



Vumelana
ADVISORY FUND

Toolkit

Cost Benefit Analysis Tool

INTRODUCTION

The objective of this toolkit is to introduce the use of **cost benefit analysis** in projects supported by Vumelana Advisory Fund (Vumelana).

Vumelana uses cost benefit analysis to help assess the potential of currently unproductive community land through partnerships with investors. For instance, a simplified cost benefit approach can be used to make an initial assessment of whether the proposed split of benefits between an investor and the land-owning community is 'fair'. A more rigorous cost benefit analysis can show whether projects in some sectors, such as agriculture, generate larger and more sustainable benefits than projects in other sectors.

In most cases Vumelana uses a method of cost benefit analysis that is kept intentionally simple. The analysis is intended to give Vumelana a '*good enough*' sense of the value of different projects so that it can evaluate them from a number of perspectives. This reduces the cost of constructing the cost benefit analysis and reduces the amount of data required for the model.

The toolkit deals with the following issues:

- Purpose of cost benefit analysis
- Key concepts in cost benefit analysis
- Constructing the cost benefit analysis
- Insights from the outcomes of cost benefit analysis
- How to complete the cost benefit analysis tool

THE PURPOSE OF COST BENEFIT ANALYSIS

The purpose of undertaking a cost benefit analysis is to systematically evaluate the expected costs and benefits of a particular project or investment, and to assess **whether the project's overall economic benefits to stakeholders will exceed its overall economic costs**.

Importantly, cost benefit analysis provides a useful tool to compare projects and their costs and benefits over a set time frame.

Cost benefit analysis can improve the quality of investment decisions because it generates insights and promotes learning about the value the partnership is likely to deliver to the community and the investor. This happens through the process of conducting the analysis and interpreting the results it produces.

The analysis is helpful in three different ways:

- Cost benefit analysis can be applied to projects that have already taken place (e.g. to assess whether the overall economic impact of a project was as expected), or to projects that are still at the proposal stage (e.g. as a tool to help decide whether or not to invest in or support a project).
- While cost benefit analysis focuses on a particular project, the analysis extends beyond considering the project or investor's perspective alone. This is because it can produce an analysis of how the different costs in a project are incurred by different parties, and how the benefits accrue to the different parties.
- When the method is used consistently, cost benefit analysis makes it possible to compare projects in a number of ways. This helps Vumelana select projects that are likely to generate the preferred economic outcomes.

KEY CONCEPTS IN COST BENEFIT ANALYSIS

The core premise of cost benefit analysis is straightforward: to systematically assess the economic costs and benefits of a particular project or investment.

However, to further understand how cost benefit analysis is applied in practice, it is necessary to be aware of the following concepts, which underpin the method.

Monetisation of benefits and costs

Many of the benefits and costs associated with a project are already expressed in monetary terms, such as revenue, capital expenditure and rental payments. Such costs and benefits can be inputted into the cost benefit analysis model in a straightforward manner.

Other costs and benefits may not be expressed in monetary terms. Some of these can be monetised fairly easily, for instance, training received by staff employed by the investment project, which may represent an important benefit to the community by making its members more employable. (In the Vumelana cost benefit analyses, the benefit of the training to the community members is simply valued at the cost to the investor of providing training in staff time, or the cost of hiring an external trainer. Where these costs are not known in the draft analysis they are reflected as 'monetisable' costs, as shown in **Table 1**.)

Total economy

Cost benefit analysis is not only focused on the profit and loss of a particular investment. It takes into account the whole 'ecosystem' or total economy in which the investment takes place and considers how all significant benefits and costs are allocated across different stakeholders. This makes it necessary to show every party's costs and investments in the project as well as their benefit and income streams (see **Table 1** below for an example of a beneficiary map). In this context the term 'total economy' refers to the total local economy.

Distribution of economic value

The total economy concept means that an understanding of the distribution of economic value is important. If the project simply leads to the transfer of income from one party to another (e.g. from the investor to the community or vice versa), then the pie is not growing. As a result, no additional value is created and the overall net economic value benefit to the parties is nil.

Displacement

Similarly, it is necessary to be aware of the possibility that an investment may displace or compete with other economic activities in the community concerned. For instance, it is possible that a Vumelana-supported project could cause significant negative changes to another business, such as when an agricultural investment adversely affects a tourism enterprise. In these cases, it is important to ensure that the cost benefit analysis is calculating the net benefit to the local economy as a whole.

Time period

Cost benefit analysis assesses benefits and costs over time. It can be applied over any timescale, and in the context of Vumelana's projects the chosen timeframe is generally 20 years. This is considered an appropriate timescale to assess economic impacts, particularly the economic return generated for communities. However, the time frames for economic viability vary for different types of projects. For example, a forestry project requires many years for the trees to grow before generating an economic return, and this may necessitate a time frame of 25 or 30 years. A tourism project, on the other hand, is likely to show positive cash flows more quickly, hence the time period of 20 years.

Irrespective of the type of project, it is thus necessary for Vumelana to take a long view and to consider all the costs, benefits, risks, and rewards that are likely to impact on the project over the period of time required to produce its full economic value.

