

THE STORY OF GEORGE BANDA



WELCOME TO CARDANO DEVELOPMENT

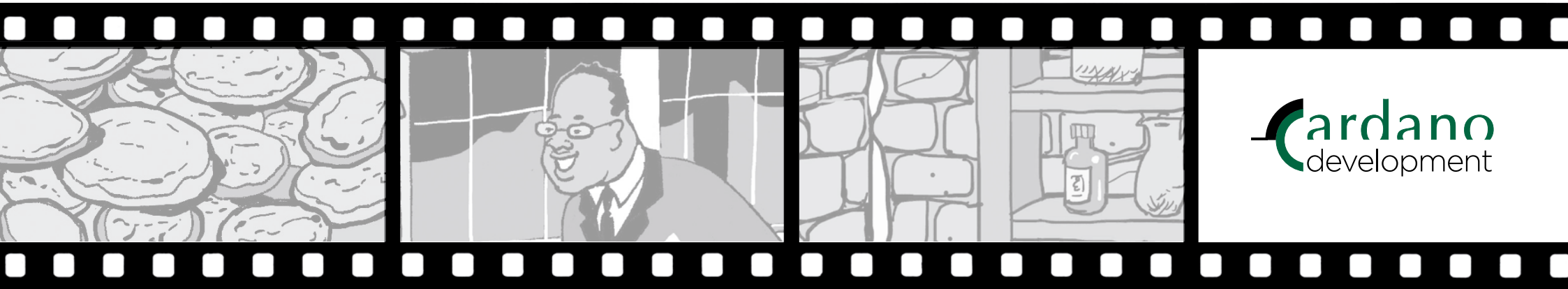
This booklet takes you on a journey through the lives of George Banda and his family. Based on true facts, the narrative explains how effectively financial innovations can be used to stabilize the day-to-day challenges of people who live in frontier markets. Financial innovations have helped families like the Banda's improve their own circumstances, and also helped their local communities to prosper. As Nobel Laureate Robert Shiller explains in his book *Finance and the Good Society*, such initiatives illustrate that finance can be extremely beneficial if it is used as a risk management tool and not abused as a speculative and fee-producing tool.

This booklet also reveals the story of a group of entrepreneurial development finance participants from all over the world, gathered at Cardano Development in the Netherlands, working on various projects which help implement these innovative financial risk management concepts. In a mutual effort with almost all development finance institutions in the world, covering Asia, the Americas, Africa and Europe, they established platforms which can be used by other institutions to reduce their undesired and non-rewarding risks.

We at Cardano Development feel grateful and privileged that we are in the position to work with our many global partners and are able to accomplish these innovative projects. We would like to express our gratitude to all institutions and individual consultants involved in bringing the narratives of the Banda family to life.

Joost Zuidberg
CEO Cardano Development

Theo Kocken
Chairman Supervisory Board Cardano Development





HOW GEORGE BANDA ACHIEVED FOOD SECURITY FOR HIS FAMILY (And got his motorcycle)

Meet George Banda. George is a 36 year-old farmer from Kasungu, Malawi. His life is not easy. He is married, and has six children to support – five daughters – and only one son to help him work the land. His son, Tom, is still only seven, and is often very ill. George lives ten kilometers from the nearest clinic, and the medicines Tom needs are expensive.

George's family resides in a house built with hand-made mud bricks. It is a large room, which is covered with a straw roof. In the rainy season, towards December, the straw often leaks. In the dry season, his home is blisteringly hot. But that is the least of George's problems. Farming earns him around \$60 a month. His wife, Kausiwa, helps to supplement the family finances by taking in sewing from people in the village, though she only earns about \$8 a month. With their combined income, George and Kausiwa must buy wood to cook with, clothes for their children, get medicine for Tom, and pay the children's school fees. But the biggest problem is that George has to grow enough maize to feed his family, and sell enough tobacco to buy the seeds and fertilizer he needs to keep farming, and to make a profit. Unfortunately, in times of dry weather, much of the tobacco profits go towards buying extra corn to feed his children. George is frustrated. No matter what he does, it is never enough. He's sick of living day by day, meal by meal. But what can he do?





George doesn't know it, but thousands of miles away, a group of people in the Netherlands working with their African partners are trying very hard to solve this problem, for him and farmers like him. And they have come up with a solution...

Some months later, life changes for George. Universal Leaf Africa comes to Kasungu, and the company offers farmers like George a maize input package which includes crop insurance, in a pilot project developed together with their partners in the Netherlands. The pilot is well prepared and planned with local partner Better Capital on the ground in Africa.

George learns that if he invests more in quality high potential seeds and fertilizer, he can harvest enough to at least secure food for his family and still have some maize left over to sell, which would be an excellent supplement on top of what he makes from his small tobacco crop. He could probably double his monthly earnings from the two hectares of

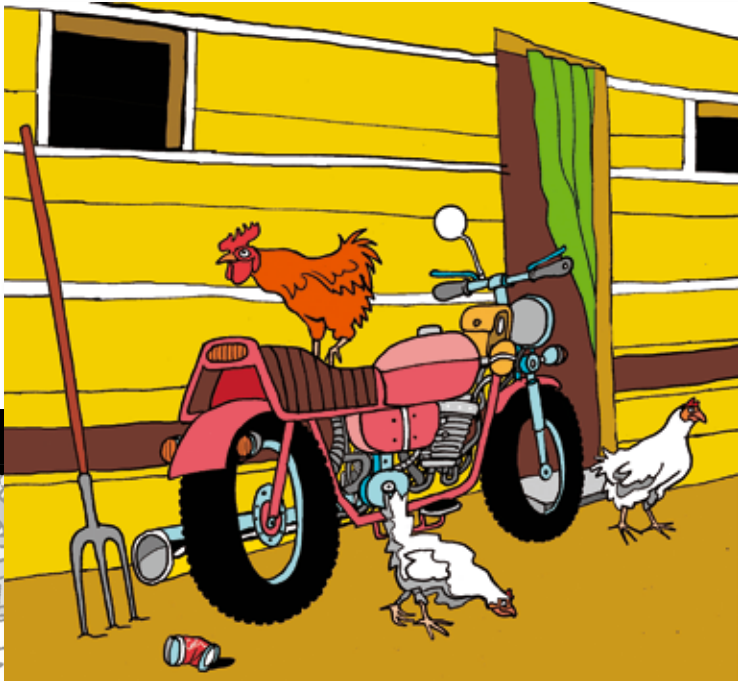
land that he farms. He could buy Tom's medicines and other things his son or daughters might need. He would not struggle as much to survive. All it would take is a little hard work and some working capital. But George is nervous about taking on the debt to invest in the crop input package, a package that consists of top quality seeds and fertilizer that he so dearly needs. Kasungu is frequently drought ridden. How can he gamble with input package loans, when he can't guarantee that the crop will survive the harsh climate? And how will he know when to plant these new high quality seeds and fertilizer? He has never dealt with them before!



