



# Business Plan

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## Executive Summary

ArBolivia is a business solution to the seemingly intractable problem of deforestation in the Bolivian Amazon, which is driven by poverty and poor land management in the form of slash and burn subsistence farming. The project enables poor peasant farmers to better manage their land by removing the need to encroach further upon the Amazon rainforest, and by helping them to grow, harvest and sell native hardwood trees.

*“The ArBolivia Project aims to create a sustainable, commercial forestry enterprise in partnership with local forest communities, which will provide long-term returns for investors, improved livelihoods within its local communities and wider environmental benefits for all”*

Arbolivia represents a pioneering model of sustainable forestry, which helps to lift large numbers of subsistence farmers out of poverty through an equitable commercial partnership, whilst also generating numerous environmental benefits as conservation and restoration of biodiversity, soil improvement and sequestering carbon. Furthermore, by aggregating and processing timber to produce large and reliable volumes of high quality timber, ArBolivia provides access to market at a fair price for farmers.

The project has multiple social impacts, most notably in establishing a new model of forestry that makes farmers the chief beneficiaries. It has also sequestered 162,000 tonnes of carbon and we estimate that it will absorb a total of 621,000 tonnes over the lifetime of the project. It achieves this through a diverse ecosystem, rather than by creating a ‘green desert’ of non-indigenous trees.



Monitoring the trees

Arbolivia has been working with 880 poor peasant farmers since 2007. These farmers are provided with the plant material to grow native hardwood trees on a small part of their farms, and also receive technical farming advice, ongoing support, small payments for maintaining the trees, and through the project, have a route to market for their timber of which they receive a 50% share of profits.

The project is managed by Sicirec Bolivia Limitada, which employs a team of 39 people to run the project and is the official owner of the other 50% of timber profits. Sicirec Bolivia helps farmers to choose the most suitable trees, monitors operations, helps farmers to maintain the trees, then thins them, transports and processes the timber, before selling it for the benefit of farmers and investors. The project is now at the stage of generating its first commercial revenues from thinning, but still needs additional funding to meet operational costs until timber revenues more than meet these costs.

Funding has largely been achieved through the Cochabamba Project Limited, a co-operative of social investors in the UK but also from the sale of carbon credits and to a lesser extent grant funding for the delivery of social impacts. In return for investment, Sicirec Bolivia has allocated its entitlement of 50% of timber revenues and all carbon credit revenues to investors.

The majority of the revenues are generated by tree species with a final harvest after approximately 25 years (intermediate species), with a significant proportion in slow growing species that reach commercial

## Executive Summary

maturity after 35 years and fast growing trees that are felled after 12 years. Initial timber is being sold domestically, although hardwood will eventually be sold on both domestic and international markets.

Sicirec Bolivia has also developed a timber processing unit, ArBoReal, with the aid of matched grant funding of €750,000 from the Dutch Government's Development Department. This unit enables the commercial processing of Arbolivia's timber thinnings after only 4-5 years, and also enables indigenous communities elsewhere to manage their timber concessions in a more ecological and profitable way. Not only does ArBoReal obtain better prices for the communities, but it allows the processing of smaller trees that traditional logging firms leave to degrade naturally. In turn, this means that less trees need to be felled overall and generates all important early revenues for the project.



*The first commercial thinnings are now being harvested*

Breakeven will not be achieved until 2021-22, so additional funding is required to take the project to breakeven and to expand to achieve economies of scale. Around \$7.5 million has been invested in the project to date, with a further \$1.8 million required over a period of 7 years to meet costs to breakeven, This assumes that timber and ArBoReal revenues are reinvested to meet operational costs, and also includes a loan of \$763,000 to match the Dutch Government grant. We are in advanced stages of an application to a local development bank for this loan, and if we are successful, this will reduce the projected net funding requirement to just over \$1 million. Grant finance and carbon revenues may also be realised to generate short term returns or to reduce the overall capital requirement. However, we are also seeking a further investment of \$2.8 million to make optimum use of the existing infrastructure, since this will almost double the area of commercial plantations to a total of 2693 hectares and yield an extra \$53 million in timber revenues as well as helping to satisfy the unmet demand from farmers for expansion.

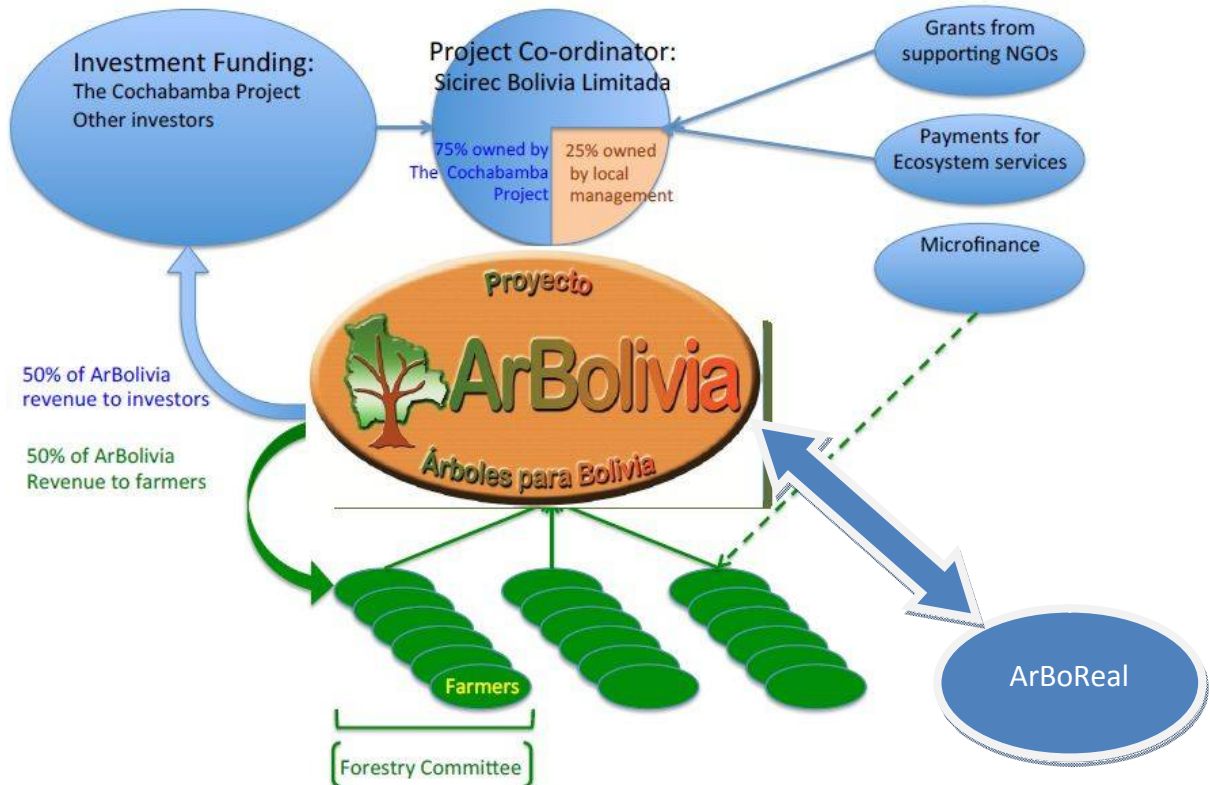
In summary, ArBolivia represents a very significant opportunity to capitalise on a robust infrastructure and to make more effective use of this infrastructure through economies of scale. This will also help to develop a model of sustainable forestry and land use that is easily scale-able and applicable across not only the region but wherever subsistence farming is practiced throughout the tropical regions of the world.



### Organisational setup

The ArBolivia project is managed by Sicirec Bolivia Limitada, which is the formal owner of the rights to 50% of the timber revenues of the ArBolivia project with the other 50% being shared by the participating smallholders themselves. The investment opportunity therefore relates solely to the rights originally held by Sicirec Bolivia (i.e. not those of the smallholders).

The main funder of the ArBolivia project is The Cochabamba Project Limited. In return for its funding Sicirec Bolivia has assigned all its future entitlement from the 1400 established hectares to The Cochabamba Project Limited, and to a collective investment scheme registered and authorized in The Netherlands and called Sicirec Mixfund (67 hectares).



In exchange for the timber rights, The Cochabamba Project Limited, has agreed to provide the ongoing funding needed in order to maintain the ArBolivia hectares. In view of its status as the main investor, The Cochabamba Project Limited also owns 75% of the membership capital and voting rights of Sicirec Bolivia Limitada, with the remaining 25% distributed among the senior management team in Bolivia.

### The Cochabamba Project

The Cochabamba Project Limited is a “community benefit society” registered in the United Kingdom under the supervision of the Financial Conduct Authority. It has almost 500 members and has raised approximately £4 million for ArBolivia to date.

### Sicirec Bolivia

Sicirec Bolivia Limitada was established in Bolivia in 2006 and is active in the forestry, land use and environmental services sectors.

### ArBoReal

ArBoReal is a wholly owned subsidiary timber processing unit of ArBolivia. ArBoReal is 50% funded by a grant from the Dutch Government's Development Department, payable over 3 years. The Cochabamba Project has provided the initial matching funding, with a loan of \$763,000 being sought for the balance from a local development bank. ArBoReal has no separate legal identity but is treated as a cost centre for accounting purposes.

### Experience

The ArBolivia project is an established community forestry project that has operated commercially for more than 5 years. It is run by Sicirec Bolivia which currently has a staff of 39 professionals with national and international experience. The team in Bolivia includes climate change specialists, qualified foresters, professional agronomists, experts in monitoring and quality control, economists, and a sociologist. Together, this team offers forestry related services including reforestation, nature conservation, sustainable forest management, climate smart agriculture, monitoring and evaluation, payments for environmental services (PES), valuation of plantations for micro-financing purposes and harvesting, processing and marketing of wood products from farmer-owned woodlots. The company has gained considerable experience in harvesting and trading wood from former established plantations, including contracts for one of the country's largest forestry companies, Cimal.

Over the past three years, Sicirec has initiated a number of projects with development organizations (Hivos, Cordaid, IUCN NL, Trees for All) in reforestation and community based forestry. New micro-finance for farmers was obtained in associations with IDEPRO, using their plantations as collateral, a celebrated success for both farmers and Sicirec, as an external financial agency now recognizes the economic value of their tree stands.