Discounting

The extensive time period over which a project operates has implications for how benefits and costs are valued. In cost benefit analysis these are 'discounted' over time in order to generate a 'present value' figure, which reflects that people value R1 000 today more than the promise of R1 000 in one year's time. A discount rate of 10% is used, which means that the promise of R1 000 in one year's time would have a present or 'today' value of R900 and a value of R386 in ten years' time. In addition to the 'time value of money' principle, the choice of discount rate is also informed by the risk and uncertainty associated with the particular project or the type of investment: the higher the risk, the higher the discount rate.

Additionality

Another key premise is that cost benefit analysis results provide an understanding of what economic benefits and costs occur as a direct

result of the project. The analysis can show that the costs and benefits are entirely additional. In other words, they would not occur without the project taking place.

It is assumed, however, that Vumelana-supported projects would not take place without the Fund's support. This is a core assumption that should be tested at the proposal screening stage and subsequently. If an investment is likely to take place without Vumelana's support then Vumelana cannot claim credit for the economic benefits (and costs) presented by the cost benefit analysis. In this case the issue of additionality does not arise.

Flexibility of cost benefit analysis methodology

Cost benefit analysis can be an exhaustive exercise because the real world is complicated and any project will have a very large number of impacts. However, it is also a flexible tool that can be readily adapted, depending on its intended purpose and the scope, and depending on the depth of data available.

CONSTRUCTING THE COST BENEFIT ANALYSIS

This section provides an outline of the stages involved in constructing a cost benefit analysis and describes the key considerations for Vumelana-supported projects.

STAGE 1: DESK-BASED REVIEW OF DOCUMENTATION TO IDENTIFY BENEFIT AND COST AREAS

The project results chain diagram should be used as a framework to systematically identify potential key benefits and costs associated with the project. Refer to the Results Chain Tool for Vumelana's results chain method.

To begin with, each potential cost and benefit should be noted down so that it can be reviewed in more detail later and mapped into the 'beneficiary map' against different stakeholders (illustrated in Stage 2 below).

Typically, benefit and cost areas will include: capital expenditure, operating costs, lease fees and signatory payments to the community, salaries to workers employed by the project, training, the value of shares in the project purchased by the community (if any) and any

likely dividends that flow from the ownership of that equity, and taxes paid.

Projects with strong and demonstrable linkages to other enterprises or organisations should also identify associated benefit and cost flows. For example, if a Vumelana-supported citrus farm was closely associated with a fruit packing house and could be shown to support employment at the packing house, this should be included in the cost benefit analysis.

The initial list of benefit and cost areas should be cross-checked in the process of undertaking a more thorough review of project documentation. This includes the Community Private Partnership (CPP) contract and other project documentation such as feasibility studies conducted by the transaction advisor.

STAGE 2: DRAFT BENEFICIARY MAP

The 'beneficiary map' is a table that helps structure the output from the previous step so that it becomes clear how the most important

benefits and costs accrue to or are incurred by different parties. **Table 1** provides an example.

Table 1: Beneficiary map – example from a tourism project

KEY BENEFIT/COST						
Description		Type			Who receives?	How? (Provide source documentation where relevant)
		ZAR	Moneti- sable	Non- monetis- able		
1	Lease fee	✓			Community (property owning institution)	Investor pays community monthly or yearly [see CPP Lease Agreement]
2	Training received by project staff		✓ Cost of training delivery ¹		Community (members)	Investor hires training firm to deliver training for new staff [see Staff Development Plan]
3	Park entrance fees	✓			National park (confirm whether this is likely to be a significant amount of additional fees)	Guests who stay at the investor's hotel lodge pay national park entrance fees when on safari
4	Taxes paid	✓			Government	Investor pays taxes annually
5	Profit from company	✓			Investor	Profits distributed annually through dividends [see Business Plan]
6	Access road			✓ Beyond scope to monetise; however an important benefit	Investor and community (members)	Value to community through improved access to XYZ settlement where they are able to sell produce
7	Hotel construction/capital expenditure	✓			Construction company (confirm whether local/ community owned enterprises might benefit)	Investor contracts company to construct 5-star hotel

It is likely that the beneficiary map will be updated a number of times as more information becomes available and following the meeting with the investor, transaction advisor and any associated validation activities. Before the cost benefit calculation is undertaken, a final version of the map should be produced, grouping benefits and costs by stakeholder group (which

will include the community, investor and government, and possibly others). The finalised map will be used to set out which cost benefit calculations are to be undertaken – that is, to incorporate the benefits and costs which already have direct monetary values as well as those which can be monetised.

¹ The investor may not have costed a staff training programme in the business plan budget, especially if the project is not very far advanced. This needs to be estimated for the cost benefit analysis.

STAGE 3: MEETING WITH THE INVESTOR (AND TRANSACTION ADVISOR, IF AVAILABLE)

The investor is the key person in the cost benefit analysis process: it is critical that they understand why a cost benefit analysis is being conducted and can trust that the information they make available will be treated appropriately and, if necessary, in confidence.

