PERSPECTIVES 2017/18
The leading publication in development investments
responsAbility

INVESTMENTS FOR PROSPERITY
“Development investments are driven by people’s basic needs; this makes it a stable form of growth investments in the real economy which can be built upon over longer investment horizons.”
World Population

**SOUTH AMERICA IS BECOMING MORE URBAN**
South America is the region of the world with the largest proportion of city dwellers. Urbanisation already transformed many of its countries in the last quarter of the 20th century. Urban migration is continuing and infrastructure, healthcare and employment are being adapted accordingly.

**AFRICA HAS THE STRONGEST GROWTH**
Africa is today home to 16% of the world’s population. This figure is likely to increase to 25% by 2050 and to almost 40% by the end of the century. Mega cities will be created. In just over a decade, Lagos in Nigeria – the largest city on the African continent – will have more than 25 million inhabitants.

**INDIA WILL BE THE WORLD’S NO. 1**
India is set to replace China as the world’s most populous nation by 2050. The country’s growth is placing enormous demands on the supply of energy and food as well as on the expansion of infrastructure and the economy. This is reflected by the strong demand for financing.
# 8 Questions

This magazine takes you on a tour around the fascinating world of development investments. Let these 8 questions guide you along the way.

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<th>A young company has sold to 5 million households in 50 countries. Say what?!</th>
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What do development investments have to do with the fact that there are 1,810 billionaires in the world?

Who is on responsAbility’s board of directors?

What are the 6 business lines?

1. India
2. Costa Rica
3. Cambodia

What does this ranking refer to?
Perspectives 2017/18 . CEO’s Trends

“Development investments are driven by people’s basic needs; this makes it a stable form of growth investments in the real economy which can be built upon over longer investment horizons.”

The idea behind development investments is to contribute positively towards generating prosperity for the low-income section of the population in developing countries via private sector investment activities. People in developing countries aspire to improve their quality of life. The resulting catch-up effects remain the cornerstone of each investment thesis within development investments.

Standard and Poor’s carried out a global survey of people’s basic financial knowledge. The results paint a rather bleak picture. In India, for example, only 24% of those surveyed have a reasonable understanding of simple concepts such as interest, inflation and diversification. The good news is that this level of knowledge increases with access to financial services. As people are keen to have such access, the gap between their aspirations and reality opens up enormous business opportunities.

The development in India can be summarised as follows: Between 2006 and 2015, the number of bank accounts rose from 320 million to 1.07 billion, equating to an average annual increase of about 14%. The amount of assets held in savings rose even more at a rate of 15.6% annually. Financial institutions and their investors earned money with this tremendous growth, benefitting India’s society both economically and socially.

When people in developing countries demand the same goods and services that are taken for granted by the rest of the world, this is called the catch-up effect. It has been the key to responsAbility’s success since the company’s foundation 13 years ago. The catch-up effect remains the prevailing mechanism for developing and emerging economies, reflecting the fact that the high rate of growth financed by development investments is driven by people’s basic needs.

This makes it a stable form of growth which can be built upon over longer investment horizons. As long as hundreds of millions of people are still unable to take simple everyday things for granted, the dynamic will remain high. Through investments, private sector investors can contribute to closing this gap while at the same time benefitting from the current situation.

Although development investments are fundamentally driven by catch-up growth effects, they are also subject to predominant trends, just like any other investment topic or asset management focus. It is interesting to observe these trends, as they will shape the activity field for years to come. The following five trends are the most important ones in development investments.

ROCHUS MOMMARTZ has been the CEO of responsAbility since 2016. He was instrumental as a consultant when the company was founded in 2003 and was one of its first employees.
Important trends for development investments

AWARENESS ABOUT THE NEED AND OPPORTUNITIES FOR INVESTMENT

Private sector investors are discovering opportunities to invest with purpose and without sacrificing returns for impact. And that is still a relatively new phenomenon.

Awareness about such opportunities is only just emerging and it is certainly to soon to draw any conclusions about the relevance of this process. However, the signs seem to indicate that even institutional investors see development investments as being more than just a fancy marketing trend. The forces at work are complex, but the trends all point in the same direction: more funding for development investments. The public sector, which started to “invest” in developing countries decades ago, is pushing the agenda via the Sustainable Development Goals (SDG), as it is becoming increasingly apparent that without the private sector it will be impossible to overcome the imbalances within a reasonable timeframe.

The rapidly growing number of ultra high net worth individuals – 2016 saw a total of 1,810 billionaires worldwide and there have never been so many wealthy young people – is often characterised by a youthful new spirit of “giving back”. This trend is seeing many prosperous individuals focussing on investments that have a positive impact and who want to help the world to advance through investment. These young wealthy people are often entrepreneurs who believe in the power of investments to instigate change. Business and entrepreneurship is their medium for change. Added to this are the large institutional investors who are having a tough time achieving their target returns in the current low-interest environment. Some are also facing pressure from their constituents regarding their investment “ethics” or are simply taken by the charm of the longer-term opportunity. Increased integration of economic, social and environmental (ESG) criteria is a clear sign of this, as is the start of SDG-related portfolio allocation.
POST-CRISIS TREND TOWARDS MORE PATIENT CAPITAL

Completely independently from development investments, there is a clear industry trend towards more patient capital.

Asset managers have been taking a more long-term approach since the crash. In 2015, long-term vehicles provided more financing to start-ups in the UK than the traditional venture capital structures. But more “patient” forms of investment are also in vogue with the largest asset managers; this trend is very supportive of development investments because it is helping to mainstream the approach, which often needs longer-term investment horizons.

In terms of figures, this approach entails an investment horizon of 15 to 20 years instead of the usual private equity targets with a planned exit within 3 to 5 years. Average annual net returns of 12% are accepted, while in the past this usually had to be around 20% or more. While it’s still early days, we see it as a signal that points towards the emergence of new strategies which align well with the spirit of development investments.

SUCCESS IMPLIES A LOT OF CHANGE

Successful developing countries have rapidly growing economies. For development investors this is a sign of confirmation that represents both a challenge and an opportunity.

It is a challenge because success always implies change. Take microfinance, for example. Once a cluster of microfinance providers starts to enjoy success in a specific regional market, their original business approach becomes less relevant, as their clients are developing from typical microentrepreneurs into small business owners. Both have different requirements with regard to financial services and the microfinance institutions have to adapt. This is because growing prosperity is automatically associated with growth in society, the economy and people’s expectations.

In the financial sector, a shift in demand is typically observed from the classic microfinance business towards SME banking services. New players – often regional providers – also begin to enter the market. Established financial institutions respond by adjusting their business models, for example by providing financing for the new regional financial services companies. This pattern is repeated without exception in every economy when it begins to gather momentum.

For asset managers like responsAbility, the changes that result from evolving clients inevitably present a big challenge. It’s a challenge that I welcome, as it brings clarity to the marketplace about whether or not its players are fit and up to the task. It also represents an opportunity because new types of needs and demands emerge.
First the financial crisis, then tougher regulations. These developments have resulted in fierce standardisation and compliance costs, requiring companies to become institutions of scale.

Financial services providers have faced waves of new regulations since the last financial crisis. The costs of compliance also demand a critical mass. This is true for all segments of financial services and development investments are no exception. Effective cost management – especially in light of higher regulatory standards – is just as important for specialised asset managers as it is for general asset managers. More efficient use of administrative, processing and distribution structures is key. For responsAbility, this means building a platform that is as lean as possible, via which we can serve a landscape of development investment products across three sectors: agriculture, energy and finance.

Modern technologies have always been a catalyst for development. But the current dynamic may be surpassing anything we have ever seen before.

Rural areas are invariably disadvantaged by a shortage of basic daily products and services. The reason for this is usually the high costs of the last mile. For example, centrally controlled landline telephone networks where the costs for connecting individual homes to the network were too high. Typically, the provision of health care services decreases with the remoteness of an area due to cost factors. Developments in technology suddenly eliminated part of this hurdle: thanks to mobile networks, people that have never had a telephone line in their homes and never will are now using mobile telecommunications. Soon they will also have basic health care diagnostics via the same channel. This phenomenon of skipping a development step is called leapfrogging.

We are observing with interest how the health and education sectors are developing. The current state of key technologies is looking very promising for the future.
FINANCE

A wave of development is underway and the financial sector has a key role to play in it. Financial institutions are constantly growing and evolving.

Microfinance institutions (MFIs) are becoming larger and more professional. They are increasingly offering services to small and medium-sized enterprises (SMEs) and are evolving from pure microfinance lenders to SME banks that meet stricter regulatory standards. This is resulting in additional activity in the MSME banking sector (microfinance and SMEs).

It is a sign of the success of MFIs. The trend that they themselves have shaped has now become a dynamic wave – transporting these institutions into entirely new business segments.

For market participants such as responsAbility, this maturing process is their raison d’être. They were one of the main drivers behind this development and they operated profitably in what can be described as a textbook ‘win-win’ system.

Asset managers like responsAbility, whose investment vehicles have been supplying MFIs with capital for over a decade, are themselves now also adapting to the new degree of maturity in these markets. This typically results in larger financing amounts – meaning that more capital is also being supplied to financial institutions that primarily serve SMEs. On the one hand, they consist of the above-mentioned MFIs that have grown into the mid-market segment. On the other hand, they encompass new or existing financial institutions for the mid-market segment.

responsAbility forecasts in its Microfinance Outlook that MSME financial markets will grow by an average of 10% to 15% in 2017. In the Asia-Pacific region, the sector is expected to grow by as much as 25% to 30%, reflecting developments in India as well as strong growth across the entire region.
TARGET MARKETS OF FINANCIAL INSTITUTIONS

LARGE COMPANIES

SMALL AND MEDIUM-SIZED COMPANIES

MICROENTERPRISES

NUMBER OF COMPANIES

$ BUCKS FROM BANKS FOCUSING ON SME ENTERPRISES

$ INVESTORS/ASSET MANAGERS

$ MICROFINANCE INSTITUTIONS

LIKE RESPONSIBILITY'S INVESTMENT VEHICLES
“If we don’t have faith in the management team, we never invest.”

MICHAEL FIEBIG
is Head of Financial Institutions Equity at responsAbility.

What makes a financial company attractive to a private equity investor?
Growth prospects are key and we* focus on firms with an impact on broad sections of the population. We are not interested in pure consumer credit banks.

What is the growth outlook for 2017?
The micro and SME financial markets will achieve growth averaging 10–15%.

What else is important to you?
We look intensively at the strength of the management team, the governance structure, the business model and the spirit of the company.

Do you sometimes make allowances in this context?
If we don’t have faith in the management team, we never invest. We typically acquire a stake of 10–20% in the company. We tend to have a seat on the board of directors and we make our network of contacts, our know-how and our expertise available to support the strategic development of the company.

How long is the period of investment?
It can be significantly longer than is the norm with private equity investments outside the field of development investments, where it is usually a case of spending two to five years improving a company before achieving a good sale. In our case, the long-term increase in the value of the company is far more important. Here, we are not only focused on generating a capital gain. Dividend returns can also be a key driver of attractiveness.

What are the target returns?
There is no fixed target return for equity investments. However, on average these investments produce significantly higher returns than would be possible in the credit business. We are realistically talking about 10–15% or, in individual cases, a multiple of that figure.

How do you find potential investees?
I lead a team of ten investment professionals who are based in the regions that offer potential – primarily Asia and Africa at present. Our people monitor the markets and follow up on attractive opportunities that emerge.