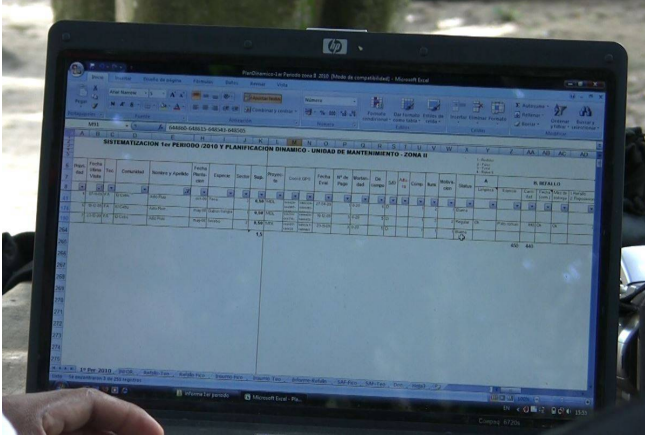


*Sicirec Bolivia provides training days for farmers*

Sicirec Bolivia also has agreements on knowledge transfer with two universities and the Bolivian Institute for Forestry Research. This will result in scientific publications on the results of the project, which will be useful for other national and international parties in the sector and will provide scientific backing to the project. As part of its societal commitment and to improve knowledge and regulations of agro-forestry

plantation and management in governmental institutions, Sicirec Bolivia technically contributes to local authorities and the ABT on how regulations can be improved.

The ArBolivia Project has also established 25 forestry committees in each region, whereby both Sicirec Bolivia and the farmers monitor, control and evaluate the project in the local area, discussing and resolving any difficulties.



*Interrogating the database*

The widely distributed nature of the plantations means that a keen digital decision-support and management system is required. This has been developed by EnBolivia, a leading software company from La Paz. Through the web-based system, a wide range of important data is registered and continuously updated so that informed decision making can be made using real-time data from multiple agro-forestry investments. The system combines geo-data, biological, social, economic and administrative information and is continuously being improved. Currently modules are in development for the transformation and commercialization of timber, which will be of use for the ArBoReal unit.

The Cochabamba Project is the main financier and has been successful in raising over \$6m to date, predominantly from the retail sector in the UK, in order to finance ArBolivia's operations and the wider activities of Sicirec Bolivia.

### Key Staff

Sicirec Bolivia is managed as follows:

General Manager - Anko Arthur Stilma

Technical Manager - Jorge Milton Goitia Antezana

Financial Manager - Giovanna Verduguez Jaimes

The board of directors of Sicirec Bolivia is formed by Anko Stilma (executive director), David Vincent (non-executive), John Fleetwood (non-executive) & Popko van der Molen (non-executive).

David Vincent and John Fleetwood are founder members and directors of The Cochabamba Project.

Further details of experience and key staff are provided in appendix 1.





Although environmental services and agro-forestry products will generate revenues for the project, the financial model is based on wood production, harvesting and sales.

ArBolivia will deliver a range of wood products depending on the age and quality of timber, from a range of 10 native species as well as teak. ArBolivia's marketing information is therefore classified under three broad headings:

Fast Growing Species

Species with a rotation of 10 – 15 years

Medium Growing Species

Species with a rotation of 20 – 25 years

Slow Growing Species

Species with a rotation of 30 – 35 years

ArBolivia will initially produce products for three specific timber markets. The first is high-value sawn and kiln-dried timber that can be exported when mature. The second market is soft roundwood for the plywood industry, which is used to produce panels and veneer for both local and international markets. The third identified market includes posts and poles. Though of minor value, this is an important product for the Arbolivia project, as this will provide revenues in the early stage of rotation. The volume and species available from the ArBolivia plantations present an attractive commercial proposition for the domestic construction industry.

In summary, ArBolivia will deliver pulpwood, poles, panelling, lumber and plywood, initially for the domestic market, but will also consider export markets for lumber and plywood in due course. Further information is available in a separate document.



*Just one of the project's 10 native species*



## Market Analysis

Whilst international timber prices, especially in the EU and USA have been relatively low in the wake of the financial crisis of 2008 and this has also affected the larger forestry businesses in Bolivia to some degree, there have also been additional factors which affected the domestic market in a positive way. As a result, local timber prices actually increased steadily over the same period and have now been stable for the past 2 years. At the same time ABT, the government agency in charge of regulating and controlling forest management and timber trade, has increasingly applied new regulations and sought to exert control, leading on the one hand to an increase in illegal forest operations but also, due to lack of personnel, equipment and systems in the governmental agency, creating higher levels of bureaucracy for the larger timber operators.

A combination of economic and population growth in Bolivia together with the reduced availability of timber from (decreasing) natural forests has created record prices in Bolivia. The margin between domestic and international prices has closed considerably and a large proportion of domestic consumption is actually now served by imports from neighbouring countries. There is therefore a very healthy and growing national and international market for ArBolivia's timber. The demand for certified wood that has been grown or managed in a sustainable way (as compared to unsustainable and even illegal logging from virgin forests) is growing even faster. The customers are wholesalers and retailers in Bolivia and there is also a significant export market with international trading companies buying on the Bolivian market.

Prices are high and are expected to grow even higher over the coming decades as there is an increasing demand from developing countries coupled with an increasing shortage of sustainably grown tropical (hard) woods.

The total volume of wood extracted from native forest in Bolivia in 2012 was 1,450,126.25 m<sup>3</sup>. This may be an indicator of the large size of the market for (tropical) wood in Bolivia in terms of supply and demand. It is expected that the supply of timber from unsustainable practices in virgin forests will decrease over time as forests are disappearing at a rate of 300,000 hectares a year.



*Slash & burn agriculture is driving deforestation in Bolivia*

## Market Analysis

Detailed prices on the Bolivian market are known from a market study that was implemented by Sicirec in 2012 (attached). Prices on the domestic market for those three of the twelve species that will be harvested most in the coming years were updated in March 2013.

Product	Fast Growing Species	Medium Growing Species	Slow Growing Species	Unit	Market
Pulp wood	27,14 €	27,14 €	27,14 €	tn	Santa Cruz
Poles	0,00 €	45,79 €	45,79 €	Pole	Santa Cruz/ Cochabamba
Poles Q2	0,33 €	0,56 €	0,58 €	meter	Santa Cruz/ Cochabamba / La Paz
Panelling	0,50 €	0,84 €	1,23 €	Board feet	Santa Cruz/ Cochabamba / La Paz / Tarija
Lumber	0,00 €	0,84 €	1,23 €	Board feet	Santa Cruz/ Cochabamba / La Paz /Tarija
Lumber Export	0,00 €	1,00 €	1,81 €	Board feet	Arica, chile
Plywood Q1	107,14 €			Cubic meter	Santa Cruz de la Sierra
Plywood Q2	69,79 €			Cubic meter	Santa Cruz de la Sierra

The prices of all species in Bolivia have increased since 2003. For trunks in the forest this is on average 47.75% and for trunks in “collection centres in the forest” this is on average 69.57%. This trend is expected to continue to some extent, subject to international prices.<sup>1</sup>

In addition to the ArBolivia hectares, Sicirec Bolivia has also been contracted to assist an indigenous community in harvesting and commercialising the large amount of timber that is left behind by commercial companies after harvesting only the most valuable trees. Mobile sawmills are required for this purpose and ArboReal may have substantial work and income from this type of activity.

<sup>1</sup> [http://www.abt.gob.bo/index.php?option=com\\_content&view=article&id=216:investigacion-gestion-2012&catid=52&Itemid=193](http://www.abt.gob.bo/index.php?option=com_content&view=article&id=216:investigacion-gestion-2012&catid=52&Itemid=193)

## Competition

Although plantations have been established in the Bolivian tropics in the past, this has not been done on a significant scale. Furthermore, these have invariably been confined to exotic species, most notably teak, eucalyptus and pine (the latter only in the valleys and highlands). However, few if any, have maintained the level of investment and technical expertise necessary to make a significant impact in the market.

ArBolivia's only significant competitors are the traditional timber companies who continue to extract timber from virgin forests. There are therefore **no competitors in the domestic market for sustainably grown timber** from ArBolivia's ten native species or for its sustainably grown and "fairly traded<sup>2</sup>" teak. Similar size planks from unsustainable logging practices will remain available for as long as there still is enough primary forest. Sadly this will continue to decline and even while these products are still on the market, the demand is high enough for our timber to be sold.

ArBoReal will compete with traditional logging companies, but as we are paying higher prices to the indigenous communities and will enable them to extract more value from their concessions in a more environmentally sustainable manner, we are in a strong position to compete with these companies.

## Distribution channels

Sicirec Bolivia will be selling sawn wood directly to carpenters' co-operatives, which will aggregate orders on behalf of individual members. It will also sell to the wholesale market, where it has a number of existing business relationships. The following is list of current distributors:

Company	City	Species	Wood Product
Nora Lopez	Santa Cruz	Tejeyequé	Posts
Edelmira Royas	Cochabamba	Tejeyequé	Sawn Wood
Adepia (10 carpenters)	Tarija	Tejeyequé	Sawn Wood
Cimal	Santa Cruz	Serebo	Round Wood
Petunos	Concepcion	Various	Sawn Wood
Inpa Parket	Concepcion	Various	Sawn Wood
CADEMA (80 carpenters)	Tarija	Tejeyequé	Sawn Wood

Sicirec Bolivia will develop its list of distributors and in time will also seek to establish distribution channels for the export market.

<sup>2</sup> There is no international standard approved by The Fair Trade Association, but the project seeks to follow fair trade principles.



ArBolivia's plantations involve a number of steps, each with specific requirements (presented in chronological order):

### Tree planting

Before planting, a full analysis of the site is undertaken, including soil type, aspect of slope, availability of water, drainage and history to help identify the most appropriate tree species. Selection of the tree species is made by the farmer after receiving advice from project technicians. Seeds are produced in the Arbolivia nursery with saplings being planted by the farmer after clearing the plot of any weeds.

### Maintenance

Farmers are required to maintain trees by weeding and pruning trees. Technicians visit farmers to ensure that trees are properly maintained and the results of each visit are recorded in a proprietary database. There are 3-4 visits in year 1, 2-3 in year 2, 1-2 in year 3 and one a year after that. Farmers are paid a small sum for each satisfactory maintenance. Replanting is undertaken if necessary. Technical advice and assistance is also provided as part of the regular visits, with additional training also being made available.



*A contract is signed with each farmer*

### Contracts with Farmers

Each farmer enters into a formal legal contract with the project. A file is maintained for the farmer documenting the initial analysis, maintenance visits and commitments. The project is responsible for timber sales, with the farmer being entitled to 50% of the profits.

