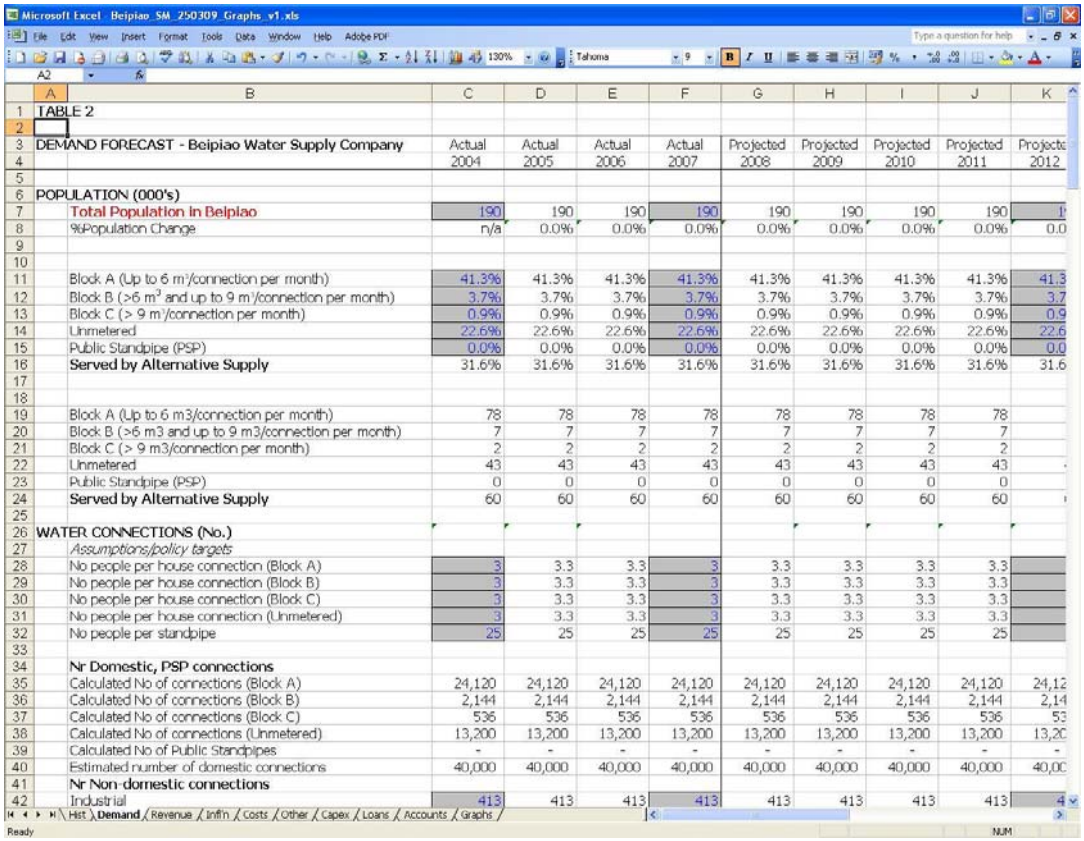
Figure 1 Historical Data Entry worksheet example



	A	B	C	D	E	F	G
1	TABLE 1						
2	SPREADSHEET SET UP DATA						
3							
4		Company name		Beipiao Water Supply Company (BWSC)			
5		Currency unit		RMB			
6		Financial reports units		RMB Thousand		1,000	
7		Units of water measurement		Mld			
8		Starting year	Year end March	2004			
9		Years historical data		4			
10		Years projected		15			
11							
12	HISTORICAL ACCOUNTS						
13							
14	BALANCE SHEET ITEMS (As of year ending December)		2003	2004	2005	2006	2007
15		RMB Thousand					
16							
17	Cash			600.28	2,042.32	2,111.71	1,569.15
18	Accounts Receivable			10,216.79	21,250.96	7,939.65	7,019.01
19	Provision For Doubtful Rec.						
20	Inventory			368.72	216.97	265.02	1,569.15
21	Other Current Assets						
22	Gross Fixed Assets						
23		Fixed assets - General	278.30	11,994.58	30,735.03	31,027.08	31,957.89
24		Fixed Assets - M&E (incl in General)					
25	Accumulated Depreciation						
26		Fixed assets - General		6,167.07	6,901.74	8,591.60	8,628.63
27		Fixed Assets - M&E (incl in General)					
28	Work In Progress		11,716.28	11,872.43	12,899.98	14,077.66	12,783.16
29							
30							
31							
32							
33							

The Historical Data Entry worksheet includes company set up data along with part of the historical balance sheet.