What is more difficult to find – deals or the capital needed for further investment?
In the current market phase, finding good deals is not as easy as in stronger growth environments. In the medium term, however, our main challenge will not be to find deals but rather to secure enough capital to capture the big opportunities that are emerging.<

Credo in Georgia is a good example of a high-quality microfinance institution that we supply with debt capital. We’ve been convinced of the strength of its business model since our collaboration began in 2008: it has innovative products, a solid balance sheet and a management team that knows its work. Credo also sets high standards in terms of client transparency. In 2008, it was already well positioned in the market and needed financing for further growth. With 1,600 employees in 57 branches, it is today a market leader in Georgia and serves 50% of the country’s microfinance borrowers. Credo is now ready to apply for a banking license and we are helping it to take this step by also supplying it with equity capital and our expertise on this type of process.

The provision of debt capital to local financial institutions promotes the financial sector in that area and indirectly benefits the region as a whole, since the funds we lend to financial institutions are used to refinance loans to local businesses. It would be too risky or not economically viable for us* to finance the businesses directly due to their small size. However, business lending is a core activity of the financial institutions that are our clients. What they value most is rapid access to debt capital and the backing of a stable partner.<

MARTIN HEIMES
is Head of Debt Financing for Financial Institutions at responsAbility.

Capital strengthens the entire region

* Which legal entity invests? See our legal disclaimer on page imprint.
Opportunities

Senegal, Bolivia, Bosnia and Herzegovina: three countries, three stages of development. Higher income naturally leads to less poverty. What is interesting is the strong leverage effect: Bolivia’s income is double that of Senegal and, as a result, its level of poverty is only 10%, compared to 65% in Senegal. The financial sector offers great potential for international investors. Most importantly, thanks to successful development, local demand for SME banks with comprehensive services is growing.

**3 Countries**

**Income and Poverty**
- [Gross National Income per Capita](#)
- [Poverty Level (USD 3.10 per Day)](#)

**Financial Inclusion – Based on Bank Account Ownership and Access to Financing**

**Financial Illiteracy**

India

Only 24% of India’s population are financially literate, meaning they have access to financial services and understand basic financial matters.


**Banks Financing SME Enterprises**

Breakdown of responsibilities’ portfolio*
- % Portfolio in SME
- % Portfolio in Microfinance

*Source: responsibility, research 2017

**Largest Opportunities for SME Financing**

- Senegal (low income)
- Bolivia (lower middle income)
- Bosnia and Herzegovina (higher middle income)
The advance of mobile banking is being driven by developing countries. In Kenya, the usage level of such services is evidence of incredibly high demand.

Source: fsdafrica 2017

Thanks to state-of-the-art mobile banking, virtually all adult Kenyans can now open a bank account within 30 seconds (source: cgap.org). The vast growth shown in the illustration demonstrates the need for individuals to have access to professional tools when managing their money.

India alone will have 337 million unique new mobile subscribers (projected net growth).

Source: GSMA Intelligence, 2016
In Asia alone, 525 million people can already count themselves as members of the middle class. That is more than the total population of the European Union. Over the next two decades, the middle class is expected to expand by another 3 billion, driven almost exclusively by the emerging world. Ernst & Young estimates that by 2030, two-thirds of the global middle class will live in the Asia-Pacific region, compared to just under one-third in 2009.

Source: Ernst & Young

Between 2015 and 2022, mobile data traffic is expected to increase by more than 1,000%. In 2022, the worldwide coverage (Long-Term Evolution/LTE standard) is set to reach 80%.

Source: GSMA Intelligence, 2016

The three top levels show the regulated segments of the financial market. The largest growth is achieved by those institutions that do not accept savings deposits. However, the number of licensed banks is also increasing. This progress is attributable to development investments, among other factors.

Source: responsAbility
ENERGY

Developing nations are expanding rapidly and the demand for energy is soaring. Falling technology costs offer potential for enterprising solutions.

Investments in renewable energy and energy storage facilities are creating new development opportunities. The proportion of power plants that generate renewable energy is growing. Electromobility and the decentralised supply of energy are other key trends. Here, developing nations are bypassing several of the technological phases seen in OECD countries and are directly implementing a 21st century infrastructure.

Developments in the telecoms sector are a good indication of how the energy supply may look in the future. Hundreds of millions of people had never had a fixed telephone line. As the sector developed, they acquired a mobile phone rather than first having a fixed telephone line installed. Today, it is the same in many regions without an electricity network – the next step is not to get connected to the centrally managed grid but rather to move directly to decentralised energy production and be independent from the grid, e.g. using a combination of solar panels and batteries.

By 2040, the demand for energy in developing countries is set to grow by around 50% compared to current levels, according to the International Energy Agency (IEA). Meeting this demand will be a huge challenge – requiring a dynamic approach by entrepreneurs and an unprecedented level of financing. The IEA believes that investments of around USD 44,000,000,000,000 (44 trillion) are needed – including a growing proportion for renewable energy. In developing countries, USD 23 billion will need to be invested solely to bring the technology of pumps, compressors and refrigeration units up to modern standards of energy efficiency.
The white components show the proportion of renewable energy relative to total electricity production for each country or region. The growth potential of renewable energies comes from two areas:

1) Substitution, where non-renewable energy is replaced by renewable energy.

2) The growing demand for electricity. Example: Even Kenya, with its large proportion of renewable energy, has great potential for these forms of energy production, as overall demand is continuing to grow.
Greenlight Planet replaces kerosene light with solar electricity

ANTOINE PRÉDOUR
is Head of Energy Debt Financing at responsAbility.

Private equity: in it for the longterm

JEROME NIESSEN
oversees private equity investments in the energy sector at responsAbility.

Which areas within the energy sector are especially attractive to providers of debt capital?
We are interested in small-scale renewable energy projects, in solutions to increase energy efficiency – primarily in industry but also in households – and in companies that provide access to electricity or improve the reliability of supply in rural areas.

What financing periods are to be expected in the energy sector?
It largely depends on the projects being financed. To improve access to energy, companies typically need financing for 6 to 18 months. For the financing of energy-efficient production plants or equipment, the financing period tends to be 7 to 10 years. For the construction of energy production plants, the financing term can be up to 15 years.

What are the main regions you invest in?
We work globally through financial institutions that invest indirectly in energy projects. Our direct investments are currently focused on countries in Asia and Sub-Saharan Africa. Our mid-term objective is to fund projects worldwide.

What type of companies or projects do you finance?
A good example is Greenlight Planet in India, a company founded less than a decade ago. Using photovoltaic technology, it supplies light to rural populations in developing countries, without requiring a connection to the electricity network.
Its products are already sold in over 50 countries and are used by more than 5 million households. With their pico-scale solar systems, the company has already installed panels with an overall capacity of almost 10 MW.
In previously unserved households, people can now afford low-cost solar light. Since they no longer have to spend money on expensive kerosene light, this also increases their disposable income.

The energy sector is very attractive to private equity investors due, in particular, to the vast and growing demand for energy in Sub-Saharan Africa. The amount of investment needed in this area runs to billions of dollars. Since the public sector lacks the financial capacity to fund these investments, private sector participation is needed. At the same time, Sub-Saharan Africa has small numbers of project developers and almost no investors.

To succeed in private equity, you must actively help to build up companies rather than only investing in functioning firms. That often means investing at an early stage.

The ideal case is as follows – though things rarely happen exactly this way: A company in Sub-Saharan Africa finds a suitable area of land where it can build a power plant for hydro energy. responsAbility helps it to implement its plans – from financing the purchase of the land to the construction and marketing phases. Thanks to all these efforts, the new energy provider grows from a startup to a robust market player that can borrow more capital at any time to fund further growth. The company supplies the population with green electricity at a local level. The early and intensive commitment of private equity investors significantly increases the chances of success of young energy companies.

*Which legal entity invests? See our legal disclaimer on page imprint.
OPPORTUNITIES

People who lack access to electricity no longer need to wait to be connected to the central grid. Instead, thanks to falling prices, they can increasingly afford a decentralised electricity supply powered by solar energy, for example. The efficient use of energy is an important topic in developing countries – especially since they will account for the largest proportion of the additional demand for energy in the coming decades. The challenges are enormous – as are the business opportunities.

NO STANDARDS

70%

of global energy consumption is not yet subject to mandatory efficiency standards targets.

Source: IEA

INSULATION IN TURKEY

THE RETROFIT PROJECT

NEW INSULATION OF BUILDING

60% DROP IN ENERGY LOSS

Source: responsAbility

SOLAR SYSTEM INSTALLATION

FOR SMALL BUSINESSES

The electricity demand profile of small businesses typically fits very well with solar system generation profile. If the local utility allows net-metering, the opportunities expand to less suitable demand profiles.

Source: A responsAbility Case in Nicaragua

GREAT POTENTIAL

LOW RATES OF ELECTRICITY ACCESS
(RURAL SUB-SAHARAN AFRICA)

Source: world bank

LOW RATES OF ELECTRICITY ACCESS
(RURAL SUB-SAHARAN AFRICA)

Source: world bank
DRIVERS

WORLD ENERGY OUTLOOK

Rapidly growing societies need more energy. Investments in renewables and in energy efficiency are crucial.

Source: International Energy Agency

FALLING PRICES
SOLAR POWER BECOMES AFFORDABLE

Average capital costs for photovoltaic installation and combined photovoltaic capacity are continuing to fall over time, building on recent cost reductions. Installed capacity is increasing.

Source: IRENA (International Renewable Energy Agency)
Perspectives 2017/18 . Sector Energy

**PRICE OF BATTERIES**

Electric vehicles have lower fuel costs. However, the initial costs (mainly the battery price) of an electric vehicle are higher and that keeps them from becoming mainstream. Times are now changing; battery prices have fallen by around USD 200/kWh. USD 125/kWh is the level at which electric vehicles will gain substantial market share according to NREL (National Renewable Energy Laboratory). It’s going to happen soon.

Source: Bloomberg new energy finance

**NEW INFRASTRUCTURE**

**ACCESS TO ENERGY**

*Off Grid Electric’s (OGE)* experience in Tanzania and EDF’s experience in South Africa show that households using off-grid solar services have reduced emissions from kerosene and black carbon.

Source: OGE Press Release
AGRICULTURE

The demand for food is growing even more rapidly than the world’s population. This creates significant challenges for the agricultural sector.

By 2050, Sub-Saharan Africa will be home to well over one billion people – twice as many as today. Even now, the market for food in this part of Africa is not functioning properly and the situation will become worse due to extreme population growth. The world’s population is also expanding. To meet the vast demand for food, global agricultural production will have to increase by 40% by 2030 and double by 2050.