Universal Leaf Africa provides an answer. The package they offer George comes with an insured loan for seeds and fertilizer, and plenty of advice on planting from technical advisors who will help him through the process. More importantly, while the input package is provided at credit, nothing would have to be repaid if there is a drought or crop failure. In fact, new high potential seeds and fertilizer would be made available in that case. George feels secure that, should the climate fail, the insurance will kick in and his family will not go bankrupt. And so he starts planting.

Some months after that, when his crop is harvested, George is amazed. He normally grows one ton per hectare of maize per harvest. This time around, he has almost four tons per hectare. Not only can he now pay back the input loan, his family has lots of food for the coming year. He can also buy Tom's medicines, and even get that second hand motorcycle he's been admiring, so that he can take his son to the clinic quickly, if ever there is an emergency. And he can put aside some income to invest even more in the land. Some of George's neighbours have been moving to the big city, because they have not managed to make enough money from farming to live on. But George knows that this is not really a solution, because many will end up living in the slums instead. George is grateful to have escaped that fate.

George Banda would never have been able to invest in his farm if he had not had the assurance that his family would survive a drought because they were insured against it. Not just severe, catastrophic once in-a-generation droughts, but the normal frequent climate problems that caused his maize to suffer, resulting in a poor harvest. A simple thing like dedicated crop insurance has changed his life.





HOW EFFECTIVE CROP INSURANCE BECAME ACHIEVABLE

What George doesn't know is that in the Netherlands and Africa, a few people are celebrating the end of a successful trial project offering crop insurance and high quality seeds and fertilizer to farmers in Malawi and Mozambique.

This trial project has large implications. A 2006 ActionAid report suggests that global warming has contributed to the food shortage in Malawi by changing the climate. As rainfall patterns alter and temperatures increase, the length of the productive growing season decreases. As a result, farmers have to purchase more expensive hybrid crops to ensure they have an adequate harvest. More tailored crop selection – based on meteorological information available – in combination with insurance and advice on how to use this new technology can also reduce the consequences of climate uncertainty, and make things better for the farmers.

So how were they able to do it?

During the first year of the trial, the partners looked at satellite images of Africa and analysed the use of relative evapotranspiration (mainly plant transpiration) as a trigger. They examined 30 years of data for 1,500 small scale farmers. On the ground they verified the usefulness of the trigger and associated seasonal conditions. They also looked at the acidity of each farmer's plot of land, using extensive databases to determine the right seeds and fertilizer for the farmer. They engaged with the farmer about when and how far apart to plant, as determined by the real time satellite data.

During the second growing season of the trial, around 30,000 farmers with 50,000 hectares were provided with high potential input packages of seeds and fertilizer. Field technicians delivered the necessary technical assistance. The input package plus advice showed that even during below average climate circumstances, at least a doubling of the productivity could be reached. Reducing risk premiums and growing productivity were going hand in hand.

In the Netherlands, Cardano Development, and in Africa, Better Capital, began to realise that if they could use existing satellite technology and data to show and forecast adverse climate seasons, it must mean that risk could be managed for farmers by adjusting seeds and fertilizer, and by tailoring advice, using large economies of scale to keep costs down. Mitigating risk

and improving productivity are not easy tasks. Nearly 10% of Malawi's 13 million people face hunger because of low yields of maize, and prolonged spells of drought and flooding, according to the Malawi Vulnerability Assessment Committee.

85% of Malawian's primary source of income comes from agriculture, and maize is the primary food crop grown and consumed. In 2002, after the maize harvest fell from 2.5 million to 1.7 million metric tons, the Malawi government announced that there was a food emergency and that the country was in a State of Disaster. In 2005, a drought prompted another food crisis.

Cardano Development's initiative to improve input packages and insure against drought is called COIN-Re and was set up together with Better Capital, incorporated in Mauritius. It is being phased into the rest of sub-Saharan Africa and elsewhere, with as many as 15 million farmers potentially benefitting from the initiative.

The impact of crop insurance, technical assistance and the provision of quality seeds and sufficient fertilizer to increase yields are tremendous. Not only will many families now be secure and not suffer hunger when maize harvests fail, they can also benefit by growing more resilient crops. That in turn will give them additional income, income which will be available for medicines, motorcycles and much more. It also has many other positive implications. By being more productive, less land is needed for subsistence agriculture. Higher productivity means storage facilities for maize and other infrastructure are built. And techniques can be applied to increase yields even more in the long run. More tailored crop selection – for example based on meteorological information that is available about the likely impact of El Nino – in combination with insurance, can further reduce the consequences of climate uncertainty.



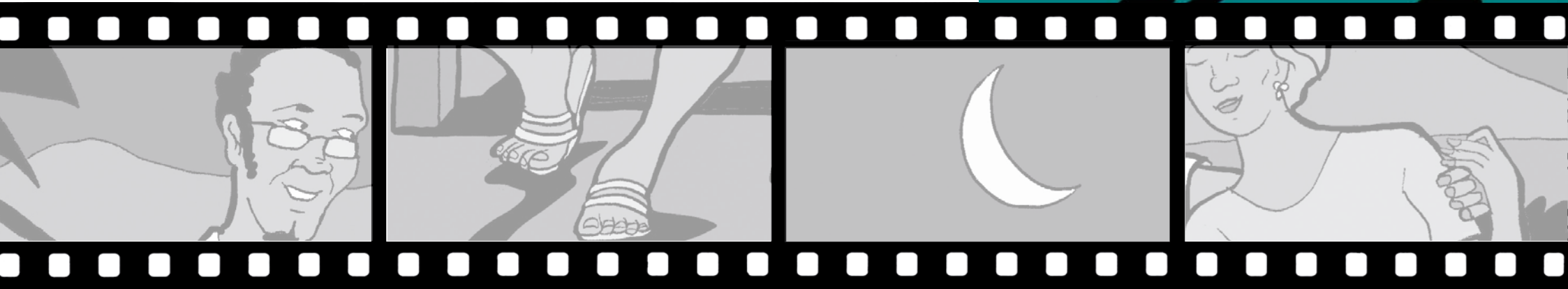
GEORGE BANDA, THE WEDDING, AND THE CLEAN COOKSTOVE

One morning, George wakes up to some astonishing news. His oldest daughter, Dziko, has fallen in love with Kafele, the son of Peter Nyondo. Peter is George's neighbour, but their relationship is strained. When George was young, his father, John Banda, owned eight hectares of land in Kasungu. But John lost the land because of a bad loan. Peter's family bought it at half its value. Things have never been the same between the two families.