### Farmer liaison

Farmers are organized in forestry committees. Each committee appoints two representatives as does the project, with any issues being resolved by these forestry committees. The project invests considerable time and money in promoting the project, resolving disputes, reminding farmers of their contractual obligations and in training farmers.

### Certification

The project was also certified under both CDM and the voluntary carbon markets. It is currently certified under both Gold Standard and Plan Vivo. This has necessitated verification by independent assessors, in terms of carbon sequestration, delivery of community benefits, economic viability, biodiversity and tree growth.

### Harvesting

The thinning of plantations implies that selected standing trees need to be harvested without damaging the remaining trees. This requires very careful operation in small areas. Harvesting is conducted with chainsaws to guarantee optimal cutting. The requirements of the customer will be taken into consideration at the cutting stage, ensuring that the right size trunks are selected and sawn according to size of the timber ordered.

### Transportation for Processing

Trees need to be removed from the plantation for further processing. Since only a limited number of trees will be removed from each woodlot, it would be inefficient to transport the sawmills to each one. A temporary base for the mobile sawmills is therefore established, with selected trees being removed from each tree lot and transported to the sawmills.

### Processing

Sawing of the trunks is conducted using mobile sawmills that allow processing of trunks that are smaller than those resulting from logging in virgin forests. Wood is then dried in the project's kilns and stored for transportation to market.

### Delivery

A number of trucks of different sizes will be available for transport and delivery. In cases where the clients' order cannot be fulfilled from a single sawmill location, the decision support system will identify the best way to deliver the required volume.



*Portable saw mills enable early returns*

## Social Impacts

The project's purpose is to prove a radical new way of tackling deforestation that has the social welfare of poor peasant farmers at its heart. The economic welfare of farmers and their families is the critical factor. Rather than just paying wages and perpetuating a model in which wealth is extracted overseas, the project seeks to enter a mutually beneficial partnership with profits being split equally.

Farmer  
51%



Investor  
49%



### Short term benefits

Farmers get both long and short term revenues since they are paid a small amount for maintaining each plot and receive extra plant material, inputs and technical advice that helps farmers to earn a better income from the rest of their farm. The project is already having a material benefit on the lives of farmers. Isidro Colque Condo (above left and right) was visibly wealthier on our return to see his plot after just 2 years. And his youngest child will be the chief beneficiary.



*February 2011*



*July 2013*

### Additional income and benefits for farmers

Since the average farm is around 30ha, farmers working on their own are unable to maximise the return from such a sizeable piece of land and trees are an *additional* source of income, especially when food crops are grown between the trees.



## Social Impacts

Farmers are also receiving a short term benefit in the form of wood that can be used for their own construction or for firewood. The first thinnings have no commercial value due to the costs of transportation, but some of the thinnings can be used by the farmers themselves.



*Don Pedro (right) looks on as 5year old Palo Yugo is thinned. This sizeable tree has no commercial value but can be used by Don Pedro for his own building.*

Since the start of the project, farmers have been supplied with other plants and inputs free of charge (see above) so that they can grow food and trees in the same area. They are also helped to create conservation areas in order that biodiversity is enhanced and plots are protected from flooding and erosion.

**30951 cacao trees**  
**43 hectares conservation areas**  
**Food and Trees**  
2445 rubber trees      2721 mandarin trees  
**73718 citrus trees**  
692 mango trees      1917 orange trees  
**3622 kg seeds**  
18760 shade trees  
2444 rolls wire fencing

*Farmers are given valuable plants free of charge*

## Sequestration of carbon

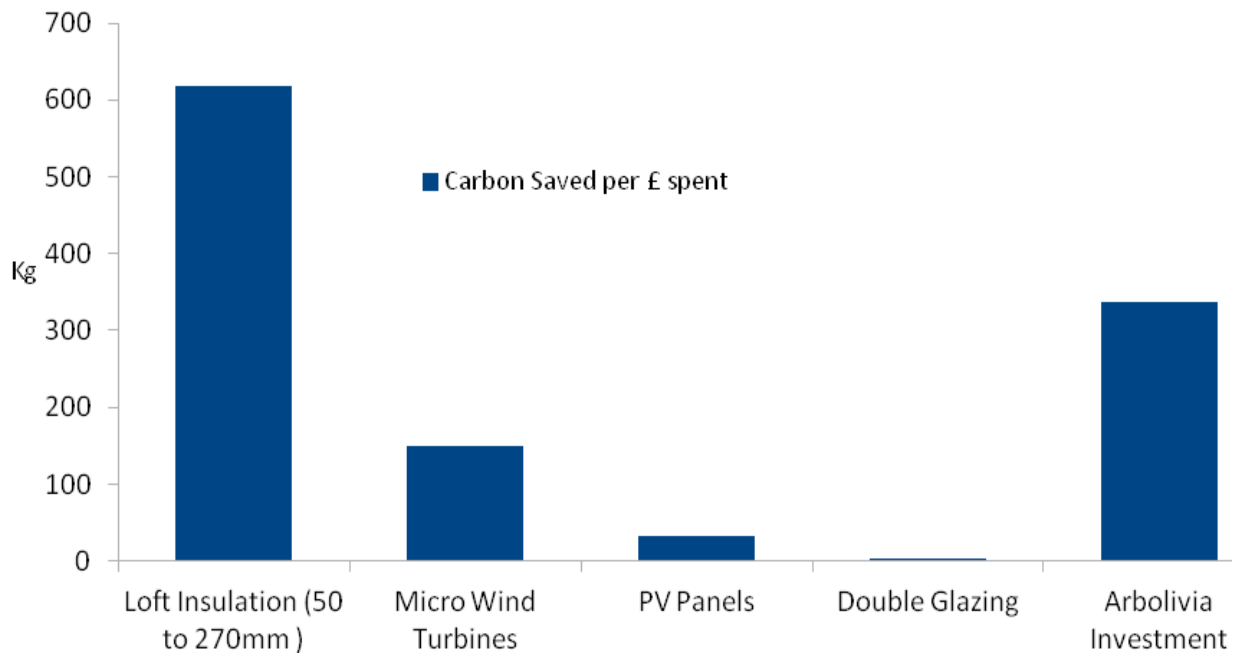


The key environmental benefit is the sequestration of carbon which directly counters climate change. We estimate that the project has already sequestered 162,000 tonnes of carbon and will absorb 621,000 tonnes of carbon over the lifetime of the project.

This includes an estimate for the conservation and agro-forestry areas and is higher than the verified 300,000 tonnes for 995 hectares of plantation forestry (this includes a 30% contingency allowance and only relates to a proportion of the planted area). It doesn't include the very significant potential saving of carbon which might otherwise be released on felling more trees, as is the likely scenario without the project's intervention. In any case, it is a significant amount of carbon, equivalent to that consumed by 606 average UK families over the lifetime of the project.<sup>3</sup>

*Trees grow quickly in the warm, humid environment of the Amazon. Even 'slow growing' trees grow much quicker than trees in a temperate climate, making them much more effective in sequestering carbon.*

Pound for pound, investing in the project has been shown to be one of the most cost effective ways of mitigating carbon footprint.<sup>4</sup>



<sup>3</sup> Assumes 26 million households in UK, average carbon footprint of 25.6Tonnes a year, 40 year project.

<sup>4</sup> Small World Consulting, 'Comparing returns in Carbon Mitigation Investment Projects', November 2010



### Wider ecological benefits

Importantly, this carbon sequestration is achieved through biodiverse plantations, not by creating a 'green desert' of identical trees that are a sad replacement for the rich diversity of the rainforest. These monocultures of non-indigenous trees may grow quickly, but they do little for the natural environment. By way of contrast, the project works with 10 native species and teak (which is naturally suited to the area), building markets for the wood and maintaining seed stocks for the future.



*The project creates biodiverse environments, not green deserts*

Apart from the economic benefits, trees have an intrinsic ecological value and can be things of beauty. They also play an important role in preventing flooding by stabilising soils. This is one of the most important functions of the project's conservation areas. The value of this was underlined when the worst flood in living memory occurred in the Beni area in 2013.



*In 2013, the worst floods in living memory hit the Beni area. Although some farms were ruined, the project's trees helped to reduce the damage.*

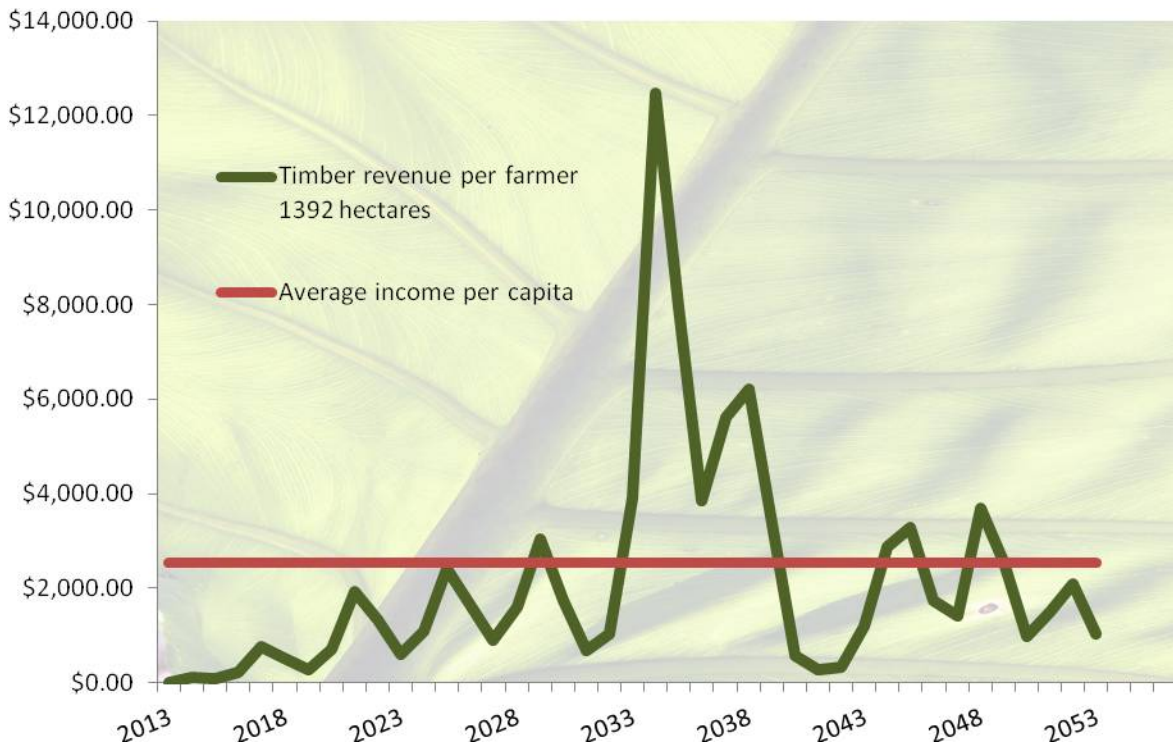
*Left: The brown colour on the trees indicates the level of the floods.*

*Right: Palo Maria is grown by farmers where flooding is an issue, since it can tolerate standing water.*



**Trees move farmers out of a subsistence economy**

However, the key benefit is the long-term income from an equal share of timber. This amounts to an average of \$87,000 per farmer over the lifetime of the project, a very significant amount in a country where the average income per capita was just over \$2,500 in 2013.