The demand for agricultural produce is growing at a disproportionately higher rate than the population because the proportion of people who can afford more food is rising. This enormous demand for food is both a challenge and an opportunity for the agricultural sector. “The agricultural industry needs to accelerate productivity increases – but that alone will not suffice,” says Gaëlle Bonnieux, Head of Agriculture Debt Financing at responsAbility. She believes that in addition to the goal of food security, significant improvements in infrastructure and processes are needed. If a larger proportion of the harvest could reach consumers intact, this would already make a big difference. In addition, more balanced distribution would help to reduce the gap in some regions. “Companies in developing countries need to attract capital in order to make the agricultural infrastructure more efficient,” says Gaëlle Bonnieux. She explains that the current financing gap is around USD 267 billion per year. The Food and Agriculture Organization (FAO) of the UN has calculated that this is the amount of money still needed each year to remain on course to supply sufficient food for the entire planet in 2050.
THE AGRICULTURAL VALUE CHAIN

UPSTREAM

- PRODUCTION FACTORS
  - FERTILIZER PROVIDERS
  - SEED PROVIDERS
  - IRRIGATION PROVIDERS
  - FEED PROVIDERS
  - EQUIPMENT PROVIDERS

PRODUCERS

- PRODUCER ORGANIZATIONS
- OUTGROWER SCHEMES
- COMMERCIAL FARMS
- PLANTATIONS

MIDSTREAM

- PROCESSING AND LOGISTICS
  -PROCESSORS
  - WAREHOUSING
  - PACKAGING SERVICES

DOWNSTREAM

- DISTRIBUTION AND RETAIL
  - TRADERS
  - RETAILERS

Source: responsAbility Research
You* make equity investments in agriculture. How does it differ from the energy and financial sectors? All three sectors are very important for economic development. Agriculture stands out because about 2 billion people in developing countries are dependent on it for their income. A big difference between agriculture and the energy and financial sectors is that it is more fragmented and is unregulated, since there is no entity to control the sector in the way that a central bank oversees financial services. The investment universe is also much broader and more diverse in the agricultural sector.

What is the difference between debt capital and private equity investments in agriculture? Private equity is, by definition, a long-term investment instrument – and even more so because we are providing growth capital. From an investor perspective, debt is more focused on getting the loan repaid. We focus on growth, value creation and the alignment with other shareholders and management. As such, we are a true partner to the company and share its objective of value creation while seeking an attractive exit.

How does that work? Before we invest in a company we thoroughly analyse the sector, its operations and its strategy, etc. Once we’ve invested, we take a seat on the company’s board and, more importantly, we get involved in various ways – but always with a focus on expenses, sales and HR. We also work with companies to implement best practice regarding environment, social and corporate governance aspects.

What do you consider the ideal business case? The ideal company will generate an above-market financial return while creating significant environmental and social benefits. Our investment strategy and investment criteria focus on companies with vertically integrated business models that are regional players or have hard currency income through exports. Typically, they operate midstream and downstream in the agricultural value chain. The quality of the management team, execution capabilities and an alignment with us as investor are key.

How do companies benefit from a private equity investor like responsAbility? We provide the necessary capital to fuel the growth of the company but are also a partner that brings more than just finance to the table. <

*Which legal entity invests? See our legal disclaimer on page imprint.

Debt capital for agricultural firms

responsAbility’s investment vehicles* supply companies in the agricultural sector with the debt capital financing they need to grow their business. Firms with innovative business models are especially attractive. It is important they create a win-win situation. Companies such as this typically invest in training smallholder farmers, thus helping them to improve the quality of their produce and secure higher prices by ensuring consistent, high-quality procurement. This way, investors and farmers benefit in equal measure – and can, together, enhance value creation. The aim is for all participants in this process to generate the level of income and margins they need to maintain a good living, operate sustainably and achieve healthy growth.

In the agricultural sector, businesses need rapid and timely access to funds in order to secure supply and ensure a faster cash conversion cycle. In such cases, the amount of capital needed tends to exceed the capacity of impact investors (up to around USD 2 million) but is below the threshold at which financing becomes attractive to development finance institutions (DFI) (around USD 5 million). As a result of this financing gap, medium-sized agricultural businesses often find it difficult to grow. This is called the “missing middle” and is an attractive niche area. <
OPPORTUNITIES

In developing countries, most farms are small and few young people want to run them in the future. At the same time, the world is experiencing explosive population growth – especially in cities – and the middle class is expanding rapidly. The winners are entrepreneurs who produce large quantities of food sustainably and deliver it fresh to customers.

GROWTH IN AFRICA

The world’s population is set to increase from 7.3 billion in 2015 to 9.7 billion in 2050. More than half of this growth will occur in Africa.

Source: UN 2015, Working Paper No. ESA/P/WP.241

SCARCE RESOURCES

WATER IN AGRICULTURE

The scarcity of resources creates business opportunities in the area of highly efficient water use. The obvious response: drip irrigation instead of flooding.

Source: UN World Water Development Report 2014

CONSUMPTION GROWTH

2013 TO 2022

<table>
<thead>
<tr>
<th>Product</th>
<th>Growth (%)</th>
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<tr>
<td>Dairy</td>
<td>12%</td>
</tr>
<tr>
<td>Cotton</td>
<td>15%</td>
</tr>
<tr>
<td>Coarse grain</td>
<td>22%</td>
</tr>
<tr>
<td>Meat</td>
<td>24%</td>
</tr>
<tr>
<td>Poultry</td>
<td>28%</td>
</tr>
<tr>
<td>Veg oils for food and fuel</td>
<td>32%</td>
</tr>
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Demand for agricultural products in developing countries exceeds local production and creates a gap that has to be filled through trade.

Source: Westcott/Trostle 2013; USDA ERS

RATNAKER BANK, INDIA

2015

10,000 SUB-LOANS
(PROJECTION BY THE BANK)

70%  89%

2015  2050

Source: Technavio 2015, Global Organic Food
DRIVERS

ACCESS TO COMMUNICATIONS

SUB-SAHARAN AFRICA

Venture capital firms have increased their investments in agritech at an annual rate of around 80% since 2012.

TECHNOLOGY

This is how agribusiness companies and venture capital firms prioritise their investments in agritech clusters.

Source: BCG 2016, Agtech Revolution

Source: ITU Database
In the 60 years from 1950 to 2010, the urban population of West Africa grew by a factor of 20.

Agricultural markets need an efficiency revolution led by research and development activities. Farmers have to be trained to use land, water and fertilisers more efficiently.

Source: OECD 2013, Settlement, Market and Food Security

In 2010, the urban population of West Africa was 118 million, compared to 6 million in 1950.

**DEMAND FOR ORGANIC FOOD**

- **USD 120.8 BILLION**
  - **USD 69.7 BILLION**
  - **+ 14.4% CAGR**
  - **COMPOUND ANNUAL GROWTH RATE WORLDWIDE**

**Regional Growth Rates**

- **America +14.4% CAGR**
- **Asia-Pacific +16.1% CAGR**
- **Middle East and Africa +14.7% CAGR**

(CAGR = Compound Annual Growth Rate)

Source: Technavio 2015, Global Organic Food
2015 was an crucial agenda-setting year that put financing for development, sustainable development goals (SDGs) and climate resilience at the core of policy making, private enterprise and citizen action. The momentum built in 2016 resulted in changing global agendas, as public and private investors embraced the SDGs and publicly committed to align their actions.

The following abstracts represent a collection of action-oriented articles that provide valuable insights and reflect on how best to execute and leverage resources to meet such an ambitious global agenda. They also outline how partnerships and collaboration across actors and sectors are key to building a more fair and equitable world.

2015 was an important year for development investments. The Financing for Development Conference took place in Addis Ababa, and the resulting Action Agenda set out a framework for the financing of the Sustainable Development Goals (SDGs).

The success of this global agenda requires a fundamental rewiring of the economy since much of today’s economic activity does not contribute to the realisation of the SDGs and may even undermine them.

“Rewiring the Economy” explains how, in an appropriately guided economy, businesses can become engines of sustainable development rather than just drivers of economic growth. The report outlines how simple measures can be taken to tilt the economy towards more sustainable business practices in order to create prosperity and provide decent jobs without eroding the natural and social capital they rely on. The report defines a pragmatic yet ambitious ten-year plan to catalyse joint action by three groups of leaders – business, government and finance – to create conditions that are supportive of sustainable business. The aim is that over time, a more sustainable economy will generate better outcomes for society and the environment. The plan is based on ten interrelated tasks that are to be achieved over ten years by the three groups, working together on a common and mutually beneficial agenda.

Tasks for government cover aspects such as the measurement of progress and the definition of targets, the use of fiscal policy to address challenges and the fostering of socially beneficial innovation. In the case of finance, tasks include ensuring that capital is used to generate long-term impact and creating innovative financial structures to better serve sustainable business. Turning to business, the report calls, among other things, for bold, innovative approaches to make a fair social contribution within safe environmental boundaries.

In summary, “Rewiring the Economy” is designed as a strategic compass for business, government and finance leaders, inspiring new forms of collaboration and transforming the way the global economy is harnessed for the good of society and the environment.
In recent years, a global consensus has emerged about the need for a more inclusive growth and development model. However, structural change is also vital to help countries escape the challenges of stagnating growth and rising inequality in order to create a virtuous cycle where greater social inclusion and stronger, more sustainable growth positively reinforce each other. This concept of inclusive growth is at the heart of development investments.

The “Inclusive Growth and Development Report 2017” published by the World Economic Forum is targeted at policymakers and stakeholders seeking to build a strategy to capture greater synergies between economic growth and improvements in living standards in their countries. It contains tools to help them turn their ambition of inclusive growth into a practical, measurable plan of action.

Countries that have achieved smart innovation-led growth have benefited from long-term visionary “mission-oriented” policies, where governments lead the way by investing along the entire innovation chain.

In the field of development investments, one sector where public funding acted as a catalyst for de-risking and for attracting private investments is microfinance. Today, it is one of the most “investable” strategies in the impact investing space.

“Mission-Oriented Finance for Innovation: New Ideas for Investment-Led Growth” provides an account of the experiences of different types of mission-oriented public institutions globally. Published in 2015 against the backdrop of the global debate about deficits and debt, it challenges conventional thinking about the role of the financial sector in financing the innovation needed for smart, sustainable and inclusive growth. Instead, it asks what kinds of visionary fiscal policies can achieve this type of growth. The book contains contributions by renowned economists on topics such as the social value of finance, how maximising shareholder value hails innovation and why a shift in innovation policy is needed.
The 2015 Paris climate agreement and the Sustainable Development Goals (SDGs) are driving today’s commitments to take climate action and to provide universal access to energy globally. Renewable energy will be central to achieving these commitments, and with falling technology costs, investment in the sector is already growing. responsAbility is leading the way by offering investment solutions in the areas of energy efficiency, energy access and renewable energy.

In “The Future Electricity Grid”, the World Resources Institute and co-authors of the study examine the way in which a number of key trends are rapidly transforming the energy sector — and the implications for policymakers.

On the one hand, the study discusses the challenges that electricity supply systems around the world have to contend with, ranging from energy security and access to energy to environmental and health concerns. On the other hand, it identifies positive trends that are transforming the energy landscape — such as the advent of new, more cost-effective technologies that are facilitating the generation and storage of energy — while new players like homeowners and communities are emerging as legitimate decentralised small-scale power generators. At the same time, more and more new policies are being introduced to promote the use of clean energy.

Against this backdrop, “The Future Electricity Grid” explains how the way in which governments, energy planners, regulators and utility companies are responding to these challenges and trends will determine whether they are successful in creating a future grid that can meet the growing demand for energy from consumers.

To support these efforts, the study draws on insights gained from discussions with stakeholders in Brazil, China, India and Kyrgyzstan. It uses the information it has obtained to determine how the dynamics in the energy sector are changing in these different countries and to develop best practices for electricity sector planners and utility companies to ensure the supply of clean, affordable and reliable power that populations need to grow and prosper.

Private capital is key to realising the Sustainable Development Goals (SDGs) — especially in view of the budgetary constraints facing governments and the limitations of philanthropy. Large banks, specialist asset managers like responsAbility and asset owners are therefore increasingly aligning their efforts to mobilise private wealth for the public good.

