

GLOWS



Learning about self-supply

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This training module forms part of the wider set of Guided Learning on Water and Sanitation (GLOWS) modules that have been developed to support problem-based and guided self-learning on water and sanitation in Ethiopia. GLOWS training materials are currently used by several Technical and Vocational Education and Training College (TVETCs) and in a range of projects supported by SNV, Meta Meta, the Ethiopian Water Alliance, the RAIN Foundation and other partners. This GLOWS module on self-supply has been developed by Marieke Adank and John Butterworth. Its content is largely based on the “*Guidelines for developing a self-supply acceleration plan for your area*”, developed by IRC Ethiopia with the Ministry of Water, Irrigation and Energy. IRC Ethiopia would like to acknowledge the financial support of the Dutch Partners for Water programme (MUSRAIN project) in the production of this module.

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1 Preface

Self-supply happens when people dig their own wells or construct water harvesting systems at household level or in small groups. It can make a huge difference to the availability of water for households and their neighbours.

To scale-up and improve these own efforts in development, the Government of Ethiopia has made a firm commitment to supporting Self-supply. It adopted the National Policy Guidelines for Self-supply: Guidelines to support contribution of improved Self-supply to universal access in January 2012. Further, approaches to Self-supply have been detailed in the WASH Implementation Framework and Self-supply is now an integral part of the One WASH National Programme (OWNP) launched in September 2013.

Objectives of this self-supply module

This module introduces the concepts of Self-supply and Self-supply acceleration and shows how you can stimulate and facilitate Self-supply.

At the end of this module the participant will:

- *Know key Self-supply concepts*
- *Be able to recognize and assess Self-supply potential in a certain area*
- *Understand what can be done to accelerate Self-supply in a certain area*

This module includes field assignments in which participants will work in small teams to analyse situations around Self-supply and explore options for improvement.

2 Introducing key concepts

2.1 Why self-supply?

Before going into detail on what self-supply is, let us have a look at the reasons why Self-supply is important.

Self-supply improves access to water for households

“Self-supply” happens when people dig their own wells or construct water harvesting systems at household level or in small groups. These self-motivated efforts can make a huge contribution to the availability of water for households and their neighbours. It reduces the time it takes to fetch water and increases the amount available for household use, food security and livelihoods. It brings the convenience of a household supply at low cost; and increases the likelihood of a sustainable service because Self-supply means commitment as well as investment.

Self-supply contributes to people’s livelihoods

Self-supply generates income for those who make a living by digging or drilling wells and supplying related products and services. It contributes to livelihoods for families who develop productive gardens and small livestock businesses.

Self-supply can reach people who would otherwise not be reached

With encouragement and support from government and its partners, growth in Self-supply can be greatly expanded, especially in deeply rural areas with scattered populations that our public services still battle to reach. This vital addition to investments is part of the future for successful water services and universal coverage.

Self-supply is government policy

The Government of Ethiopia has made a firm commitment to supporting Self-supply. It adopted the National Policy Guidelines for Self-supply: Guidelines to support contribution of improved Self-supply to universal access in January 2012. Further, approaches to Self-supply have been detailed in the WASH Implementation Framework and Self-supply is now an integral part of the One WASH National Programme (OWNP) launched in September 2013.

2.2 What is Self-supply?

Now we have a better idea of why Self-supply is important, let’s have a look at some key definitions.

Self-supply is defined in the National Policy Guidelines for Self-supply (2012) as:
‘Improvement to water supplies developed largely or wholly through user investment by households or small groups of households.’

Water supply sources for Self-supply can be groundwater (springs or wells), or rainwater and runoff (for water harvesting from roofs or small catchments). The most common Self-supply facilities are privately-owned wells, which may be called family wells, traditional wells or hand-dug wells. Sharing is an important practice. In rural areas, neighbours usually have free access to such wells for their domestic uses.

Self-supply investments by households include activities such as digging a well, deepening or lining a well, adding an apron, parapet or cover, installing a rope-and-bucket, windlass, rope or mechanised pump, cleaning a well, buying a filter, installing a rainwater harvesting system or protecting a spring.

Self-supply has the potential to be rapidly extended to increase coverage and help improve service levels. Wherever there is locally available shallow groundwater or rainwater resources, Self-supply can be implemented. It can be implemented where communal water supply coverage is low (i.e. it can provide access to water that is more convenient and safer than surface water or very distant protected water sources) or where coverage is relatively high (to provide a higher level of service to complement other supplies and to reach the last 10-20% households).

2.2.1 Household irrigation and multiple use water services

As mentioned in GLOWS module 2, household-based systems are one of the options for having multiple use water services (MUS): the provision of water for more than one purpose, including domestic uses (e.g. drinking, cooking, washing and bathing) and productive uses (e.g. irrigation and watering livestock).

Family wells are likely to be used more widely for productive uses than communal sources, and this is a key motivation for households. Income from irrigation may justify the initial investment needed by households, and provide a source of funds to improve the supply.

Wells developed principally for household irrigation will often end up being used for domestic or drinking water supply as well.

2.2.2 Multiple sources and service delivery models

People often make use of more than one water source at the same time – either on an ongoing basis, or during dry seasons.

