

Water and development



**an
essential
guide**

IRELAND
PROGRESSIO

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Water for life

Water is vital. We use it every day, and we use more of it than we realise. And most of the time, we take water for granted.

But not everyone enjoys access to the water they need – with devastating consequences. Around the world many thousands of people die every day due to unsafe water; a huge proportion are children. Tackling this is a huge task. But simply having access to clean drinking water and proper sanitation isn't the whole story.

Many people in poor countries around the world rely on small-scale farming for their livelihoods. With limited or unreliable access to the water they need, they are not able to grow food to feed their families or to sell to make a living.

This 'productive' use of water underpins development. Without access to water resources, the livelihoods of millions of people are under threat. And it doesn't stop there.

Lack of access to water affects every aspect of people's lives, from their health to their children's ability to go to school. In fact, water – having enough of it, and having access to it when you need it – is fundamental to achieving the improvements to health, nutrition, education and the environment laid out in the Millennium Development Goals.

So poor and marginalised people must have fair and sustainable access to water, including the water they need for their livelihoods.

That's something Progressio and our partners across the world are working towards – and this is also the aim of Progressio's 'Waterproof' campaign.

We've written this short guide to give a broad overview of water and development from a Progressio perspective. The five themes show how important water is to the people we work alongside in communities around the world. We hope the people you meet along the way will inspire you to support Progressio's life-changing work.



**change
starts
with you**



“There is no water here, it’s not easy to come by,” says Sindiswe Mhlinga of Kenilworth village in Zimbabwe. “We have dug a shallow well, but it dries up very fast and is not hygienic. The community here has a very big water problem, it doesn’t last a day.”

Sindiswe is one of the young leaders of the Kenilworth Junior Farmer Field School, which is part of the Khayelitsha project supported by Progressio partner organisation Bekezela. All the children are out of school, and some are orphans and vulnerable children. The photo shows two girls from the farm school collecting water from the well to water their crops (see front cover).

View from the ground

“The biggest problem is that of water,” says Rebecca Masimbira, 57, from Chigondo, Zimbabwe. “We live on a plateau which means water is at the bottom of the hill and far away. We carry the water on our heads. Carrying water for growing vegetables doesn't make sense because we cannot ever get enough of it. The water down the hill is 2.5km away and it takes an hour to fetch because we have to carry it up the hill.”



Rebecca is the breadwinner for her family, working all day ploughing the fields, and she also takes care of her husband Maraini (72) and her five grandchildren. For Rebecca, as for many women farmers living in rural Zimbabwe, life is extremely difficult.

Rebecca relies on farming to provide for her family, but due to poor rains and a lack of access to water life became extremely difficult. Rebecca said, "Production depends on the rainfall and so during the dry season we could not grow crops. The biggest problem is water. Water is life, everything I do needs water; cooking, washing, even the flowers in my hair need water!"

Thanks to the work of Progressio and our partner Environment Africa, Rebecca is changing the way she does things. Rebecca has been attending a farming school in the local community. She has been learning new farming techniques which use water more efficiently, and has been taught to grow crops using more sustainable methods.

Rebecca said, "We have learnt a lot of things from the work, it is very important. We have learnt about conservation farming techniques, like using planting holes, how to plant maize properly, the use of organic matter from leaf mould in the surrounding forest, and the importance of keeping bees. We have also been taught about the importance of growing trees. Trees can give us fruits and during periods of a lot of wind they also act as wind-breaks."

Rebecca is now growing a bigger variety of leafy vegetables and has mango trees in her garden. Thanks to the support of Progressio and Environment Africa, Rebecca is able to provide more nutritious meals for her grandchildren and can grow enough crops to sell. Her story shows that with the right skills and knowledge, poor people can be empowered to improve their own lives.

Water, food and farming

Many people in developing countries rely on local food production and small-scale farming (farming on plots less than 2 hectares) for food to eat, buy and sell.

In many parts of the developing world, it's common for people to farm small plots of land close to their homes. Indeed, 80% of rural households in developing countries engage in some kind of food production, and up to 90% of the staple crops in developing countries are produced and consumed locally.

But for this they need water. Water scarcity – because of drought, unreliability of water sources, or poor farmers' lack of access to the available water – means that plants and animals do not grow as well as they might, with significant consequences for local people. Almost a billion people around the world remain undernourished, particularly in sub-Saharan Africa and Asia.

Given the huge proportion of people in developing countries who depend heavily on agriculture for their income, a successful agricultural sector plays a crucial part in poverty reduction.