In this white paper for the World Economic Forum 2017, the Swiss bank UBS highlights the largely untapped ability of private wealth to help fund the SDGs. It explains that even just a small proportion of the vast private wealth market — which totalled around USD 250 trillion in 2015 — could make a big difference to funding the SDGs. Factors such as a lack of transparency about where investment is needed and poor incentivisation to invest are named as obstacles preventing this wealth from being put to work effectively.

UBS also presents a blueprint for how to break down these barriers so that private wealth can be channelled towards realising goals such as zero hunger, quality education and healthcare, clean and affordable energy, sustainable business, infrastructure and climate action.

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In the current digital era where technology is leading the way forward, it is vital to ensure that it is also accessible to the developing world and can be adjusted to the needs of these countries and their populations.

When world leaders gathered in late 2015 to adopt the Sustainable Development Goals (SDGs), there was widespread recognition that the tools that can be used to promote global prosperity have evolved dramatically. Over the past 15 years, information and communication technologies (ICT) – particularly the Internet – have catalysed major shifts in the global economy. Today, ICT is already playing a transformative role in improving economic and social outcomes for low-income and marginalised populations and is poised to reshape development and contribute significantly to the achievement of the SDGs.

Written by authors at ITU and Cisco, this report looks at the way in which, even in its early stages, the Internet of Things is already helping to transform people’s daily lives. It emphasises that the Internet of Things is not solely being used in industrialised economies or for industrial applications but is equally important for developing countries. The report explains that the Internet of Things and connected sensors are facilitating improvements in the delivery of education and healthcare, as well as in the provision of basic public services – to name just a few examples. This report also explores the future potential of the Internet of Things (IoT) in tackling global development challenges and looks at how these technologies can be applied in developing countries across different sectors, from water and sanitation to agriculture, energy and natural resources management. At the same time, it acknowledges that there is still more to do in order to improve the deployment of these new technologies in developing countries while addressing aspects such as network deployment, power requirements and reliability. In brief, the report is designed to serve as a guide on how the power of the Internet of Things can be captured to help solve many of the world’s most pressing challenges.

BANKING IN 2050: HOW BIG WILL THE EMERGING MARKETS GET?

Economists around the globe have recognised that the divergence path of developed and developing countries has shifted and that emerging economies are now leading the way in terms of economic growth. The role of finance, especially in the micro and SME space, is an intrinsic part of that shift.

This report follows an earlier publication on the rapid rise of the “E7” economies (Brazil, China, India, Indonesia, Mexico, Russia and Turkey), which predicted that they could outgrow G7 nations by 2050. “Banking in 2050: How big will the emerging markets get?” shows that these E7 economies are also likely to assume an increasingly significant role in the international banking arena.

Key elements of the report include the prediction that E7 countries – including Brazil, Indonesia and Mexico – have the potential to develop banking sectors of a comparable scale to those of major European economies like France and Italy by 2050. It forecasts that total domestic credit in E7 countries is likely to overtake that of G7 economies in the next 40 years. The report also finds that no banks in developed markets can afford to disregard the E7 in their future strategies.

The International Finance Corporation (IFC) estimates that in emerging markets, the micro, small and medium enterprise (MSME) financing gap exceeds USD 2 trillion.

However, recent developments like the widespread use of smartphones, growth in online commerce, digitalisation of small business processes and a supportive regulatory environment are helping to overcome barriers to progress. Against this backdrop, pioneering financial institutions like responsAbility are providing vital access to loans for long-underserved small business clients. This report by Accion Venture Lab examines the way in which tech-enabled lenders are using solutions – from niche marketing to digital and mobile platforms – coupled with enterprising partnerships in order to address the financing needs of MSMEs and thus close this credit gap.
The financial performance of funds can be readily tracked and reported. However, their social and environmental impact – and their contribution to sustainable development – are much more difficult to quantify. As a result, a large number of investors do not know whether the flows of capital they are responsible for do good – or even harm – in society. The challenge that exists is to simplify the measurement and reporting of impact within a robust framework aligned with the UN Sustainable Development Goals (SDGs).

“In Search of Impact: Measuring the Full Value of Capital” presents a measurement framework that was developed by the Investment Leaders Group and the University of Cambridge Institute for Sustainability Leadership to help achieve this objective. Taking the SDGs as its starting point, it sets out six different impact metrics and explains how quantitative and qualitative approaches can yield meaningful reporting results. The metrics are applicable across industries, geographies and asset classes, and they focus on both the “footprint” of a fund and the degree to which it is invested in assets that contribute solutions to sustainable development challenges in areas such as the eradication of poverty, health and welling, job creation, the protection of ecosystems and the stabilization of the climate.

The framework has three key characteristics. First, it focuses on non-financial outcomes rather than intentions or policies. Second, it looks at the impact of investments on the environment and society rather than financial materiality – meaning that while sustainability and financial performance are correlated, that is not the angle taken by the framework. Finally, the information derived from the framework is simple, transparent and relevant to help beneficiaries make practical choices about how they allocate their money.

The framework is not a complete solution but represents a first step towards tackling highly complex reporting challenges. responsAbility has adopted the framework and adapted it to its own needs in order to account for the non-financial impact of its activities.

Food security and sustainable agriculture practices are key for developing countries. Evolving supply and demand dynamics such as shifting demographics, as well as sustainability pressures and consumer concerns, have led to the emergence of a “smarter food and agriculture” investment space.

Interest in this area among both private and institutional investors has increased significantly, bringing the estimated volume of assets under management in this field to over USD 60 billion. This has been accompanied by a growing focus on agricultural technologies (agritech).

This report argues that as the agritech market grows in developing countries, a clear path will emerge for companies and investors to expand the scope of their activities to new markets. The authors of the study name South America as an immediate source of opportunity, given the region’s agricultural diversity as well as its rich natural resources.

The report explains that South America is already home to a large and established agribusiness market where new developments can successfully take root and it highlights the opportunities that lie ahead.
Investors have gained comfort with emerging economies

responsAbility has been on the Global Impact Investing Network (GIIN) Investors’ Council since 2013. Henry González, responsAbility’s Head of Research & Advisory, recently took the chance to ask GIIN’s CEO Amit Bouri these key questions: What is the future? How can new investors be found and what forms of cooperation exist between private and public players?

How have development investments evolved in recent years?
The segment used to be dominated by public money. The emergence of microfinance has helped investors gain comfort with these markets and see opportunities to expand and diversify their portfolios by increasing their exposure to emerging countries. From there, they are now increasingly moving into other areas where they are achieving financial performance targets but are also having a significant impact on the environment and communities.

What potential do you see for the future?
This is really just the tip of the iceberg in terms of exploring the way in which private investment capital can flow into this type of investments. There is a massive level of interest. Just about every private bank that we have come across has either already developed an impact offering or are working on it. The reason is the demand they are seeing from their clients. The sustained performance of impact investments is linked to that open door to transform the way people think about the way to deploy their capital and its role in building the society and the planet they would like to be a part of.

What is needed to attract new investors?
We are seeing an increase in interest from high-net-worth individuals as well as from institutional investors looking for diversification. When people think of investing in emerging markets, real risks can sometimes be eclipsed by the perceived risks due to a lack of experience and awareness of the actual economic activity in these markets. To raise awareness of the investment opportunity and attract more capital, it will be key to have more and more track record data and examples of strong performance.

How is the investment universe evolving, both in terms of size and quality?
In recent years, there has been a dramatic shift in many of these markets when it comes to the calibre and quality of enterprises with a focus on impact that are seeking investment capital. Visiting companies during a recent trip to Nairobi, I consistently saw strong entrepreneurs who had a sophisticated approach to building companies, had inspiring ambition in terms of what they wanted to achieve on a large scale, and had raised capital from the right type of investors. These are investors who are mission-aligned and able to provide capital that met the needs of those companies, whether they are at the seed-stage of venture or debt capital. This is something really powerful and that will continue to unfold as the market becomes more sophisticated.

How has the distribution of roles between the public and private sector developed in recent years?
The role of DFIs is critical in helping to propel development investments. What may be changing are the needs of those markets as more private investment capital becomes available. DFIs can help seed funds that can then attract mainstream investment capital – including impact investment from mainstream institutions – or if there are opportunities where they can provide leverage to attract more capital to address their development goals. It is an opportunity to upstream their role to be even more catalytic and to really push these markets towards achieving greater impact.
"GREEN GROWTH"

Energy transition on the Asian Steppe:
How a Mongolian bank is driving this development through targeted lending.

With 82 branches and more than 700,000 clients, XacBank is the fourth-largest commercial bank in Mongolia. Founded in 2001, it remains committed to achieving a triple bottom line – benefiting people and the environment while generating a profit. Against this backdrop, it began offering environmental loans in 2007 and established the first department for green lending in Asia in 2009. “We now serve over 1347 businesses in the environment segment,” explains Tuul Galzagd from XacBank. “Our range of borrowers includes electrical firms and construction companies.” Hybrid vehicle loans, launched in 2015, are by far the most popular product. “The loans give people an incentive to replace their cars with greener models – a key step towards improving the extremely poor air quality in our cities,” says Tuul Galzagd.
#1
Record-breaking city: Ulan-Bator is both the coldest and the most severely polluted capital in the world in the winter.

#2
60% of the population live in yurts. Each household burns an average of 5 tonnes of coal and 1.5 tonnes of wood a year.

#3
Since 2009, XacBank has offered families in the yurt districts loans to buy energy-efficient ovens and insulation.

#4
In 2000, the Mongolian government began a broad-based electrification programme to benefit the country’s 800,000 nomads.

#5
Appliances such as milking machines and televisions, powered by solar systems, have improved life on the Steppe.
#6

The smog in the capital Ulan-Bator is partly caused by the large number of old, poorly maintained vehicles.

#7

Developed in conjunction with responsAbility* and extremely popular: XacBank loans for hybrid vehicles.

#8

The other major pollutant: coal-fired heating systems. Energy-efficient models reduce CO\textsubscript{2} emissions by up to 30%.

#9

XacBank offers firms like ANU Services energy loans. It uses them to build large energy-saving heating facilities.

#10

Public buildings like schools in Ulan-Bator are supplied with heat in this way, enabling children to learn in comfort.

*Which legal entity invests? See our legal disclaimer on page imprint.
MEET PUREVDORJ

70% of Mongolia’s 800,000 nomads can access electricity – an attractive client base for electrical goods retailers like Purevdorj.

FLICK THE SWITCH!

Purevdorj imports solar panels and energy-efficient electrical appliances and sells them to nomadic herders on the Mongolian Steppe. To meet specific client needs, home solar panels are often distributed in packs of two together with energy-saving electrical appliances.

AWAY FROM COAL AND CO.

1,347 g of CO₂ is currently emitted for every kWh generated in Mongolia – one of the highest levels worldwide.

SOLAR POWER PARADISE

With over 250 days of sunshine a year, Mongolia is the “land of the eternal blue sky” – ideal for solar power.

CREDIT INFORMATION

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USAGE

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</tr>
<tr>
<td>140 batteries</td>
</tr>
<tr>
<td>100 freezers</td>
</tr>
<tr>
<td>40 milking machines</td>
</tr>
<tr>
<td>260 heat accumulators</td>
</tr>
<tr>
<td>120 LED televisions</td>
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</table>
The journey from the Cambodian capital Phnom Penh to Kampong Thom takes four hours – travelling on good roads with little traffic. The driver accelerates and his passengers watch in amazement as he overtakes a few heavily laden elephants. They leave the highway for the last stretch to the Samakee Rohas Meanchey Cooperative in Kampong Thom, which is along a dirt road. Around ten women and men have gathered to discuss their life and work since their cooperative switched to producing organic rice for export. They talk in their local Khmer dialect – virtually no one here speaks English.