The Self-supply service delivery model must be seen to complement other service delivery models, including:

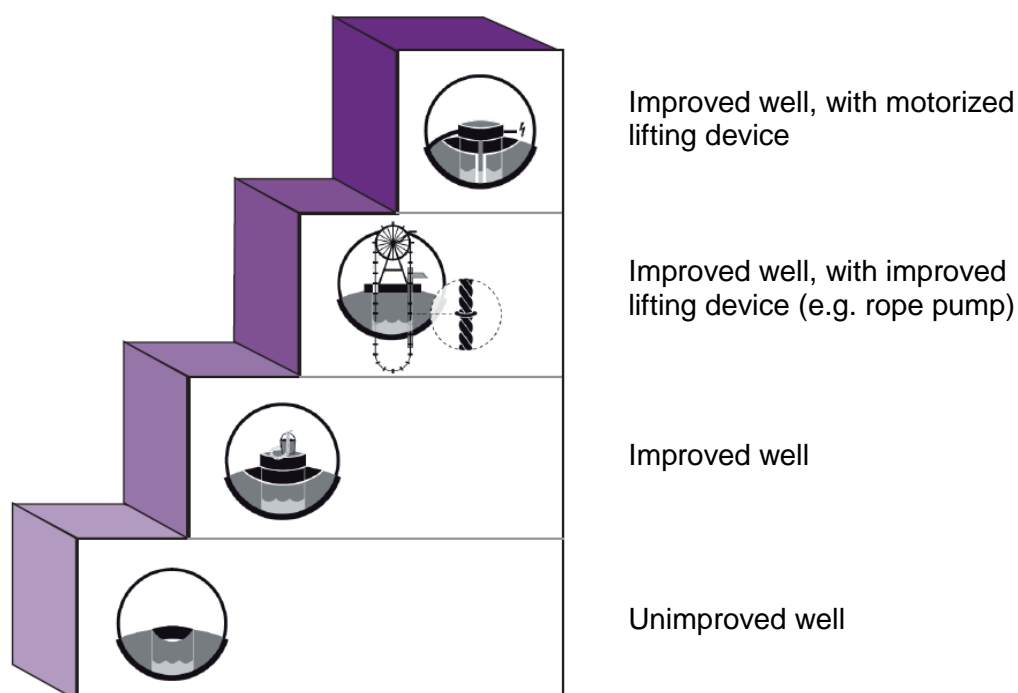
- In rural areas, community-managed water supplies such as those developed through woreda-managed projects (WMPs), NGO projects or community-managed projects (CMPs).
- In urban areas, services provided by utilities or water boards.

It is important to note that Self-supply will not replace communal water supplies managed by Water and Sanitation Committees (WASHCOs) or utilities or Water Boards. Rather, together with these systems, Self-supply will help us reach our goal of achieving 100% access to water.

2.2.3 Self-supply water technology ladder

A key idea in Self-supply is that households can start with a low-cost investment e.g. digging a basic unprotected well. Further investments can be made in affordable steps to move up the ladder to ensure better water quality (e.g. well-head protection), increased ease of access (e.g. adding a windlass or pump) and greater assurance of supply (e.g. deepening the well). See figure 1.

Figure 1: Self-supply water technology ladder (hand-dug wells)



Going from an unimproved well to an improved well, can involve lining the well, protecting it with a cover and minimising the risk of contamination. This generally comes with limited additional costs, which can result in positive health effects. Adding an improved lifting device, e.g. a rope pump, can have a further positive effect on water quality and thereby on health, but also on the amount of water that can be used. This in turn can again have a positive impact on people's health, as they have more water available for hygiene practices, but also on the economic status of the household, as they can use the additional water to support productive activities, such as livestock keeping and small scale agriculture. Including a motorised pump increases the amount of water available even further. Variations on this ladder could include manually-drilled wells and the addition of household water treatment and storage.

2.3 What is self-supply acceleration?

Self-supply is not new. The digging of traditional wells is already a common practice in some areas. However, Self-supply is not as widespread as it could be, and many family wells are not providing safe drinking water. Therefore, there is a need for self-supply acceleration.

Self-supply acceleration is the term that has been given to developing the demand, supply, finance and enabling environment for Self-supply to reach more people in a shorter time with better quality water supplies.

Government and NGOs will play different roles in self-supply acceleration, than those required for communal water supply. Instead of playing an active role in implementation of communal infrastructure, in Self-supply acceleration their activities have to focus on:

- **Increasing demand:** advocacy activities to generate interest and support at all levels, and especially awareness raising and marketing to trigger investments and actions at household level; improved access to information of all kinds.
- **Supporting technology choice:** Support to households in selecting the most appropriate technology, given the local context, availability of water resources

- and financial capacity of the household.
- **Increasing supply:** training, technology development, supply chain development, and other actions that support the provision (especially by the local private sector) of the products and services that households need.
- **Improving access to finance:** from promotion of the use of traditional saving vehicles to lending by micro-finance institutions for both household investments and small businesses.
- **Strengthening the enabling environment:** other supporting actions that promote, monitor and improve Self-supply acceleration at all levels, including planning, coordination, research, standard setting etc.

