## ArBolivia plantation forestry project

## Executive summary



## ArBolivia Project summary

- Plantation forestry with smallholders on part of their land in the foothills of the Bolivian Andes. Farmers retain ownership of their land.
- Variety of valuable, predominantly indigenous, timber species. Growth cycles up to 35 years.
- At least $20 \%$ of land planted with trees set aside for permanent nature conservation.
- Livelihood improvement for participating farmers by means of:
- direct payment for labour
- fair trade timber prices
- microcredit, with trees as collateral
- land use plan for whole property of the participating smallholders
- assistance with improving agriculture techniques.
- Deal with land owners: help with financing and capacity building in exchange for setting aside \% of land for permanent ecological protection.
- Additional logistic costs are more than compensated by selling carbon credits, tree planting subsidy certificates and access to low-cost Green Loans. These financing sources cover a significant part of the investments needed until break even, providing an attractive rate of return for equity investors.
- Net timber revenues split equally between smallholders and investors.
- The project formula is financially very attractive for investors and at the same time it produces lasting ecological and social added value. ArBolivia is highly green, social and profitable.


## Project target in numbers

- 5,000 hectares commercial forest plantations.
- 1,000 hectares agroforestry.
- 1,200 hectares conservation of primary and secondary forests involving repair and conservation of ecological structures (contractually linked with the commercial planting program).
- Around 2,000 smallholders to be contracted.
- USD 325 million total gross timber revenues.
- USD 100 million net revenues for all investors and supervisory management (=50\%)
- USD 100 million net revenues for smallholders (=50\%) .
- Investors together receive $40 \%$ of the net revenues.
- Supervisory management receives $10 \%$ of the net revenues, guaranteeing parallel long term interests with investors.


## Already realised

- The project has been running for more than three years.
- 1,000 smallholders contracted.
- 1,600 hectares planted.
- Project ( 5000 ha) certified by Dutch Government as a Green Project and as such it may receive Green Loans from recognized Dutch Green Funds.
- All project activities monitored and registered in a well developed database. The database is accessible through the internet.
- High level of traceability of project products such as Carbon Credits and Tree Planting Subsidy Certificates.
- USD 3.0 Million already invested by Sicirec and other investors.


## Summary financials

- USD 17.4 Million total project costs until break even in period 2015/2016
- USD 3.0 Million already invested.
- USD 14.4 Million still to be covered before break even, from which:
- USD 7.0 Million to be financed with Green Loans.
- USD 2.9 Million or more to be covered by sales of Carbon Credits, Tree Planting Subsidy Certificates, etc.
- USD 4.5 Million or less to be covered by equity.
(The more finance can be raised from sales of carbon credits and Tree Planting Subsidy Certificates, the less equity will be required and the higher the IRR.)
- Equity investors receive a share in the net revenues based on the (guarantee) amount they provide in escrow until break even, rather than what they actually invest.
- The more project financing is covered by $\mathrm{CO}_{2}$ sales etc. the less equity is needed. This is the main driver for the profitability for equity investors, because the profit-sharing percentage based on the amount provided in escrow remains constant.


## Equity still required

- The project is looking for an investor (or investors) who will guarantee (in escrow) the further project financing until break even $(2015 / 2016)$ to the amount of approximately USD 10,000,000. This also includes the amount to be covered by Green Loans and by CO2 credit sales and other environmental services. The amount actually to be invested is US\$ 10 M minus those other sources of income and may approach zero before break even (see "Summary financials" above).
- In the examples below the "conservative" column represents the scenario in which no Green Loans are utilised and Carbon Credit sales are estimated conservatively.
- The "Optimistic" column represents the scenario in which Green Loans are utilised and the Carbon Credit revenues are received at an earlier stage.
- It is conceivable that the sales of Carbon Credits and Tree Planting Subsidy Certificates may in fact provide all the finance needed until break even. In this the actual investment by the equity investor(s) at or before break even could be reduced to zero. This creates highly significant "upside" potential for the investor(s).


## Required equity in different scenarios

| Required equity in different scenarios in USD |  |  |  |
| :---: | :---: | :---: | :---: |
| Planting season | Conservative | Likely | Optimistic |
| $2010-2011$ | $2,400,000$ | $100,000^{*}$ | $\ll 100,000^{*}$ |
| $2011-2012$ | $2,300,000$ | 100,000 | $\ll 250,000$ |
| $2012-2013$ | $3,400,000$ | 300,000 | $\ll 250,000$ |
| $2013-2014$ | 900,000 | $2,700,000$ | $\ll 200,000$ |
| $2014-2015$ | $1,000,000$ | $1,300,000$ | $\ll 100,000$ |
| Totals | $\mathbf{1 0 , 0 0 0 , 0 0 0}$ | $\mathbf{4 , 5 0 0 , 0 0 0}$ | $\ll 900,000$ |

* Investor initially will have to provide USD 500,000 - USD 1,000,000 but this will be reimbursed once the green loan has been provided. This is expected in the same planting season.