NEW OPPORTUNITIES

More and more rice growers in the community of 4 villages and 234 families are joining the Samakee Rohas Meanchey Cooperative and learning how to grow organic rice. They then produce the crop exclusively for the largest exporter of organic rice: AMRU Rice.

The farmers explain that more work is needed to produce organic rice than the standard crop, for example because pests have to be removed by hand rather than using pesticides. However, this also means they can save the cost of buying chemicals. Artificial fertilizers are another thing they don’t need to buy. Instead, they learn how to produce organic fertilizers themselves. This also requires more effort but is worthwhile, as the price farmers are paid for their organic rice is around 15 to 75% higher. More income means more opportunities – both in the fields and for the family. The farmers in the Samakee Rohas Meanchey Cooperative each explain how: Some buy tools and machines to make them more productive. Others want to send their children to university once they finish high school instead of asking them to work in the fields.

NEW PRIDE IN THEIR WORK

Cambodia is an agricultural country. More than half its population works in this sector, where rice is the number one product. It is known as “white gold” here since it is by far the most important foodstuff: Cambodians consume an average of 150 kilos of rice each year. For them, a meal without rice is not a proper meal.

Traditionally, the families grow all the rice they eat themselves – on land that has been passed down through the generations. Any remaining rice is sold in the local market. When these self-sufficient farmers join a cooperative of growers like the Samakee Rohas Meanchey Cooperative, they become more professional producers. By specialising in top-quality rice for AMRU Rice, they not only increase their income but also their pride in their work.
HENG

Heng Sopheap is the President of the Samakee Rohas Meanchey Cooperative in Kampong Thorn. 104 rice farmers have joined forces to form the cooperative. They have been producing organic rice for AMRU Rice since 2014.

Rice farmers earn 15–75% more when they supply their produce to AMRU Rice.

Heng Sopheap (left), President, with two other members of the Samakee Rohas Meanchey Cooperative.
In 2016, AMRU Rice employed 200 people – including 160 on a full-time basis.

From the start of the harvest, 60 more employees worked at the company for 5 months.
The success of the Samakee Rohas Meanchey Cooperative is driven by the vision of Saran Song, who originally worked in the NGO sector. In 2011, when he turned 30, he founded AMRU Rice in order to improve the situation for rice growers, who were almost penniless. His idea was to enable them to produce organic rice and to then buy their harvest from them at a good price – as he has been doing since 2013. Song exports much of his organic rice to Europe – resulting in a win-win situation for everyone involved.

Better still: the MBA graduate’s business is booming. In 2012, he only traded in rice that was bought in. However, in 2013 he had his own rice harvest – grown by 100 contract farmers – for the very first time. By 2016, this figure had reached 2,500 farmers – who are organised within 18 cooperatives. Saran Song says that by 2020, 10,000 farmers will be growing rice for him.

EXPLOSIVE GROWTH
To manage this rapid growth, the entrepreneur makes use of working capital and export financing from responsAbility*. AMRU Rice is permanently working to almost full capacity. The company is therefore in the process of building new production facilities and warehouses at a cost of USD 5 million.

The Technical Assistance department at responsAbility is part of this success story, sending external experts to help the contract farmers achieve organic certification. “We couldn’t keep up the fast pace without support from responsAbility,” says Song. At the same time, he needs this pace. “I can’t wait,” he often says in discussions. The challenges are enormous and waiting is not an option. He recently expanded his product range and opened a factory that also produces rice noodles and rice paper. To make these products, he can buy rice from farmers who don’t meet premium organic standards. Today, around 10% of the rice produced by AMRU Rice is consumed in Cambodia – even without organic certification, this is top-quality rice.

AWARD-WINNING
After just five years in business, Saran Song is already considered a pioneer in Cambodia – and his achievements are recognised by experts. Two key awards were the “Young Entrepreneurship Award” from the Takeda Foundation (University of Tokyo) in the category “Outstanding Project For Social Change” in February 2016, and the gold medal for the “Best White Rice 2015 in Cambodia”. Saran Song wants to deliver results – for farmers, for himself and for his country. AMRU Rice is his personal success story. <
AMRU’s production facility in the village Tropaing Por just outside Phnom Penh.
Between 2017 and 2019, AMRU Rice will be investing USD 5 million in building mass storage facilities for organic rice as well as drying, milling and processing facilities near the farms.

Cambodia's top 3 crops:
From seed to export: How rice is produced at AMRU Rice.

SUPPLYING THE SEED
200–250 tonnes is the amount of seeds needed by AMRU’s contract partners each year. 20–100 tonnes are supplied by AMRU itself; the rest comes from other sources.

CULTIVATING THE RICE PLANTS
Weeding, fertilizing, removing pests and irrigating. The process from sowing to harvesting takes 5 to 6 months.

DRYING
The grains of rice are dried in the sun for 2 days and are then transported to AMRU’s regional warehouse, which is run by a large cooperative.

STORAGE
The dried rice is stored in the silos until it is time for processing.

TRANSPORTATION
The refined and cleaned rice is transported to AMRU’s production facility in the village Tropaing Por outside Phnom Penh.

EXPORT
50 kg bags of AMRU’s organic rice are loaded into containers and transported to the destination countries.

PREPARING THE FIELDS
Everything has to meet certification requirements. AMRU considers it vital for contract farmers to have training. This is mainly organised by responsAbility.

HARVESTING
The harvest in November and December takes two, or at most three, weeks. This presents the farmers with a major organisational challenge.

REMOVING RESIDUAL MOISTURE
After the rice has been transported to the rice mill operated by AMRU’s subsidiary Agro Angkor, any residual moisture is removed.

REFINING
In the Agro Angkor rice mill, the rice is separated according to type and quality and then processed.

CO₂ TREATMENT
Before the rice is distributed, any pests are removed. Suppliers without organic certification tend to use pesticides, but AMRU uses a gentle CO₂ treatment.

“responsAbility organises training for farmers for AMRU. Without this support, it would be difficult for us to produce large quantities of organic rice in such a short period of time.” Saran Song, founder and CEO of AMRU Rice
In Cambodia, the average person eats 150 kilograms of rice per year.
In Cambodian villages, the majority of inhabitants produce more quantities of rice — mostly for their own consumption.

50%

Over 50% of Cambodia's population works in rice production and many people only grow rice for their own consumption.
MEET SARAN SONG

ON HIS 30TH BIRTHDAY, Saran Song founded AMRU Rice, now Cambodia’s number 1 exporter of organic rice.

ORGANIC RICE FOR THE WORLD

AMRU Rice only began producing its own organic rice in 2013. However, the company soon became Cambodia’s number 1 exporter and today sells 90% of its produce to overseas markets – mainly in Europe.

COMPANY HISTORY

2011 Saran Song founds AMRU Rice
2012 First year of business, trading only
2013 First harvest (100 contract farmers)
2015 “Best White Rice in Cambodia”
2016 Number of contract farmers reaches 2,500

SARAN SONG

Saran Song (born 1981) originally worked in the NGO sector. When he felt that he could have a much greater impact as an entrepreneur, he founded AMRU Rice.

HIGH GROWTH AHEAD

AMRU Rice has been a miracle growth story ever since its launch. Production has doubled every year. Its management wants to maintain this momentum until 2020, after which growth is expected to be slower.

AMRU RICE – FACTS & FIGURES

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<tr>
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<th>2013</th>
<th>2016</th>
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<td>Personnel</td>
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<td>Organic rice sold (metric tonnes)</td>
<td>100</td>
<td>11,000</td>
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</tr>
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</table>

Source: AMRU Rice
ACCESS BANK TANZANIA provides microcredits and SME loans to industrious micro- and small entrepreneurs and actively helps them with their financial planning – the basis for further growth.

Juliette Yesaya Mlay smiles broadly. “The shelves will go here and we’ll have a showcase over there!” she says. The walls are painted a vibrant green, orange and purple. In addition to its trendy interior, Juliette’s new shop on an unsurfaced side road in Dar es Salaam’s Kijitonyama business district offers one thing in particular: twice as much floor space as her current 20 m² shop next door. Business is booming and, after eight years, her shop is now literally almost bursting at the seams.

“I’ve always been interested in fashion,” she explains. “I started off with a beauty salon but then decided to turn my hobby into a job and switched to selling clothes and accessories.” Juliette is convinced that her exquisite selection of goods is the key to her success. Handbags, wallets and fashion jewellery are beautifully presented alongside the range of clothing. Juliette’s high-quality imported goods are targeted at members of the growing middle class with well-paid office jobs in the local area. On her busiest days, she makes up to USD 450, although most of the purchases are paid for in instalments.

Juliette’s monthly turnover is around USD 3,600 – not bad in a country where the average annual income is USD 2,620. Before she can successfully sell her goods, she first has to finance the purchasing of the stock. To do so on this scale, Juliette has a USD 2,250 credit facility. This is what makes her a typical client of Access Bank Tanzania, the country’s largest microfinance institution.

ACCESS TO FINANCING Access Bank Tanzania was founded in 2007 as a subsidiary of Access Holding, which operates a network of nine banks and microfinance institutions in emerging and developing countries. Its aim is to help build a functioning financial sector in Tanzania that can supply entrepreneurs with the capital needed for growth. Today, the Tanzanian bank and its 900 employees serve 32,000 clients and is achieving annual growth of 22%. In Tanzania, access to financial services is still far from a given: only an estimated 19% of the population of 53 million have a bank account.

As Juliette points out, however, access to financing is crucial for any business that wants to grow. “When I started up my business, my husband supported me financially,” she recalls. “But I wanted to expand, and we simply didn’t have the funds for that. It was only through bank loans – small ones at first, which then grew continuously – that I was able to broaden my product range. And that was what really got the business going!”
In Dar es Salaam, Juliette Yesaya Mlay sells imports from Uganda to the fashionable middle class.
Few formal structures: client advisor Albert Richard with textiles wholesaler and SME client Dorothea Mariwa.
Tanzania’s informal economy employs no less than 43% of the country’s workforce. The birth rate is one of the highest worldwide: over 44% of the population are aged less than 15. Each year, 800,000 young Tanzanians enter the working world and start looking for employment – many as microentrepreneurs.

Founded in 2007, Access Bank Tanzania is now the country’s largest private bank and is market leader for microfinance and SME banking. It is achieving growth of 20% per year. More than 900 Access Bank employees in 12 branches serve 32,000 borrowers with a total credit volume of USD 73.8 million.

Client advisor Catherine Alfred has been helping Juliette develop her small business for five years. “Even very successful entrepreneurs often have trouble with their long-term planning. In the case of most of my clients, the loan application formed the basis for their very first business plan.” According to Catherine Alfred, this benefits the entrepreneurs once their company outgrows the micro-entrepreneurship phase.

BUILDING FINANCIAL EXPERTISE
This is also confirmed by Albert Richard, a specialist in SME loans: “On average, only 1 in every 100 clients has any kind of bookkeeping system. We check their passport stamps and import papers – written proof that a client has, for example, really travelled to China and imported goods from there. However, there are also times when we ourselves do stocktaking in the warehouse if clients are unable to provide us with information about their inventory.”