3 Assessing Self-supply potential

Before we can start thinking about accelerating Self-supply, it is good to consider which areas have the highest potential for Self-supply and could therefore be the focus of Self-supply acceleration activities. In this section we will have a look Self-supply potential of an area can be assessed.

Water resources that are suitable for development through low-cost investments by households or small-groups are clearly a prerequisite for Self-supply. But other factors beyond water resources will affect potential for a Self-supply approach, including the level of existing experience of household-led development of water supplies in an area, the gaps in coverage left by other (communal) water service delivery models and the interest of households in using water close to their home for productive uses, such as household irrigation, livestock watering, small industry, etc.

Self-supply is likely to rely on shallow groundwater or, less often, rainwater and runoff. Shallow groundwater can be developed at household and small-group level through hand dug wells and manual drilling. Springs on private land may also be developed by households and small groups. Some water harvesting techniques are suitable as well, including rooftop rainwater harvesting and runoff harvesting and small ponds at the household level. Some assessment of available water resources and their existing level of exploitation will be needed.

Self-supply is more relevant in areas with scattered populations or gaps in communal water supply. Here, there are fewer alternative water supply options for people. Similarly, it may be expected to take off in areas where there are well-developed input- and output-markets for horticultural or other high value crop production and hence interest in household irrigation. Where there is existing Self-supply, there may be pool of local knowledge to tap such as locally-suited techniques for well lining.

So, summing up, self-supply potential for an area will depend on:

- Availability of water resources
- The settlement pattern
- Current level of water supply services (coverage, functionality, reliability etc)
- Demand for water for productive uses
- Existing experience with self-supply in the area

The table below gives an overview of areas with high, medium and low self-supply potential.

Table 1: Areas with high, medium and low self-supply potential

	Descriptions of areas with different potential for Self-supply
Areas with low Self-	Areas where Self-supply is (currently) not required <ul style="list-style-type: none"> • Areas with 100% coverage, sustainable water supplies, and low demand for water for productive uses

	Descriptions of areas with different potential for Self-supply
	Areas where Self-supply is not an option: <ul style="list-style-type: none"> • Areas without accessible groundwater, inadequate rain for rain water harvesting or unsafe shallow ground water
Areas with medium Self-supply potential	Areas with community-based water supply, but: <ul style="list-style-type: none"> • Challenges with functionality and reliability of the communal water supply, or • High coverage and reliable services, but difficult to reach the last 10-20% of households.
	Areas with low water supply coverage
Areas with high Self-supply potential	Areas where Self-supply is already practiced
	Areas with Self-supply potential, where households have a high demand for water, close to their home (to use for agriculture, livestock, small industry etc.)
	Areas where community-based water supply is not a viable option: <ul style="list-style-type: none"> • Areas with scattered households, or • Inaccessible areas, or • Areas with socio-cultural or other constraints related to community water supply

4 Self-supply acceleration

As mentioned above, self-supply acceleration includes:

- Creating demand
- Supporting technology choice
- Promoting private sector development
- Supporting access to finance
- Creating an enabling environment, including monitoring and ensuring coordination, innovation and learning

In this section, we will have a closer look at each of these elements.

4.1 Creating demand

One of the biggest challenges in scaling up Self-supply, even in areas where the water resources are easily available, is that households are often not aware how to develop or improve their own household water supplies at a cost they can afford.

Household demand must be based on real commitment, since households will need to take money from their household budgets to invest in their water supplies. Self-supply promotion needs to continue until such time that a 'critical mass' of people implementing their own facilities through Self-supply, has been reached, and further development happens largely by itself as a result of peer example.

Households are not the same and will need to be approached with different messages and in appropriate ways. Households with an existing family well that might be improved need different communications to households without such a facility. Box 3 gives an overview of key messages for households on the main advantages of self-supply and on how to do Self-supply.

Box 1: Key messages for households

There are many advantages for you when you invest in construction or upgrading of your own water sources. When water is close to home it means:

- There is more water for personal hygiene. This means your family will be healthier, and will have more privacy and dignity.

- You don't have to travel long distances to fetch it and so there is more time to spend on productive activities (e.g. food gardens and animal watering). More water for productive activities means more food and/ or money for your household. There is also more time for household tasks or going to school.
- You will not have to worry about being safe like you have to when you walk long distances to fetch water.
- You can share your household water source with your neighbours.

How can I construct or upgrade my household water source?

- You have groundwater in your area and/ or rainwater that can be easily harvested.
- There are technologies to suit you at a price that you can afford. There are different levels of service and they have different investment and running costs.
- There are local specialists available to help you construct, upgrade and maintain your household water source. We can help you find the help and products you need.
- You can save or borrow money to support your investment in your own water supply.

At different levels, there are different mechanisms for conveying these messages to households, as described in the table below.