Trees are viewed as a long term asset that can be used to fund specific needs such as further education for children and grandchildren, or for unforeseen healthcare provision. The trees also provide collateral to secure microfinance loans.

Collateral for Microfinance

Further Education for Grandchildren

**Tree Bank**

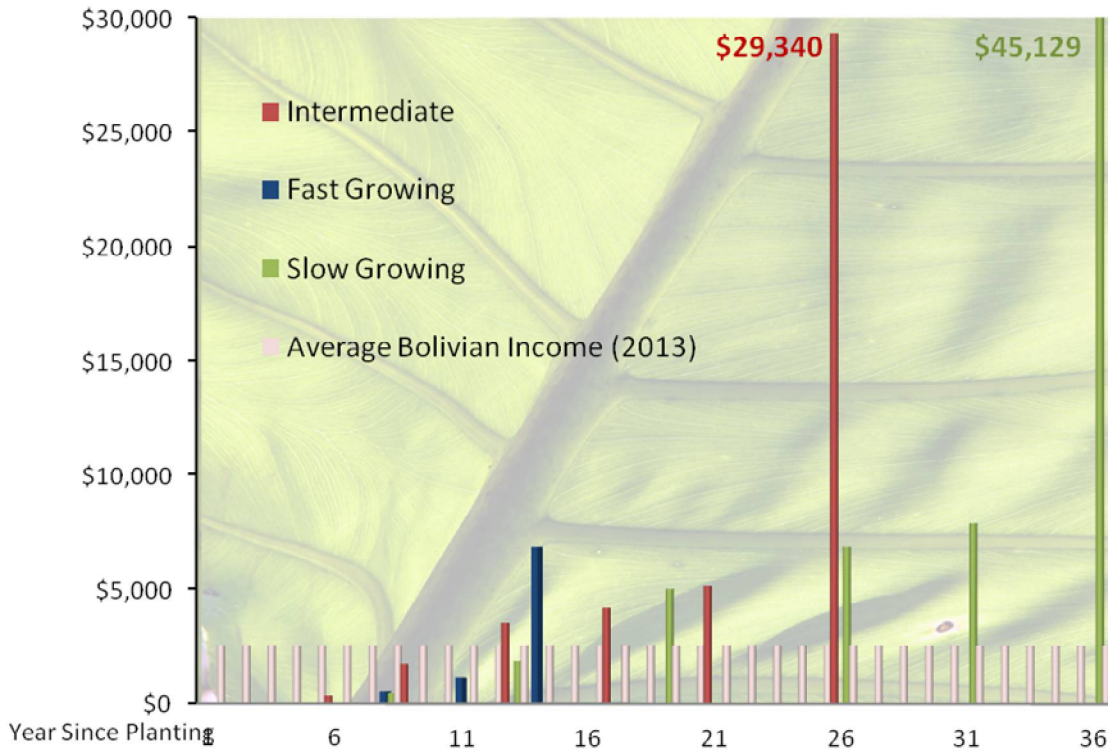
Retirement Funding

Emergency Healthcare

Cash

*The farmers trees are a major extra source of cash in a subsistence economy*

The actual income to the farmer, and when it comes, depends on the type of trees being grown. Although much of the income comes at the end when the plantation reaches maturity, there are significant incomes from thinnings.



*Projected Timber income from 1 Hectare of Fast, Intermediate and Slow Growing Species*

### Better farming, more rainforest

The root cause of deforestation in the Bolivian Amazon is poverty. The project provides training and advice on the whole farm (not just the small amount relating to tree planting), which means that there is much less pressure on them to engage in further slash and burn agriculture involving the felling of prime rainforest. Given that the average farm size per engaged farmer is 30 hectares, the project directly influences more than 26,000 hectares of farmed land.

## 26000 Hectares Farmland Influenced

And it doesn't stop here. The project has attracted grant finance for specific programmes (see appendix 1) and is influencing key decision makers in the forestry authorities in Bolivia, proving a sustainable model of plantation forestry that can replace the current unsustainable felling of prime rainforest. Furthermore, the project has a long waiting list of farmers wanting to join the scheme who are prevented from doing so by lack of funding. The farmers are clearly recommending the project to their neighbours and the project is starting to become a catalyst for change in the area.

### What they say

The project is wholly dependent on the goodwill and hard work of the farmers, so one measure of success is what they think about it. Here's what some of them said:



*"The wood is going to be more valuable because there is no more forest ... right now Arbolivia is leading this activity to get a fair price and we are like one association."* - Ezekiel Salvatierra Hurtado

*"These people who trust in us – we need to tell them that they can trust us because we are hard working. We want to re-assure investors that we are going to accomplish the contract."* - Isidro Colque Condo

*"I like the plantation. This is because I have children and I will have grandchildren. Something could happen any time – diseases, illnesses – but this will stay."* - Antonio Abrego

### And our investors

14 of our existing investors have also been to visit the project and universally praised the project:

*"The targeted farmers appear to genuinely need and appreciate our help and partnering ... you can see the project is making a difference to their lives"* – JW

*"It turned out to be a really inspiring trip. The level of support that the project gives to farmers is exceptional"* – AS

*"I found the whole visit extremely positive. I had never doubted that trees were growing, but it was good to see them looking so healthy and well tended"* - AC

*"We were very, very impressed"* – CGJ



*Investor meets farmer*



The pioneering nature of the project means that it carries very significant risks, but having established a robust infrastructure over several years, there are now major opportunities to build on this base and to benefit from significant economies of scale. The key risks and opportunities are described below with further risks summarised in the following table.

### Cash Flow

As a project reliant on long-term timber revenues from tropical hardwoods, the principal challenge is funding operational costs until these are met by timber revenues. In order to bring the breakeven point forward, the project is developing new and innovative harvesting and processing facilities to develop the chain of custody for products from early thinnings and from the managed concessions of indigenous communities. These early revenues are reducing the time to break-even and thereby, the risk of running out of cash in the initial years, a common risk in reforestation projects

Also, to help offset the relative high costs, grants have been secured for training and monitoring. Since the project generates high environmental and social benefits, there are good opportunities to secure this grant funding in future years.

The ArBolivia project also has a substantial volume of certified carbon credits, whose sale might also go a long way to meeting early costs.

Furthermore, the biggest risk also presents the biggest opportunity. As an established project of several years, ArBolivia provides a major opportunity to leverage the substantial infrastructure that has been built over this period. Substantive further investment will achieve economies of scale that are projected to double revenues with proportionately little increase in costs.

### High Operational Requirements and Costs

The participating peasant farmers are widely dispersed, which means relatively high operational, support and training costs during the whole rotation of the plantations. To create efficiency of scale in managing the distributed lands, a keen digital decision-support and management systems has been developed. Through the web-based system, practically all of the important data is registered and continuously updated so informed decision making can be made with real-time data from many agro-forestry investments. Currently modules are in development for the transformation and commercialization of timber, which will be of use for the ArBoreal timber processing unit. Having borne these costs and having invested in a robust management and operational structure, there are real opportunities to offer additional timber processing and ancillary services to other organisations and communities. These are already underway and there is considerable scope for additional revenue streams.

### Carbon Credit Revenues

This market is currently characterised by volatility and price pressures and despite consistent sales at a modest level, there is no assurance that all the registered credits can be sold at the volume and price desired. However, these credits are currently held by The Cochabamba Project Ltd so any new investor has the option of including or excluding an entitlement to future carbon credit revenues.

### Early Timber Revenues

Early timber revenues from thinnings can also be used to help meet costs before breakeven or to provide a short-term return on capital employed. These timber revenues are as yet unproven, despite buyers having been secured for initial thinnings. ArBolivia is pioneering the introduction of a number of native tree

## Risks & Opportunities

species into the domestic and (eventually) international timber market and future volumes, quality, end uses and prices for these timbers are all unknown, with estimates being based on comparisons with other current commercial timbers. There is a risk that one or more of the species being developed does not meet our expectations, but in consideration of this, conservative assumptions have been made in projecting timber revenues. Conversely, this presents an opportunity for enhanced returns should these assumptions prove to be overly conservative.

### Currency, inflation and country risks

These are described further in appendix 2.

Risk	Significance of Risk	Mitigation
<b><i>Financial</i></b>		
Cash Burn	High	Early timber revenues from thinnings, grant funding, carbon revenues, ongoing investment, additional revenue generation. Also trees will grow regardless of the quality of management, so complete failure is unlikely in the event of cash flow difficulties
Carbon Markets	Medium	Ongoing contracts with U&WE, Forest Finance, Trees for All. Promotion of community benefits as well as carbon sequestration to secure a better price.
Inflation	Medium	Inflation is significant at 5% or more. This impacts on costs, but short-term inflationary costs are offset by falls in operational costs. Long-term timber revenues are also likely to at least mirror inflation in costs.
Currency	Low	Early sales are domestic so there is no currency risk. Investment has been historically made in sterling and euros with payments being made in dollars. Carbon sales are in euros. Long-term revenues are in local currency and dollars.
Taxation	Low	Taxation in Bolivia is reasonable although we have engaged tax experts to ensure that the project is managed in a tax efficient manner.
Timber prices	Medium	Timber prices have historically been strong and this is expected to continue in the long term. By operating in both domestic and overseas markets, this risk is reduced.