Figure 2 Demand Forecast sheet example



	A	B	C	D	E	F	G	H	I	J	K
1	TABLE 2										
2											
3	DEMAND FORECAST - Beipiao Water Supply Company		Actual	Actual	Actual	Actual	Projected	Projected	Projected	Projected	Projecte
4			2004	2005	2006	2007	2008	2009	2010	2011	2012
5											
6	POPULATION (000's)										
7		Total Population in Beipiao	190	190	190	190	190	190	190	190	1
8		%Population Change	n/a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
9											
10											
11		Block A (Up to 6 m³/connection per month)	41.3%	41.3%	41.3%	41.3%	41.3%	41.3%	41.3%	41.3%	41.3
12		Block B (>6 m³ and up to 9 m³/connection per month)	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7
13		Block C (> 9 m³/connection per month)	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9
14		Unmetered	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6%	22.6
15		Public Standpipe (PSP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
16		Served by Alternative Supply	31.6%	31.6%	31.6%	31.6%	31.6%	31.6%	31.6%	31.6%	31.6
17											
18											
19		Block A (Up to 6 m3/connection per month)	78	78	78	78	78	78	78	78	
20		Block B (>6 m3 and up to 9 m3/connection per month)	7	7	7	7	7	7	7	7	
21		Block C (> 9 m3/connection per month)	2	2	2	2	2	2	2	2	
22		Unmetered	43	43	43	43	43	43	43	43	
23		Public Standpipe (PSP)	0	0	0	0	0	0	0	0	
24		Served by Alternative Supply	60	60	60	60	60	60	60	60	
25											
26	WATER CONNECTIONS (No.)										
27		*Assumptions/policy targets*									
28		No people per house connection (Block A)	3	3.3	3.3	3	3.3	3.3	3.3	3.3	
29		No people per house connection (Block B)	3	3.3	3.3	3	3.3	3.3	3.3	3.3	
30		No people per house connection (Block C)	3	3.3	3.3	3	3.3	3.3	3.3	3.3	
31		No people per house connection (Unmetered)	3	3.3	3.3	3	3.3	3.3	3.3	3.3	
32		No people per standpipe	25	25	25	25	25	25	25	25	
33											
34		Nr Domestic, PSP connections									
35		Calculated No of connections (Block A)	24,120	24,120	24,120	24,120	24,120	24,120	24,120	24,120	24,12
36		Calculated No of connections (Block B)	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,14
37		Calculated No of connections (Block C)	536	536	536	536	536	536	536	536	53
38		Calculated No of connections (Unmetered)	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,20
39		Calculated No of Public Standpipes	-	-	-	-	-	-	-	-	-
40		Estimated number of domestic connections	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,00
41		Nr Non-domestic connections									
42		Industrial	413	413	413	413	413	413	413	413	4

The Demand Forecast sheet shows data entry and projections for population, customer categories and water connections.