Table 2: Mechanisms for conveying messages to households

	Regional/ zonal level	Woreda/ local level
Messages for the benefits of Self-supply	Develop or customise a mass media campaign	<ul style="list-style-type: none"> - Discuss the benefits of Self-supply at <ul style="list-style-type: none"> o kebele meetings o school clubs o Idir community gathering - House visits by health extension workers - 1-5 grouping - Experience sharing / visits to model households (see <i>Info sheet 7: Community exchange visits</i> for ideas) - Media campaign using local radio and newspapers, and pamphlets in local languages
Messages for technology choice	Develop or customise technology posters in local language	<ul style="list-style-type: none"> - Put posters with pictures on different technology options in public places - Encourage and facilitate the development of demonstration areas, e.g. through model households and public institutions - Organise visits to demonstration sites for household members and/ or influential people within communities (e.g.. traditional or religious leaders)
Messages for household use of private sector services	Register and license the private sector service providers	<ul style="list-style-type: none"> - Meet with private sector service providers to check their interest and willingness to engage in Self-supply acceleration activities - Organise meetings at community or kebele level with private sector service providers - Register and license private sector service

	Regional/ zonal level	Woreda/ local level
		providers
Messages for household access to finance	Register and license micro finance institutions	<ul style="list-style-type: none"> - Meet with microfinancing institutions providers to check their interest and willingness to engage in Self-supply acceleration activities - Organise meetings at community or kebele level with representatives of microfinancing institutions - Discuss financing mechanisms for SS during idir community gatherings

There are similarities here to the ‘triggering’ process in Community Led Total Sanitation and Hygiene (CLTSH). In the case of CLTSH, shame about open defecation is used as the main trigger for bringing about behaviour change. In the case of Self-Supply, the messages are more positive, focussing on how households can improve their health, food security and livelihoods. There is potential for linkages or integration of CLTSH and other programmes that are creating demand, e.g. in Household Water Treatment and Storage and Sanitation Marketing.

In addition to households, there are other stakeholders with key roles to play in Self-supply. They may well not be aware of the benefits of Self-supply, or the partnership role that they could play in accelerating Self-supply. The interest and knowledge of these audiences will need to be developed so they can fully support Self-supply acceleration. These audiences might typically include:

- Political leaders.
- Government and non-governmental (NGO) professionals and donors in water and related sectors including agriculture, enterprise development, health, education, finance, woreda administration, and women and child affairs.
- Technical and vocational education and training centres (TVETCs).
- Research institutions including universities.
- Private sector service providers of all kinds.
- Micro-financing institutions (MFIs).

Box 4 gives an overview of key messages for these different stakeholders to raise their awareness on and interest in self-supply, in order to stimulate their active involvement in the self-supply acceleration process.

Box 2: Key messages for other stakeholders

For political leaders, professionals and donors in the WASH sector (water, health, education, finance, woreda admin, women and child affairs, agriculture):

- Self-supply acceleration is government policy. It is one of the water service delivery models recognised and promoted by government.

- Self-supply can contribute to achieving the objectives of the Growth and Transformation Plan (GTP).
- Self-supply can contribute to ensuring access to sustainable water services for more people, in less time, and of better quality.
- Self-supply leverages resources from government and development partners with resources from households.
- Research shows that household water supply facilities developed through Self-supply can be as safe, or even safer than communal supplies.

For technical/ vocational training institutes:

- Self-supply should be included in your curriculum in order to provide trainees with the knowledge and skills to pursue increasing job opportunities related to Self-supply acceleration.

For research institutions, including universities:

- Self-supply provides good topics for interesting research and innovation.

For private sector service providers:

- There is a demand from households for private sector support services related to Self-supply i.e. there is a potential market for services relating to Self-supply activities.
- Households can be reliable and long-term clients for Self-supply related private sector services.

For micro finance institutions:

- There is a demand from households for financing mechanisms to support Self-supply.
- Self-supply can give people access to more water, closer to home. This water is often used for productive uses. When people take a loan to develop or upgrade their water supply, they will be able and willing to pay the loan back.
- With appropriate loan products (e.g. looking at different collateral options like group loans), microfinancing institutions can support Self-supply and grow their microfinancing market.

The table below presents different mechanisms for conveying these messages to these stakeholders.

Table 3: Mechanisms for conveying messages to some different stakeholder groups

	Regional / zonal level	Woreda / local level
Messages for the advantages of Self-supply acceleration for political leaders and WASH professionals	<ul style="list-style-type: none"> - Customise national level communication materials - Discuss Self-supply at review meetings and at regional and zonal cabinet meeting 	<ul style="list-style-type: none"> - Disseminate communication materials - Discuss Self-supply at review meetings and woreda cabinet meetings - Distribute <i>Self-supply guidelines</i> and <i>Technical guidelines</i>
Messages for the advantages of Self-supply acceleration for research and vocational training	<ul style="list-style-type: none"> - Customise national level communication materials - Bi-lateral discussions - Engaging students in research work related to Self-supply and 	<ul style="list-style-type: none"> - Disseminate communication materials - Bi-lateral discussions - Distribute <i>Self-supply guidelines</i> and <i>Technical guidelines</i>

centres	Self-supply acceleration	
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4.2 Supporting technology choice

People depend on technology to lift, transport, store, treat and use water. Technology can save time, reduce hard work, make water safer and increase productivity.