## Returns

## Revenues distribution

|  | Timber | Carbon Credits etc. <br> before break even | Carbon Credits etc. <br> after break even |
| :--- | :---: | :---: | :---: | :---: |
| Smallholders | $50 \%$ | $0 \%$ | $50 \%$ |
| Investor | $26 \%$ | $75 \%$ | $30 \%$ |
| Other investors | $15.25 \%$ | $25 \%$ | $10 \%$ |
| Sicirec Bolivia | $8.75 \%$ | $0 \%$ | $10 \%$ |

The investor may choose between receiving revenues through a revenue contract or through dividends on shares. In the case where the investor guarantees the full amount still needed until break even, the investor may opt to receive either:

1. $52 \%$ of the timber revenue rights of $50 \%$ of the timber revenues (i.e. $26 \%$ )
or
2. $75 \%$ of the common shares in Sicirec Bolivia.

The actual revenue percentage for the investor depends solely on the amount of the guarantee given and not on the amount of equity actually invested.

Both options produce about the same revenues. It is the different financing scenarios that primarily determine the IRRs to be expected.

Until break even around 75\% of the carbon credit revenues and revenues from other environmental services are reserved for the investor. The remaining $25 \%$ of the carbon credit revenues will also remain available to the project until break even and will be paid out after break even with $12 \%$ per annum interest to the "other investors" from the project cash flow.

After break even $30 \%$ of the revenues from carbon credits and other environmental services are reserved for the investor.

## Estimated IRRs in the various equity drawdown scenarios

## Estimated revenues, investment and IRR's for investor in USD

| Period | Conservative | Likely | Optimistic |
| :---: | :---: | :---: | :---: |
| $2016-2020$ | $6,300,000$ | $3,600,000$ | $3,600,000$ |
| $2021-2025$ | $5,800,000$ | $4,400,000$ | $3,300,000$ |
| $2026-2030$ | $5,000,000$ | $5,000,000$ | $5,000,000$ |
| $2031-3035$ | $15,200,000$ | $15,200,000$ | $15,200,000$ |
| $3036-2040$ | $12,500,000$ | $12,500,000$ | $12,500,000$ |
| $2041-2045$ | $6,000,000$ | $6,000,000$ | $6,000,000$ |
| $2046-2050$ | $8,500,000$ | $8,500,000$ | $8,500,000$ |
| Total revenues | $\mathbf{5 9} \mathbf{~ M}$ | $\mathbf{5 5} \mathbf{~ M}$ | $\mathbf{5 4} \mathbf{~ M}$ |
| Total investment* | $\mathbf{1 0} \mathbf{~ M}$ | $\mathbf{4 . 5} \mathbf{~ M}$ | $\ll \mathbf{0 . 9} \mathbf{~ M}$ |
| Estimated IRR | $\mathbf{1 0 \%}$ | $\mathbf{1 6} \%$ | $\mathbf{\gg 3 0} \mathbf{\%}$ |

* Investment until break even.
- A conservatively calculated IRR of $10 \%$ on the guaranteed, and invested, sum over 35 years.

This is the most conservative estimated return.
(The guaranteed sum in this scenario amounts to USD 10.0 million. The investor will, over a 35 year period, receive pay outs in the sum of USD 59.0 million.)

- In the likely and optimistic scenarios the full USD 10.0 million has to be guaranteed in the beginning but the amount can be reduced once revenues from Carbon Credits and Tree Planting Subsidy Certificates and/or Green Loans have been realised.
- A realistically calculated IRR of $16 \%$ on capital invested of USD 4.5 million over 35 years. (In this scenario the investor will have to guarantee the USD 10.0 million but will actually have paid USD 2.7 million in 2013 and USD 1.3 million in 2014. The investor will, over a 35 year period, receive pay outs in the sum of USD 55.0 million. These pay outs are lower than in the conservative scenario because of interest on the Green Loans. The IRR is however substantially higher because of the lower amount of capital invested )
- An optimistically calculated IRR of $30 \%$, and higher on capital invested of USD 0.9 million over 35 years.
(In this scenario the investor will have to guarantee the USD 10.0 million but will only actually
have paid USD 0.9 million or less until break even. The guaranteed sum can also be reduced within the first couple of years. The investor will, over a 35 year period, receive pay outs in the sum of USD 54.0 million.)
- In the conservative and in the likely scenarios, the investment will have been paid back by 2023.
- In the above comparison the same best timber revenue estimates have been used in each scenario. This is because the major driver for the IRRs to be expected is in the structure of the financing in the early years; very different amounts of equity resulting in roughly the same revenues.


## Additional investor rights

- $100 \%$ full transparency.
- A position in the board of directors of Sicirec Bolivia.
- Supervision but not control


## Rights for providing part of the project finance

For providing part of the project finance (guarantee) required, the investor will receive a proportional fixed part of the revenues as described above.


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