

## 5 Customizing a proposal

Thus far, the common ingredients of a proposal have been described. Often, however, four additional elements **may or may not** be needed before a proposal can be presented. This chapter describes four such “customizations”.

- Proposals to grant-makers and donors may require a **logical framework**
- Proposals to climate change professionals may require elaboration of **carbon benefits**
- Proposals to **lenders** need to address risk and risk management
- Proposals to **equity investors** need to address their special interests

### 5.1 Logical framework customization

Especially for grant proposals to donors, it is very important to place the proposal in its broader context. This allows donors and other enablers to see how the proposal fits within their planned activities and also to see the connection between the broad goals being pursued (e.g., “improve global climate”) and very specific activities (such as “training entrepreneurs to design, build and sell household biogas digesters in rural Bangladesh”). A logical framework analysis and matrix is one way to provide this context. Excellent web-based resources on preparing such presentations are available, but the basic process and presentation can be summarized as follows.

**Goal:** Within a proposal that employs a logical-framework approach, the goal is the broad (global, national or sector) benefit being pursued (such as improving the global climate). It is what the proposal will contribute towards achieving but will not in itself achieve or be solely accountable for. The goal must be described and indicators established to measure progress in reaching the goal (e.g., carbon dioxide emissions per capita). The indicators need to be verifiable and the proposal must set forth how such verification is going to occur (for example, using biannual estimates of household consumption of non-renewable fuelwood, other biomass and liquid fuels). Finally, the assumptions made concerning this goal-setting must be explained (along lines such as a statement that the biogas programme is being implemented with 30 per cent of the funding coming from climate-related activities or that climate-related monitoring and evaluation will suffice to establish the means of verification).

**Purpose:** The purpose is what the proposal will achieve. After identifying the goal of the proposal, the various development outcomes being pursued need to be identified, and – as for the goals – the indicators, means of verification and assumptions must be described. For example, the purposes of the proposal might include reducing non-sustainable fuelwood consumption, reducing fossil fuel consumption, improving local soil and sanitary conditions and increasing income from sustainable activities.

**Objectives** are the significant components which the proposal will achieve. Objectives for each of the purposes must be explained; for example, a 60 per cent reduction in fuelwood consumption, a 90 per cent reduction in kerosene use, replacement of chemical fertilizer with dried organic slurry and an average productive workday/study time increase of an hour per household. As was the case for goals and purposes, the proposal must summarize what indicators will be measured, how

those measurements will be updated and verified and – this is important – the assumptions being made by the Champion (which might include, for example, a certain level of funding and flexibility requested in the proposal).

**Outputs** are the specific results and tangible products which the proposal will produce through a series of tasks and activities. Following the establishment of objectives, the logical-framework approach asks that those objectives be set forth over the time frame of the proposal so that progress can be measured. If a 90 per cent reduction in kerosene usage is expected in each household, will that be immediate? Because the proposal might roll out over many communities over time, is there an aggregate measure for total households that can be monitored? Again, the proposal's assumptions about available resources need to be made abundantly clear. What this technique does is help the Champion understand all the pieces that need to come together to realize success. It can prove a very useful step in answering the "How" question within the seven-question framework.

**Activities** are the specific tasks which the proposal will undertake to achieve the required outputs. As the final stage, and only after the above context-setting exercise has been carried out, the logical-framework approach requires setting forth the specific activities of the proposal, such as capacity-building of households and entrepreneurs, financing and construction of household biogas units, microfinance collection and performance monitoring, and management reporting and evaluations. By using such a framework, it becomes abundantly clear what activities fit within the goal and purposes set forth and which are questionable.

### Logical framework: Sample presentation

**Goal:** To contribute to sustainable economic development.

**Purpose:** To provide modern energy to unserved and underserved households, businesses and communities in developing countries through the application of the enterprise-centred model of services and capital.

#### Objectives:

1. To build and grow **small and medium-sized enterprises** (SMEs) as effective channels of distribution for modern energy products and services to unserved and underserved households, businesses and communities in developing countries.
2. To build and grow **specialized and focused intermediary organizations** and professionals providing support services and capital to small and medium-sized businesses supplying modern energy products and services.
3. To offer an efficient menu of **support services, tools, capital, coordination and quality control** to enterprises (entrepreneurs) and specialized intermediary organizations (professionals).
4. To **expand the application of the enterprise-centred model** of services and capital through:

#### Outputs:

- SME outputs (related to objective 1): Enterprises created; investments made in enterprises; services and products offered by SMEs; modern energy supplied; direct and indirect economic, environmental and social impacts of SMEs.

- Specialized intermediary outputs (related to objective 2): Affiliated organizations and funds created; products and services offered by affiliates and funds; investment activities of affiliates and funds.
- Product (services, tools, finance, coordination and quality control) outputs (related to objective 3): Standardized services, systems and toolkits available, in the appropriate language; funding raised (quantity and diversity) for services, investment and operations; monitoring and evaluation and asset-management levels; internal and independent evaluations.
- Growth and scale outputs (related to objective 4): Organizations and professionals engaged in the programme, programme implementation and financial partnerships; systems and standardized approaches available; organizations and professionals engaged directly in the enterprise-centred model; major policy interventions; advocacy and communication opportunities.