There are a number of reasons why Vumelana may wish to undertake cost benefit analyses and it is important that these are clearly communicated in advance of any meeting with the investor so that they feel comfortable and can prepare if necessary. Vumelana should clearly explain to the investor how the outputs of the cost benefit exercise will be used, particularly if any information that could identify the project is to be made publicly available.

The cost benefit exercise should not feel like an audit! Care should be taken to ask only for information that is relevant to the cost benefit analysis. Normally a commitment should be made to share the findings of the analysis with the investor to promote a sense of transparency and trust.² Furthermore, there may be value in reminding the investor that the outcome of the exercise is likely to be positive: appropriately screened, all of the projects supported by Vumelana could have a net positive economic impact on their host community.

The process involves the following steps:

- Introduce the objective of the cost benefit analysis exercise and the structure of the meeting to the investor. Then **start by talking through the results chain diagram to ensure there is a clear mutual**

understanding of the project. This should be a relatively straightforward exercise, but one which should not be rushed. It is important to ensure there is enough time available to update, correct or develop some aspects of the results chain diagram if necessary.

- **Then review the beneficiary map with the investor.** This will be a relatively quicker exercise. There are two objectives to doing this: (i) to check that the investor agrees with the mapping of costs and benefits and to prompt them to identify any others that may be missing, and (ii) to work through the map together to obtain the data necessary to input into the cost benefit model.

Much of the data needed to populate the cost benefit model will be contained within the business plan and related documents, such as capital expenditure costs, or forecast revenues over the next five to ten years. However, some data may not be readily available. For instance, the investor may not have costed a staff training programme in the business plan budget, especially if the project is not very far advanced. In these cases it will be necessary to come up with an appropriate way of estimating such costs or benefits, and ideally agreeing an approach with the investor or encouraging them to 'think out loud' in terms of valuing likely costs etc.

Despite the importance of close cooperation with the investor, it is important to remember that the cost benefit analysis should remain an independent exercise.

STAGE 4: DATA VALIDATION

Depending on the purpose of the cost benefit analysis and the stage of the project's lifecycle, it may be necessary to undertake some independent data collection and validation of the assumptions, costs and benefits. This may require that some data is collected from the

wider beneficiaries, including the Communal Property Institution (CPI) members, e.g. to verify that a staff development plan is being put into practice properly, or that the lease fees are being paid to the community as expected.

² This is desirable anyway since it will give the investor the opportunity to check that the consultant who has

prepared the cost benefit analysis has fully understood the project and its impacts.

STAGE 5: COST BENEFIT CALCULATION

The cost benefit calculation is structured as a number of tables, which variously present monetary or monetised cost and benefit data,

disaggregated annually across a period of 20 years. See **Table 2** for a simplified version.

Table 2: Cost benefit calculation – simplified format

Benefit/cost	Year						Total (South African Rand)	
	1	2	3	4	...	20	0% discount	10% discount/ NPV ³
Capital expenditure
Operating costs
Revenue
Lease fee payable to community
Signatory payments
Total	X	X	X	X	X	X	X	X

Summing all of the monetised costs and benefits will give an indication of whether the project will have a net positive or negative economic impact. It will be necessary to group

cost and benefit areas by stakeholder group (as per the beneficiary map) to understand how economic impacts are distributed as a result of the investment.

STAGE 6: UPDATING COST BENEFIT ANALYSES

Each finalised cost benefit analysis will represent a project baseline and will document key assumptions for all key costs and benefits. It will also identify potential wider systemic impacts on the local market.

Cost benefit exercises will need to be updated periodically as each project evolves. Standard practice would be to conduct a baseline once

the CPP contract has been signed and then produce a follow-up analysis after two to three years, once measurable benefits have been received. It is important to note that when a cost benefit analysis is updated, it not only provides an opportunity to replace forecast data with actuals, but it also provides the opportunity to reappraise the longer-term stream of costs and benefits.

HOW THE COST BENEFIT ANALYSIS HELPS COMPARE PROJECTS

Below are a number of considerations raised by cost benefit analysis that need to be taken into account when comparing projects for Vumelana support. The examples are drawn from the projected outcomes for projects in two different sectors: agriculture and tourism.

In each case the process of undertaking the cost benefit exercise was an important opportunity to build a relationship with the investor and to identify issues that might otherwise represent risks to the project. For example, the cost benefit analysis can help the investor see things from the host community's perspective.

³ NPV = Net present value, calculated by 'discounting' the value of the benefits and costs. See 'Discounting' on p. 3.

1. COMPARING STAKEHOLDER BENEFITS

Cost benefit analysis facilitates comparisons between projects and can help rank projects to assess which may produce the best deal for the community. For example, consider the benefits arising from a tourism project and from an agriculture project.

In absolute terms the tourism project may be the best deal for the community. Figure 1 shows that, expressed as a net present value, a lodge may generate around R43.5m for the community while Figure 2 shows that the

agriculture project will generate R19.0m for the community.