People need technologies they can afford and that perform well. Households with an interest in improving their own water supplies need to know what they can do to construct or upgrade their household-level water source. They need support and advice on identifying and getting access to the technologies they need.

In order to understand how applicable the technology is, and its potential for scaling-up of existing or new technologies, an assessment should be done with users, producers and those who will facilitate the technology introduction and use (woreda, zonal and regional government and NGO staff). The assessment must cover a range of issues which relate to the following aspects of the technology: social; economic; environmental; legal, institutional and organisational; skills and knowledge; and technology level.

A tool that can be used to assess the applicability of a technology, is the Technology Application Framework (TAF). The TAF can also help give ideas on which areas need to be strengthened when a technology is introduced and/ or scaled-up. Table 4 can be used for a quick applicability assessment for a Self-supply technology¹.

Households need to be informed and supported to make technology choice decisions. Households especially need information on:

- Costs of the technology, in terms of investment, running and possible long term replacement or rehabilitation.
- Convenience that the technology provides.
- Quantity and quality of the water to be provided by the technology.
- Operating requirements.
- Support needed from outside the household to make sure the water supply is sustainable.










People can become aware of applicable technologies in the following ways:

- Training woreda staff in the technical guidelines and on how to support technology choice at household level.
- Exchange visits to see different technologies in use
- Demonstrations from permanent demonstration sites either large (e.g. SMART centres) or small (model households) to temporary displays (a technology fair) and touring road shows.

Development and dissemination of simple information brochures on different Self-supply technologies relevant for your area, with their advantages, disadvantages, costs etc., based on the Technical guidelines.

¹ For a more detailed applicability assessment for a Self-supply technology: Go through the TAF methodology as presented on <http://www.washtechnologies.net/en/taf/how-to-use>.

Table 4: Simplified Technology Applicability Framework (TAF) for self-supply technologies

	User / household 	Producer 	Regulator, facilitator 
Social  <p>Is there a strong demand from target users for the services provided by this Self-supply technology AND a willingness to pay for investment, operation and maintenance costs and rehabilitation costs?</p> <p>Positive Neutral Negative Unknown</p>	<p>Do the producers have resources and effective mechanisms in place to do targeted market research, promotion, product development and follow up as needed?</p> <p>Positive Neutral Negative Unknown</p>	<p>Do self-supply facilitators have the necessary skills and resources to bring about changes to perceptions, attitudes and behaviours for this technology to be sustainable and scalable?</p> <p>Positive Neutral Negative Unknown</p>	
Economic  <p>Is the Self-supply technology affordable for households (ability to pay), in terms of investment and running costs?</p> <p>Positive Neutral Negative Unknown</p>	<p>Can the producer generate sufficient revenues from sales to cover costs of product development, promotion, supply chain development and after-sales support?</p> <p>Positive Neutral Negative Unknown</p>	<p>Are financing mechanisms available or expected to be available in the short term?</p> <p>Positive Neutral Negative Unknown</p>	
Environmental  <p>Is there a risk that negative environmental impacts could result from the use of this technology (e.g. lowering of ground water levels)?</p> <p>Positive Neutral Negative Unknown</p>	<p>Does production of this technology impact negatively on the environment?</p> <p>Positive Neutral Negative Unknown</p>	<p>If this technology is scaled up, could there be negative impacts on the environment, and are any agencies actively monitoring possible impacts who can enforce corrective action?</p> <p>Positive Neutral Negative Unknown</p>	
Legal, institutional, organisational 	<p>Is regulation of producers/ providers and the quality of technologies/ spares they deliver transparent, enforced and effective?</p> <p>Positive Neutral Negative Unknown</p>	<p>Is this technology aligned with national standards and strategies, and is it in compliance with national quality standards? Are there sufficient capacities in place at national and local level to exercise quality control of this technology?</p> <p>Positive Neutral Negative Unknown</p>	
Skills and knowledge  <p>Based on the current level of skills and capacity within the target user group, will households be able to operate and maintain the technology?</p> <p>Positive Neutral Negative Unknown</p>	<p>Does the producer/provider of this technology have sufficient business skills to introduce this technology using a cost model that ensures competitive, affordable rates as well as profitability?</p> <p>Positive Neutral Negative Unknown</p>	<p>Are current capacities and financial resources sufficient at national and woreda level to provide adequate technical advice and support for the introduction of this technology, including coordination, M&E, market research and follow-up?</p> <p>Positive Neutral Negative Unknown</p>	
Technology level  <p>Considering all user groups, what is the expected level of user satisfaction with regard to the envisaged performance of this water technology?</p> <p>Positive Neutral Negative Unknown</p>	<p>Do viable supply chains exist or can they be developed for this technology and spares in this target region?</p> <p>Positive Neutral Negative Unknown</p>	<p>What is the level of supportive structures for this Self-supply technology, in particular for funding further innovation and development?</p> <p>Positive Neutral Negative Unknown</p>	

Source: Adapted from WASHTech Project, 2013.