At first, George is upset about the news. Why does Dziko have to fall in love in the first place? And why with that particular boy, whose father always seems to think he is better than the rest of the farmers? George is about to tell Dziko that he will not give her permission to marry, when his wife Kausiwa intervenes.

"Husband," she says. "Kafele is a good boy. He has a respectable job as an assistant teacher in the village. It is a steady income, not like some of the farmers around here who have not been as clever as you in taking out drought insurance. And Dziko will live so close to us. What possible objections could there be?"

And so George finds himself planning a wedding. He goes to the bank, and takes out some of the savings he has made from the higher yielding crops on his land. But it is not enough. There is the dowry, and Dziko's new clothes to pay for. On top of that, Kafele's family is a large one, and they all have to be invited to the wedding. George's own family numbers over forty. How will they feed so many?



As the day of the wedding comes closer, Kausiwa and George's daughters begin to gather supplies, and to cook. They make sweetened rice phala and mbatata biscuits, anything that can be made ready in advance for the hordes of people who have to be fed. George's mother, who lives with his sister in the town nearby, has come to help. She is always ready to criticise her daughter-in-law, but she is also a big help. Her hands move quickly, turning and twisting maize flour until it is ready to be cooked into delicious bread over the fire in the family's one roomed mud house.

All that cooking is difficult. Even before the preparations began, the walls were black from the constant use of the fire. Now it has become even worse. The house is full of smoke and fumes. Tom, George's son, starts to cough. The cough will not go away. They have to use George's motorcycle to go to the clinic twice. The second time, the doctor is stern. "I see this all the time. The child needs fresh air. You must stop burning wood in your house. Buy a clean cookstove."

George now recalls having seen a demonstration of a cookstove, showing how little smoke this new instrument produces and how little firewood is required compared to the traditional open fire.

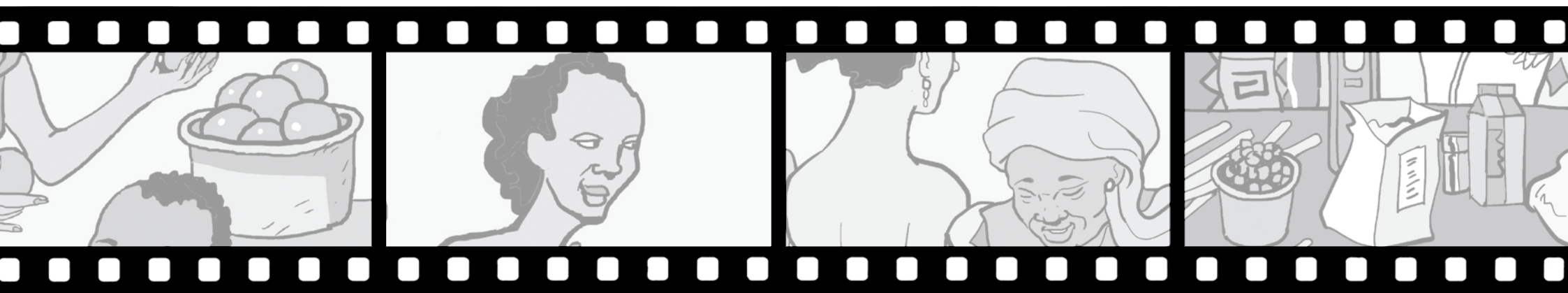




George hesitates when considering this cookstove option. For here is another expense to add to the many he already has! What difference will a clean cookstove make? It is just a little smoke! But Tom's situation grows worse and worse and his breathing becomes raspy. Soon, he is struggling to breathe at all. They move him outside, in the fresh air.

"Husband," says Kausiwa. "We must buy this clean cookstove that the doctor recommends. We cannot take a chance with Tom's health. He is already weak as it is. Who knows what is happening to his lungs with all this smoke?"

George knows she is right. He begins to remember how much difficulty Tom has always had with his breathing, even before the wedding. The smoke always bothered his lungs, ever since he was small. But George also knows that he will not be able to afford all the costs of the wedding, and a new cookstove as well. Plus there are the new hybrid seeds he is planning to buy. What should he do? He starts to make enquiries about loans.



He goes to town, to talk to the bank. But once he is there, George learns that a local shop is selling cookstoves for just 5,781 kwacha, which is \$12, each. How is that possible, when they normally cost around \$33 as he had learned from the demonstration? All he has to do in exchange, George is told, is agree to use the cookstove for its lifetime of five years, instead of using an open fire. Somebody would check in to make sure the stove was being used. George is quick to accept. He wants Tom to get better. Besides, the cookstove saves him a lot of money in the long-term. He won't have to burn as much wood.

And so, George buys his first cookstove. He races home to show Kausiwa his new purchase, beaming with excitement. But when he gets there, Kausiwa is stressed and anxious. George's mother has been giving her a hard time about the wedding preparations.



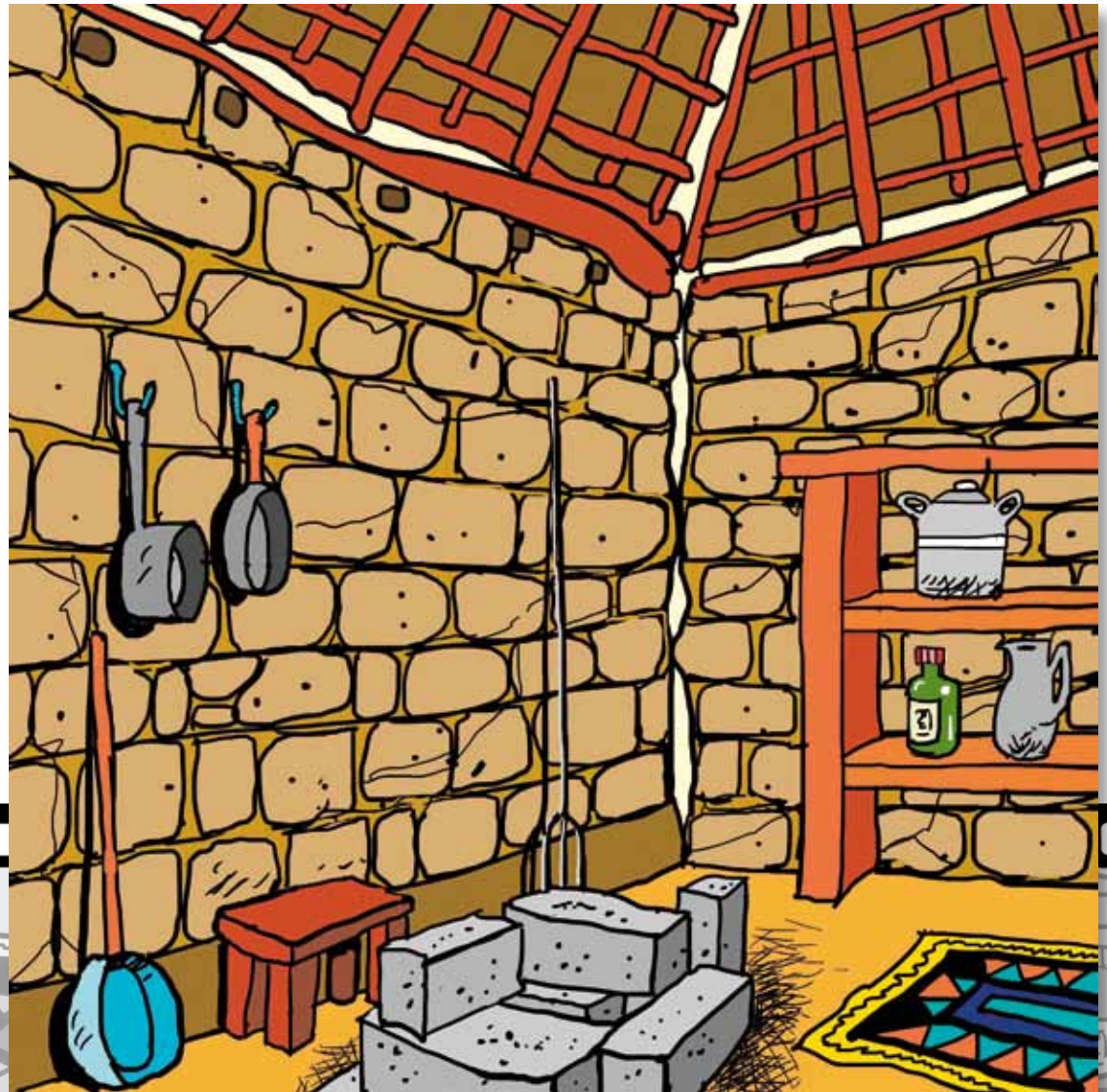
"Your mother," she complains. "She will be the death of me. Nothing will ever be good enough for her."