#### Activities:

##### ➤ **SME activities**

1. Build capacity of entrepreneurs at local level.
2. Develop a pipeline of enterprise opportunities.
3. Provide targeted support services to entrepreneurs and enterprise opportunities.
4. Prepare business and investment plans and proposals.
5. Invest in enterprises.
6. Monitor (and, as appropriate, adjust) implementation of business and investment plans.
7. Achieve acceptable performance (financial, environmental and socio-economic) of the enterprise.
8. Achieve growth in and replication of successful experience.
9. Document and communicate experiences and best practices.
10. Identify opportunities for the creation of affiliate organizations and specialized funds.

##### ➤ **Specialized funds and affiliate activities**

1. Identify opportunities for the creation of affiliate organizations and specialized funds (see 10 above).
2. Conduct preliminary analysis of fund opportunities.
3. Identify partner organizations or professionals offering potential as affiliates or affiliate organizations.
4. Prepare initial plan, including targeted fund-raising.
5. Conduct preliminary marketing of fund and affiliate opportunities.
6. Prepare detailed plan and documentation.
7. Conduct detailed negotiations and document preparation.
8. Complete and close.
9. Implement.
10. Monitor and evaluate performance.
11. Achieve acceptable performance.

➤ **Product activities**

Activity list

➤ **Growth activities**

Activity list

The results of such an effort can then be organized into a logical-framework matrix which will also identify indicators, means of verification and assumptions.

Description	Indicators	Means of verification	Assumptions
<p><b>Goal:</b> To contribute to sustainable economic development</p>	<p>Income distribution... Air, water and soil quality... Households with modern energy... Country and sector investment activity and development assistance</p>	<p>United Nations, specialized-agency and country-level annual and thematic reports and data on socio-economic and human development, and on environmental conditions</p>	<p>Sustained multilateral commitment to sustainable development... Businesslike and market-driven trends continue... Normal business cycle, openness, transparency and professionalism in target markets...</p>
<p><b>Purpose:</b> To provide modern energy to unserved and underserved households, businesses and communities in developing countries through the application of the <i>enterprise-centred model</i> of services and capital</p>	<p>Number of people and households (or equivalent) receiving modern energy through enterprises supported by specialized organizations... Quantity of modern energy supplied</p>	<p>Annual and periodic reports, documented estimates and summaries of monitoring and evaluation results</p>	<p>Normal business cycle occurs... Sufficient human capacity available in intermediary organizations... Generally positive economic and investment results... Openness, transparency, and professionalism</p>
<p><b>Objectives:</b> 1. To build and grow small and medium-sized enterprises as effective channels for distribution of products and services to unserved and underserved households, businesses and communities in developing countries</p> <p><b>Repeat for objectives 2, 3 and 4.</b></p>	<p>Number of enterprises, amount of output, customers served</p>	<p>Monitoring and evaluation reports and summaries... Internal and/or independent evaluations</p>	<ol style="list-style-type: none"> <li>1. Normal business cycle</li> <li>2. Sufficient human and organizational capacity</li> <li>3. Generally positive economic and investment trends</li> <li>4. Transparency</li> <li>5. Legal services and rule of law</li> <li>6. Communications infrastructure</li> <li>7. Reasonable, non-distortive government and official development assistance (ODA) programmes</li> <li>8. Functioning financial system</li> </ol>

Description	Indicators	Means of verification	Assumptions
<p><b>Outputs:</b></p> <p>1. SME outputs: Enterprises created; investments made in enterprises; services and products offered by SMEs; modern energy supplied; direct and indirect economic impacts of SMEs</p> <p><b>Repeat for objectives and outputs 2, 3 and 4.</b></p>	<p>1, 2, 3 and 4.</p> <p>Number and volume of results compared to agreed baseline (or documented inventory)</p>	<p>Quarterly and annual reports</p> <p>Update of multi-year strategic plan, and/or annual plan and budget</p> <p>Specialized reports or evaluations (tracking growth trends in particular)</p>	
<p><b>Activities:</b></p> <p>1. SME activities</p> <p>a. Build capacity of entrepreneurs at local level</p> <p>b. Develop a pipeline of enterprise opportunities</p> <p>c. Provide targeted support services to entrepreneurs and enterprise opportunities</p> <p>d. Prepare business and investment plans and proposals</p> <p>e. Invest in enterprises</p> <p>f. Monitor (and, as appropriate, adjust) implementation of business and investment plans</p> <p>g. Achieve acceptable performance (financial, environmental and socio-economic) of the enterprise</p> <p>h. Achieve growth in and replication of successful experience</p> <p>i. Document and communicate experiences and best practices</p> <p>j. Identify opportunities for creation of affiliate organizations, specialized funds (see 1 under "specialized funds and affiliate activities" above)</p> <p><b>Repeat for activities 2, 3 and 4.</b></p>	<p>a. Number of entrepreneurs trained...</p> <p>b. Number of enterprise opportunities produced...</p> <p>c. Type and frequency of services provided</p> <p>d. Number of business plans and investment proposals...</p> <p>e. Approved investments</p> <p>f. Operating (one-star) enterprises</p> <p>g. Operating and performing (two-star) enterprises...</p> <p>h. Operating and performing and growing (three-star) enterprises and number of portfolio clusters...</p> <p>i. Number of M&amp;E reports and subsequent summaries and communications</p> <p>j. Number of opportunities</p>	<p>a. Periodic reports...</p> <p>b. Pipeline data...</p> <p>c. Introduction sheets and time and periodic reports...</p> <p>d. Introduction sheets</p> <p>e. Investment recommendations, approvals...</p> <p>f., g. and h. Periodic and regular M&amp;E reports...</p> <p>i. Periodic reports and summaries...</p> <p>j. Fund and affiliate feasibility analyses undertaken</p>	<p>Reasonable and businesslike legal and regulatory framework...</p> <p>Entrepreneurial work ethic...</p> <p>Local organizational or individual capacity available...</p> <p>Level competitive playing field...</p> <p>Acceptable risk/return ratio for donors, social investors and others...</p> <p>Human, financial and communication resources</p>