Short-term boosts to crop production have too often led to long-term damage to soil and water resources. Farmers who shift to food production using sustainable 'agro-ecological' techniques notice a significant impact. These farming processes – such as planting different crops, sharing seeds, and cultivating land differently – make effective, sustainable use of land and water resources.

To ensure water for food and farming, communities in developing countries also need fairer access to water and better water management, including improved irrigation and drainage systems. Only in this way will families be able to grow their own food and earn a livelihood from farming.



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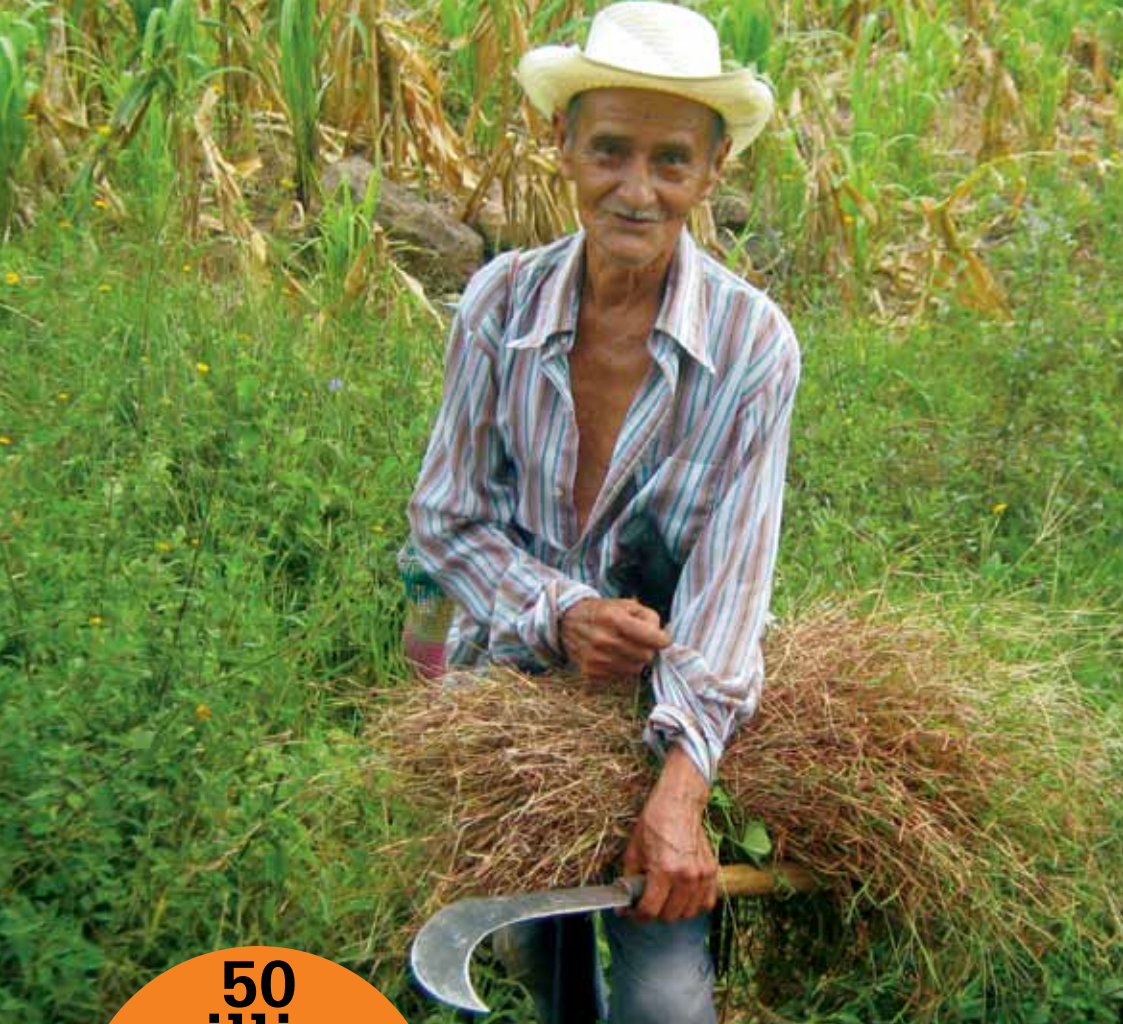
**small-scale farming
feeds a third of the
world's population**



"We used to use regular techniques, and with our five hectares could produce half a tonne of maize. In 2006 we adopted these new methods, and put one hectare under it. In the first year we got three tonnes! In a good year we get four tonnes."

"Two tonnes are enough for my family. The extra we produce means we can swap five bags for a cow, or sell excess grain for cash. It also means we can employ people on our land. We have bought two ox-drawn carts from the proceeds. Since we started using these techniques we have never gone hungry."