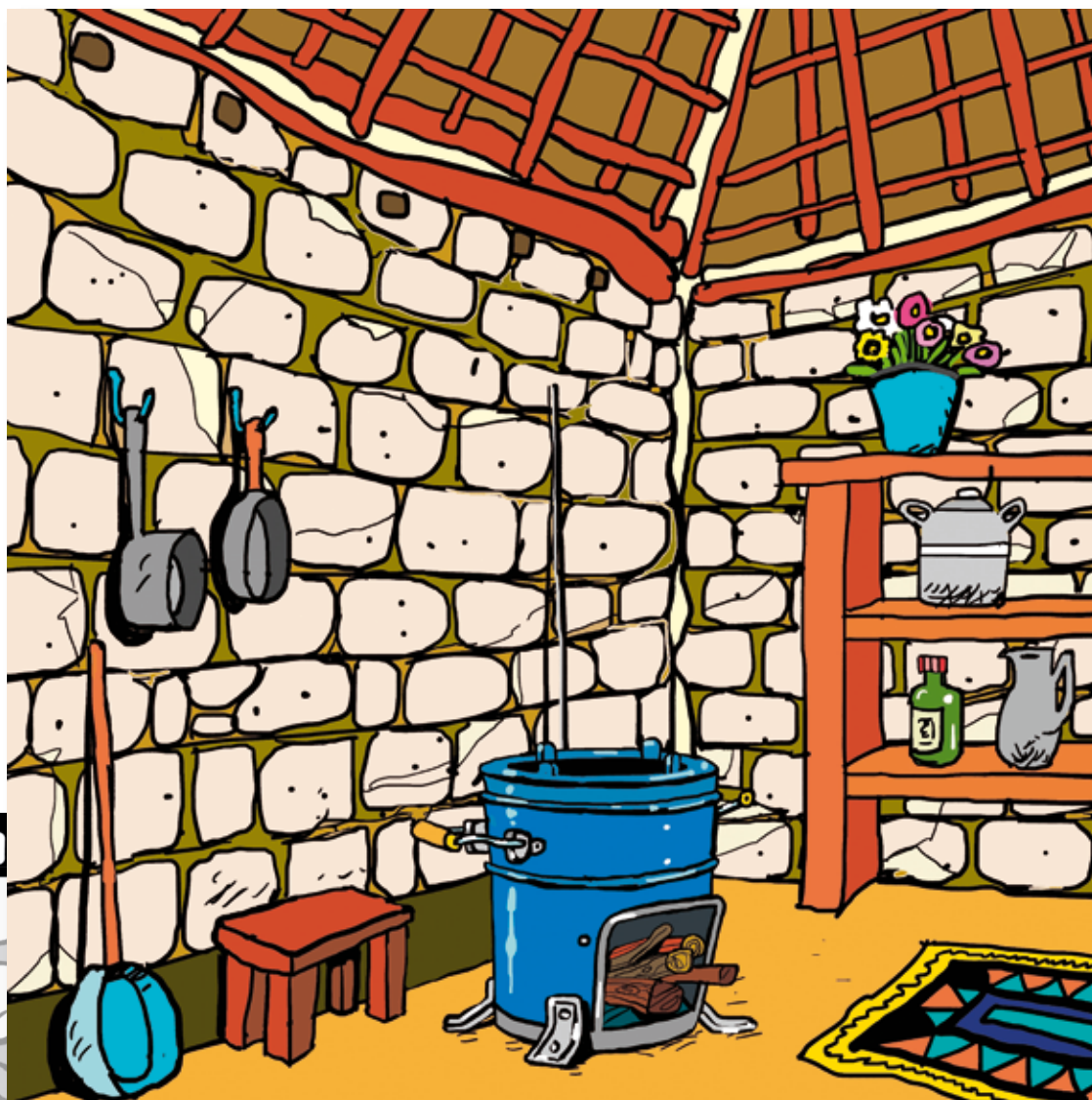
"Come outside," says George. "I want to show you something."

He takes his wife to the new cookstove, as excited as a little boy showing off a toy.

Kausiwa smiles in delight. "Husband," she says, taking his hand. "You have finally done something right."

Even his mother congratulates him on the new stove, and the family tries it out that very night. After a couple of days, Tom begins to feel much better. The house clears of smoke, just in time to welcome the arriving guests. Amidst all the preparations for the wedding they find time to give the house a fresh layer of paint, one that will last now that the smoke is gone. George, Kausiwa and the rest of the family are proud of their home.





The wedding celebrations last long into the night. The two families dance and sing and eat at Dziko's feast. George grudgingly shakes hands with Peter Nyondo. He finds that he is enjoying himself immensely. And later that night, when his mother says she will be returning to his sister's home, he decides the festivities could not have gone any better.

By using a clean stove George improves his family's livelihood, and without him knowing, he does the rest of the world a big favour; his contribution to the reduction of carbon emission helps to fight global climate change and deforestation.