Albert sets off on foot from his bank to visit a typical SME client: Doroth Mariwa, a wholesaler of vitenge – the colourful printed fabrics used in East Africa for clothes and headwear or as carrying slings. They may be typically African in design but most of the fabrics available in the market come from China. Wholesalers and retailers from Zambia, Malawi, Rwanda and Burundi also buy their stock in the Kariakoo market before selling it on.

“Once a month, I order fabrics worth at least USD 100,000,” Doroth Mariwa explains. “I used to go to China myself to select my stock but I now use the services of a local buyer.” Given her level of turnover, her shop is a relatively modest size: she displays her wares in around 50 m² of floor space. Doroth also has a warehouse with around 100 m² of storage space.

SALES HAVE DOUBLED
Doroth has been a client of Access Bank Tanzania since 2012. Her first loan was for USD 27,000. Today, she has two loans totalling USD 134,000. “Doroth’s sales have more than doubled since she first came to us,” says Albert. “She now has a monthly turnover of USD 160,000, and such a large profit that has been able to buy four houses and cattle with...”
a total value of USD 250,000, which she can now use as security for her loans.”

**A WEALTH OF ENTREPRENEURIAL ENERGY**

Roland Coulon, CEO of Access Bank Tanzania from 2011 to 2016, never ceases to be amazed by the energy and industriousness of Tanzania’s entrepreneurs. “They seize every opportunity to expand their business and they are never afraid to try something new. That is an unbelievable strength,” says Roland Coulon.

At the same time, he highlights the problem posed by a lack of formal structures. “We started off issuing microcredits of between USD 50 and USD 10,000. Today, we grant loans of up to USD 500,000. What is interesting is the fact that the type of clients we serve hasn’t really changed. Despite the increase in their turnover and the success of their businesses, they still work with very informal structures. This means that in terms of their credit needs, they are SMEs. Commercial banks still won’t consider them as clients because they haven’t really refined their organisations. As a result, they are dependent on financing from providers such as Access Bank, which specialise in serving microfinance and SME clients.”

**MORE FARMERS AS CLIENTS**

So where does Access Bank see a need for further expansion within Tanzania’s financial sector? “In rural areas, the population is still woefully underserved when it comes to financial services,” says Roland Coulon. As is the case with retailers and service providers in the cities, who are by far the largest client segment of Access Bank, most agricultural loans are also made on the basis of cash flow calculations and are granted following detailed interviews with the borrowers. The main difference here is that the bank’s clients in urban centres tend to have a regular income throughout the year, whereas clients in rural areas only have money coming in after the harvest. “Farmers currently account for around 5% of our client portfolio but this is a rapidly growing segment and we expect the proportion of agricultural loans in the bank’s overall portfolio to double between now and 2018,” says Roland Coulon. <

> **Today, we grant loans of up to USD 500,000.**

Roland Coulon

In addition to Access Bank’s 900 employees, a total of 66 “wakala” agencies provide withdrawal, deposit, loan repayment and transfer services on the bank’s behalf. The use of agents gives the bank an extensive distribution network and enables it to reach the most remote parts of the country.

Client advisor Catherine Alfred visits Juliette’s shop once a month. “We discuss her finances. We also talk about expansion plans and questions such as how much of her income should be reinvested in the business and how much is available for her own personal use.”

The market in Kariakoo is a trading centre for all kinds of goods for merchants from Tanzania and the whole of East Africa. “Kariakoo is Dar es Salaam’s most popular business district. Here, loans can total as much as half a million US dollars,” says Albert Richard, a specialist in SME loans.
MEET LEWANGA

LEWANGA KASSIM KILEO runs two hardware shops in Dar es Salaam. The SME borrower has been with Access Bank Tanzania since 2007.

POTS AND PANS OF EVERY KIND

Lewanga Kassim Kileo can be found in one of his two hardware shops in Dar es Salaam every day. His sister helps him, along with three employees. Clients mainly visit his shops in the mornings and evenings to buy a wide variety of household articles.

THE COMPANY

- 2 shops
- 2 warehouses
- 4 employees
- 400 items in the product range
- Open from 6.00 a.m. to 6.00 p.m.

COMPANY HISTORY

- 1985: First shop in Mwanza, Lake Victoria
- 2004: Move to Dar es Salaam
- 2007: First loan of USD 1,340
- 2016: Tenth loan totalling USD 31,340

PRODUCT RANGE

- 400 articles – mainly imported from China: pots and pans, cutlery, dinner services and glasses, plastic containers and also gas or microwave ovens. The current best seller: electric mixers.

CLIENT PROFILE

- Retailers from Tanzania and neighbouring countries who sell on the goods; individual clients buying what they need themselves or gifts – mainly on Fridays for weddings the next day.
BUSINESS LINES

Three sectors, each with two asset classes. That is responsAbility's market positioning across six business lines.

**DEBT**

CHRISTIAN SPECKHARDT  
Head Debt Financing (in the fields of Financial Institutions, Agriculture and Energy Access; Credit Risk) at responsAbility. Member of the Executive Management.

“We provide a full range of debt financing instruments to successful inclusive businesses. Our offering covers agriculture-related trade finance, refinancing of financial institutions through senior and subordinated debt, and working capital and fixed asset financing for energy companies.”

**AGRICULTURE**

BILLIONS OF PEOPLE depend on agriculture. Financing can improve productivity, increase sustainability and support exports – benefiting rural economies.

**EQUITY**

responsAbility’s current focus is on developing its funds’ portfolios and achieving further growth. Our private equity activities in agriculture are benefiting from a dedicated new product. In the energy sector, we have a strong footprint in East Africa that we aim to replicate in other markets. Construction of a first hydropower project is now underway and other plants are in the planning phase. In the finance sector, we recently achieved a very successful exit.

**AGRICULTURE IS**  
the largest sector in the emerging economy but needs investment to develop. Agribusiness firms demonstrate clear potential for returns.

As a leading independent asset manager in the area of development investments, responsAbility focuses on the finance, agriculture and energy sectors. We provide private debt financing and private equity investment solutions through a range of investment vehicles to meet diverse client needs, targeting all types of investors.

DEBT

We play a leading role in finance sector investments within the market for private debt. Our strong market position in microfinance and SME banking is underpinned by our wealth of experience, allowing us to provide a wide range of financing solutions for clients. Although the scale of our activities in private debt financing for agriculture is comparatively smaller, we are nevertheless a well-established player – on a par with our strongest competitors. The depth of our global coverage puts us in a unique position to meet the needs of stakeholders along the entire agricultural value chain. In the areas of energy efficiency and energy production, existing financing solutions allow us to cover a broad range of credit financing needs. We aim to become a leading finance provider in the future.

EQUITY
“On the private equity side, we provide growth capital to financial institutions as well as mid-market agri/food companies, and we develop, build and operate renewable energy plants.”

On the private equity side, we provide growth capital to financial institutions as well as mid-market agri/food companies, and we develop, build and operate renewable energy plants.

**2.3 BILLION PEOPLE**

globally lack access to financial services. Innovative business models make retail banking in emerging markets attractive to investors.

**INSTITUTIONAL**

transformation is a key driver of financial sector development. MFI need capital and long-term investors to make the transition to banks.

**HOUSEHOLDS AND BUSINESSES**

in emerging markets need clean, reliable energy. Green lending is one way to invest in energy efficiency and renewable energy.

**GLOBAL ENERGY**

needs will grow by over 30% by 2040, driven by developing countries. Water, wind and solar power are key to meeting this rise in demand.

---

**EMPLOYEES OUTSIDE SWITZERLAND**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SWITZERLAND</td>
<td>64</td>
<td>91</td>
<td>109</td>
<td>139</td>
<td>169</td>
</tr>
<tr>
<td>REGIONS</td>
<td>32</td>
<td>45</td>
<td>74</td>
<td>100</td>
<td>111</td>
</tr>
<tr>
<td>ALL</td>
<td>96</td>
<td>136</td>
<td>183</td>
<td>239</td>
<td>280</td>
</tr>
</tbody>
</table>

2 out of 5 employees are based outside Switzerland.

---

45% of responsAbility’s workforce are women.

We employ people from 33 countries around the world.
RESPONSABILITY OVERALL

<table>
<thead>
<tr>
<th>AGRICULTURE</th>
<th>ENERGY</th>
<th>FINANCE</th>
<th>RESPONSABILITY OVERALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVESTED CAPITAL (USD MILLION)</td>
<td>249</td>
<td>348</td>
<td>2,003</td>
</tr>
<tr>
<td>INVESTED VOLUME EQUITY (USD MILLION)</td>
<td>4</td>
<td>3</td>
<td>155</td>
</tr>
<tr>
<td>NUMBER OF INVESTED COMPANIES</td>
<td>131</td>
<td>35</td>
<td>329</td>
</tr>
<tr>
<td>NUMBER OF COUNTRIES</td>
<td>50</td>
<td>22</td>
<td>78</td>
</tr>
<tr>
<td>AUM (USD MILLION)</td>
<td></td>
<td></td>
<td>3,130</td>
</tr>
<tr>
<td>AUM EQUITY (USD MILLION)</td>
<td></td>
<td></td>
<td>342</td>
</tr>
</tbody>
</table>

RESPONSABILITY

2016 marked another successful year for responsAbility. We disbursed* more capital than ever before with nearly USD 1.1 billion and demonstrated our investment power and global reach. We mastered a challenging macroeconomic environment with increasing competition while growing our placement capability.

THE RESPONSABILITY INVESTMENT UNIVERSE

26% ASIA-PACIFIC
16.6% CENTRAL ASIA
12.7% CENTRAL AMERICA
16.1% SOUTH AMERICA
10.9% SUB-SAHARAN-AFRICA
3.8% OTHER

* Which legal entity invests? See our legal disclaimer on page imprint.
DEVELOPMENT OF ASSETS UNDER MANAGEMENT, 2004–2016
in USD million

DEAL INFORMATION
in 2016

BREAKDOWN OF ASSETS UNDER MANAGEMENT
BY INVESTOR GROUPS

USD MILLION

TOP 10 OF 97 INVESTMENT COUNTRIES
in % of invested capital as of 31.12.2016

BREAKDOWN OF INVESTMENTS BY SECTOR

INVESTED CAPITAL

DEVELOPMENT INVESTMENT POWER
total disbursements per year

CAPITAL DISBURSED (USD MILLION)

DEVELOPMENT INVESTMENT POWER
number of transactions per year

COUNT OF DEALS

FINANCE

responsAbility disbursed* around USD 760 million in the financial sector in developing countries over the course of 2016. Our portfolio showed a stable development in terms of number of countries and invested companies. Within the sector, we experienced an increasing amount of transformations: microfinance institutions growing into banks.