However, in relative terms the agriculture project may be the best deal for the community. Figure 2 shows that for every R1 of benefit that the community gains from the agricultural project the investor gains R1.1. Figure 1 shows that in the tourism project for every R1 of benefit that the community gains, the investor receives R2.1. Relatively speaking, the investor thus draws greater benefit from the tourism project than the agricultural project.

Figure 1: Tourism project – projected benefits to stakeholder groups

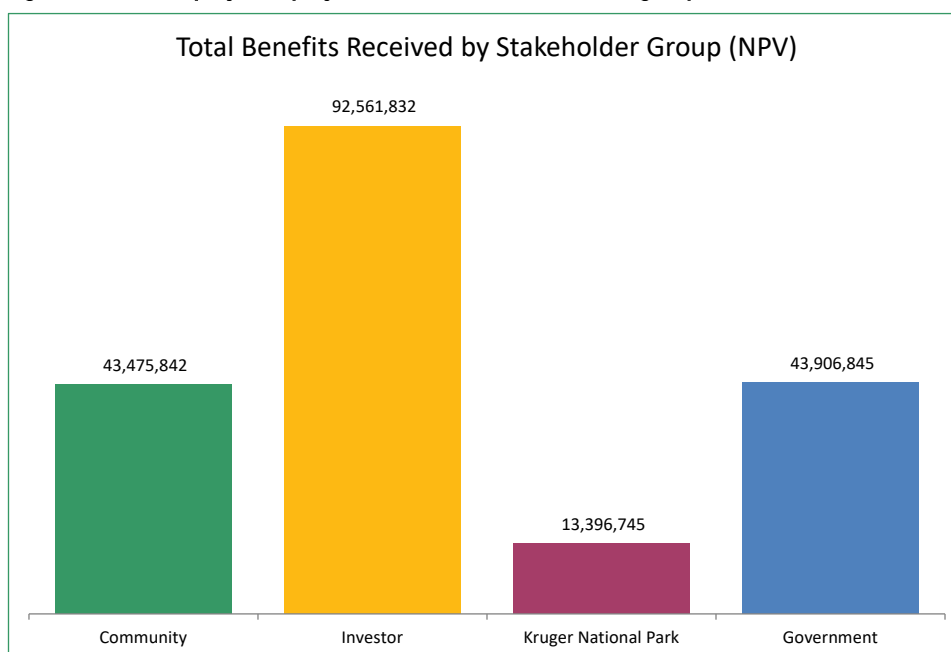
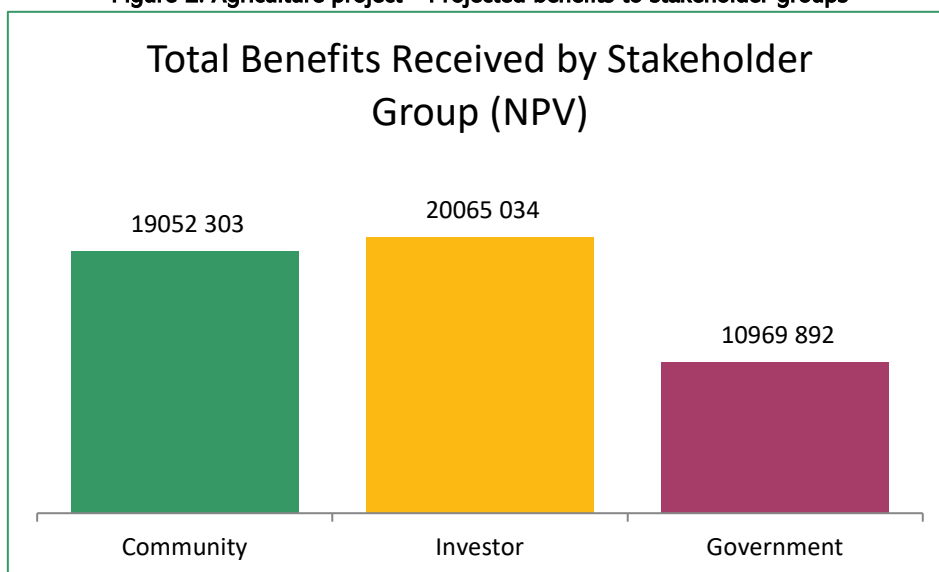


Figure 2: Agriculture project – Projected benefits to stakeholder groups



2. WHAT IS 'FAIR'?

Some people may think that it is unfair for the investor to gain greater quantitative benefit from the project than the community gains (as shown in **Figures 1 and 2** above). However, the perception of what is 'fair' will be highly context specific. It needs to take into account qualitative factors such as the contributions made by the different parties, the risk:reward ratio, the structure of the partnership, and the roles played by the different stakeholders (including

government or a national park). For example, if the investor makes a huge investment of their own money in a project and thereby takes a major risk that the project may not succeed, it is fair that the investor gets a bigger return on that investment than the other stakeholders. However, if the government provided a huge grant for the project and the investor's contribution was much less, it is not fair for the investor to gain as much benefit.