Why use a logical framework approach? Quite simply, it allows the Champion to demonstrate a mastery of the situation. Further, it facilitates screening and discarding competing ideas for activities in a logical manner. In addition, it sharpens the Champion's thinking and his or her ability to present a successful proposal. **The most important benefit, however, of this approach is that it allows the Champion to screen potential support organizations**, whether these are donors, lenders, investors or assistance providers. *Their* goals and purposes, *their* areas of activity support become easy to compare with those of the proposal. The Clean Development Mechanism (CDM) supports climate change mitigation activities – so there is a potential match. Say that the Lemelson Foundation supports innovation and entrepreneurship: there might be a match there, or so we may think until their purposes are explored and it is realized that the core of *their* goals and purposes is technical innovations and inventions. We find out that Grameen Shakti supports rural energy and E+Co supports enterprise finance; perhaps productive leads may follow, but we discover that Grameen Shakti is operational rather than a funder of others. Small grants from GEF might make sense also. Thus, the Champion can use the results of the logical framework to rule out, with equal clarity, those uninterested donors, lenders or investors and dozens of others and make the final step in the process – presenting the proposal – easier.

## 5.2 Carbon benefit customization

There are many reasons to incorporate basic carbon benefit information in a proposal. Some are current and clear – applying for CDM approval, facilitating the sale of carbon benefits, seeking grants or loans from GEF, demonstrating a significant triple-bottom-line impact to a social investor – while some are still to be determined, such as the value of a metric tonne of carbon dioxide equivalent after 2012 (also referred to as “post-Kyoto”).

Whether applying to CDM or GEF or seeking other approval or funding resources, there are specific templates and procedures that must be followed when applying. This section points to basic information that should be understood before pursuing such sources and suggests the information that should be incorporated in any proposal including carbon benefits. Such information might interest investors and lenders for whom carbon benefit is not a primary issue.

- Carbon benefit described
- The CDM process
- Carbon benefit estimated

**Carbon benefits** occur when a sustainable resource displaces an unsustainable one or a quantity of carbon is kept in place rather than being released, for example, through such adaptation techniques as “no-till” farming. If cow manure or poultry litter can be used to produce fuel that can be substituted for unsustainably cut fuelwood, every kilogram of firewood not burned results in 1.5 kg of carbon dioxide equivalent avoided. Avoiding this unsustainable burning of fuelwood reduces the amount of carbon dioxide released into the atmosphere. The release of this man-made carbon dioxide equivalent is one factor in a complex chain of factors disrupting global temperatures. A process has been established to quantify such benefits (the so-called certified emission reductions (CERs)), which can be sold to others who may have a need to demonstrate improvements in *their* impact on global climate. For example, an electricity utility in Japan may acquire credits produced by a small hydroelectricity project in Honduras; the benefit may help the utility meet its commitment to reducing

carbon dioxide while helping the project in Honduras become financially viable. Carbon benefits are quoted in tonnes of CO<sub>2</sub>e, meaning metric tonnes of carbon dioxide equivalent.

The closest thing that exists to a standard process of quantifying CO<sub>2</sub>e and obtaining CERs is the Clean Development Mechanism (CDM). The process (oversimplified for the purposes of this guidebook) has five stages:

1. Design, which involves either the existence or the creation of an approved methodology for measuring the carbon benefit; establishment of a baseline from which the impact of the proposal can be measured; and preparation of a document for submission to the bodies (domestic and international) which must approve it. It is significantly easier to use an approved methodology than try to trailblaze a new one.
2. Validation and registration, which involves an independent review and acceptance of the design and subsequent registration by the main approval body.
3. Monitoring, which involves measuring actual as opposed to design performance.
4. Verification, which is independent confirmation of the monitored results.
5. Actual issuance of the certified emission reductions.

Separate from this process, the Champion, either directly or through intermediaries – the carbon benefit business is growing rapidly – can organize the terms and conditions under which carbon benefits can be sold. There are various markets (one for intraeuropean activities) and funds and other buyers for whom CERs will have value.