## Risks & Opportunities

Risk	Significance of Risk	Mitigation
<b><i>Operational</i></b>		
Bureaucracy	Low	Low level corruption and overall bureaucracy are countered by developing good relations with officials and through a high level of monitoring and clear systems.
Large number of farmers	Low	Training events, regular supervision and advice, monitoring database, forestry committees, promoters.
Dispersed plots	Low	Extensive field network, portable saw mills, regional offices, diversification benefits.
Markets	High	<p>Marketing risk is high in case wood is not processed since the dimensions of trunks from plantations are smaller than usual for the timber industry. However Sicirec Bolivia has set up a specific unit for harvesting, processing and marketing so the relative small dimensions of wood can be processed to marketable wood products with added value. By having done this the market risks are low.</p> <p>Initial focus on domestic market, direct relationships with users, prior development of markets through trade shows.</p>
Personnel	Low	Investment in training, competitive pay, good working environment
Processing & Transport	Low	Ownership of lorries, processing equipment
<b><i>Natural</i></b>		
Fire	Low	Fire prevention training, fire prevention strategy. Monitoring visits, dispersed and varied nature of plots, as well as organizing farmers in brigades, with appropriate equipment for fire control
Pest and Diseases	Low	Use of native species and appropriate site specie matching reduces the risk for pests and diseases. Training, monitoring visits, dispersed and varied nature of plots.

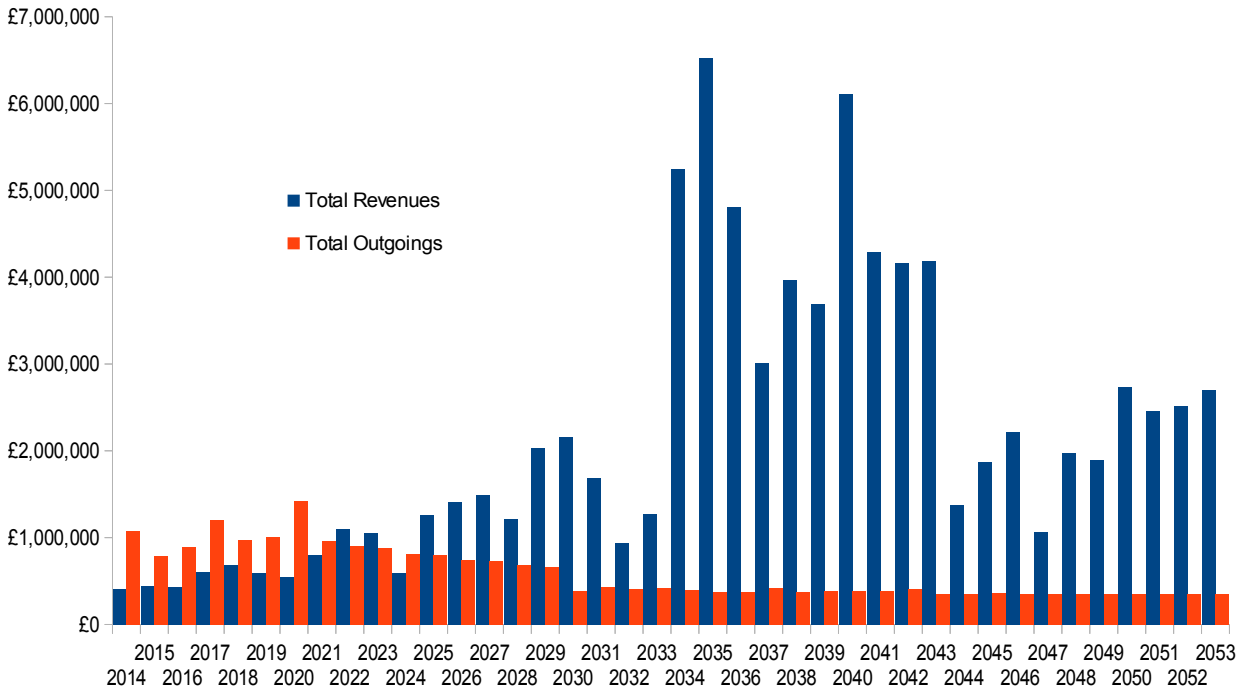


## Risks & Opportunities

Risk	Significance of Risk	Mitigation
Flooding	Low	Appropriate selection of species, site selection, using species which high tolerance for flooding in those areas where this risk exists. Training, monitoring visits, dispersed and varied nature of plots.
Cattle encroachment	Low	Fencing is provided to avoid this.
<b>Legal</b>		
Country	Medium	Small scale of project in national terms. Partnership model. Stable nature of government. Strong relationship with farmer and indigenous organization on local and regional, as well with authorities on local, regional and national level to maintain continuous support.
Illegal Logging	Low	Forestry Authorities – registering plantations for ownership and timber processing. Opportunity for ArBolivia to be the partner of choice for legally sourced timber. Forestry committees control illegal logging. Strong relationship with forest authorities.
Contracts with farmers	Medium	Registration of timber in Sicirec Bolivia’s and farmer’s name. Rule of law in Bolivia. Peer pressure of farmer communities. Need for aggregation in processing timber. Complete lack of processing facilities for non-primary forest timber. Fair terms with farmers mean that due to an economy of scale 50% of revenue with project > 100% revenue obtainable elsewhere.
Forestry Authorities – time taken registering plantations for ownership and timber processing.	Medium	Liaise with forestry authorities at all levels – national , regional and local. Paid staff devoted to liaison.

## Overview

Since 2007 the project has established 1393 commercial hectares in partnership with 879 farmers. The first timber revenues are due this year and over the full term of the project we anticipate timber revenues totalling \$73 million, which are forecast to increase to \$126 million by expanding the area under management.



ArBolivia costs and timber revenues

In addition we have recently established ArBoReal, a timber harvesting and processing unit, which is projected to generate net revenues of approximately \$20 million over the lifetime of the project and most importantly, generates early revenues, becoming cash positive in 2018. This is of key importance as, despite the imminence of the project’s first significant timber revenues, breakeven is not expected until 2021/22, with a \$1.6 million cash shortfall being projected to breakeven, assuming that timber and ArBoReal revenues are re-invested.

Year (1/7 – 30/6)	Cash In	Cash Out	Net Cash
2015/16	\$2,462,505	\$3,206,077	-\$743,572
2016/17	\$1,720,040	\$2,237,339	-\$517,299
2017/18	\$1,532,820	\$1,735,315	-\$202,495
2018/19	\$1,846,320	\$1,729,510	\$116,811
2019/20	\$1,627,211	\$1,695,170	-\$67,959
2020/21	\$1,404,348	\$1,660,831	-\$256,483
<b>Total</b>			<b>-\$1,670,997</b>

## Financial Plan

Around \$7.5 million has been invested in the project to date, with a loan of \$763,100 being secured as matched funding for the ArBoReal timber processing unit. Grants and service agreements totalling \$1.1 million have also been confirmed, with around 200,000 tonnes of certified carbon credits available for sale. Additional grant finance and sales of these carbon credits may also be realised but the majority of the shortfall needs to be met from investment.

Operational costs for the ArBolivia Project are high given the dispersed nature of the plots and the social objectives of the project in educating and supporting semi-literate farmers to manage their whole farms more sustainably and profitably. This base cost has been reduced to the minimum necessary to adequately monitor and manage 879 farmers in widely dispersed areas, but it remains high, meaning that breakeven is not achieved until 2021/22. However, there is also considerable scope to expand the project using the current infrastructure at relatively little additional cost. By increasing the area under commercial management to 2693 hectares over a period of 4 years, total costs to breakeven increase by approximately \$2.8 million for total extra net revenues of around \$45 million.

<i>Summary of Costs &amp; Revenues</i>	<i>To Breakeven (\$million)</i>	<i>Full Project Term</i>
<b><i>No Expansion</i></b>		
ArBolivia Costs	(5.3)	(25.3)
ArBoReal Costs	(7.6)	(30.3)
Timber Revenues	2.3	72.9
ArBoReal Revenues	7.9	50.2
Grants	1.1	1.1
<b>Net Revenues</b>	<b>(1.6)</b>	<b>68.6</b>
<b><i>1300 ha Expansion</i></b>		
ArBolivia Costs	(8.1)	(33.8)
ArBoReal Costs	(7.6)	(30.3)
Timber revenues	2.4	126.7
ArBoReal Revenues	7.9	50.2
Grants	1.1	1.1
<b>Net Revenues</b>	<b>(4.4)</b>	<b>113.9</b>

We are therefore seeking finance to both meet current costs to breakeven and to almost double the size of the project to achieve economies of scale. This will also result in a significantly better IRR for investors. This finance is required over the next seven years, and if revenues are re-invested to meet ongoing costs, the minimum total funding required will be of the order of \$5 million over the seven year period. However, the Cochabamba Project is also seeking to reduce its stake in ArBolivia in order to be able to repay loan commitments and to provide an exit route for investors. A further investment in respect of this stake would allow the payment of early dividends .



## Existing Financing

The project has been largely financed by The Cochabamba Project Ltd, an Industrial & Provident Society for the Benefit of the Community based in the UK. Almost 500 investors have bought shares in the Society raising £2.8 million to date. A further £1.07 million has been raised by way of debt finance of which £0.9 million is outstanding.



Some of the early funding was provided by the Flemish government in the form of payment of €260,000 for carbon credits.

A Dutch fund also has an entitlement to the timber revenues relating to 67 hectares having invested 130,000 euros at an early stage.

Grant finance totalling €670,000 has also been secured from funders including HIVOS, Hans Seidel Foundation, Cordaid and the European Outdoor Conservation Association. This has been used to develop a number of ancillary programmes but it also helps to support the project. A summary of the grants and their social benefits is provided in appendix 1.

## Existing Assets

1393 commercial hectares have been established, planting having taken place over six consecutive seasons starting in 2007/08 (ending 30th June).

Planting season	# hectares			Totals
	fast	medium	slow	
2007-2008	20.21	205.88	37.89	<b>263.98</b>
2008-2009	17.41	280.19	44.51	<b>342.11</b>
2009-2010	5.24	201.09	54.69	<b>261.02</b>
2010-2011	4.76	120.09	16.19	<b>141.04</b>
2011-2012	1.86	176.9	2.64	<b>181.4</b>
2012-2013	19.16	183.7	0.3	<b>203.16</b>
<b>Totals</b>	<b>68.64</b>	<b>1167.85</b>	<b>156.22</b>	<b>1392.71</b>

67 of the commercial hectares are owned by the Sicirec Mixed Fund and 1326 by the Cochabamba Project Ltd. The total projected revenues from these hectares amounts to \$77.0 million over the full project term. On a discounted cash flow basis using a discount rate of 12%, this equates to a current value of \$9.46 million.

The project also has around 200,000 tonnes of verified carbon credits remaining for sale. The most recently planted 200 hectares have not been certified, but could generate 40,000 tonnes of credits were they to be certified, and expansion would allow a further 250,000 credits to be certified.