3. VARIETY OF BENEFITS FLOWING TO COMMUNITIES

The types of benefit that are projected to flow to the communities can vary a great deal across projects. For example, lease fees account for 37% of the total revenue projected for the tourism project (see **Figure 3**) and 23% of the total revenue projected for the agriculture project (see **Figure 4**); direct salaries account for 25% of the projected revenue in the tourism project and 56% in the agriculture project.

The benefit pie graphs could be a useful tool to share with the communal property institution (CPI). They help to develop a better understanding of the variety of benefits flowing to the community, and help promote good governance e.g. in terms of access to employment opportunities.

Figure 3: Tourism project – Projected split of benefits to the community

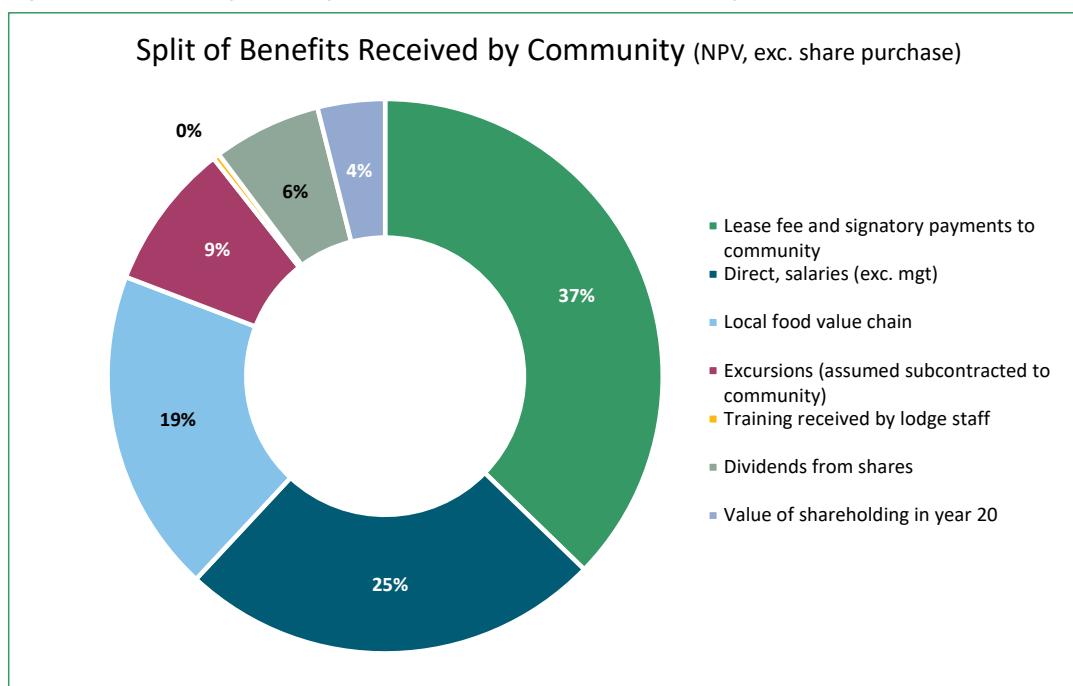
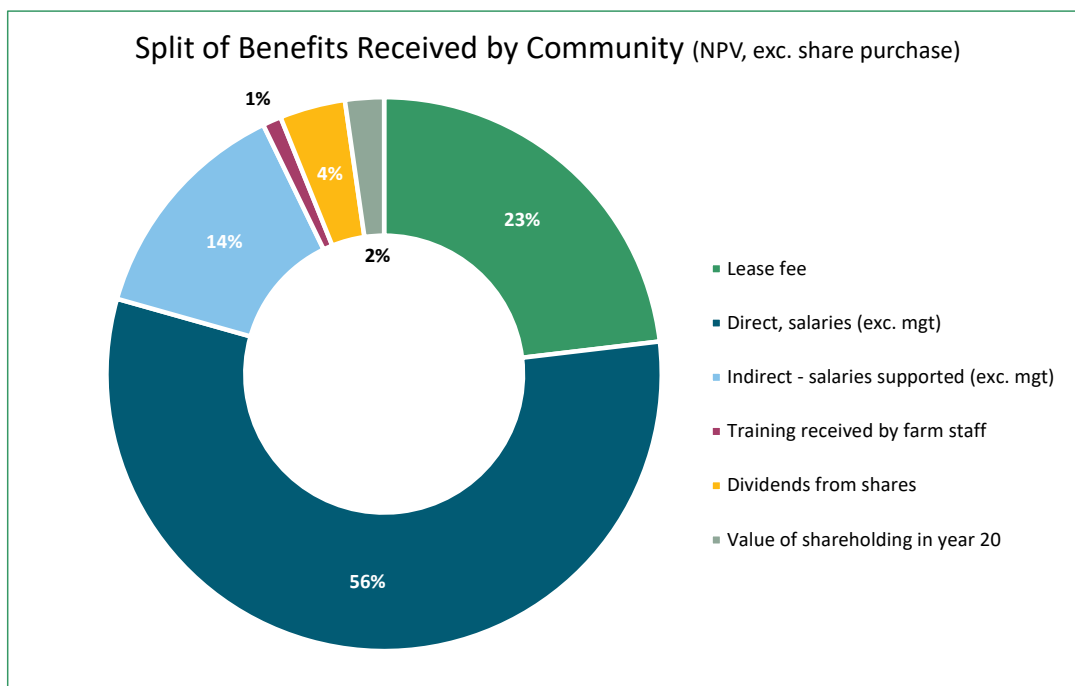