TOP 10 COUNTRIES OF 78 INVESTMENT COUNTRIES IN THE FINANCIAL SECTOR
in % of invested capital as of 31.12.2016

<table>
<thead>
<tr>
<th>Country</th>
<th>% Invested Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>10.3%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>7.5%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>7.4%</td>
</tr>
<tr>
<td>Georgia</td>
<td>7.2%</td>
</tr>
<tr>
<td>Armenia</td>
<td>5.6%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>5.4%</td>
</tr>
<tr>
<td>Kenya</td>
<td>5.1%</td>
</tr>
<tr>
<td>Peru</td>
<td>3.7%</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>3.4%</td>
</tr>
<tr>
<td>Panama</td>
<td>3.8%</td>
</tr>
</tbody>
</table>
THE RESPONSIBILITY INVESTMENT UNIVERSE IN THE FINANCIAL SECTOR

in % of invested capital as of 31.12.2016

- **78 COUNTRIES**
- **1.6 USD MILLION**
- **471 DEALS**
- **760 USD MILLION**

**DEAL INFORMATION in 2016**

- **20.7%** CENTRAL ASIA
- **16.0%** SOUTH AMERICA
- **13.0%** CENTRAL AMERICA
- **10.8%** SUB-SAHARAN-AFRICA
- **6.3%** EASTERN EUROPE
- **7.2%** MIDDLE EAST AND NORTH AFRICA
- **22.9%** ASIA-PACIFIC
- **3%** OTHER

**REMAINING MATURITY BREAKDOWN**

in % of invested capital, excluding overdue deals

- **29.0**
- **9.4**
- **9.5**
- **14.6**
- **9.1**
- **5.7**
- **22.7**

- <6
- 6–12
- 12–18
- 18–24
- 24–30
- 30–36
- >36 MONTHS
ENERGY

responsAbility disbursed* around USD 70 million during 2016, providing debt and equity financing to companies in the sustainable energy generation, energy efficiency and energy access fields. While maintaining existing relationships in green-lending, we developed opportunities in direct investments and increased our geographical footprint.

TOP 10 COUNTRIES OF 22 INVESTMENT COUNTRIES IN THE ENERGY SECTOR

in % of invested capital as of 31.12.2016

<table>
<thead>
<tr>
<th>Country</th>
<th>% of Invested Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>15.9%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>11.5%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>8.6%</td>
</tr>
<tr>
<td>Turkey</td>
<td>8.6%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>7.2%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>7.2%</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>7.2%</td>
</tr>
<tr>
<td>Kenya</td>
<td>6.5%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>5.8%</td>
</tr>
<tr>
<td>Honduras</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

*Which legal entity invests? See our legal disclaimer on page imprint.
### Remaining Maturity Breakdown

in % of invested capital, excluding overdue deals

<table>
<thead>
<tr>
<th>Years</th>
<th>&lt;1</th>
<th>1–2</th>
<th>2–3</th>
<th>3–4</th>
<th>4–5</th>
<th>5–6</th>
<th>6–7</th>
<th>7–8</th>
<th>&gt;9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deals</td>
<td>3.8</td>
<td>5.9</td>
<td>6.2</td>
<td>0.0</td>
<td>10.2</td>
<td>8.7</td>
<td>25.6</td>
<td>11.6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

### The Responsibility Investment Universe in the Energy Sector

in % of invested capital as of 31.12.2016

- **15.8%** Central America
- **45.6%** Asia-Pacific
- **8.6%** Middle East and North Africa
- **8.6%** Eastern Europe
- **10.1%** South America
- **0.8%** Other
- **2.0%** Central Asia
- **7.6%** Sub-Saharan Africa
**AGRICULTURE**

responsAbility disbursed* over USD 300 million to the agriculture sector in developing countries over the course of 2016. The majority flowed into the processing and logistics sector.

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**THE RESPONSABILITY INVESTMENT UNIVERSE IN THE AGRICULTURE SECTOR**

in % of invested capital as of 31.12.2016

---

**FINANCING ALONG THE AGRICULTURE VALUE CHAIN**

in % of capital disbursed during 2016

---

*Which legal entity invests? See our legal disclaimer on page imprint.
COMMODITIES GROUPS AS PER DECEMBER 2016
in % of invested capital

- Fresh Fruits and Vegetables: 20.6%
- Coffee: 17.8%
- Nuts: 12.7%
- Other: 8.8%
- Grains: 6.8%
- Oilseeds: 6.4%
- Cocoa: 6.2%
- Dried Fruit: 6.0%
- Sugar: 2.9%
- Spices: 2.7%
- Edible Oils: 2.7%
- Beverages, Preserves and Canned Food: 2.5%
- Pulses: 1.7%
- Essential Oils: 0.8%
- Fibres: 0.6%
- Waxes and gums: 0.6%

TOP 10 COUNTRIES OF 50 INVESTMENT COUNTRIES
IN THE AGRICULTURE SECTOR
in % of invested capital as of 31.12.2016

- Peru: 15.6%
- United Arab Emirates: 9.2%
- India: 6.3%
- Uganda: 4.9%
- Turkey: 4.6%
- Egypt: 4.6%
- Vietnam: 4.5%
- Cote d’Ivoire: 3.8%
- Colombia: 3.7%
- Paraguay: 3.5%

REMAINING MATURITY BREAKDOWN
in % of invested capital, excluding overdue deals

- <6: 46.6%
- 6-12: 26.2%
- 12-18: 0.1%
- 18-24: 0.5%
- 24-30: 1.9%
- 30-36: 0.6%
- 36-60: 8.6%
- >60: 15.5%

DEAL INFORMATION
in 2016

- Number of Deals: 297
- Average Deal Size: USD 1.0 million
- Capital Disbursed: USD 301 million

MONTHS

- 6 – 12: 50 countries
- 12 – 18: 301 USD million
- 18 – 24: 297 USD million
- 24 – 30: 301 USD million
- 30 – 36: 297 USD million
- 36 – 60: 301 USD million
- >60: 297 USD million
ORGANISATION

A new structure with a focus on growth: in his role as CEO, Rochus Mommartz has headed the Management Board, which now comprises five members, since January 2016.

Rochus Mommartz
CEO, German citizen,
on the board since 2010

Christian Speckhardt
Swiss citizen,
on the board since 2007

Philipp Cottier
Swiss citizen,
on the board since 2016

Karin Schoch
Swiss citizen,
on the board since 2016

Roland Pfeuti
Swiss citizen,
on the board since 2017
responsAbility has USD 3.1 billion of assets under management and has ten offices in nine countries. Its 280 employees are active in 97 developing countries across four continents. Developments in the countries it serves mean that the economic environment can change rapidly for the company. This requires new business models, progressive services and entry into further markets. responsAbility is currently undergoing the transition from a microfinance provider to a broader-based firm. In addition to its activities in the financial sector, it is expanding into the agriculture and energy sectors. It is also active in private equity across all three sectors. www.responsability.com

**Board of Directors**

**Reto Schnarwiler**
Swiss citizen, on the board since 2009

**Christian H. Thommessen**
Norwegian citizen, on the board since 2014

**Ursula Lang**
Swiss citizen, on the board since 2014

**Kaspar Müller**
Swiss citizen, Chairman, on the board since 2005

**Matthias Preiswerk**
Swiss citizen, on the board since 2003

**Stephen Brenninkmeijer**
Dutch citizen, on the board since 2003

**Adrian Töngi**
Swiss citizen, on the board since 2008

“We are growing continuously and are diversifying our business based on our unique international network. This enables us to provide excellent services in the area of development investments.”

Kaspar Müller
DEVELOPMENT IMPACT

responsAbility's six impact themes. responsAbility is a leading asset manager in the field of development investments. To account for the development impacts and returns we seek to generate through our investments, we have developed a framework that is linked to the global agenda of the UN Sustainable Development Goals.

**Economic growth** is a powerful means of reducing poverty and improving quality of life in developing countries. In 1990, over 1.8 billion people globally were living in poverty. By 2013, this figure had fallen by 35% to 750 million. Economic growth can generate a virtuous circle of prosperity and opportunity. Strong growth and employment opportunities improve incentives and opportunities for education and lead to the emergence of a strong and growing group of entrepreneurs and active citizens, thus advancing human development.

In this way, the 17 UN Sustainable Development Goals (SDGs) promote prosperity while protecting the planet. They recognise that sustainable economic development must go hand in hand with strategies that address a range of social needs, including education, healthcare, social protection and job opportunities, while tackling the challenge of climate change and contributing to environmental protection.

**FROM THE 17 SDGS TO SIX IMPACT THEMES**
responsAbility has developed a framework that clusters the 17 Global Sustainable Goals into six impact themes, bringing simplicity to a complex agenda for global change. The six impact themes capture the purpose of the SDGs in a clear and concise manner. They focus on the objectives that the economy should meet in order to achieve the SDGs – and consequently on the objectives that investors wish to see realised through their investments. In this respect, impact can be viewed as the contribution that an asset makes to the SDGs. It is important to have a manageable framework that helps us to track the impact of our investments and that links this impact to a broader agenda.

**INCLUSIVE BUSINESSES**
Development investments are at the heart of our activities at responsAbility. They are defined based on three pillars: First, we invest solely in developing countries. Second, we seek attractive investment opportunities. Third, we invest in inclusive businesses. An inclusive business is a company that contributes directly or indirectly to the six impact themes. Inclusive business models aim to find synergies between development goals and the company’s core business operations and can create higher socio-economic value for the population.

Our application of a framework of this breadth and depth, which is aligned to a global agenda, positions us as one of the thought leaders pushing private sector investments for a global development agenda. The following section explains our impact themes in further detail.

Bibliographical information can be found in the Imprint.
DEVELOPMENT PROGRESS

1990

1.85 billion

2013

767 million


IMPACT THEMES AND INCLUSIVE BUSINESS

A company that contributes directly or indirectly to the impact themes is an inclusive business.

HEALTHY ECOSYSTEM & RESOURCE SECURITY

CLIMATE STABILITY

MARKETS & INFRASTRUCTURE
BASIC NEEDS

This impact theme examines an asset’s contribution to tackling poverty by addressing the need of low-income groups to secure access to food, water, energy, shelter, sanitation, financial services – including credit and savings – communications, transport and healthcare, to mention the most important areas.

These services are expected to be paid for and are thus more difficult for low-income groups to attain.

Increasing access to basic resources is the fundamental goal of responsAbility and is at the heart of our investment thesis. When our company was founded 14 years ago, investing in microfinance institutions that supplied microloans to borrowers was our main field of activity. Today, we offer investment solutions covering three sectors: finance, energy and agriculture. The focus is on offering solutions that give low-income groups opportunities to earn their own living in order to improve their situation. It is about providing affordable opportunities for low-income groups.

WHY DID WE SELECT THIS THEME?

While the number of financially excluded people – i.e. those who lack access to financial services – decreased by 700 million between 2011 and 2014, there are still around 2 billion people and 200 million businesses globally that lack access to formal financial services. Giving individuals access to savings instruments can increase a country’s net savings, which can lead to an increase in productive investment and consumption.

Today, 17% of the world’s population still lack access to electricity, despite modest improvements in this area. Over 95% of these people live in sub-Saharan African or Asia. Furthermore, the vast majority of malnourished people live in developing countries, where 12.9% of the population is undernourished, meaning their basic needs are not being met.

One way to analyse an asset’s contribution to meeting basic needs across a number of sectors is to find a proxy for the affordable benefits it unlocks for low-income people. This could be measured in terms of the volume of business done with those groups directly or via intermediaries and counted in “revenue from products/services serving low income groups, in USD”.