In practice, however, the Champion must determine the importance of carbon benefits to the proposal. Landfill gas captured and used for energy production is very valuable because the carbon dioxide equivalent of the captured methane is very high. The carbon benefit value of a well designed and implemented landfill-gas project may exceed the value of the energy produced. A household biogas programme replacing fuelwood may produce a carbon benefit equal to 30–40 per cent of the capital cost, making it affordable to larger numbers of poor households when the carbon benefit is taken into account. A project to substitute sustainably produced alcohol as a cooking fuel instead of kerosene may equalize the cost to the consumer and thus encourage switching from an unsustainable to a sustainable fuel and enhance self-reliance, health and energy security.

**Note:** The following is an example of the impact of carbon benefits on transactions and how to prepare such an estimate. It is *not* meant to illustrate formal CDM calculations (see the CDM website, <http://cdm.unfccc.int/>, for further information). It *is* intended to illustrate the potential of carbon benefits from a financial and proposal impact perspective. The point: formal CDM approval and methodology is a precise and technically sophisticated process. Even so, it is important for Champions and Enablers alike to have a general “order of magnitude” comfort with the disciplines involved.

### Example of a proposal presentation incorporating CDM

Household biogas – pro-forma analysis – analysis of impact on customer cost. Based on saving 4 tonnes CO<sub>2</sub>e per year (= 1.5 times the annual tonnes of unsustainably harvested fuel wood + 2.5 times the annual consumption of kerosene replaced by biogas cooking and lighting, net of any losses).

**Monthly cost calculation**

**Capital cost 25,000**

CO <sub>2</sub> e per year	4 Tonnes
Contract crediting period	6 Years
Price per tonne	6 Euros
€1 =	81 (↓Local currency↓)
Price per tonne	486
Discount rate	12%
Crediting percentage	100%

Capital cost	25,000	25,000
CO <sub>2</sub> e credit	7,993	Without CO <sub>2</sub> e credit
Net cost to household	17,007	25,000
Down payment percentage	15%	15%
Down payment amount	2,551	3,750
Base finance amount	14,456	21,250
Number of years	3	3
Service charge (one year "flat")	6%	6%
Finance amount, including service charge	17,058	25,075
<b>Payment/month/base case</b>	<b>474</b>	<b>697</b>
Total payments	17,058	25,075
Finance amount	14,456	21,250
Service charge	2,602	3,825
Down payment	2,551	3,750
Grand total	19,610	28,825

32%

Carbon benefit

This example also offers an opportunity to reinforce sensitivity analysis skills and explore its usefulness. The following is an analysis of the impacts of various changes to the assumptions used in the base case.

**Base case (highlighted)**

Sensitivity					
Case A – service charge (one year flat) changes	<b>6%</b>	7%	8%	9%	
Monthly payment	<b>474</b>	486	498	510	
Case B – discount rate changes	0%	4%	8%	<b>12%</b>	16%
Monthly payment	372	413	447	<b>474</b>	497
Case C – Crediting percentage changes	80%	85%	90%	95%	<b>100%</b>
Monthly payment	518	507	496	485	<b>474</b>
Case D – Tonnes per year changes	2.5	3	3.5	<b>4</b>	4.5
Monthly payment	557	530	502	<b>474</b>	446

Case E – Contract crediting period changes	4	6	8	10	
Monthly payment	532	474	427	391	
Euro price per tonne changes	6	7	8	9	10
Monthly payment	474	437	400	363	325

A second example (one that reinforces the net present value technique) follows. This is a proposal showing the impact of carbon benefit on equalizing fuel switching costs. The presentation shows the potential of a combination of carbon benefit and subsidy to opening a market to the very poor.

### Switching from fuelwood to kerosene → intercept and offer alcohol stove

Fuelwood per year	1,095	kg
Cost per kg	2	Local currency
Cost per year	2,190	
% unsustainable	90%	
	985.5	kg unsustainable
CO <sub>2</sub> e factor	1.5	wood
CO <sub>2</sub> e benefit	1,478.25	kg
CO <sub>2</sub> e benefit	1.47825	tonnes
Value per tonne	360	Local currency
\$	8	
€	6.7	
Local currency	360	
<b>Value per year</b>	<b>532</b>	<b>Local currency</b>
Alcohol use per year	365	kg
Kerosene use per year	219	kg
Cost of alcohol per kg	20	
Cost of kerosene per kg	30	(Cost per year = 219 €30 = 6,570)
Possible subsidy BOP <sup>2</sup>	15	per kg
Cost of alcohol stove	1,000	
Cost of kerosene stove	1,000	

2 BOP = “bottom of pyramid” = lifeline subsidies.

Case: Customers poised to switch from fuelwood to kerosene – intercept and offer alcohol stove, factoring in carbon benefit to close cost gap

			1	2	3	4	5	Years 1–5
Kerosene	Stove		1,000					1,000
	Fuel		6,570	6,570	6,570	6,570	6,570	32,850
<b>NPV @</b>	10%	<b>25,815</b>	7,570	6,570	6,570	6,570	6,570	33,850

Alcohol	Stove		1,000					1,000
	Fuel		7,300	7,300	7,300	7,300	7,300	36,500
	CDM		532	532	532	532	532	2,661
<b>NPV @</b>	10%	<b>26,564</b>	7,768	6,768	6,768	6,768	6,768	34,839

Case: Switch from fuelwood to alcohol stove with fuel subsidy and carbon benefit – aimed at very poor

			1	2	3	4	5	Years 1–5
Wood	Fuel		2,190	2,190	2,190	2,190	2,190	10,950
<b>Five-yr. NPV @</b>	10%	<b>8,302</b>						
Alcohol	Stove		1,000					1,000
	Fuel		7,300	7,300	7,300	7,300	7,300	36,500
	Subsidy		5,475	5,475	5,475	5,475	5,475	27,375
	CDM		532	532	532	532	532	2,661
Cost of alcohol stove alternative			2,293	1,293	1,293	1,293	1,293	7,464
<b>Five-yr. NPV @</b>	10%	<b>2,492</b>	-103	897	897	897	897	3,486*

Savings/(cost

\* Difference between wood and alcohol stove alternative.