HOW GEORGE BANDA GOT HIS COOKSTOVE

A cookstove seems like such an innocuous object, and yet, it saves millions of lives every year. According to the World Health Organisation, four million people died from household air pollution exposure in 2012. That's 7% of the total global deaths. Despite this, three billion people – which is almost half the world's population – still cook on indoor open fires, many in urban homes! As a result, women and children are dying from the cumulative effects of smoke inhalation. Pneumonia from exposure to indoor cooking is the number one killer of children under five years old globally. Not AIDS, water-borne illnesses or malnutrition. And families are spending vast amounts of time, money, and energy to gather and purchase fuel.

As a result of all of this, massive quantities of greenhouse gas emissions are released into the atmosphere every year. Open-fire cooking produces an equivalent amount of black carbon as all diesel engines combined. Black carbon is particularly implicated in accelerating the melting of mountain glaciers and is the second-largest contributor to climate change. Forests are also rapidly disappearing all over the world as wood is harvested and collected at unsustainable rates.

Yet simple, economic solutions to this problem exist and have existed for more than a quarter of a century. There's just been no one to bring those solutions to the market in a sustainable way.

So what has been done about it? Cardano Development joined forces with the Shell Foundation to help fight this problem. The cookstove project was one of the first initiated by BIX (Base of the Pyramid Impact eXchange) Fund, a joint venture between Cardano Development and the Shell Foundation. BIX invests in essential household products (such as clean cookstoves) for the world's least affluent people. Its general mission is to reach people at the 'Base of the Pyramid', the four billion with too little money to have sufficient access to good cookstoves or clean water. It aims to improve their health, sanitation, and the local and global environment. The BIX Fund promotes the use of impact certification mechanisms, such as the voluntary carbon credit market, to make household products affordable to consumers in less developed countries.

The carbon credit market provides offsetting mechanisms for pollutants. Cookstove credits are particularly desired because not only do they concern environmental impacts such as substantial carbon emission, they are also agreed to generate health impacts and mitigate massive deforestation. Cookstoves address these problems, among others, and so, the BIX Fund is able to enter into an arrangement with a producer to pre-finance a specific cookstove programme, and the producer of that cookstove then sells it at a reduced rate to an intermediary, while still making a profit.



That intermediary, in turn, sells the cookstoves at a much lower cost to families that still use in-house open fires. The intermediary measures the family's use of the cookstove, and how it adds to a reduction in carbon emission. This amount is 'cashed in' at the carbon markets, which pay explicit cash for reduced carbon emission. As a result, the losses incurred for selling the cookstoves at a low price are compensated to the intermediary gradually over time.

The reason the intermediary is able to cash in is because people want to limit their carbon impact. For example, on the other side of the trade, a family travelling from London to San Francisco may agree to pay £12 extra on each of their tickets, to 'offset' their carbon footprints. That money is used by the airlines, or a carbon offset company, on an exchange. It allows the BIX Fund to offer George Banda and his family a cookstove at a reduced price, and then go to the carbon market to reclaim the rest over time.

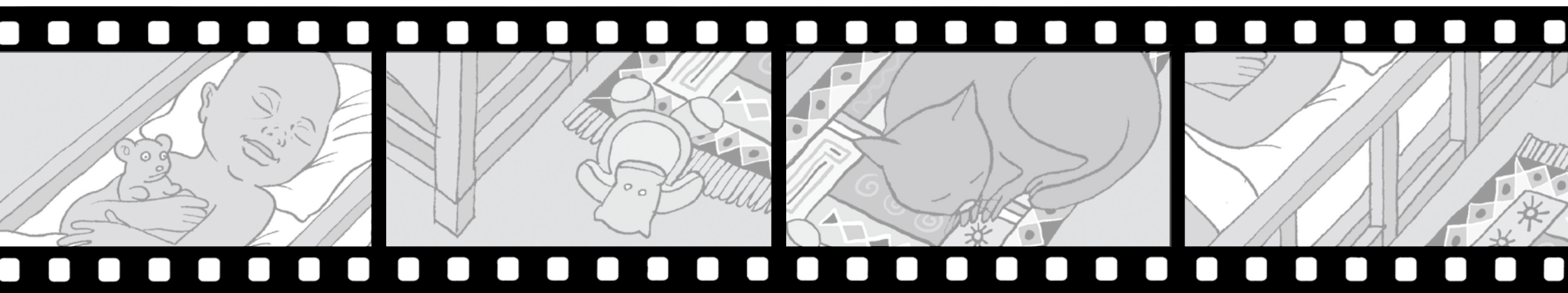


GEORGE BANDA EXPANDS THE FARM

Two years after the wedding, Dziko and Kafele have a baby boy. George is content. He has a new grandson, and Tom is at last growing into a strong young man. His other daughters are healthy, and one in particular, Mary, is very studious, and is doing very well at school.

One day, Peter Nyondo comes to see George. The two have become friends since the wedding. Peter has decided to sell his land and move to Lilongwe, to help his brother run his market shop.

"Just think, George, if you buy my land, you will own ten hectares. You will be the biggest farmer in the village! You are doing well now. You've paid back all that money on your loans. Why not put it to good use?"





George loves the idea of expanding his farm, and especially, the idea of repurchasing the land his father once owned. His studious daughter, Mary, wants to go to the city and do a computer course after she leaves school, and with the output of ten hectares, he will be able to send her there. When Tom grows up, he can help George run the land. There will be plenty for the girls' dowry too. But George knows it is an impossible dream.

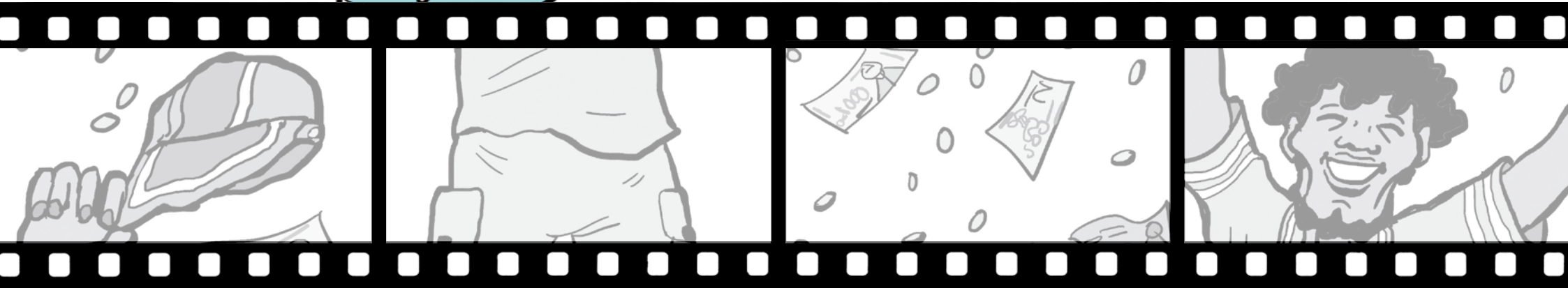




He would have to take out a loan. Not a small one, but a very, very substantial one. A loan that is substantial enough to break him if things go wrong. He remembers, bitterly, his father's experience.