## Expansion

The intention has always been to expand the project to a scale of 5000 hectares to achieve economies of scale and to deliver benefits to a wider group of farmers. This is still the intention and our proposal is to move to the next stage by expanding by 300 hectares per year up to an additional 1300 hectares. This can be implemented using the existing infrastructure and is therefore highly cost effective, since the main additional cost is plant material and farmer payments, with little increase in core staffing costs. By increasing the commercial hectares to 2693 over a period of 4 years, total costs to breakeven increase by approximately \$2.8 million over a seven year period for total extra net revenues of around \$43 million – a handsome return on investment.

## Revenues

Commercial harvesting was due to start in 2012/13 but was postponed due to the possibility of winning a substantial grant from the Dutch Overseas Development Agency. This has now been secured and means that ArBolivia is ready to commence harvesting and to receive its first timber revenues. Although these revenues are only modest at this stage of the project's development, they will increase steadily and relatively consistently. These early revenues are derived from thinnings, with around 40% of trees being felled in the first thinning, and 25-30% of standing trees being felled at each thinning thereafter until the final harvest. The first thinning of fast growing trees yields no commercial return, but after that, thinnings have a commercial value, with returns being dependent on the quality of the wood. The end use of the timber is as follows:

	Pulp	Poles 1 <sup>st</sup> Qual.	Poles 2 <sup>nd</sup> Qual.	Laths	Plywood 1 <sup>st</sup> Qual.	Plywood 2 <sup>nd</sup> Qual.	Lumber	Lumber export
<i>Fast Growing</i>								
Thinning 1: Year 4	0%	0%	0%	0%	0%	0%	0%	0%
Thinning 2: Year 7	10%	0%	40%	0%	0%	50%	0%	0%
Thinning 3: Year 10	0%	0%	5%	25%	30%	40%	0%	0%
Final harvest: Year 13	0%	0%	0%	0%	100%	0%	0%	0%
<i>Intermediate</i>								
Thinning 1: Year 5*	20%	0%	70%	0%	0%	0%	0%	0%
Thinning 2: Year 8	0%	0%	20%	60%	0%	0%	20%	0%
Thinning 3: Year 12	0%	10%	0%	20%	0%	0%	70%	0%
Thinning 4: Year 16	0%	10%	0%	15%	0%	0%	70%	5%
Thinning 5: Year 20	0%	0%	0%	5%	0%	0%	85%	10%
Final harvest: Year 25	0%	0%	0%	0%	0%	0%	40%	60%
<i>Slow Growing</i>								
Thinning 1: Year 7*	40%	0%	40%	0%	0%	0%	0%	0%
Thinning 2: Year 12	0%	0%	30%	50%	0%	0%	20%	0%
Thinning 3: Year 18	0%	0%	0%	25%	0%	0%	75%	0%
Thinning 4: Year 25	0%	0%	0%	25%	0%	0%	70%	5%
Thinning 5: Year 30	0%	0%	0%	20%	0%	0%	70%	10%
Final harvest: Year 35	0%	0%	0%	0%	0%	0%	40%	60%

\* Not all wood is sold

## Financial Plan

Timber prices vary depending on the tree species, and our market analysis indicates that the following prices are expected:

Product	Fast	Intermediate	Slow
Pulp	0	25	31
Poles 1 <sup>st</sup> quality*	0	520	650
Poles 2 <sup>nd</sup> Quality*	31	30	70
Laths	0	918	1019
Plywood (2 <sup>nd</sup> quality)	208		
Plywood (1 <sup>st</sup> quality)	387		
Lumber	379	1393	2431
Lumber (export quality)	0	1459	2773
Price increase above Inflation assumptions	0	0.5% (domestic), 1.5% (export)	1% (domestic), 1.5% (export)

\*price per pole

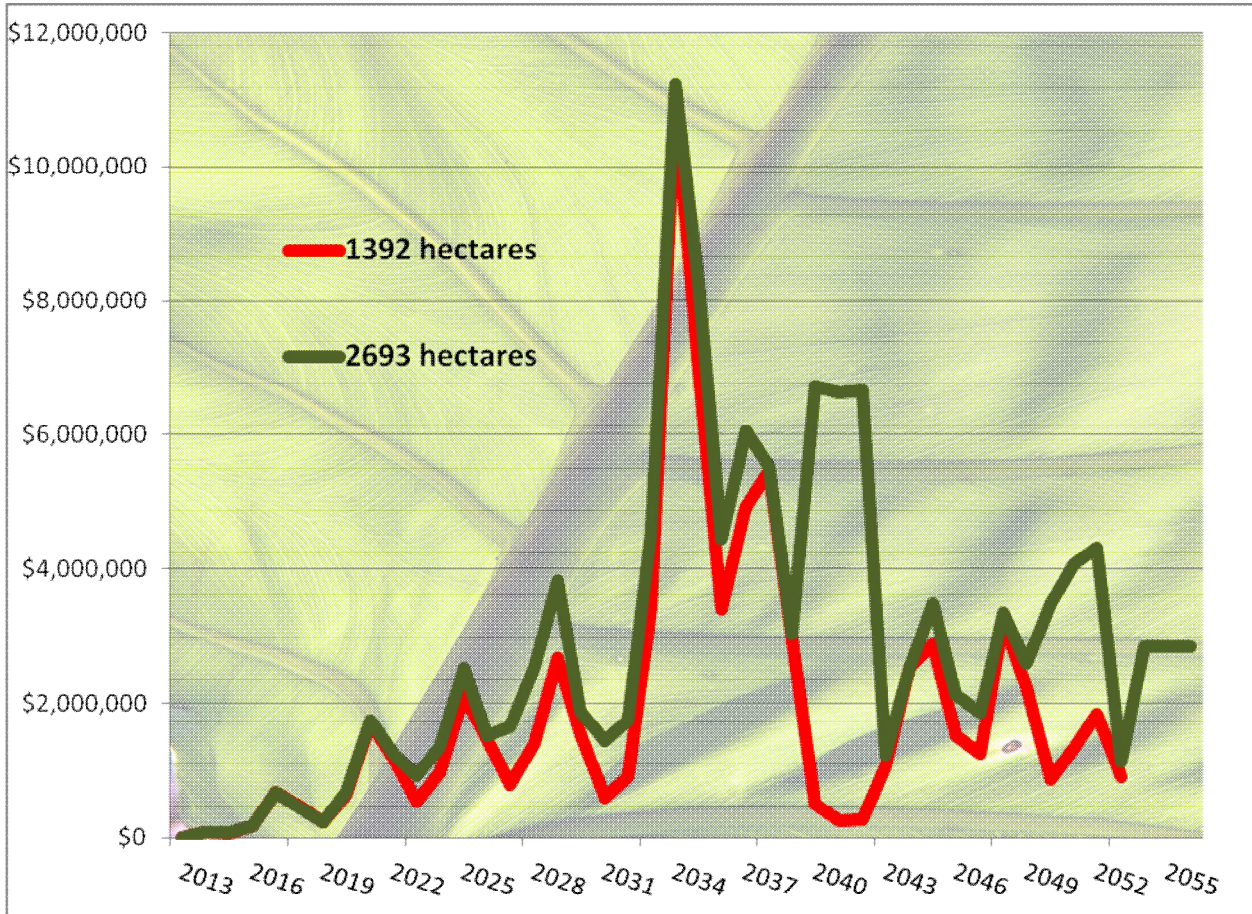
*Timber Prices per m3 (Bolivianos)*





## Financial Plan

Timber revenues commence in 2014 and increase to more than cover operational costs in 2021/2022, with revenues peaking in 2033 and continuing until 2053 or 2056 depending on whether the plantation area has been expanded. In total, investors' share of timber revenues amount to \$73 million without expansion, or \$126 million by increasing the area under commercial plantation by a further 1300 hectares.

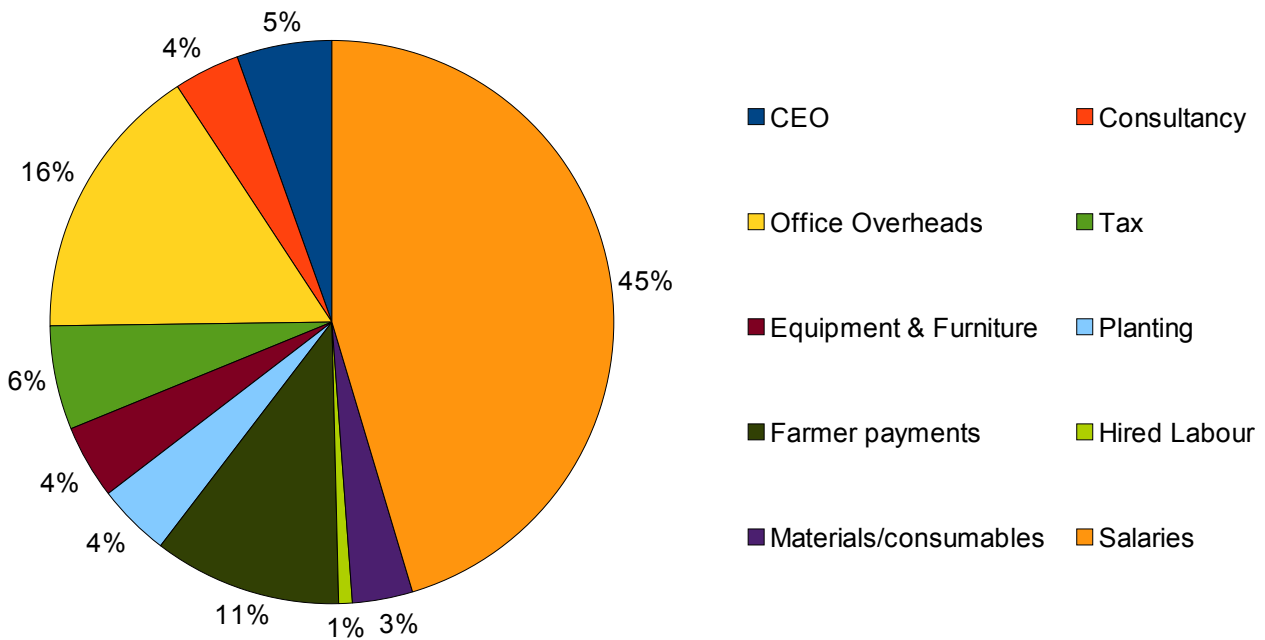


The majority of revenues relates to domestic sales rather than international markets, and the vast majority of trees are of intermediate species, meaning that final revenues are generated after 25 years, resulting in the revenue profile above.