Thomas Mahlangu, 71, and Litha Sibanda, 50, live near Lupane, Zimbabwe. With the help of Progressio partner Environment Africa, Thomas and Litha have adopted new water-saving techniques and become food secure.



**50
million**

a 1°C temperature increase will mean small glaciers in the Andes disappear, threatening water supplies for 50 million people



Water and climate change

Climate change is often water change. Hurricanes and droughts are becoming more intense. Sea level rises are turning freshwater salty. Communities are struggling with too little water or too much. Over the next century, climate change is expected to account for a 20% increase in global water scarcity as many areas become drier and hotter.

The ability of aquifers and ecosystems to store, purify and release water is already being stretched. For communities in developing countries, adapting to 'water change' is becoming a priority.

Climate change exacerbates the problem of unfair access to water, and it is poor and marginalised people and groups who suffer most. Climate change affects us all, but those living in poverty do not have the same resources to overcome its impacts.

So solutions to climate change need to have water at their centre too. Alternative forms of energy such as biofuels and hydropower can use water needed by local communities, or push communities from their land. 'Waterproofing' responses to climate change must be put at the heart of development policy.

"We live off agriculture, nothing else. What will happen? Only God knows. I added fertiliser and it didn't work, the earth is so dry. My son left to go to the United States, but it hasn't gone well for him there. There is no help for us. It's God's will. He goes along punishing us bit by bit." – Basilio Valencia, 70, a small-scale farmer in Jucuarán, El Salvador.

In Jucuarán province, 99.5% of the land is agricultural. A bad drought in 2010 resulted in 90% of the farmers losing 90% of their crops. One bad harvest can break you. For these farmers, losing crops means being unable to feed their family or not having any harvest left over to sell.

OIKOS Solidarity, a member of UNES (the Environmental Movement of El Salvador), a Progressio partner, supports farmers to work together to understand the problems they face more clearly, and to find ways to protect their families and livelihoods.

Water and women

Women are usually responsible for the collection and management of household water supplies in developing countries. Water work is often women's work. Because women are often key providers of water for household needs, they are particularly sensitive to any change in water availability (or quality).

Increased water stress can mean women and girls must walk further to collect water, increasing their work load, leaving less time for other activities such as gaining an education and earning an income, and even putting them at greater risk of attack.

Responsibility for small-scale domestic farming often rests largely with women, particularly when men in families migrate to find employment. Water for food and farming is effectively a women's issue – but it's everyone's problem.

Water change from climate fluctuations and irregularity of access hits women and men differently. Women constitute the largest percentage of the world's poorest people and are most affected by climate change, now and in the future.

Water-related projects have greater success when women are involved. Women have repeatedly proven themselves to be effective, adaptive, innovative and creative resource managers. Effective water management must take into account gender roles and the different impacts of water-related stress on women and men.



70%

70% of farmers in developing countries are women; water stress hits women hardest



“Rainwater harvesting is currently a pressing need. In our households, we receive water two days a week for a few hours. The state has completely abandoned these areas. People without a rainwater tank are suffering as water has got more expensive and scarce. We train women so that they are able to grow their vegetables in their yards, use organic fertilisers and be self-sufficient.” – Maritza Arevalo, Movimiento Madre Tierra, Tegucigalpa, Honduras.

In the Honduran capital, Tegucigalpa, many poor neighbourhoods are unplanned and have severely limited access to public water systems. Communities must instead buy water delivered by private suppliers. This water can cost 50 times more than publicly available water and is often unsafe. The cost of the water can represent 25% of the total income of a poor family.

Progressio supports Movimiento Madre Tierra (Mother Earth Movement), a group of local women now numbering around 700 members. The group helps women with limited resources to become self-sufficient by building rain-water collection tanks and developing ‘urban farms’ where they can grow their own vegetables.



“Agro-exporters will never lose – first they’ll finish all the groundwater and then they’ll come for the surface water and the government makes it easy for them. Political favours are being paid off – the agro-exporters drill clandestine wells and the ones who suffer are small and medium sized farms. Our fate is to disappear.” – Small-scale farmer, Ica, Peru.

Peru is the biggest exporter of asparagus in the world, providing much of the world’s out-of-season asparagus. Asparagus generates more than 450 million dollars (US) in export revenue for Peru each year. 95% of that asparagus comes from the Ica valley, a desert region in the Andes where asparagus can be grown year round.

While this has led to economic and social benefits, this growth is unsustainable, as it uses large amounts of groundwater. More water is extracted than renewed so aquifers are depleting. This forces businesses to bore deeper wells, often competing with neighbouring farmers for water, and causing greater depletion.