4.3 Promoting private sector involvement

As demand for Self-supply options is built up, supplies need to step in and meet this demand. This is the law of supply and demand. The local private sector, in particular, has a key role to play in providing the goods and services that households need for the construction, upgrading and maintenance of their household level water supplies.

Local private sector businesses may include skilled local artisans, small and micro-enterprises, hardware retailers, distributors, or larger businesses. The table below gives an overview of different private sector role players at different levels, and the Self-supply services they might provide.

Table 5: Private sector role players and the services they provide

Level	Role player	Self-supply service
Community level	WASHCo caretakers: individuals identified and trained for maintaining communal schemes	- Maintenance services to households and their water sources
Kebele (and sometimes woreda) level	Artisans and masons Small retail shop	- Construction of Self-supply options (digging wells, well lining, masonry, construction of well heads, installation of pumps, manufacturing of rope pumps and other lifting devices etc.) - Maintenance services to households and their water sources - Availability of maintenance materials and spare parts availability, such as ropes and oil - Supply of household water treatment products (including de-fluoridisation), storage containers etc.
Woreda (and sometimes kebele) level	Small and micro enterprises Hardware retailers	- Technical assistance/ advice, consulting services (study, design etc.) - Maintenance and repair service beyond the capacity of the local artisans - Supply of household water treatment products (including de-fluoridisation), storage containers, etc. - Supply of materials (ropes, cement, spare parts, tools for excavation of hand-dug wells etc.)

There are a number of important issues to get right:

1. Increase in demand for products and services must be matched by increase in supply (i.e., a supply chain must exist or be built).
2. Self-supply interventions must not interrupt or break down existing supply chains.
3. It may be necessary to support businesses to be successful.
4. In order to understand a business, you need to 'think' like a business.

Increase in demand for products and services must be matched by increase in supply.

Any effort to increase demand for Self-supply must make sure a private sector supply

chain for the products and services is in place. If this is not done, household demand will fall because people will become frustrated with the lack of availability or long delivery times of items they need to construct or maintain their facilities.).

Self-supply interventions must not interrupt or break down existing supply chains.

It is very important to work with suppliers to build a supply chain, and that existing or potential supply chains are not interrupted by self-supply acceleration interventions. For example, if government buys rope pumps in bulk and distributes them to households, there is usually no link established between the user and the producer or supplier. So when households need spare parts or materials for maintenance or replacement, the households have no place to buy them. It is important to build capacity of the private sector system in ways that continue to support Self-supply into the future.

It may be necessary to support businesses to be successful.

In general, the local private sector related to Self-supply, is weak and will not be able to meet demand without guided investment and support to build capacity. Because subsidies are difficult to sustain over time, this investment should ideally take the form of supporting micro-enterprise development, supporting access to finance, training in specific skills, and supporting research that helps improve the quality and range of products and services etc.

In order to understand a business you need to ‘think’ like a business.

When working with and encouraging growth of the private sector, it is important to *think like a business*.

Businesses exist to make a profit – the amount of money made from sales of products or services should outweigh expenditure (on products, materials, labour costs etc). The profit a business earns is its financial reward for taking risks. Without some profit businesses will not be sustainable and will collapse. Businesses that charge *fair prices* and encourage good competition, are the most sustainable. Unfair pricing disadvantages customers and may need to be regulated in some way.

Box 3: Four tips for thinking like a business

1. Quality customer service is as important as quality of products or services.
2. Sell the Self-supply acceleration vision, but understand the costs.
3. Businesses must take risks and make investments.
4. Businesses may fail. Therefore it is important to choose businesses carefully to ensure sustainably and wise use of resources.

Investments are risks taken by businesses, with the hope these lead to financial gains. Financial investment may be in equipment, stock or input materials, like cement. Non-financial investment may be the time and effort, like attending a workshop about new production methods or business management techniques. While Self-supply acceleration interventions will try to lower risks and barriers to entry, some risk will always be necessary.

Some do’s and don’ts in business support

Do!	Don’t!
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Do!	Don't!
DO encourage innovation and competition – Competition among businesses can help drive down costs and improve quality for consumers.	DON'T offer 'free' seed money – This kind of funding is not necessary to motivate a business to enter the market. Loans can be disbursed through microfinancing institutions.
DO take a 'hands-off' approach to businesses – Make sure that businesses take real risks and make investments. Be prepared for some businesses to fail or pull out.	DON'T limit businesses geographically – Encourage businesses to reach as many new consumers as they can. Do not limit them to 'program villages'.
DO learn from other sectors – Small businesses often have similar challenges and needs. Learn from rural market facilitation and business development programs, and use existing toolkits and guidance.	DON'T set up new businesses – New businesses created by external programs often remain heavily reliant on program support and are unable to sustain themselves after program completion.
DO consider certifying, accrediting and rewarding good partners – Accreditation can increase consumer confidence and enforce standards. Informal recognition and introductions to program communities can be strong incentives for program partners to offer good quality products at fair prices.	DON'T attempt to set prices – Market prices will fluctuate based on inputs and fuel costs, competition and other factors. Encourage fair pricing but allow the market to determine final retail prices.
DO consider mentorship and peer exposure – This could give new or expanding businesses ideas for meeting specific Self-supply needs.	DON'T rush into training events – Take time to convince high potential businesses and understand their needs. Be open to new modes of training and mentoring, rather than one-off training events. Take time.