Costs

ArBolivia

Without significant further planting project costs are assumed to remain stable at around \$775,000 a year for the next 7 years (to 2021/22), reducing by about \$70,000 a year thereafter to a plateau of around \$450,000 a year in 2029/30. These costs break down as follows:



Shorter-term Inflationary increases will be offset by falls in payments to farmers, and over the longer term no allowance is made for inflation as timber revenues are also likely to reflect the same inflationary increases, if not more so and no allowance has been made for inflation in revenue forecasts beyond assumptions of above inflation increases (see above).

The extra costs associated with expansion are very largely related to farmer maintenance payments and plant material. Farmers are paid for each satisfactory maintenance visit, with 3-4 visits being undertaken in the first few years, reducing to just one a year after 4 years.



Payments are made to farmers on each satisfactory maintenance visit

## Financial Plan

### ArBoReal

In addition, there are costs associated with the ArBoReal unit. These amount to a total of \$2.9 million over the next three years and will be 50% financed by a grant from the PSI Programme of the Dutch Government and matching finance provided by the Cochabamba Project and a loan from a third party. These costs largely relate to the purchase of capital equipment and wood for re-sale.

### Capital Costs

Depreciable assets / Amort.	AMOUNT	VALUE	TOTAL INV.
LT 40	3	35000	105000
LT 15	3	16000	48000
Installation costs LT40/LT15	6	1000	6000
Chain saws	45	750	33750
Brush Cutters	45	900	40500
Additional equipment saw mill	6	2.500	15000
tractors	4	30.000	120000
lorries	4	50.000	200000
front end loaders	4	30.000	120000
Drying kilns	4	15.000	60000
GPS'ses	7	450	3150
Computers	6	800	4800
Printers	6	200	1200
Scanners	1	200	200
Copiers	1	1.000	1000
Desk and office furniture	13	750	9750
Telephone		50	
Beamer	3	500	1500
Shed improvement	1	20.000	20000
Offices improvement	1	30.000	30000
Software licenses	1	9.000	9000
Motocycles (10)	12	4.500	54000
Pick ups (4)	4	46.000	184000
Jeeps (3)	3	26.000	78000
Software development	1	60.000	30000
PP&E		261.600	1.085.850
LAND AND PROPERTY		50.000	50.000
SOFTWARE		69.000	39.000
SUBCONTRACTS - MARKETING		380.600	1.174.850

LT 40 and 15 are portable saw mills



## Financial Plan

On an ongoing basis, costs mainly relate to the purchase of timber being harvested, processed and sold, with a modest central overhead that is, to some extent, shared with ArBolivia.

ARBOREAL UNIT		INCOME STATEMENT					
		2014	2015	2016	2017	2018	
<b>REVENUES</b>	REVENUES FROM SALES	225.083	679.809	1.041.414	1.034.738	1.047.684	
	OTHER REVENUES	-	-	-	-	-	
	<b>TOTAL REVENUES</b>	<b>225.083</b>	<b>679.809</b>	<b>1.041.414</b>	<b>1.034.738</b>	<b>1.047.684</b>	
<b>COSTS</b>	COST OF GOODS SOLD (COGS)	(117.239)	(339.998)	(503.767)	(497.601)	(509.557)	
	<b>TOTAL COSTS</b>	<b>(117.239)</b>	<b>(339.998)</b>	<b>(503.767)</b>	<b>(497.601)</b>	<b>(509.557)</b>	
<b>OPERATING EXPENSES (SG&amp;A)</b>	ADMIN SALERIES & WAGES	(52.200)	(67.114)	(74.571)	(80.537)	(86.503)	
	OFFICE UTENSILS	(4.247)	(5.460)	(6.067)	(6.552)	(7.037)	
	LEGAL COSTS	(12.740)	(16.380)	(18.200)	(19.656)	(21.112)	
	SALES COSTS	(8.400)	(16.200)	(18.000)	(19.440)	(20.880)	
	WATER, GAS, ELECTRICITY	(1.638)	(2.106)	(2.340)	(2.527)	(2.714)	
	ADMINISTRATION GEN.	(1.820)	(2.340)	(2.600)	(2.808)	(3.016)	
	TEL, INTERNET ETC	(6.855)	(8.814)	(9.793)	(10.577)	(11.360)	
	RENT OFFICES	(12.983)	(16.692)	(18.547)	(20.030)	(21.514)	
	TAXES, ENSURANCES	(8.594)	(11.050)	(12.278)	(13.260)	(14.242)	
	<b>TOTAL OPERATING EXPENSES</b>	<b>(109.477)</b>	<b>(146.156)</b>	<b>(162.396)</b>	<b>(175.388)</b>	<b>(188.379)</b>	
	<b>DEPRECIATIONS /AMORTIZATIONS</b>	DEPRECIATION OF TANG. ASSETS	(57.803)	(82.635)	(107.466)	(107.466)	(107.466)
		AMORTIZATION SOFTWARE	(6.000)	(6.000)	(6.000)	(6.000)	(6.000)
		-	-	-	-	-	
<b>TOTAL DEPR / AMORTIZ.</b>		<b>(63.803)</b>	<b>(88.635)</b>	<b>(113.466)</b>	<b>(113.466)</b>	<b>(113.466)</b>	
<b>FINANCE EXPENSES</b>	INTEREST REVENUE	-	-	-	-	-	
	INTEREST EXPENSE	-	-	-	-	-	
	<b>TOTAL FINANCE EXP.</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>PRE-TAX INCOME</b>		16.359	(26.255)	(65.446)	(62.071)	(59.070)	
	INCOME TAX EXPENSE	-	(9.896,12)	(65.446,37)	(62.070,87)	(59.070,34)	
<b>NET INCOME</b>		<b>(65.436)</b>	<b>95.124</b>	<b>196.339</b>	<b>186.213</b>	<b>177.211</b>	



*Processed wood awaiting transport*

## Investment Proposition

This investment represents an attractive opportunity to invest in an established project at the stage of generating the first commercial timber revenues. The ArBoReal unit further enhances the project by offering more significant short-term revenues and by widening the scope of the project. It opens up a whole new market for ArBolivia, with the project being placed in a strong competitive position.

*ArBolivia represents an attractive opportunity to invest in an established project at the stage of generating the first commercial timber*

Timber revenues totalling \$2.3 million are expected over the next 7 years, and these are bolstered by certified carbon credits worth in the region of \$1.2 million. There is also an opportunity to achieve significant economies of scale by almost doubling the total size of the plantations. This is projected to yield additional net timber revenues of \$43.3 million for a further investment of \$2.8 million.

Given the clear financial merits of expanding the project, we are seeking a total gross investment of around \$5 million to expand and finance the project to breakeven in 2021/22, and ideally, a further sum to release some of the Cochabamba Society's investment in Arbolivia and to enable the payment of immediate income to the investor. This investment may be paid as required by the project over the next 6 years, with revenues being re-invested to reduce the total cash investment required. Investors will be entitled to a share of total timber revenues totalling \$127 million over the lifetime of the project.

Investment - \$5 million +

Total Net Revenues - \$114 million

Potential for immediate income

In addition, The Cochabamba Project Limited (and Sicirec MixFund) is seeking to recoup its investment to date and to cover its own financial commitments to shareholders and credits in the UK. This would allow the revenues to be paid out to the investor. However, in keeping with its own objectives, as stated in its rules, it is also prepared to remain as a co-investor or creditor, as is necessary to achieve the optimum outcome for its target communities in Bolivia.

By its very nature, this is a highly illiquid investment, with the majority of revenues being received after more than 15 years. However, once the project passes breakeven in 2021/22, the revenue streams will be established and refinancing may be possible.

### The Cochabamba Society

The Cochabamba Project Limited is a “community benefit society” registered in the United Kingdom under the supervision of the Financial Conduct Authority. It has almost 500 members and has raised over £2.8 million in share capital to date. The society is a not-for-profit social enterprise and so these shares cannot be sold or transferred. However they may be withdrawn but only at par value or less at the discretion of the board.

Under UK regulations the society is also able to award a “modest” rate of interest to members, which must be no more than the minimum required in order to “attract and retain the capital it needs to secure its business objectives. Each member has one vote, irrespective of the number of shares held. The society has also issued private loans and unsecured loan stock bringing the total amount of investment in ArBolivia to over £3.6m to date.



*Member of the Cochabamba Society on a project visit*



### Sicirec Bolivia Limitada

Sicirec Bolivia Ltda. offers forestry related services including:

- Reforestation
- Nature conservation
- Sustainable Forest Management
- Climate Smart Agriculture
- Monitoring and Evaluation
  - a. Tree growth and development
  - b. Environmental and Biodiversity impact monitoring
  - c. Social-economic monitoring
- Forestry and ecological consultancy
- Innovative financing
- Payments for Environmental Services (PES)
- Valuation of plantations for micro-financing purposes
- Harvesting, processing and marketing of wood products from farmer woodlots



*Sicirec Bolivia staff with investors in Rurrenabaque*

SICIREC Bolivia Ltda also provides consultancy services relating to forestry and climate change, carbon stock estimation, (forest) carbon sequestration, forest management, climate smart agriculture and REDD. Its team in Bolivia currently includes climate change specialists, qualified foresters, professional agronomists, experts in monitoring and quality control, GIS-specialists, economists, and rural development specialists.