John Banda had bought his land with a very large loan. He had sweated over the farm, and made interest payments on time every month. But when he was just weeks away from owning it outright, repaying his loan, disaster struck. The loan, issued by a local commercial bank, was in US dollars. Malawi found itself in the middle of a currency crisis. The dollar suddenly became twice as expensive. John Banda could not repay his loan, and he had to sell his farm to make the payment. George does not want this to be his fate. He is not sure what to do. It is little Mary, the studious one, who has the idea. "Why don't you see if you can get a loan in our own currency?" she suggests. "That way, the cost of the farm cannot inflate overnight. I will start making enquiries."

And she does. Mary learns that there is one micro-finance bank which is happy to lend George in his own currency, the Malawian kwacha. George goes to see the manager. Amazingly, he is offered the loan.





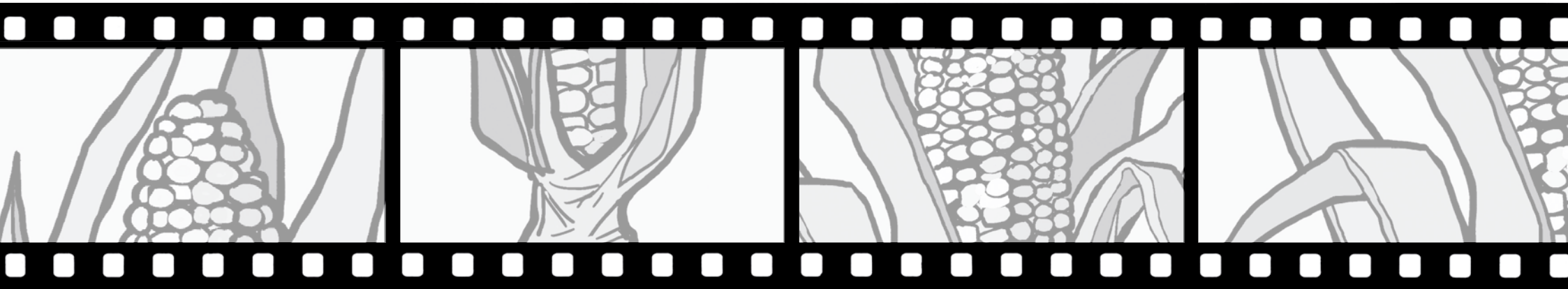
“Why is it sir, that you offer me this, when my poor father was forced to take a loan in US dollars?” asks George.

The bank manager smiles. “Times have changed Mr. Banda,” he says. “Now we have credit lines offered to us in kwacha at decent rates. Small entrepreneurs like yourself no longer have to worry about the dollar. It means that farmers have a fighting chance.”

And so George takes out the loan. At first, he is worried, and has many sleepless nights. He has so many expenses, with the expansion. What if something goes wrong with the loan? But Mary takes his arm. “You are protected, father. Worry about farming the land, not the loan.”

And Mary is right. A few years ago, those ten hectares produced ten tons of maize. But now, since George started using high quality seeds and fertilizer and took out the crop insurance, the ten hectares produce between thirty and forty tons of maize. It is enough to start paying back the loan faster than he thought. In the years to come, still improving agronomical practices and optimizing the inputs further, George will be able to expand to fifty tons on average. It will take George many, many years to pay off that loan. But he will. And he will manage to do so even in the case of a serious devaluation of the kwacha. He will be protected against it, because he doesn't have to repay his loan in US dollars. And during that time, his family will prosper.

With the thought of a brighter future on his mind, George begins to sleep very well at night.



THE CURRENCY EXCHANGE FUND

In 2005, four people from the Dutch development bank FMO, and Cardano met in Rotterdam, in the Netherlands. Their conversation was aimed at fundamentally changing the way entrepreneurs in frontier and developing markets were serviced financially. The problem, they pointed out, was that all loans provided by development banks to local financial institutions were denominated in global currencies, like the euro or the US dollar. If for any reason the local currencies would devalue dramatically, as happened during the Asian currency crisis of 1997/1998, these entrepreneurs and local businesses were left standing in the cold. It was a problem, the four men agreed, that needed a solution. But why had nothing been done about it? Quite simply, they agreed, it was because development banks have balance sheets in dollars or euros, and they could not hedge themselves against a severe drop in local currencies. Many banks had their investments concentrated in only a few countries in one region, so a currency crisis could be disastrous.

There was simply no market to hedge the risks. This was despite the fact that providing loans in non-local currencies is seen as a source of systemic financial risk by the European Systemic Risk Board, among others.

The team wanted to provide a solution, creating a market with all the development banks coming together. But what



were the chances of getting all the banks involved at the same time? This simultaneous cooperation would be necessary to create a global reinsurance institute for the project to work. But importantly, all four of them were willing to give it a try.

Two years later, the Currency Exchange Fund (TCX) was launched. Working with the support of all leading development banks, the fund was built to promote long-term local currency financing to frontier markets. Its first client was a milk factory in Senegal, which needed financing. Senegal's currency is the West African CFA franc, which is pegged to the euro. The managers at the milk factory were wary of currency risk. They remembered that in 1994, the West African CFA franc was devalued 100% overnight. If the milk factory had taken out a loan in euros (or French francs in those days) its value in West African CFA franc would have doubled the following day.

The milk factory needed support, and TCX was able to help BIO, the Belgian development bank, to provide the loan in the local currency, the West African CFA franc.

In many developing and frontier markets, people have historically had very little opportunity to manage their risk. TCX now acts as a not-for-profit market maker in currencies and maturities which are not covered by commercial banks, where there are no offshore markets and no long-term hedging. In some cases, there are no markets at all. The initiative works in 70 countries in Sub-Saharan Africa, Eastern Europe, the Middle East, North Africa, and Latin America. Since 2007 the TCX Fund has been in operation, with daily management of the fund and innovative macro-economic and risk research conducted by TCX Investment Management, part of the Cardano Development Foundation. It has seen a total cumulative volume of \$2.6 billion in local currency loans spread over 50 countries. TCX absorbed \$1.6 billion in currency risk for the micro-finance sector, and a further \$570 million in small and medium sized enterprises (SME) finance. An estimated 1.8 million micro-borrowers have benefitted from matching funding enabled by TCX, of which 1.35 million were women. Development Financial Institutions and micro-finance Investment Vehicles worldwide funded \$5.4 billion to micro-finance institutions at the end of 2011. TCX's micro-finance portfolio equated to 10% of this funding.