Figure 4: Agriculture project – Projected split of benefits to the community



4. TIME HORIZONS FOR DIFFERENT TYPES OF PROJECTS

As mentioned previously, 20 years is the preferred time period for cost benefit analyses conducted on Vumelana-supported projects. However, a forestry project only generates positive cash flows over the very long-term (25+ years). **Table 3** shows that by year 20, cash flows in this forestry project are still negative. This makes it difficult to compare these types of projects with others that aims for economic viability within a 20-year period. It may be necessary to consider under what

conditions projects with long-term negative accumulated cash flows (such as forestry projects), are suitable for Vumelana support. The analysis not only needs to take into consideration the extended time horizon (30 years or more), but also needs to consider other criteria that inform the predictability of the project’s economic viability. These may include variables such as the projected use value of paper products, climatic and environmental conditions likely to affect the forests, etc.

Table 3: Forestry project cost benefit analysis

Community		Total	NPV
Rental fees	ZAR	240 000	102 163
Direct, salaries (<i>exc. mgt</i>)	ZAR	8 152 272	3 470 244
Training received by lodge staff	ZAR	253 956	111 128
Value of standing trees in year 20	ZAR	15 006 300	2 230 591
Total		23 652 528	5 914 126

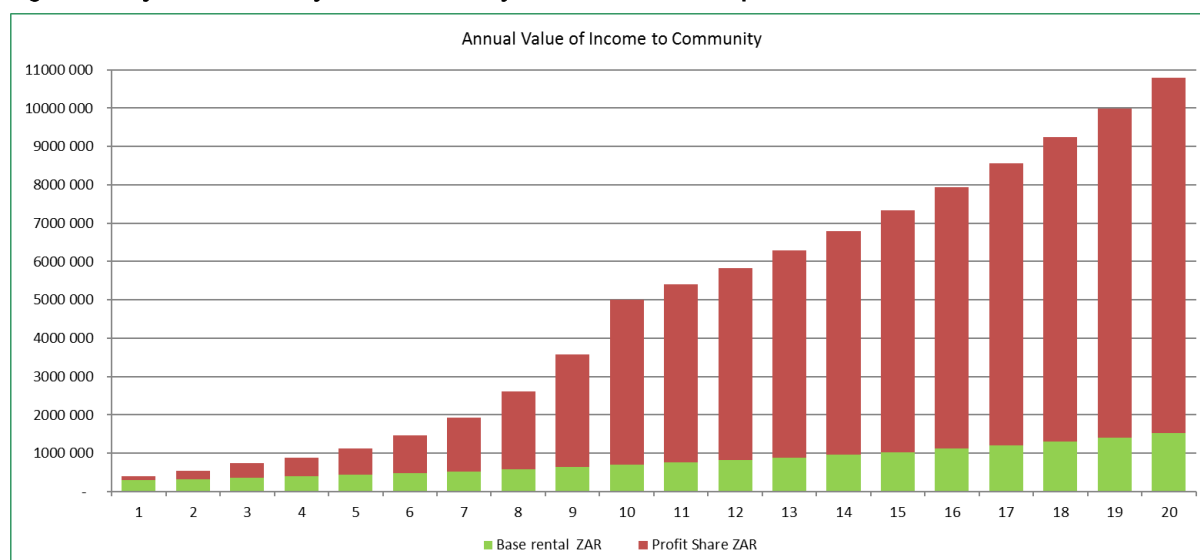
Government		Total	NPV
Taxes paid	ZAR	-	-
Total		-	-

Investor		Total	NPV
Investment	ZAR	-19 045 258	-9 176 983
Dividends from shares	ZAR	-	-
Salaries (<i>mgt only</i>)	ZAR	1 623 240	690 978
Time spent setting up agreement, <i>year zero</i>	ZAR	-200 000	-200 000
Total		-17 622 018	-8 686 006

5. DIRECT MONETARY FLOWS

The agreement between the community and the investor generally projects a number of revenue streams. These include lease fees, percentage of turnover, and dividends. From the start of the project, lease fees provide the most regular and tangible form of income for the community, compared with income from a percentage of turnover or dividends, which fluctuate and are paid out intermittently.

For this reason, there may be a tendency for the CPI/community to focus on direct monetary flows such as lease fees) rather than the other income sources, which take time to manifest and are more uncertain. However, over the 20-year period, the revenue that the community derives from its profit-share is much higher than the income from lease fees (see **Figure 5**). For this reason it is important for the community to take in account all the revenue flows when structuring the partnership.