The total value of the projects implemented or under implementation by SICIREC Bolivia to date amounts to 7.6 million Euros and these are described below:



## Appendix 1 - Experience

Project Start	Project End	Title	Financing source	Project Goal end short description
01/08/2007	01/07/2016	Carbon Sequestration through reforestation and improved land use in the Bolivian Tropics with smallholders / ArBolivia Project-first phase	SICIREC Group and IPS Cochabamba Project Ltd/ Ethical Investments Ltd	The project goal is establishing wood production and environmental services, through its reforestation activities , in association with local smallholders in Bolivia and outside investors
01/07/2009	31/07/2009	Training and Assessment for the design of CDM-AR projects	Agronomes Veterianaires Sans Frontiers – Peru (AVSF)	Training of technical staff of AVSF-Peru and assessment on project design
01/09/2010	31/05/2011	PDD writing and validation against Plan Vivo Standard	IPS Cochabamba Project Ltd/Ethical Investments Ltd.	Plan Vivo project design, including data gathering in the field, remote sensing, CO2e calculations, and Impact analysis. SICIREC Bolivia conducted successfully the validation process
01/05/2011	30/04/2012	Improved land-use and conservation of soils and remaining (primary) forests.	European Outdoor Association	Improved Land Use Planning, introduction of agro-forestry systems, seed collection as an income for poor farmers
22/07/2011	05/10/2011	Diagnostic of forest plantations of serebo, in the municipality of Puerto Villarroel, and potential markets	INDUSTRIA FORESTAL CIMAL IMR S.A	Inventory of available wood from small farmer woodlots of fast growing tree species and facilitate access to timber markets for smallholders, guaranteeing fair prices
01/08/2011	15/11/2012	PDD writing and validation against Carbon Fix Standard in coordination with Forest Finance and Rain Forest Alliance	IPS Cochabamba Project Ltd	Carbon Fix project design, validation and verification of credits, including data gathering in the field, remote sensing, CO2e calculations, Impact analysis.
01/10/2011	29/02/2012	Training program succession forestry	CORDAID	Technology transfer in analogue forestry and multi-strata

## Appendix 1 - Experience

Project Start	Project End	Title	Financing source	Project Goal end short description
		plantations		concepts in plantation forestry
01/11/2011	01/05/2012	Monitoring and evaluation program of reforestation and conservation activities	CORDAID	Promote small scale forestry production models as an attractive alternative and as a collateral asset to assure local small holders opportunities to sustainable crop production, improving income, and the development of monitoring methodologies
01/10/2011	01/05/2012	Seedling production	Various clients	Seedling production of native tree species for several different clients
01/12/2012	29/02/2012	Diagnostic of forest plantations of Serebo, in the municipalities of Shinahuata and Chimore, and potential markets	INDUSTRIA FORESTAL CIMAL IMR S.A	Inventory of available wood from small farmer woodlots of fast growing tree species and facilitate access to timber markets for smallholders, guaranteeing fair prices
21/7/2012	21/7/2013	Provisión de madera de pequeños productores a Industria Forestal	INDUSTRIA FORESTAL CIMAL IMR S.A	250 farmer families will trade under fair trade principles, 2,600 M3 of sustainable produced wood, from plantations, to CIMAL
1/06/2012	31/12/2013	Loan to support development of Chain of Custody for wood	Cochabamba Project Ltd	Implementation of portable saw mill for processing of wood from plantations from small holders, development of chain of custody
01/11/2012	31/10/2013	Climate Smart Agriculture	CORDAID	Implementation of improved land use practices by small holders in the Bolivian Amazon, introduction of crops adapted to climate change among ArBolivia farmers
15/11/2012	14/06/2013	Improvement of production chain for forest products by generating added	SNV/HIVOS	Training of community based forestry company in Monte Verde in the use of portable saw mill and marketing of timber

## Appendix 1 - Experience

Project Start	Project End	Title	Financing source	Project Goal end short description
		value		products
01/01/2013	31/12/2016	Climate Smart Agriculture	Hanns Seidel Stiftung	Implementation of improved land use practices by small holders in the Bolivian Amazon
01/04/2013	01/08/2014	Apoyo a la producción sostenible: Manejo integral y conservación de los recursos naturales con una visión de economía inclusiva	IUCN-NL	Support to integrated management of natural resources in the Monte Verde Indigenous Territory
1/5/2013	31/10/2016	<i>Micro credit facility for small farmers participating in the ArBolivia project</i>	<i>CORDAID-micro finances/IDEPRO*</i>	<i>Sicirec coordinates a pilot for a micro-financing scheme for small farmers participating in the ArBolivia initiative in the context of "Climate Smart Agriculture"</i>
1/10/13	31/12/15	<i>Reforestation and Climate Smart agriculture: a business case with small farmers</i>	HIVOS	Implementation of Reforestation, restoration and Climate smart agricultural practices.
10/1/14	31/12/16	<i>Environmental functions: Reforestation and Climate Smart agriculture</i>	<i>Trees for All</i>	Generating environmental functions through Integrated farm and forest management and implementation of reforestation and sustainable cropping activities
1/3/14	28/2/17	<i>Harvesting for timber</i>	<i>Netherlands Enterprise Agency</i>	Creation of a harvesting, processing and marketing unit for timber from plantations and community , Consortium with Caoba consultancies and IPS Cochabamba Project Ltd

*\*IDEPRO will be the contract partner with CORDAID, Sicirec Bolivia is implementing partner*





### Anko Stilma

Anko is a Dutch national, who has a master degree in forestry from Wageningen University, Netherlands, and has almost 20 years of experience in; design, implementation, management and financing of sustainable forestry and land use projects. He has been living and working in Bolivia for 16 years and his experience covers both private sector as well as non-profit organizations including the Food and Agricultural Organization of the United Nations (FAO). Since 2006, Anko was the founder and since then general manager of Sicirec Bolivia, , the company which provides forestry related services and acts as the project manager for the ArBolivia project, as well as other innovative programmes on reforestation, forest management, conservation and climate smart agriculture in the Bolivian low lands.



### Jorge Goitia

Jorge has a degree in forestry from the University “Juan Misael Saracho” Tarija, Boliva and a master degree in watershed management from the renowned international institute on tropical agriculture (CATIE), Turrialba, Costa Rica. He has over 20 years of experience in land use management, sustainable forest management and timber trading. His experience covers both private sector as well as non-profit organizations, including the Food and Agricultural organization of the United Nations (FAO). He has been the technical manager of Sicirec Bolivia Ltda since 2009, a role which includes the daily technical management of the ArBolivia-project.

### Giovanna Verduguez

Giovanna has a degree in business administration from the University “San Simón” in Cochabamba, Bolivia. She has over 15 years of experience in business administration and financial planning and control in the private sector as well in international organizations including the the Food and Agricultural organization of the United Nations (FAO). Giovanna became financial manager of Sicirec Bolivia in 2008.



### David Vincent

David is a graduate of Sheffield University, a former teacher and financial adviser with 12 years experience in forestry investment. He began working with Sicirec Bolivia in 2008 and since that time has developed a high level of experience of working in Bolivia, tropical forestry and land use management involving smallholders and the voluntary carbon market. He has also been involved in forestry and agro-forestry projects in Brazil, Peru and the Far East. David has experience of designing and promoting forestry and agroforestry investments in the UK.



### John Fleetwood

John has a degree in Geography from Edinburgh University. He is also a former financial adviser with a similar level of experience in forestry investment was a co-founder of the Cochabamba Project in 2009. He has spent time in Bolivia and also has considerable experience of working on forestry and sustainable land use with smallholders in the country. Aside from his role as a director of both the society and Sicirec Bolivia he provides research on CSR issues to financial institutions engaged in promoting socially responsible investments, including King and Shaxson, Smith & Williamson and Addidi.

### Popko van der Molen

Popko is the founder of Sicirec Group BV, based in the Netherlands, which provided the initial design consultancy and funding at the start of the project. He, has a masters degree in Biochemistry from the State University of Groningen with a doctoral study in Behavioural Genetics with Applied Mathematics, Ethology, Population Genetics and Forest Ecology

He founded Sicirec S.A in 2001 as a consumer organisation for private investors in plantation forestry projects, giving information, representation and trading services, licensed and controlled by AFM, Authority on the Financial Markets in the Netherlands . From 1996 – 2001 he led a successful salvaging operation of Bosque Puerto Carrillo, Costa Rica, the largest plantation forestry company of Central America at that time, which later became PanAmerican Woods (PAW); of which he was vice president from 1997-01. He was also the founder and interim director (1998-1999) of NIBO N.V. (Nederlandse Internationale Bosbouw-Onderneming), the participation company, which still controls PAW.



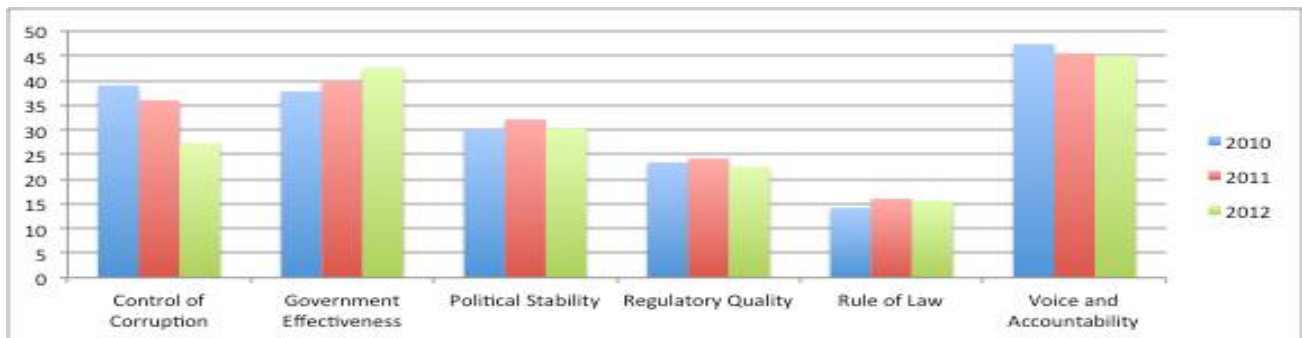
He founded Sicirec Group BV and its 4 subsidiaries in 2007, providing services in forestry management, asset-selection and portfolio management, according to the innovative “Sicirec-Formula” followed by the ArBolivia project.

### Country Risk

Investment in Bolivia carries many of the normal country risks associated with a developing country. There are social tensions in the country, most notably between the prosperous eastern region around Santa Cruz and the poorer altiplano region to the west. However the government is stable, due mainly to the fractured nature of any opposition and whilst unpopular policies are often met with active, vocal and co-ordinated opposition it is rarely other than peaceful.

For international investors much attention is focused on the nationalization of a number of multinational companies. However it should be noted that the majority of these are multinational corporations in strategic industries, which were in fact initially the beneficiaries of previous privatization policies, which are now being repealed. As such there is ample scope for secure international investment, as can be witnessed from the level of financial incentives offered by various national and supranational entities such as DEG, KfZ, NDF, DANIDA, SIDA, UNFAO and countless others. The partners have already investigated the option of insurance against country risk and can confirm that MIGA guarantees are indeed available, should such assurances be required.

The World Bank Institute’s Worldwide Governance Indicators percentile rankings for Bolivia are:



### Inflation

Bolivia also enjoys stable government and a growing economy, with relatively low inflation for a developing country. World Bank figures for the past 5 years are as follows:

2009	2010	2011	2012	2013
-2.4	8.8	14.6	6.9	6.0

Although further inflation would increase the level and/or duration of investment needed, it should be at least compensated in the long term by corresponding increases in timber prices.

### Currency Risk

ArBolivia’s costs and revenues are denominated Bolivianos whilst foreign investment and grants are fixed in one of the major international currencies. Exchange rates are shown below.