## Customizing for carbon professionals

- Exhibit an understanding of the multi-step process
- Exhibit a sense of the current market
- Estimate the carbon impact of the proposal conservatively
- Incorporate carbon benefit in cash-flow estimates as a separate revenue line
- Quantify the impact on project IRR of adding or deleting carbon benefits

*Useful carbon estimating, valuation and monetization information can be found at:*

- Community Development Carbon Fund – CDCF – [www.carbonfinance.org](http://www.carbonfinance.org) – offers a template for a project idea note (PIN) which has some utility for introducing the key features of a greenhouse-gas project. A separate document asks 10 community benefit questions of either a general or “who is involved” nature. Another separate document offers a useful financial template.
- Clean development mechanism – CDM – <http://cdm.unfccc.int/projects> – provides information and ready access to CDM projects at their various stages. It also describes the process and is a useful information resource for regular, small-scale (“simplified”) procedures and afforestation-reforestation activities. The project design document guidelines and templates are easy to access and use in / projects / reference / documents.
- CDM Gold Standard – [www.cdmgoldstandard.org](http://www.cdmgoldstandard.org) – is a non-governmental organization partnership-sponsored website aimed at both quality improvement and ease of filing for CDM projects.
- CDMWatch – [www.cdmwatch.org](http://www.cdmwatch.org) – offers introductory materials on the Clean Development Mechanism and promotes “The CDM Toolkit”, which is actually a description of the process rather than a set of tools. Links to carbon funds and other websites are included.

### 5.3 Customizing for lenders

It is a mistake – a common mistake in proposal writing – to lump lenders and investors together. They are related, but so are brothers and sisters. They have common interests, but their motivations and approach are quite different.

Lenders emphasize risk management and look for:

- Predictable cash flow
- Assumption of major uncertainties by others, including insurers
- Guarantees that all funding is available
- Collateral and security interests
- Clear procedures for default, termination, repossession, etc.

Investors look at these things also but their focus is more on opportunity management, placing emphasis:

- On the size of the market
- On the reasonableness of the base case
- On potential upsides and downsides
- On management's abilities and knowledge

In customizing a presentation for lenders, the Champions must frankly try to put themselves into the bankers' shoes. This involves understanding two processes: one is called "**due diligence**"; the other is called "**risk management**".

What professional lenders call "due diligence" is a process that checks the truth ("veracity") of the proposed loan application and the proposal that underpins it. Due diligence has both quantitative and qualitative dimensions, meaning that all the numbers and calculations are examined, checked and tested, and all the statements are verified. Lenders have quite clear rules and decision-making procedures (credit committees, for example), so knowing the lender's criteria, requirements and processes in advance is the best investment a Champion can make *before* presenting a proposal. A lender's quantitative tests might include a requirement that there is always a reserve fund set aside that equals one year's future loan payment; the proposal's cash flow model can take that into account before a loan application is submitted. A lender's qualitative tests might include that the borrower must have certain credentials, income or wealth. When a Champion says that he or she has 10 years' direct

#### Lessons learned:

- A Champion sees the value of the assistance and services. An enabling organization needs to quickly assess the willingness of a Champion to cooperate in the enterprise development process. Conversely, the enabling organization needs to see the full scope of the Champion's responsibilities and understand that the Enabler's priorities, processes and problems are not the only issues needing attention. Enablers need to avoid "torturing" Champions.
- How much assistance to provide to the Champion and how strict the process of "handholding" is must be based on the Champion's experience, track record and skill set. There are no one-size-fits-all formulae. Performance yardsticks are important.
- Enabling organizations need to assure that regular and effective communication channels exist with the Champion before commencing assistance.
- In assisting Champions with planning and due diligence, most of the effort must focus on understanding the market and developing a marketing strategy and alternative tactics for reaching clients and customers. "Fit for purpose" tools are important here.
- Champion and Enabler must share a common, realistic understanding about what is achievable and how to make it work. They must work as a team, not as investee and investor.
- There may be a need for hands-on coaching and mentoring to take basically sound proposals and direct them into the "system" of financiers and supporters. Champions cannot be expected to know the universe of possibilities and the subtle differences between enabling organizations.

experience supervising this or that technology or has never defaulted on a loan, the Champion must understand that those representations will probably be checked. Knowing requirements in advance can avoid wasted effort, direct a Champion to broaden the owner or management team and avoid situations where credibility becomes an issue.

Due diligence is basically a fact-checking process driven by the lender's criteria. Risk management is a process for which this guidebook's **What If** question has, hopefully, helped prepare the Champion. Lenders go through their own What If exercises with a particular point of view: they are looking for answers that place risk and responsibility on someone else, and they are looking to be convinced that that someone else can deal with the problem if it arises.