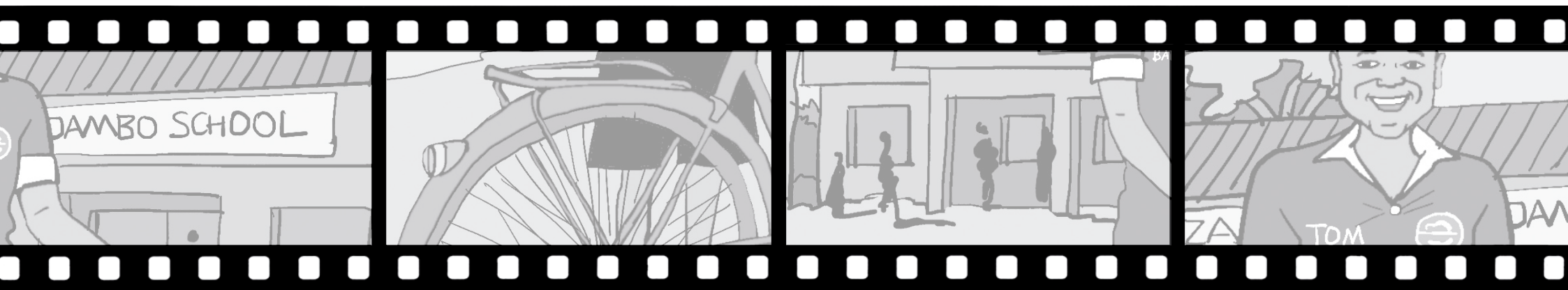


THINGS GET BETTER AND BETTER

A year later, George Banda goes to see his bank manager once again, thinking about how much has changed in his life. His expansion plans have gone well, and through his hard work, and the hard work of his family, things are stable and prosperous.

George has become a man of substance in his farming community. Neighbours and friends are treating him with more respect. Even his mother is grudgingly offering approval and Tom loves the new bicycle he has been given to ride to school. The exercise is doing the boy good. He is expanding his lungs, according to Mary, who is hard at work in the city.

But George is aware that he still has a debt to pay back, and must maintain the growth he had previously started. Today, he wants to talk to his bank manager about a new opportunity. The tobacco buyers have now expanded into other products, and have talked to George about diversifying into other cash





crops that they are interested in trading with him. Because he has more land, George is now able to target more high-end products. He has even been introduced to an international purchaser of vegetables, looking for farmers growing various types of beans. If he could produce a successful crop, George could make tremendous profits. But once again, he'd have to take on more debt, so that he could make the necessary investment in irrigation systems. But the purchaser is interested in making a deal, and so is George.

George thinks carefully about what to do. He asks around. He hears that his bank is offering some new products, and that it partnered with a large international bank to develop a special loan programme for hard currency at very attractive rates, for smallholder farmers like him. Could that be true?



“Yes, Mr. Banda,” replies his bank manager, when they meet. “We have good rates for farmers who have secured the purchase of high-end products which are sold in hard currency. I’m sure we can help you once again.”

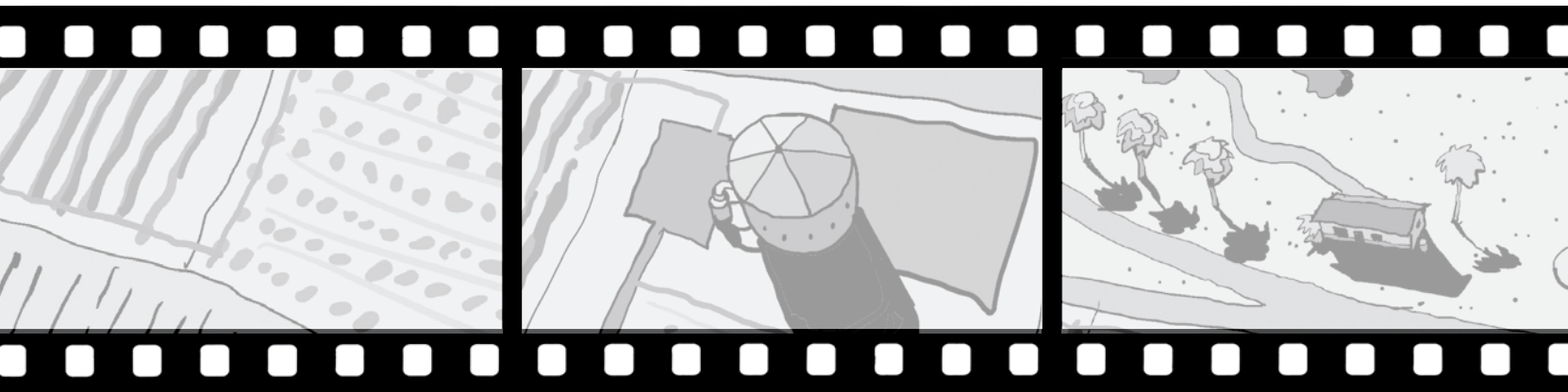
The man sticks out his hand, and George shakes it. He decides to use the purchase agreement for his beans to get his loan. He will expand his business even more.