Water and business

All businesses need water. It's needed for manufacturing, for agri-business, for technology, and even to ensure that staff have facilities in their workplace. Without water, economies would collapse.

Water scarcity, depleted aquifers, disrupted rainfall and climate change all pose major challenges to businesses. Increasingly, companies identify water as a big risk to their business. Effective management of water resources is vital for businesses and the economies which rely on them.

So businesses must play their role in water management. They must act responsibly, ensuring that water is not wasted or polluted, and that water sources are not depleted. And they must act ethically and fairly. Businesses must ensure their water use does not adversely affect local communities by depriving them of water or polluting water sources, thus depriving them of their livelihoods.

Companies that ensure their water use is well-managed will be better able to thrive. Sustainable water management is not a burden for companies; it is a smart response to a changing world.

Businesses can play a key role in creating an economy that provides livelihoods. But development is never solely about economics. Sustainable water strategies must be included in development policy, enabling fair access to water that allows business to develop and thrive, while guaranteeing all people have sufficient access to water to meet their needs now and in the future.

40%

by 2030, demand for water will be 40% greater than the water available

Water and governance

There is enough freshwater for the needs of everyone on earth. But many people around the world are chronically short of water.

In many places, water scarcity can be 'physical' – it just doesn't rain enough, for example. But water scarcity can also be a consequence of poor political processes and institutions.

Poor or absent national and local strategic policy frameworks, a lack of political will, corruption, lack of political space for the participation of the people from poor rural communities, and lack of access or entitlement to land can all contribute to poor water access.

When new water users emerge or when water use becomes more intense, competition grows for access to increasingly scarce water resources. In the absence of proper water management, the poorest members of society, who by definition lack financial or political clout, are hit first and worst.

That's why good water management is key – management that recognises the needs of local people. At Progressio we believe that all water users should have a say in the management of the water on which they depend for their lives and livelihoods – and that means poor and marginalised people too.

Community- and ecosystem-based management, recognising local knowledge and with poor people (especially women) at the centre of decision-making, will go a long way to ensuring improved water management and local water sustainability.



2.8 billion
the number of people
who live in areas facing
water scarcity



"I participate in activities such as the Concejo de Cuencas [the water users' organisation at watershed level]. This organisation gives small water users an equal voice in the management of our watershed, because until now it has been the big companies and the state who make all the decisions, and we are not even told about what they decide."

María Yolanda Rojas Ávila is 35 years old. She lives with her husband, Germán, and their three children, Eduardo, Wilson, and Silvia Rosalina. They live in the district of Antioquia, in the watershed of the Lurín river near Lima, Peru.

Water can be scarce, and disputes often occur. But small-scale water users like María Yolanda are working together to solve their water problems. The work is supported by Aquafondo, an innovative NGO supported by Progressio which charges organisations using water downstream in Lima a small fee.

The money is used upstream to bring farmers together locally, to train them in water conservation and to reforest the watershed. This work helps water to be released slowly throughout the year, ensuring more reliable access to water for people both upstream and downstream.

Progressio Ireland

Who we are

Progressio Ireland is an independent Irish international development organisation. As part of the wider Progressio family we are engaged in 11 countries around the world. Through our skill-sharing and long-term development worker programme we work in partnership with social movements, church groups, networks, NGOs and civil society organisations to facilitate people's active participation in their own development.

What we do

We send skilled professional development workers to our partner countries to share their professional experience and bring about long-term change by tackling the root causes of poverty and enabling people to create sustainable livelihoods.

Progressio Ireland believes that solutions cannot be imposed by external actors but that sustainable and just development requires the active involvement of the local community.

We also contribute to structural change at a global level by challenging policies and practices within the Irish, UK and wider European context, and by forming strategic alliances with global movements for change.

Get in touch with us today to find out more!

progressio.ie

Get involved

- **Give.** Please support our work on water and sustainable and fair resource management with a donation. Donate online at progressio.ie/donate
- **Become a campaigner.** See progressio.ie for more details
- **Become a campaign leader.** We have special campaign materials on water and development aimed at young people and students, and we are looking for those who have (or would like to develop) leadership skills in this area.
- **Become a fundraiser.** We are looking for enthusiastic people to help us organise events to raise money for our campaign and our development work overseas.
- Like us on **Facebook** (Progressio Ireland)
- Follow us on **Twitter** (ProgressioIRL)

IRELAND
PROGRESSIO

St Mary's, Bloomfield Avenue, Donnybrook, Dublin 4

Tel: (01) 6144966; info@progressio.ie

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