Source: Pedi, Jenkins and Chapin (2013)

4.4 Supporting access to finance

Self-supply is mostly paid for by households themselves. They use their own money to invest in their own household-level water sources.

The costs of Self-supply for a household will vary quite a lot, and depend on type of water source (e.g., shallow groundwater development or rainwater harvesting), local conditions (e.g., ground conditions for well digging), level of technology, and the amount of contracted or purchased inputs.

It costs US\$ 50 or less for a family to develop a basic first stage well. A semi-protected well using low-cost materials will cost about US\$ 75. In order to further protect the well and add a rope pump the cost is likely to be US\$ 125-175, depending on the type of pump. An electric or diesel powered pump will probably cost another US\$ 350-550. (In some areas diesel pumps are hired rather than bought, and so there will be an ongoing cost to here.) . These amounts are estimations, and will vary a lot, depending on how easy it is to get the technology and services to install or upgrade Self-supply.

Families already invest this kind of money in Self-supply. They usually do it over a

period of time, with lots of small investments.

If more households had better access to finance, Self-supply could be taken up by more, and households able to upgrade their facilities faster and in bigger steps. This is important to with a focus on improving water quantity and quality, as well as the productivity of water sources. Better access to finance may also be expected to support uptake of the approach by poorer households.

The development of infrastructure for communal water supply is heavily subsidised – as a public service – through government and supporting donor grants. In general, households pay water tariffs to their WASHCO to cover operations and minor maintenance. The contribution to the initial development costs by communities may be in cash or in kind, and varies according to the service delivery model. Community contribution is usually between 15-20%, with government and its partners investing 80-85%.

Households investing in their own water supplies do not qualify for hardware subsidies. Small groups of households that are willing to share the use of a facility, qualify for a part subsidy of up to 50% under the Self-supply Acceleration Programme. However, they are expected to cover the remaining investments themselves. The table below gives an overview of different service delivery models and the level of subsidy related to the implementation of the models.

Table 6: Levels of hardware subsidy with different approaches to water supply

Service delivery model	Number of households	Subsidy
Conventional community management (woreda or NGO-managed project)	100 households or more	85% (5% in cash and 10% contribution in kind)
Community Managed Project (CMP)	50 households or more	80% (20% contribution in cash, material and labour with the cash going into a community account for operations and maintenance)
Small group-led investment	More than 10 households	Up to 50% subsidy (e.g., for pump, lining or improvement protection)
Self-supply (household)	Individual households	No subsidy

Access to the money to develop Self-supply by households and small-groups may be improved through:

- Encouraging savings schemes of all kinds, including traditional schemes and Self-Help Groups built around encouraging savings.
- Improving access to micro finance, e.g. through
 - Creating awareness of households on micro finance opportunities for self-supply investments
 - Creating awareness of micro finance institution of a potential new market
 - Stimulating the development of suitable lending products for self-supply related investments by micro-financing institutions.

It is also important to support existing and/ or potential private sector entities to access

finance, so that they can become providers of self-supply products and services.

4.5 Ensuring coordination, innovation and learning and why it is important related to self-supply

The water sector is not the only sector that has a stake in Self-supply. Because Self-supply sources can contribute to improving people's health, but can also form a health risk if not constructed and used properly, health sector stakeholders have an interest. And as household level water sources are often not only used for domestic use, but also for productive uses like livestock watering and small-scale irrigation, the agricultural sector is important as well. The agricultural sector essentially follows a similar approach in household irrigation with its 'one family, one well' target.

Coordination between these different sectors can help in pooling resources, finding common implementation mechanisms and activities, and preventing confusion for communities and households. Therefore, coordination is an essential part of Self-supply acceleration.

Innovation by households, the private sector and NGOs must be supported in order to find better and low-cost ways for improving access to Self-supply.

Unlike Self-supply, Self-supply acceleration itself is a new approach. It is very important to make sure that lessons, innovations and examples of good practice are spread as widely as possible, and as quickly as possible. This will improve the Self-supply acceleration process.

5 Self evaluation

This is an individual evaluation of your understanding of the information presented in this module. Answer the (multiple choice) evaluation questions and check your own answers. In case your answers had many mistakes it is suggested that you review the module again before doing the assignment.

Q1. What is self-supply acceleration (choice the best answer)?

- A. Providing subsidies and seed funding to private sector for the development of products and services that households can use to invest in their own water facilities.
- B. Developing the demand, supply, financing and enabling environment for Self-supply to reach more people in a shorter time with better quality water supplies.
- C. Stimulating households with family wells to upgrade their wells.

Q2. Which of these areas have the highest potential for self-supply?

- A. An area where Self-supply is already practiced, with high demands for water close to the house for productive uses
- B. An area with unsafe shallow groundwater and inadequate rain for rain water harvesting
- C. An area with 85% water supply coverage (through community water supply), but difficult to reach the last 15% of households.

Q3. Which if the following statements, is correct?

