

## Improving the learning curve

On the highway heading towards Chongwe, 15km south-east of Lusaka, the red Chinese lettering, high flagpoles and gleaming modern architecture of the [Zambia](#) Chinese Agricultural Technology Demonstration Centre (ZATDC) stand out amid the vast fields of maize.

It is one of 25 such centres built across the continent as part of a grand plan to bring agricultural training to local people, helping them produce better crops with higher yields, so that food security is improved for everyone.

That should be great news for small-scale farmers around here, who – as in many African countries – are mostly women. Makulate Ngoma, 47, sole provider for her seven grandchildren, has a little plot of land. “I became a farmer because I didn’t want to buy maize meal, that’s why I grow crops. But you can’t survive on farming. It’s only enough for day to day.”

Every day, Ngoma travels to Chongwe town, a collection of lean-to shacks and dilapidated stores strung along the road. Stalls of rickety tables hold small pyramids of onions, tomatoes, bananas, and peanuts, watched by women who have planted, grew, weeded and watered each plant.

Despite the ZATDC being so close, Ngoma was unaware of its existence. None of the other stallholders had heard of it either. “We’d like to get training, but we haven’t seen the Chinese, and government hasn’t told us anything. The government doesn’t support us in loans or help us be better farmers,” said Ngoma. The other women nodded in agreement.

Officially, the centres are considered a success, with [China](#) claiming they have boosted growth for thousands of farmers across the continent. Meng Fanxing, a lecturer at ZATDC, said: “We have trained more than 1300 Zambians on different aspects of agriculture such as maize, soybean, vegetable and mushroom production, and agricultural machinery.”

The programme is part of the Forum for China-Africa Cooperation (FOCAC) – an initiative to reduce poverty through agricultural training – and its action plan includes three commitments related to women: equality, employment and self-development.

Zambia's ministry of agriculture chooses to train males, because they have bigger farms and more resources. In a country where 65% of farmers are female, the centre offers an opportunity to improve women’s livelihoods. However, according to the [Agency for Cooperation and Research in Development \(ACORD\)](#), only 42 of all farmers trained at ZATDC are female.

There’s no gender bias and this centre does not choose candidates, said Fanxing. “The ministry of agriculture publishes the training information on its website, and the farms register there. We also spread the training information through our workers, so the locals approach us.”

Dana Kamau, the centre’s only female trainer, believes the fault lies with the government. “The ministry of agriculture has a committee that makes the selection. They choose males, because they have bigger farms and more resources.”

According to the UN, small-scale farmers produce more than 80% of the food requirements in Zambia but productivity is low, with little left over for selling.

In neighbouring [Tanzania](#), 80% of farmers are female. Here, the ATDC is located in the tobacco highlands region. Lush small farms, bursting with wheat and rice fields, dominate the landscape. The centre is deep inside the village of Dakawa, surrounded by a high wall, some 250km north of Dar es Salaam.

Professor Chen Hualin, the centre's director, said at least half of the 2,800 farmers trained were female. "The trainee farmers have been chosen by local government, village leaders, and farmers associations. We also have experts going out to farms for demonstrations."

But less than a kilometre down the road, farmers were mystified as they had had no idea what went on behind the centre's walls. "They've been here for years, but we don't see them. We don't know what work they do behind the high wall, we've never been told of training," said Zuhura Ali, 62.

In Tanzania, trainee farmers are chosen by local government, village leaders, and farmers' associations

Leya Msengu, 50, has farmed all her life, producing just enough to feed her family. Having heard of farmers who increased yields after learning Chinese farming methods, she visited the centre to ask for information, with no success. "There's no formal process, they don't tell us how we can apply for training. They only say we can get a job there for 5,000TZH (£1.70) a day."

Hualin said local farmers might have been overlooked as the programme has focused on regional outreach, adding that a new programme aims to reach all five wards within Dakawa.

At the nearby state-funded Agricultural Research Institute, Sophia Kashenge, officer in charge, said: "The Chinese centre does have benefits, but not as much as expected. What we need is specific, gender-inclusive guidelines for who needs to be trained."