Figure 5: Projected community income over 20 years – Lease fees and profit share


6. EQUITY OWNERSHIP

Equity ownership by the community is not as financially attractive as expected because the benefits flowing from dividends and accumulated equity are small pieces of the pie, around 6-10%. Nevertheless, because they do offer some benefits, it should be noted that:

- The lease agreements for the tourism project and the agricultural project mentioned above each include provisions for the CPI to purchase equity in the operating companies, with shares for purchase valued at 'fair market price'.
- The agricultural project investor was keen that the community takes an ownership stake in the future as a way of better aligning the interests of the investor and community and further de-risking the investment.
- The 'fair market price' clause might create uncertainty and promote conflict between the CPI and investor, and so potentially serve as a barrier preventing the community from taking an equity stake.

Populating the cost benefit analysis tool

The [cost benefit analysis tool](#) is designed as a Microsoft Excel spreadsheet. This section will assist a new user through the key input cells and calculations of the tool.

The tool should be adapted to the specifics of each project, and it may not be necessary to complete all the parts of the tool for a given project. The user should consider what sections of the tool would be relevant for each project, and to note that some calculations or formulas would have to be changed to reflect the project.

Table 4: Populating the cost benefit analysis tool

Component of cost benefit analysis (CBA) tool	Instructions and comments
Project information	<ol style="list-style-type: none"> 1. Insert project name. 2. Insert the date of analysis (DD MM YYYY). 3. Review notes below and adapt or add more comments regarding data quality and reliability that would be important for the reader of the CBA to be aware of. 4. Discount rate indicates the time value of money according to the riskiness of the project. Currently (in 2015), the 10% discount rate is appropriate to tourism and agriculture projects. 5. Tax rate is the company income tax rate which is currently 28% (2015). 6. Start year is Year 0 and is the year when the investment is made by the investor (and most likely also the year when Vumelana advisory fee is paid). It would typically be one year before income is earned (or longer if there is construction period).
Table 1: Revenue	<ol style="list-style-type: none"> 7. When the investor provides financial projections for five initial years, you are supposed to make assumptions and projections for the remainder of the 20-year period. 8. Type in revenue data for the first five years. 9. If necessary, revenue growth can also be projected for the first five years, and then the growth (in %) can be inserted here. The formula will be =E38*(1+\$F39), to be copied to Year 5. 10. Type in projected revenue growth (in %) for Years 5-20. if there is data from the investor for a longer period, override the formulas and use the data until such time that own projections are required. 11. Revenue Year 6: This field will be populated automatically. If formula needs to be replaced, it is =I38*(1+\$F40) (Year 5 revenue times % growth). 12. Type of revenue: if there is more than one type of income and there is a difference in that share that community receives, then it is necessary to provide the revenue data separately for each type of income. 13. If it is possible to assess the procurement of fresh produce from local community/area, insert the % of such procurement. If there is none or it is not confirmed, this cell is left empty. 14. Project phase: some projects are conducted in phases, for example where there is expansion after the first few years. Check if this is applicable to the project and, if so, data can be populated per phase.

Component of cost benefit analysis (CBA) tool	Instructions and comments
	15. Total revenue (A+B+C) includes all revenue from different segments, where applicable. This is the default field to be used for further calculations.
Table 2: Operating costs	16. Minimum information required is operating expenses, salary costs and training costs. 17. If a detailed breakdown is not available, the row "Other" is to be used for operating expenses.
Table 3: Capital expenditure	18. Investment capital is capital provided by the investor. If investment is installed over several years, there is a provision to input the amounts accordingly and this is important for the calculation of NPV. 19. Government grant is for investment from government, which is applicable to some projects only. 20. If there is construction and local suppliers can be allocated a portion of supplies/work, this can be recorded as a distinct benefit by indicating the percentage of contract to be spent with them.
Table 4: Setting up costs	21. In some projects, the investor will charge a fee for raising funds on behalf of the CPA and/or monetise their effort to set up the agreement. This cost can be recorded here. Environmental impact assessment costs can also be recorded here. 22. Insert the amount of Vumelana advisory fee.
Table 5: Income statement	23. The income statement table is mostly a summary table where data from input tables is put together and the only rows for inputs would be Depreciation and Finance items.
Table 6: Benefit flows (A) Value of enterprise	24. Value of enterprise measures the value of the business at Year 20. Typically, the enterprise is owned by the investor. The value will depend on how many years after the initial lease the investor has the right to continue running the enterprise. These inputs are to be looked for in the lease agreement. 25. If the profit after tax is stable over the past five years, then the Year 20 income after tax can be used. If the income varies a lot, it might be useful to use a five-year average. 26. Number of years remaining: insert the number of years the investor has the right to have the business after the first 20 years. 27. Earnings multiple (P/E ratio) can be used, but is more subjective and this valuation would assume that the enterprise continues indefinitely. For projects with fixed leases, it is not a useful method unless the enterprise is entirely owned by the CPA.
(B) Fees generated to investor	28. The investor typically receives benefits through profits from the business (in addition to the value of the business). 29. "Other fees" allows for other type of income that the investor might receive which can be project specific. 30. If the investor earns a management fee instead of profits, it may be necessary to change the reference to the cells in income statement and/or operating costs.
(C) Income generated to CPA	31. The structure of the CPA's income would vary depending on the agreement with the investor, but typically consists of base rental and turnover share or profit share. The specifics are to be checked in the lease agreement and project documents. 32. This template is set up for the model 'the higher of the base rental and a percentage of turnover'. If the arrangements are different, the formulas have to be changed accordingly. 33. Gross revenue share: insert percentage share as per the lease agreement. 34. CPI: if the base rental increases with the CPI, insert CPI percentage.
(D) Income retained by local community	35. This part feeds through the data of local procurement and local construction that would benefit the local community.
(E) Revenues to government	36. Revenue to government is comprised of income tax, employment taxes and other levies (e.g. tourism levy for tourism enterprises). 37. Tourism levy: insert 1% here if it is a tourism enterprise (for accommodation revenue only). 38. Employment taxes (PAYE) are applicable to earnings above the tax-free threshold, and this would be relevant so salaries of management and technical staff only. The values are calculated automatically depending on the salary levels in the job creation section.