The point has already been made that Champions need to place themselves in the lender's position. By being able to deal with lenders' typical questions and issues regarding due diligence and risk management, a Champion will be in a position to anticipate problems and solve them if they arise.

### 5.3.1 Due diligence, risk and risk management

The following is a very short and modest sample of the types of questions that a bank officer must answer before he or she can even consider recommending to a credit committee that a loan should be granted. The primary purpose here is to introduce some typical issues and concerns.<sup>15</sup>

- What guarantees exist that the project or product will be built or delivered on time and at the stated price? Who has the responsibility for cost and schedule overruns? How are they guaranteeing their ability to absorb these costs or compensate for the lost time? What if they default on their promises? Who will step in then? What assurances do we have of their ability to do so?
- What are the contractual assurances that the project-product-service will perform as promised? Who has the responsibility for performance failures? When? What if they are unable or unwilling to fix the problems? Who will step in, and can they remedy the situation?
- Where will fuel, equipment and raw materials come from? What are the terms and conditions of the contract? What alternative supplies exist in the event of a disruption or dispute? What type of supply

#### Lessons learned:

- Ensure that reliable management accounting procedures are in place. This can be the single biggest problem in the SME development environment. Ensure, whatever it takes, that the systems, procedures and infrastructure are in place before the doors open. As a general rule: if not confident that the management accounting procedure will function properly, do not recommend approval of the investment.
- Key questions to ask about individual securities in the form of collateral and guarantees: Do they mean something? Can they be turned into money to make up for a partial or total loss? A general procedure for evaluating collateral: Determine the actual value, then scale it down to a forced-sale scenario. To do this, be sure to understand the difference between and the application of the following types of value:
  - Cost (original price)
  - Market value (if put up for sale)
  - Replacement value
  - Forced-sale value (if offered for sale today)
- Investment commitments should not be disbursed until a Champion closes an agreed gap between the management structure and business. Milestones must be real and realistic. Conditions precedent (those conditions which must be fulfilled before a loan agreement becomes operational) must be clear and transparent.
- Due diligence is effective if it ensures that monies requested are indeed required. Nevertheless, avoid falling into situations where due diligence deprives the venture of critical funds required to ensure a sufficiently capitalized start-up and a motivated Champion.
- Post-investment "handholding" is often required to ensure that implementation proceeds according to the agreed plan and that the enterprise is positioned to grow. Enabling organizations need to budget for such efforts.

<sup>15</sup> For a more detailed and customized due diligence checklist see annex VI.

disruption or unanticipated cost increase could cause a lowering of debt service coverage below 1.3 times?

- Where will the product-output be sold? What contracts exist for that sale? What percentage of revenue is supported by such contracts? What is the creditworthiness and financial state of the buyers? If they default on their contracts, what alternatives exist?
- How big is the market for the product-service? Based on what? Corroborated by what? What market share must be captured to meet revenue projections? What shortfall in meeting those projections would reduce debt service coverage to below 1.3 times?
- Excluding debt service, what is the amount or percentage of cash flow that comes from “hard” foreign exchange? What amount of debt service requires “hard” foreign exchange? How are fluctuations in the value of the local currency in foreign exchange handled? What are the assumptions regarding foreign exchange conversion rates? Based on what? Are “hedge” contracts available?
- What is the status of each government approval and arrangement? How is this documented? What conditions precedent (those conditions which must be fulfilled before a loan agreement becomes operational) must be met before loan disbursement? What public processes still need to occur? What is the status of environmental assessment? Is there local approval and support?
- What are the insurable risks and what is the proposed insurance programme? For uninsurable items, what guarantees, resources and commitments exist to repair and rebuild, and under what conditions?
- How will the owners’ commitment to the equity contribution be met? What documentation demonstrates that the owners have the capacity to do so? What are the owners’ credit histories and bank relationships?

### 5.3.2 Risk

The preceding list of questions comes from an understanding of the kinds of risks which projects and enterprises face. Before attempting to manage those risks, it may be helpful to summarize and sort various types of risk into categories. Many of those items are risks which a Champion knows and – Champions being who they are – are quite comfortable accepting. Banks and other lenders are not!

Risks come in a variety of categories. Like many lists in this guidebook, there are quite a number of ways to organize these categories. The following list follows a common pattern.

- Completion risk
- Technology risk
- Supply risk
- Economic risk
- Financial risk
- Currency risk
- Political risk
- Environmental risk
- Social risk
- Force majeure risk

**Completion risk** involves the risk that something started might not be completed after a lender has made funds available. This can happen when a proposal costs far more than originally expected or the market has changed significantly during construction. Perversely, it can sometimes make more sense for the Champion and owner group to walk away from such a project than to complete it (and yes, this happens!). Lenders do not want even to consider such a possibility. Therefore, “someone else” – other than the lender – must be deemed **responsible for and capable of** completing the project once it is begun.

**Note:** Rather than repeating this point throughout the remainder of this list – the point that lenders look for other responsible and capable parties to assume risk – readers should accept and assume the concept as a part of every risk described below.