She's optimistic that new agreements with the Chinese can advance the FOCAC commitments to both improve food security, and empower women, "but only if government makes a concerted effort to prioritise the needs of female smallholders, who lack access to capital, markets, and information".

Sven Grimm, a China-Africa expert at the Deutsches Institut für Entwicklungspolitik, said the onus for gender equality was on the larger and more powerful partner in the cooperation. "The Chinese approach is officially 'driven by demand' - and the ball on responsibility would thus, from a Chinese perspective, be in the court of African governments."

### **Six trends that may alter the road to 2030.**

We are approaching two years into implementing the ambitious [2030 Agenda](#) – a historic agreement to end poverty, combat inequalities, promote peaceful and inclusive societies, and protect the environment. The new global framework, with 17 sustainable development goals (SDGs) at its core, commits to promoting development in an integrated way – economically, socially and environmentally – in all countries, ensuring that no one is left behind.

Our recently published report [identifies six megatrends](#) that will shape the trajectories of – and could potentially undermine – progress on the SDGs. In the current context of a looming retreat from multilateralism, the choices governments and societies make to manage these long-term trends will be fundamental to whether the world can get onto a pathway of sustainable development.

### **1 | Poverty and inequalities**

Substantial progress has been achieved in multiple dimensions of poverty in the past decades, including the reduction of absolute poverty, decline in child and maternal mortality rates, and improved access to clean water and sanitation facilities. Income inequality between countries has also been falling, mainly due to the rapid growth in large developing countries.

## How can we reach an SDG target when we're moving in the wrong direction?

Introducing a series that will look at the five most challenging sustainable development goal targets, **Susan Nicolai** explains why they will be so difficult

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Despite these gains, the progress has been uneven and considerable challenges remain. These include rising income disparities within countries, persistent gender inequality and the recent resurgence of poverty across regions due to economic shocks and escalating conflicts. The [Multidimensional Poverty Index](#), which measures deprivation in health, education and living standards, counted 1.6 billion people living in multidimensional poverty in 2016 – nearly twice the number of people living in extreme poverty measured by income alone.

Progress towards eliminating poverty is more difficult during times of uncertain economic prospects, the report suggests. This is further complicated by weak labour market conditions, demographic changes, and conflicts and insecurity. Evidence shows that while economic growth is essential for reducing poverty, a critical link between growth and the reduction of poverty and inequalities is related to the nature and quality of growth, and a balanced distribution of gains across all segments of society.

## 2 | Demography

The implementation of the 2030 Agenda will be affected by demographic dynamics, including population growth, ageing, migration and urbanisation. In 2015, [12.3% of the global population reached the age of 60 or over](#) (pdf), with rapid ageing expected to occur in Europe, North America, Asia and Latin America. In Africa, by contrast, populations are young, which provides an opportunity for a [demographic dividend](#).

It has become easier for people to move, and factors such as poverty, unemployment, conflicts and natural hazards compel people to leave their homes in search of better lives. International migration has [reached record levels](#) (pdf), accounting for 244 million migrants worldwide in 2015. If managed well, migration will continue to bring profound benefits to sending countries through remittances, knowledge and networks, and to receiving countries by filling acute labour shortages and contributions in terms of taxes and care services.

Internal migration is also growing, driving fast increases in urbanisation. On one hand, urbanisation fosters growth and provides a higher quality of life, with cities [accounting for more than 80% of global GDP](#) (pdf). On the other, it raises concerns about urban poverty, social tensions and disparities, changes in family patterns, and environmental risks.

## 3 | Environmental degradation and climate change

Major environmental challenges identified by the report include degradation of air and land, water scarcity, deforestation, marine pollution and a decline in biodiversity. Some of the underlying factors behind environmental degradation include population growth, polluting technologies, and overexploitation of ecosystems driven by unsustainable consumption and production patterns.