Component of cost benefit analysis (CBA) tool	Instructions and comments
(F) Income/fees to other stakeholders	39. Income to other stakeholders caters for fees payable to, for example, the Parks Board. This is not applicable for every project.
Table 7: Employment impact (A) Employment created	40. Total jobs created: insert the total number of jobs expected to be created. If there is a range (e.g. 20 to 30 jobs), it might be more reliable to assume the middle value (25) or the lowest value (20). 41. Management jobs: insert the number of management-level jobs in the Year 1 cell. The rest of the years will populate the same number; if change is required, you can override the formula. Where you override the formula, colour the digit in red to indicate the hard coded number, to remind of this and help avoid calculation errors. 42. Technical jobs: insert number of technical/supervisor positions. 43. General workers: gets calculated automatically by subtracting management and technical jobs from the total jobs. 44. Seasonal workers: insert the number of workers (persons). 45. Number of weeks: insert the number of weeks the seasonal workers will be employed per year. 46. Construction jobs: insert the number of workers (persons). 47. Ancillary jobs: insert the number of workers (persons). 48. Number of weeks: insert the number of weeks the temporary workers will be employed per year. If construction takes place over 1.5 years, it will be 52 weeks in Year 1, 26 weeks in Year 2, and 0 for the remainder of 20 years.
(B) Displaced employment	49. Displaced employment refers to jobs lost due to closure/restructuring to be done in the project.
(C) Split of employment costs	50. Split of employment costs is mainly used for estimating the salary costs for the local community, where only the total amount of salary costs had been provided. 51. Management jobs salary level: insert the % of salary as a multiple of minimum wage. 52. Percentage of technical positions filled: insert the number of positions filled (100% if all positions filled). This can be useful if employment increases with a ramp-up in capacity or rate of occupancy. 53. Technical jobs salary level: insert the percentage of salary as a multiple of minimum wage. 54. Percentage of general positions filled (100% if all positions filled): this can be useful if employment increases with a ramp-up in capacity or rate of occupancy. 55. General jobs salary level: insert the percentage of salary as a multiple of minimum wage. 56. Estimating the salary costs backwards can require trying various combinations of inputs/assumptions and should ideally be confirmed with investors. The main output from this exercise is to estimate the percentage of salary costs that would be retained in the local community. 57. Number of months the salary is paid: choose 12 or 13 months. 58. Bonus as percentage of total salary can be an additional assumption. If there is no bonus, the number is 0. 59. Comparison with salary costs from cost table – the numbers should be correlated. 60. This is the percentage used to calculate the amount of salary for local community. 61. Employment tax calculation automatically calculates the PAYE tax, based on the PAYE tax table. The tax table must be updated every year in March to keep it accurate.
(D) Employment costs, local jobs	62. Local employment costs are the total employment costs that accrue to local community members.
(E) Training costs	63. Training costs are another key benefit to the local community. The cost estimates are to be provided by the investor.
Other impacts	64. Other impacts could include any positive or negative impacts that have to be considered, but it may or may not be possible to monetise them (e.g. a new road or environmental damage).
REPORT AND ANALYSIS	65. Report and analysis exhibits follow the same order as in the commentary report. Most of the exhibits are not calculations, but just reporting in a particular format, with the exception of NPV calculations.

Component of cost benefit analysis (CBA) tool	Instructions and comments
NPV calculation	<p>66. NPV calculation in Exhibit 6: Benefits to Community/CPA: the NPV calculation uses the discount rate and the values over 20 years.</p> <p>67. NPV calculation of capital invested is different, as it takes into account that investment capital (or portion thereof) is invested in Year 0. This is why the present value of that amount is the same as the amount invested in that year.</p>
Types of benefits	<p>68. Types of benefits have to be reviewed and, if necessary, updated for each project, depending on the specifics of that project. The main change may be the stakeholder to whom the value of enterprise accrues – the investor or the community.</p>