**Technology risk** involves something not performing as planned or becoming obsolete far more rapidly than expected. If the technology never performs as agreed to in the installation phase, that can be taken as part of the completion risk, but generally it is considered a separate category. Lenders want to know that someone else stands ready to fix a technology that is not performing. Lenders also want to know that a technology is proven (not untried and not brand new) and competitive (not about to become obsolete).

**Supply risk** involves raw materials not being available. This can include resources which the project is going to use (e.g., a mine or a plantation forest) or buy (e.g., fuel or supplies). Lenders want to know that what is needed to produce a product or service is available and affordable.

**Economic risk** exists even after a project is completed, the technology is working and the inputs are available. The result of the project might be inefficient or the estimated market (the demand) may evaporate. Lenders need to have confidence in market projections and the Champion’s demonstration of market knowledge and awareness.

**Financial risk** occurs either when variable interest rates are used or refinancing of the project is assumed at some time during its life. Interest rates change; large changes can make an enterprise non-competitive or not “liquid” (“liquidity” means having the cash on hand to meet repayment obligations on time and in full).

**Currency risk** is closely related to financial risk, and could be lumped into that category, but the very nature of technology transfer projects warrants its being disaggregated. Currency risk involves the difference between the value of the currency that is relevant to income and expenses and the value of the currency in which the loan repayments must be made.

**Political risk** is the risk that the rules and regulations governing a proposal may change. A good example might be the risk that a government may arbitrarily raise the taxes on a project to render it uneconomic or may change the rules for construction so as to make it impossible to complete it.

**Environmental risk** is the risk that unknown environmental conditions may disrupt a plan after implementation has begun. Environmental risk has nothing to do with ignoring or skirting environmental rules, processes and regulations: rather, it is the risk of the unanticipated occurrence of something of an environmental nature. A good example would be the unforeseen disturbance of an important site for an endangered species or an important cultural site.

**Social risk** is a category that takes into account all manner of disturbances or disruptions that can impair a proposal's implementation. For a long time these were lumped together under "political risk", but a heightened awareness of the power of local disruptions warranted putting them into a separate category if only to highlight the fact that local realities outside the realm of what is generally viewed as politics can greatly impact planning, construction and operation.

**Force majeure risk** is the risk that something catastrophic – a storm, an earthquake, a devastating accident – may cause a project to fail. In a less secular time, these were called "Acts of God."

### 5.3.3 Risk management

The preceding section describes 10 categories of risk. What can be done (or cannot be done) to manage these risks? Implicit here is an important and valid assumption: if a lender is satisfied with how a risk is managed, it is likely to be well managed (in case the point has not been clearly presented so far let it be repeated: lenders are unwilling to accept any risk that can be assigned to others).

Completion risk can be managed through the type of contracts entered into to design; build and commission (start operation). One of the terms used often is "EPC". Another is "fixed price". Taken together, this is a type of contract where a single credible company takes on the responsibility to construct a project. "EPC" stands for engineering, procurement and construction. "Fixed price" means that, regardless of the cost, the EPC contractor will complete the project as bid. A fixed-price EPC contract is just one of the risk-management tools available.

Technology risk is most often managed through guarantees and warranties from the suppliers of equipment and also through the acceptance testing process. Another type of contract provides for the operation and maintenance of the technology by a credible party (sometimes the entity that built the project or supplied the equipment).

Managing supply risk requires entering into contracts for sufficiently long periods of time and with predictable prices to ensure an uninterrupted supply of inputs. In the absence of such supply contracts, the Champion needs to be able to demonstrate that the available supply of inputs on the spot market is more than sufficient to meet needs.

Economic risk requires solid data and analysis up front, combined with sufficient resources on the part of the Champion and the owner team to make changes as market shifts occur.

Financial risk can be cushioned by entering longer-term financial arrangements or having multiple alternatives should refinancing not prove sensible (e.g., arrangements to sell the project).

Currency risk depends greatly on the proportion of the cash flow denominated in local currency relative to the cash flow denominated in foreign currency. If the proportion of foreign currency to local currency cash flow is small, so too is the currency risk. However, if 100 per cent of the revenue and expenses is in local currency and debt service is in foreign exchange, and if fluctuations in the exchange rate are significant, the risk rises rapidly. Special contracts ("hedgies") and conditions (reserves) can help manage this risk.

Political risk is a category of risk where certain items can be insured against (for example, the risk that a government may nationalize an asset), although this applies more to larger, more complex transactions than to typical technology-transfer transactions. Political risk is best managed by being subject to a predictable, enforceable regulatory structure which applies also to others. This argues

against the tendency to seek exceptions from governments because exceptions often do not survive power transitions and do not have the comfort of affecting others.

Environmental and social risks, like economic risks, require carrying out the proper advance work and planning and building the appropriate relationships. Volumes have been written about engaging the local community and about conducting thorough studies. Failure to heed those volumes produces environmental and social risks. Lenders want to know that things will go smoothly.

Force majeure risk involves catastrophe. Insurance is the most common risk-management tool. Insurance covers so many possibilities – injuries, death, fire, explosions – that, **where affordable and available**, it should be an important component of planning and implementation.