The first year of SDG implementation was marked by the slowest rate of economic growth since 2009

The world is already witnessing the impact of climate change on natural systems. This is translated into the [increasing frequency and severity of natural hazards](#) (pdf), which lead to more disasters [due to population growth](#) (pdf) and patterns of economic development. Climate change is also projected to undermine food security, exacerbate existing health threats, adversely affect water availability and lead to increased displacement.

In the coming decades, it is likely that this trend will continue, with more losses expected in livelihoods and assets. This underlines the link between poverty and vulnerability to natural hazards. It also exposes inequity, as countries and populations likely to be most harmed by climate change impacts are often the least responsible for causing them, and have limited capacity and resources to cope with the consequences.

## 4 | Shocks and crises

The report discusses various shocks and crises including economic and financial shocks, disasters, conflicts and disease outbreaks that have undermined the precarious livelihoods of millions of people and can affect progress towards sustainable development. Over the past decades, global forced displacement, for example, [increased by 75% due to conflicts, violence and human rights violations](#).

The first year of SDG implementation was marked by [the slowest rate of economic growth since the 2008-2009 global financial crisis](#) (pdf), weak investment growth and stagnant global trade. While progress has been made in reducing the global unemployment rate, nearly [201 million people worldwide](#) (pdf) were estimated to be unemployed in 2016, including 71 million young people. Global economic prospects remain subject to various risks, including increasing policy uncertainty in major advanced and emerging economies, financial market disruptions and heightened geopolitical tensions.

At the same time, remarkable achievements have been made in [combating major infectious diseases and reducing hunger](#) over the past decades, which can be attributed to political commitment, strong global partnerships and [sound social protection policies](#). Despite this, the world continues to face significant challenges in addressing health issues and under-nutrition, with [nearly 800 million people suffering from hunger worldwide](#), and high risks of famine.

## 5 | Financing for development

To achieve the SDGs, development finance strategies need to go beyond filling financing gaps. While official development assistance will remain a vital source of external public finance for the poorest and most vulnerable countries, it will not be sufficient. All sources of finance – public and private, domestic and international – need to be mobilised. In particular, effective domestic resource mobilisation [will be at the core](#) (pdf) of financing sustainable development.

There is no shortage of capital in the global economy

While resources allocated for development objectives are not adequate, there is no shortage of capital in the global economy. The challenge is to enhance the impact of available resources, while catalysing additional sources of finance into investments in long-term sustainable development.

It is critical to better align private sector incentives with sustainable development objectives through strengthened policies and sound institutional, legal and regulatory frameworks. As a positive trend, the private sector's involvement in philanthropic giving, corporate social responsibility initiatives, impact investing, and inclusive business approaches has been expanding.

A number of innovative multi-stakeholder partnerships such as the [Global Fund](#) and new financing mechanisms for development including green bonds have emerged since 2000. It will be essential to scale up the proven mechanisms in size, scope and geographical reach.

## 6 | Technological innovations

Technology is an important means for implementing the SDGs. The biggest technological advancements over the past decades have occurred in health, education and the environment. For example, the development of new vaccines against infectious diseases is estimated to [save nearly 3 million lives every year](#). Online courses and interactive applications expand access to education around the globe, providing new ways of learning, teaching and collaborative work. Renewable energy technologies are critical in addressing climate change and its negative impacts.

While technologies have provided innovative solutions to many development problems, they have also added new challenges and risks, including security and privacy concerns, polarising opportunities and job replacement. Forecasts suggest that computers could do the work of 140 million knowledge workers by 2025, while [30% of middle-income jobs could be eliminated](#) (pdf) due to innovation in artificial intelligence.

## **How to move forward?**

The multiple crises and disasters in recent decades have highlighted unpredictability and volatility in the global economy, continued uncertainties and disruptions in people's lives, and the vulnerability of development progress to external shocks. Against this backdrop, there is a challenge – and an opportunity – for a sophisticated policy response of preparedness, investment and cooperation.

The report points to four main factors that are crucial in addressing these trends: the importance of evidence in decision-making; policy coherence across the global goals and at different levels of policymaking and implementation; collective action to maximise the positive dynamics in these areas and minimise risk; and broad-based inclusive participation.