- i) Community water supply should only be considered in areas where Self-supply is not an option
- ii) The main role of (local) government in accelerating Self-supply is making 50%

funding available for small groups of households that want to invest in their own water supply.

- A. Statement i is correct, statement ii is not correct
- B. Statement ii is correct, statement i is not correct
- C. Both statements are correct
- D. Both statements are not correct

Q4. What is the best way for stimulating private sector development for self-supply?

- A. Set prices for products and services related to Self-supply in order to make sure they are affordable to all.
- B. Set up new businesses under a project and allocate each business to a number of villages, so they do not compete with each other
- C. Set up a process for mentorship and peer exposure between different private sector actors involved in the provision of Self-supply products and services, in order to give new or expanding businesses ideas for meeting specific Self-supply needs.

6 Assignment

- 1) Assess the potential for self-supply of a selected area
- 2) Select a family with self-supply and find out why and how they have developed their own water facility.
- 3) Select a household without access to an improved source of water supply and find out what are the barriers for the household to develop or upgrade their own household facility through self-supply (e.g. lack of awareness, lack of access to finance, lack of private sector to support with products and services, etc)
- 4) What could be done to accelerate self-supply in the area?

7 References and further reading

IRC Ethiopia, (2013), Guidelines for developing a self-supply acceleration plan for your area, Addis Ababa: IRC Ethiopia

Ministry of Water and Energy, (2012), National Policy Guidelines for Self-Supply, Guidelines to support contribution of improved Self-supply to universal access, Addis Abeba: Ministry of Water and Energy. Available at <<http://www.irc.nl/page/81564>>

Sutton, S., Butterworth, J. and Mekonta, L., (2012), A hidden resource: household-led rural water supply in Ethiopia. [online] The Hague: IRC International Water and Sanitation Centre. Available at: <<http://www.irc.nl/page/74548>>.

Pedi, D., Jenkins M, Chapin, J. (2013) Private sector development: How do we improve capacity of local sanitation businesses? UNICEF Sanitation Marketing Learning Series, Guidance Note 4. Available from < http://www.unicef.org/wash/files/Guidance_Note_4_-_Business_Development.pdf>

8 Answers to self evaluation questions

1: **Answers B is correct.** Self-supply acceleration goes beyond promotion of the private sector is part of accelerating self-supply (which would not necessarily mean providing seed funding) (answer A) and only stimulating households to upgrade existing wells (answer C), but includes creating demand, supply (through advising on technological options and promoting private sector development to provide products and services that enable self-supply), finance and an enabling environment for self-supply (including mechanism for coordination, innovation and learning).

2: **Answer A is correct.** Areas with unsafe groundwater do not have high potential for self-supply (answer B). Areas with 85% coverage do have self-supply potential (answer c) but areas with existing self-supply practices and high demand for water sources close to home to support productive uses, have an even higher self-supply potential.

3: **Answer D is correct:** Community water supply and self-supply can be considered as complementary options. One does not exclude the other. Statement I is therefore not right. The role of (local) government in accelerating self-supply goes way beyond just making 50% of investments available for small group investments in water facilities. Statement II is therefore not right either.

4: **Answer C is correct:** It is not recommended to attempt to set prices. Market prices will fluctuate based on inputs and fuel costs, competition and other factors. It is good to encourage fair pricing, but allow the market to determine final retail prices (answer A). It is also not recommended to set up new businesses directly. New businesses created by external programs often remain heavily reliant on program support and are unable to sustain themselves after program completion. Also do not limit businesses geographically to project areas, but encourage businesses to reach as many new consumers as they can. Also, competition is not a bad thing. It can help drive down costs and improve quality for consumers (Answer B).

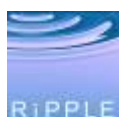
If you failed to provide several of the correct answers, then review this module again.

Organizations involved in developing GLOWS in Ethiopia



RAIN is an international network with the aim to increase access to water for vulnerable sections of society in developing countries - women and children in particular - by collecting and storing rainwater. RAIN focuses on field implementation of small-scale rainwater harvesting projects, capacity building of local organizations and knowledge exchange on rainwater harvesting on a global scale.

www.rainfoundation.org



Research-inspired Policy and Practice Learning in Ethiopia and the Nile region (RiPPLE) is a 5-year Research Programme Consortium funded by DFID aiming to advance evidence-based learning on water supply and sanitation (WSS).

www.rippleethiopia.org



Building on the development priorities set out in Ethiopia's poverty reduction programme and consistent with its commitment to strengthen synergies with the programmes of its key partners, SNV Ethiopia is working in two impact areas: *Access to Basic Services* and *Increase in Production, Income and Employment*.

www.snvworld.org



IRC International Water and Sanitation Centre is a knowledge-focused NGO that works with a worldwide network of partner organisations in order to achieve equitable and sustainable water, sanitation and hygiene (WASH) services. IRC's roots are in advocacy, knowledge management and capacity building. The organisation was founded in 1968.

www.irc.nl



MetaMeta Communications tries to close the gap between knowledge suppliers and practitioners through a range of services in capacity building, training and communications. MetaMeta Communications offers specialized communication services for international development agencies and resource management institutions.

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