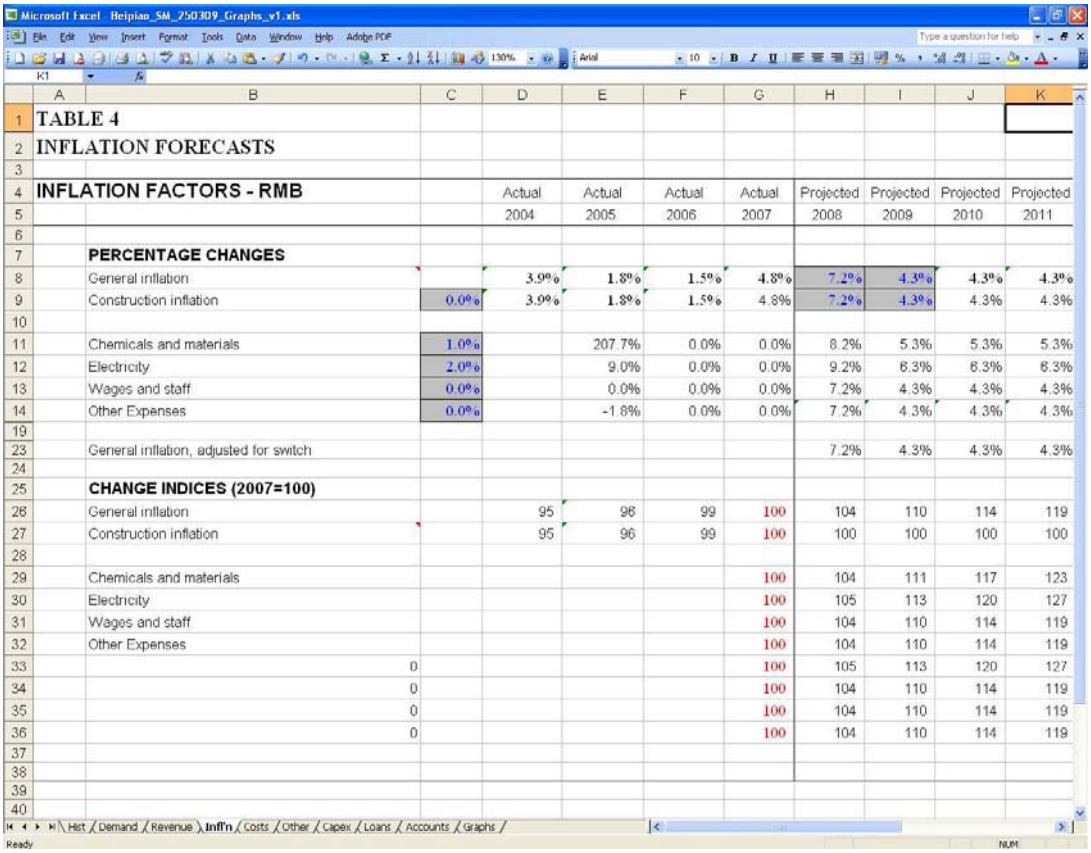
(iii) Revenue forecast

This schedule is used to calculate revenue potential from demand and production/sales forecasts. Customer categories, the tariff structure and tariff levels should be taken from the WSC billing and collection database. Tariff increases should be included in the analysis as required to achieve cost recovery and to meet debt service requirements associated with existing loans and any future loans related to future capital programmes.

(iv) Inflation

This schedule is used to set inflation assumptions for various cost centres. Historic inflation can be sourced from statistical year books. Projected inflation should also be obtained from a reliable source. Inflation for the major operating cost categories can be set at the general level of inflation or adjusted up or down as appropriate. Refer to Figure 3 for an example.

Figure 3 Inflation Forecast sheet example



Microsoft Excel - Beipiao_SM_250309_Graphs_v1.xls

	A	B	C	D	E	F	G	H	I	J	K
1	TABLE 4										
2	INFLATION FORECASTS										
3											
4	INFLATION FACTORS - RMB			Actual	Actual	Actual	Actual	Projected	Projected	Projected	Projected
5				2004	2005	2006	2007	2008	2009	2010	2011
6											
7		PERCENTAGE CHANGES									
8		General inflation		3.9%	1.8%	1.5%	4.8%	7.2%	4.3%	4.3%	4.3%
9		Construction inflation	0.0%	3.9%	1.8%	1.5%	4.8%	7.2%	4.3%	4.3%	4.3%
10											
11		Chemicals and materials	1.0%		207.7%	0.0%	0.0%	8.2%	5.3%	5.3%	5.3%
12		Electricity	2.0%		9.0%	0.0%	0.0%	9.2%	6.3%	6.3%	6.3%
13		Wages and staff	0.0%		0.0%	0.0%	0.0%	7.2%	4.3%	4.3%	4.3%
14		Other Expenses	0.0%		-1.8%	0.0%	0.0%	7.2%	4.3%	4.3%	4.3%
19											
23		General inflation, adjusted for switch						7.2%	4.3%	4.3%	4.3%
24											
25		CHANGE INDICES (2007=100)									
26		General inflation		95	96	99	100	104	110	114	119
27		Construction inflation		95	96	99	100	100	100	100	100
28											
29		Chemicals and materials					100	104	111	117	123
30		Electricity					100	105	113	120	127
31		Wages and staff					100	104	110	114	119
32		Other Expenses					100	104	110	114	119
33	0						100	105	113	120	127
34	0						100	104	110	114	119
35	0						100	104	110	114	119
36	0						100	104	110	114	119
37											
38											
39											
40											