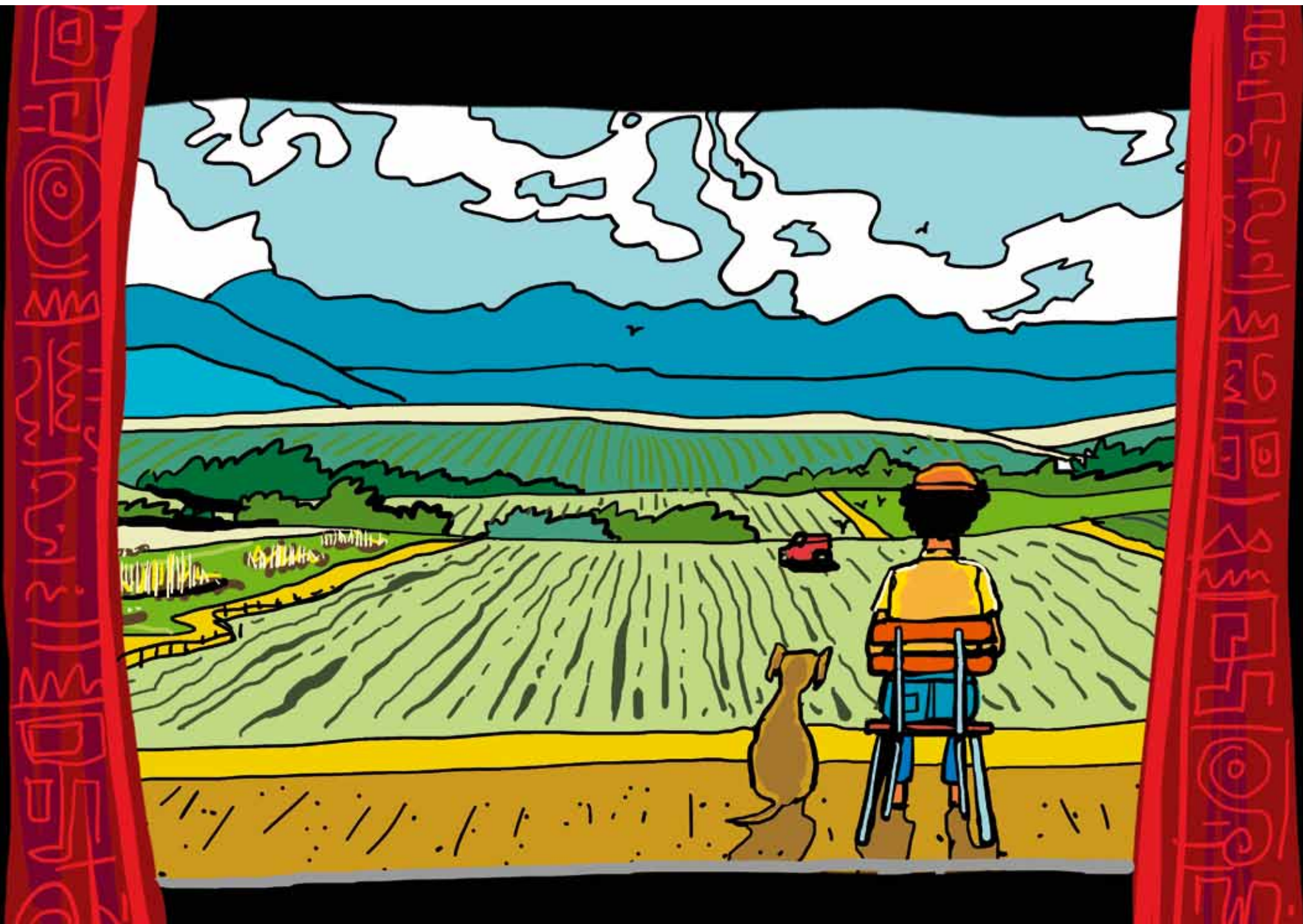
He thanks the bank manager, and rushes off to talk to the people who want to purchase his beans, to tell them that he is able to be their supplier. The deal is struck, and George Banda finds himself growing high quality vegetables with high margin profits.

George Banda once used to dream of owning a motorcycle so he could take his son to the clinic when he was ill. Now Tom has grown strong and well. His wife and daughters are all thriving, especially Mary, who has a job with a computer company. He has expanded his farm five times over. It is amazing, he thinks, how small things can lead to such big improvements in their lives.

It is something he considers time and time again, as he sits in his mud house after a hard day’s work, watching Kausiwa cook his dinner on the little cookstove. The small things... George considers himself to be a very lucky man.

“Husband,” says Kausiwa. “Don’t you think it’s time the other girls get married?”
George sighs.







FRONTIER CLEARING CORPORATION

The Frontier Clearing Corporation was created early 2015 to help smaller local banks to access funding and risk management products provided by international banks. It does so by providing counterparty guarantees to these international banks, which are therefore shielded from the bankruptcy risks on the local Tier 2 banks. This guarantee not only reduces the cost of the transaction, but de-risking more fundamentally actually causes the transaction to happen.

Frontclear's guarantee can be priced very cheaply, because it requires the local bank to place local securities as down payment collateral. Most of those banks have a lot of spare liquidity in local currency, for example in investments in local T-bills. Placing these local securities in collateral with Frontclear is easily achievable.

As a result the funding cost of these local SME banks reduces dramatically. And this initiative strongly improves the export possibilities for local entrepreneurs in frontier markets. This is what inclusive finance is all about.



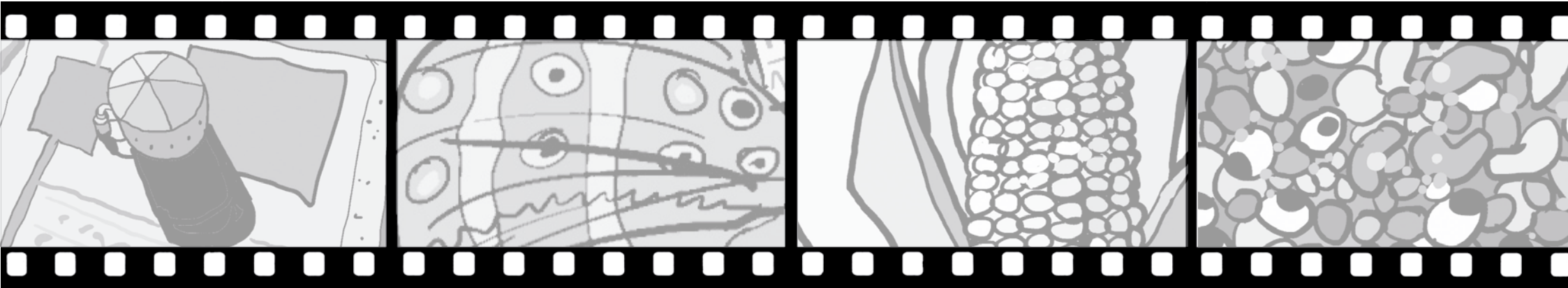


CARDANO DEVELOPMENT:

... is a not-for-profit organisation with a mission to bring high impact financial risk management tools to frontier and developing markets – to change the lives of individuals like George Banda. Together with international partners like the development banks, Cardano Development has successfully implemented (and is in the process of further implementing) projects like Coin-Re, BIX, TCX and Frontier Clearing Corporation.

... and its international partners aim to help people like George Banda and his family via other development initiatives as well. One is Mantis, which models frontier market economies and provides education. By making the economy of these developing countries more transparent, there is a comfort level provided to investors, which helps attract additional investment into local economies.

... has a clear mission, and is only just getting started. Its goal is to help build long-term financial stability via better financial infrastructure in developing and frontier markets. Improved financial infrastructure is a necessary condition to mitigate poverty, so that more people like George Banda can buy motorcycles, medicines, and cookstoves, expand their businesses and work with a range of financial instruments, and increase the quality of life of their families.



COLOPHON:

Contributors	Jeroen Blum, Frank Gosselink, Rob Janssen, Maha Khan Phillips, Theo Kocken, Joost Zuidberg
Final editing	Marja Koolschijn, Cardano
Design	Sofieke Goosen, Studio Goosen Graphic Design, Goirle, Netherlands
Illustrations	Robert Plante, Nanaimo, BC, Canada
Printing	Drukkerij Groels, Tilburg, Netherlands

August 2015

www.cardanodevelopment.com