### 5.3.4 Summary

- Know in advance the lender's requirements with respect to type and length of loans, terms and conditions, indicative interest rates (i.e., today's rates), typical restrictions and reserve requirements, debt-to-equity requirements and debt service tests.
- Know in advance the lender's requirements concerning the credentials and net worth of borrowers.
- Run the base case incorporating the lender's requirements as part of the model. Summarize the results in the executive summary, with an emphasis on debt service coverage.
- Prepare as an annex a set of credentials and documents that prove the case for the borrower. Have available the tax submissions, bank statements, deeds, etc. for any of the credentials or assets cited. Obtain the bank's application form well in advance and create a file with supporting documents.
- Prepare a risk-management table that lists the key risks (from the What If question) and how the risks are addressed.
- What if the Champion's proposal cannot fulfil the bank's requirements? What if the Champion cannot meet the lender's requirements? Well, there a number of things to be done. This list **definitely does not include making fictional adjustments** to the cash flow projections or credentials. Things to be done include:
  - Exploring different combinations of debt and equity to improve the debt service performance of the cash flow projections.
  - Testing different assumptions regarding the terms of loans and the impact on cash flow (mortgage-style versus bullet versus equal principal payments, for example).
  - Expanding the owners' group to improve the credentials of the team as well as to expand the supply of equity and guarantees.
  - Discussing subordinated debt arrangements or other instruments that reduce the lender's risk and improve financial performance.

## 5.4 Customizing for investors

There are many different categories of investors. A few broad categories will suffice to separate their interests:

1. Venture capitalists
2. Financial investors

3. Strategic investors
4. Development investors
5. Double- and triple-bottom-line investors

**Venture capitalists** seek opportunities in what are perceived as growing sectors using an ever growing roster of technologies and offering high profit (return) potential. “Clean technology” is an example of a venture capital focus. If a Champion has a proposal to produce a new building product that protects valuable existing surfaces from increasing rain or dryness (an example of an adaptation technology), such a proposal, properly prepared and presented, would engage the preliminary interest of venture capitalists (who gather at meetings known as venture fairs). Venture capitalists want to see growth potential and management skill. They will exercise a great deal of control, especially if things do not go as planned. Their checklists especially emphasize size of potential market, competition, management’s track record and how they can exit (a wonderful four-letter word that encompasses the ways that an investor can cash in its investment: listing on the stock market, sale of the company to a competitor or acquirer, buy-back by the original owners, re-financing).

**Financial investors** target specific returns (called “hurdle rates”) and are prepared to accept specific risks in order to achieve those returns, which are higher than a lender may charge for interest. It is essential to understand the “hurdle rate” and “risk appetite” of such investors early in the discussions. Their due diligence will be similar to a lender’s but they are more likely to examine a base case and a better case as well as a worse case scenario. Like venture capitalists, financial investors may want to exercise a lot of control if events roll out more slowly than planned or badly. They too would like to hear a Champion’s ideas on “exits”.

**Strategic investors** are interested in something in addition to financial return. They may be interested in a new market and see the proposal as an efficient way to become involved in that market. They may be interested in the knowledge and experience of the team. They may be interested in supplying a product or service. It is crucial (not just important) that all the cards are on the table before exploring such a relationship seriously. What does the strategic investor want to achieve? How is that consistent or in conflict with the proposal? How is that consistent or in conflict with the Champion’s motivation and objectives? How will hidden agenda items be determined and controlled? How will the price of products and services be set and warranties enforced? These can be excellent relationships, often glowingly described as “partnerships”, but like partnerships and marriage, they are to be entered into with eyes open and clearly defined terms and conditions.

**Development investors** are looking for the opportunity to create a specific impact, usually in a specific sector. They are investors (not donors) because they expect to be repaid. Their interests might include creating small enterprises, growing microfinance institutions, building the capacity to implement adaptation, renewable energy, organic farming or energy efficiency measures. They tend to be found in national, regional and multilateral development banks and tend to have very specific criteria. There is a great deal of generally available information on their websites and exploratory communication is relatively easy to arrange. The bad news is often embedded in the processes and requirements that come along with the interest. Decision-making can be slow and processing and

documentation burdensome. The secret is to understand the requirements of development investors well in advance of making any commitment to this path.

Double- and **triple-bottom-line investors** are also known by other names, including socially responsible investors (and many other confusing subcategories and overlapping titles). They are individuals and organizations (including major foundations) that will accept a lower financial return with or without increased risk because of the blended value of the social and environmental benefits represented in a proposal. They can be very broad in their interests and motivation (they may be high-net-worth families) and may be persuaded to consider new fields and innovations for very targeted investing.

How best to customize a presentation to an investor?

- For those seeking financial return – venture capitalists and financial investors – keep the introduction simple with an emphasis on return and market potential, the team (experience, skills and track record) and the risks.
- For the rest, it is difficult to know what might be interesting (“you never know where lightning is going to strike”) but a triple-bottom-line matrix (financial, social and environmental returns), combined with the team and the risks, will allow a quick screening by enabling organizations.

### Lesson learned:

- Technology transfer is about all the combinations of products, services and know-how available to fashion the desired result of sustainable development. **“Innovative financing”** for technology transfer is more about connecting new combinations of actors and interests and applying tried and true approaches than it is about creating new, never-before-used products, services and tools.