Hist / Demand / Revenue / Infl'n / Costs / Other / Capex / Loans / Accounts / Graphs /

Ready NUM

The Inflation Forecast sheet shows actual and projected percentage changes each year

(v) Operating, maintenance and non-operating costs

The split between costs associated with water and those associated with wastewater (if appropriate) will be based on the figures provided by the WSC. Projected operating costs are based on a cost per m3 of water produced or wastewater collected (if appropriate), derived from WSC's Income and Expenditure Statements calculated for the WSC operation. In this way they are related to the anticipated flow of water and wastewater in the system. A similar approach has been adopted for estimated incremental changes in cost due to the commissioning of new assets.

(vi) Other assumptions

This schedule enables the user to enter any additional balance sheet assumptions as a basis for the projections e.g. level of current liabilities, tax, etc. can be set here. A minimum cash requirement can also be included. Other current assets and other current liabilities assumptions for the projections can be entered. The average months lag in payments to suppliers can also be entered.

(vii) Capital expenditure

This schedule is used to calculate capital expenditures year by year from user entered expenditure profiles, and adds an inflation element. Detailed capital expenditure costs and scheduling should be calculated

outside the model. The total costs for each element of the capital development programme should then be entered into the model along with a percentage completion figure for each year of construction. The schedule goes on to calculate loan draw-downs, interest payments, capitalised interest and amortisation. There is also an area for entry of any grant funding that has or is likely to be received to assist with capital development programmes.

At the bottom of the sheet, calculations for work in progress are included and expenditure is added to assets on a year to year basis. The sheet includes existing assets, as well as future assets. Capital costs of future expenditure programmes in current prices are included and a rough division of associated assets by category is also included. There is also a facility to include an annual programme of works (e.g. leakage control). An assumed rate for average depreciation per annum should also be entered, in-line with current WSC practice.

(viii) Borrowing

This schedule is used to enter details of all existing, ongoing and future long term loans as part of the WSC's current and anticipated financing plans.

(ix) Accounts

Forecast Income Statement, Source and Application of Funds Statement and Balance Sheet are presented in this sheet. Additionally a schedule at the bottom of the sheet provides a number of performance indicators, including debt service coverage, internal cash contribution to investments and average tariffs.

(x) Graphs

A number of graphs are produced for key output and performance indicators to provide a visual presentation of the key WSC performance parameters.

Document Reference Sheet

Glossary:

WSC	Water Supply Company
MIS	Management Information System

Bibliography:

WRDMAP and Beipiao Water Supply Company

Related materials from the MWR IWRM Document Series:

Thematic Paper 3.2	Urban Water Supply Demand Management
Thematic Paper 4.3	Regulation of Small and Medium Size Water Supply Companies
Advisory Note 5.4	Tariff Setting for Small to Medium Size Water Supply Company
Example 5.4	Tariff Setting for Beipiao Water Supply Company
Advisory Note 5.5	Willingness to Pay Surveys (Urban Water Supply)
Manual 5.7	The Development and Use of a Model for Financial Analysis of a Small to Medium Size Water Supply Company in China

Where to find more information on IWRM – recommended websites:

Ministry of Water Resources: www.mwr.gov.cn

Global Water Partnership: www.gwpforum.org

WRDMAP Project Website: www.wrdmap.com

China – UK, WRDMAP

Integrated Water Resource Management Documents
Produced under the Central Case Study Documentation Programme of the GoC, DFID funded, Water Resources Demand Management Assistance Project, 2005-2010.

Documents will comprise of:

Thematic Papers

Advisory Notes

Manuals

Examples

Training Materials

IWRM Document Series materials, English and Chinese versions, are available on the following project website

WRDMAP Project Website: www.wrdmap.com

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