---

**REVENUE FROM PRODUCTS/SERVICES FOR LOW-INCOME GROUPS**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue (USD million)</strong></td>
<td>13,381</td>
<td>11,759</td>
<td>12,081</td>
</tr>
<tr>
<td><strong>Number of borrowers (Millions)</strong></td>
<td>30</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td><strong>Number of clients with savings accounts (Millions)</strong></td>
<td>36</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td><strong>Outstanding credit portfolio of MFIs (USD millions)</strong></td>
<td>67</td>
<td>55</td>
<td>54</td>
</tr>
<tr>
<td><strong>Client savings deposits managed by MFIs (USD billion)</strong></td>
<td>51</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td><strong>Average loan size (USD)</strong></td>
<td>1,617</td>
<td>1,448</td>
<td>1,662</td>
</tr>
<tr>
<td><strong>Average loan term (months)</strong></td>
<td>19</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td><strong>Average savings deposits (USD)</strong></td>
<td>1,360</td>
<td>1,259</td>
<td>1,261</td>
</tr>
<tr>
<td><strong>Percentage of microfinance clients living in rural areas</strong></td>
<td>38%</td>
<td>48%</td>
<td>49%</td>
</tr>
<tr>
<td><strong>Percentage of female microfinance clients</strong></td>
<td>80%</td>
<td>80%</td>
<td>77%</td>
</tr>
</tbody>
</table>

**Revenue: proxy for addressing needs of low-income groups**

Source: responsAbility
**WELL-BEING**

This theme examines an asset’s contribution to enhanced healthcare, education, justice and equality of opportunity. These are services that should, in principle, be provided by governments since they are “public goods” financed by state taxes. However, this mechanism is often problematic due to underdeveloped tax systems in lower or low-income countries. Research shows how a lack of education results in income inequality and affects sustainable social and economic growth.8

The contribution to this impact theme is not only made directly via investments in businesses linked to the theme, such as providers of healthcare, education and justice, but also indirectly via investments in companies that pay taxes to the state. One metric for measure an asset’s contribution to meeting well-being needs can be “taxes paid to the government, in USD”, offering a proxy for its contribution to the public good.

**DECENT WORK**

Sustainable economic growth requires societies to create the conditions that allow people to have quality jobs that stimulate the economy without harming the environment.

This theme therefore examines an asset’s contribution to providing secure, socially inclusive jobs and working conditions for all. The theme has two components: a quantitative and a qualitative dimension. Job creation by the private sector plays an important role in sustaining livelihoods and in combatting inequality and underemployment, hence the number of jobs is important. However, the nature of the work also has to be “decent”, i.e. it must take the form of meaningful jobs that are not harmful to the ecosystem. In addition, formal jobs have a higher qualitative value than informal jobs because they not only provide a stable income for employees but also result in the payment of taxes by the company. Since data on the quality of jobs are more difficult to obtain, the metric proposed for measure the quantitative contribution is “total number of direct jobs”. When following an environmental, social and governance (ESG) investment approach, “social” qualifies as decent jobs.
CLIMATE STABILITY

This impact theme explores how investors should determine whether their portfolios are aligned with the global goal of reducing greenhouse gas emissions in order to maintain the global average temperature rise to below 2°C.

The theme addresses the needs of investors who are increasingly concerned about climate change.

Experts estimate that global greenhouse gas emissions would have to be lowered by 40–70% by 2050 to limit global average temperature rises to below 2°C. Global awareness of the urgency of this topic has peaked with the consensus reached in the Paris Agreement signed in December 2015. The agreement, which comes into force in 2020, commits the 195 members of the UN to hold temperature rises to “well below 2°C” above pre-industrial temperatures by the end of this century.

Emissions reductions can be achieved using renewable energy sources. Significant progress can also be made through energy efficiency as reducing the amount of energy wasted lowers greenhouse gas emissions while saving financial resources.

WHY DID WE SELECT THIS THEME?
Climate change affects every continent and every region. It not only impacts on daily lives but also erodes livelihoods. People are already experiencing the significant impacts of climate change, which include changing weather patterns, rising sea levels and more extreme weather events. Greenhouse gas emissions from human activities are driving climate change and are continuing to rise.

People in the least developed countries are more exposed to the effects of land degradation, drought, desertification, deforestation and water and air pollution, which are associated with climate change. The impact of climate change on agriculture is likely to deprive large sections of the population in the least developed countries of their livelihoods, condemning them to perpetual poverty. Hence, the poorest and most vulnerable people are being affected most by increasing temperatures.

This theme aims to limit greenhouse gas emissions in order to stabilise global temperature rises and CO₂ levels through energy efficiency measures and renewable energy. The most relevant metric is therefore “CO₂ reductions, in tonnes/p.a.”

To understand a company's impact on climate stability, the full lifecycle of its products or services must be considered in a full analysis – something that cannot always be achieved.
HEALTHY ECOSYSTEM & RESOURCE SECURITY

This theme examines the asset’s contribution to maintaining ecologically sound landscapes – both soil and seas – as well as the asset’s contribution to preserving stocks of natural resources through sustainable, efficient and circular use.

We are currently living off the planet’s capital rather than its interest, a state known as “ecological deficit”. Each year, we are losing 12 million hectares of cultivable land (23 hectares per minute) due to drought and desertification. Around 20 million tonnes of grain could be grown on this land. The theme is of importance as the world’s population is expected to increase to 9 billion people by 2050. It is estimated that the equivalent of almost three planets would be required to provide the natural resources needed to sustain current lifestyles.10

The most fundamental measure of an asset’s ecosystem impact is the area it affects in the process, measured in “land under cultivation, per hectare”.

### HECTARES UNDER CULTIVATION

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>HECTARES UNDER CULTIVATION</td>
<td>1,163,003</td>
<td>734,409</td>
<td>408,108</td>
</tr>
<tr>
<td>OF WHICH CERTIFIED</td>
<td>323,484</td>
<td>201,474</td>
<td>157,599</td>
</tr>
<tr>
<td>NUMBER OF SMALLHOLDER FARMER SUPPLIERS</td>
<td>291,159</td>
<td>275,158</td>
<td>231,078</td>
</tr>
<tr>
<td>NUMBER OF FEMALE FARMER SUPPLIERS</td>
<td>68,537</td>
<td>81,507</td>
<td>71,973</td>
</tr>
<tr>
<td>NUMBER OF INTERMEDIARIES/ MIDDLEMEN SUPPLIERS</td>
<td>3,928</td>
<td>2,173</td>
<td>932</td>
</tr>
</tbody>
</table>

Agriculture only – Hectares as proxy for ecosystem impact

Source: responsAbility reporting

MARKETS & INFRASTRUCTURE

This impact theme measures an asset’s contribution to building resilient, inclusive and sustainable markets and infrastructures.

This theme aims to foster market development and innovation. Investments in infrastructure – transport, irrigation, energy and information and communication technology – are crucial to achieve sustainable development and empower communities in many countries. It has long been recognised that growth in productivity and improvements in health and education outcomes require investment in infrastructure. It is estimated that many African countries, particularly lower-income nations, have 40% lower productivity due to infrastructure constraints.

Innovation is especially crucial in the context of technological progress. The theme includes the formalization of sectors, such as financial sector transformation. It also accounts for the introduction of new business models, opening up new market opportunities in the regions where we operate.

### NUMBER OF COMPANIES STRENGTHENING THE MARKET

Proxy for companies strengthening infrastructure and market development

2016: 14

Source: responsAbility reporting
RESPONSABILITY’S INVESTMENT APPROACH

RESPONSABILITY SEEKS TO PROMOTE SUSTAINABLE DEVELOPMENT THROUGH ITS INVESTMENTS

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)
To achieve a long-term positive outcome, development has to be based on a sustainable paradigm. Sustainable investing is an investment approach that considers environmental, social and governance (ESG) criteria in portfolio selection and management. On the one hand, the ESG factors define a set of standards to screen investments and serve as a risk management tool. On the other hand, ESG offers a positive selection process for investment opportunities.

At responsAbility, we ensure that ESG issues are managed effectively by incorporating ESG considerations into every step of the investment process, from the initial assessment to the exit. Every sector and commodity has its own set of key ESG risks. responsAbility has developed appropriate toolkits to identify these risks and uses internal resources and/or the expertise of local or international consultants if required. ESG criteria form the basis of our investment strategy.

INVESTMENT SPECTRUM
Thematic investing offers solutions to pressing social or environmental issues. Thematic investors consciously focus on one or a cluster of issues with the intention of generating a positive social or environmental impact. New technologies increasingly disrupt established business models and blur the lines between traditional sector categories, offering a new view of investment opportunities. A thematic view offers access to trends such as clean technology, consumers, water infrastructure and agriculture, to name a few examples.

As an investor contributing to the SDGs, responsAbility aims to provide access to basic needs by financing companies that provide services and products to low-income groups. This strategy offers investment opportunities with risk-adjusted market-rate returns, without a trade-off of social versus financial returns. To encourage the efficient and sustainable use of natural resources and promote environmental and social improvement wherever possible, we use a thematic framework while ESG criteria form the basis of our investment process.
Nyamgerel Baljinnyam, pages 32–35
Nici Jost, pages 36–45
Jerry Riley, pages 46–51
Jürg Waldmeier, pages 52 and 62

Bibliographical information, see page 64–69
1 Living below USD 1.9 per day
2 World Bank, October 2016
3 The framework draws on a model published by Cambridge Institute for Sustainability Leadership, July 2015 (Rewiring the Economy)
4 Findex, 2015
5 CGAP, 2016
6 IEA, 2015
7 United Nations Food and Agriculture Organization, 2015
8 OECD, 2014
9 IPCC, 2014
10 UN, 2015

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RESPONSABILITY AT A GLANCE

RESPONSABILITY OVERALL

<table>
<thead>
<tr>
<th></th>
<th>Agriculture</th>
<th>Energy</th>
<th>Finance</th>
<th>Responsibility Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invested Capital (USD Million)</td>
<td>249</td>
<td>348</td>
<td>2,003</td>
<td>2,608</td>
</tr>
<tr>
<td>Invested Volume Equity (USD Million)</td>
<td>4</td>
<td>5</td>
<td>155</td>
<td>158</td>
</tr>
<tr>
<td>AUM (USD Million)</td>
<td></td>
<td></td>
<td></td>
<td>3,130</td>
</tr>
</tbody>
</table>

THE RESPONSABILITY INVESTMENT UNIVERSE

in % of invested capital as of 31.12.2016

- **26%** Asia-Pacific
- **10.9%** Sub-Saharan Africa
- **6.1%** Eastern Europe
- **16.6%** Central Asia
- **12.7%** Central America
- **16.1%** South America
- **3.8%** Other

- **3.1 Billion Assets Under Management**
- **97 Countries in Which Investments Are Made**
- **546 Investee Companies**
BREAKDOWN OF ASSETS UNDER MANAGEMENT BY INVESTOR GROUPS as of 31.12.2016

DEVELOPMENT OF ASSETS UNDER MANAGEMENT, 2004–2016

in USD million


BILLIONS OF PEOPLE depend on agriculture. Financing can improve productivity, increase sustainability and support exports – benefiting rural economies.

AGRICULTURE IS the largest sector in the emerging economy but needs investment to develop. Agri-business firms demonstrate clear potential for returns.

FINANCE

2.3 BILLION PEOPLE globally lack access to financial services. Innovative business models make retail banking in emerging markets attractive to investors.

INSTITUTIONAL transformation is a key driver of financial sector development. MFIs need capital and long-term investors to make the transition to banks.

ENERGY

HOUSEHOLDS AND businesses in emerging markets need clean, reliable energy. Green lending is one way to invest in energy efficiency and renewable energy.

GLOBAL ENERGY needs will grow by over 30% by 2040, driven by developing countries. Water, wind and solar power are key to meeting this rise in demand.

BUSINESS LINES

DEBT

EQUITY
OUR OFFICES

ZURICH
GENEVA
PARIS
HONG KONG
MUMBAI
NAIROBI
LUXEMBOURG
OSLO
LIMA
BANGKOK

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