

## EnDev Sustainability Checklist

(Developed in 2005/06; checklist is part of EnDev proposals and excel outcome monitoring sheet)

This table serves to identify relevant information on the long-term sustainability of projects under *Energising Development*. Please enter all information necessary to understand each criterion mentioned, **especially** in cases where the criterion is not applicable, the situation is unclear or the criterion is not fulfilled (yellow or red columns).

Item	Category				Sustainability criteria	Comments and additional information
1	<b>Economic sustainability for technology providers/producers and service providers</b>				<b><u>Key question:</u> Will the project create or enter a self- sustaining market where cost recovering mechanisms are ensured for the long term?</b>	
	Criterion is					
	fulfilled	not applicable	unclear	not fulfilled		
please mark with an x						
					<b>General</b>	
1.1					Self-sustaining market after five years	
1.2					Providers/producers have technical skills after five years	
1.3					Providers/producers have business skills after five years	
1.4					Quality control of services and products is ensured	

Item	Category				Sustainability criteria	Comments and additional information
					<b>Technology providers/producers</b>	
1.5					Prices cover costs and create profit	
1.6					Technology meets purchasing power of consumers	
1.7					After-sales structure exists	
1.8					Capability for product adjustments	
					<b>Service providers</b>	
1.9					Sufficient income is generated to cover all costs	
1.10					Tariffs are set to cover costs	
1.11					High share of consumers pay for services	
1.12					Financial reports of community utilities	
1.13					Grid extensions only if tariffs cover the costs and power supply is stable	
					<b>Subsidies</b>	
1.14					Clear exit strategy	
1.15					Long term viability of products without subsidies	
1.16					Local contribution	

Item	Category				Sustainability criteria	Comments and additional information
2	<b>Consumers' view on economic sustainability</b>				<b>Key question:</b> <i>Are the technologies and services offered attractive and affordable from an energy user's perspective?</i>	
	Criterion is					
	fulfilled	not applicable	unclear	not fulfilled		
please mark with an x						
					<b>General</b>	
2.1					Attractive and affordable products and services	
2.2					Products for different abilities to pay	
2.3					Products/services contribute to development	
2.4					Low risk credit schemes	
2.5					Products suited for large user groups	
2.6					Customer satisfaction	
2.7					User awareness of benefits	
					<b>Energy for productive use</b>	
2.8					Additional income is created by productive use of energy	
					<b>Energy for institutions (social infrastructure)</b>	
2.9					Ability to pay for services	

Item	Category				Sustainability criteria	Comments and additional information
2.10					Clearly defined assignment of responsibilities	
2.11					Accounting standards are met by institutions	
2.12					Fund for maintenance	
2.13					Technical service is organised	
3	<b>Policy requirements</b>				<b>Key question: <i>Is the project philosophy in line with policies at the local and regional and national levels?</i></b>	
	Criterion is					
	fulfilled	not applicable	unclear	not fulfilled		
please mark with an x						
					<b>General</b>	
3.1					Project is in-line with policies	
3.2					Legal framework is supportive or at least not prohibitive	

Item	Category				Sustainability criteria	Comments and additional information
4	<b>Social, cultural and environmental considerations</b>				<b>Key question:</b> <i>Does the project take these aspects into account?</i>	
	Criterion is					
	fulfilled	not applicable	unclear	not fulfilled		
please mark with an x						
					<b>General</b>	
4.1					Service or product fit into cultural environment	
4.2					Project meets local demand	
4.3					Living conditions for women improved	
4.4					Awareness of key actors concerning the benefits	
4.5					Neutral to immediate environment or protective	

## EnDev Sustainability Checklist - Explanations

Item	Sustainability criteria	Explanation
1	<b>Economic sustainability for technology providers/producers and service providers</b>	
	<b>Key question:</b> <i>Will the project create or enter a self-sustaining market where cost recovering mechanisms are ensured for the long term?</i>	
	<b>General</b>	
1.1	Self-sustaining market after five years	A self-sustaining market for energy access technologies is established after a maximum of 5 years after start of intervention
1.2	Providers/producers have technical skills after five years	Providers are equipped with sufficient technical skills like production, installation, management, maintenance/after sales services and quality control
1.3	Providers/producers have business skills after five years	Providers are also trained on business know-how including bookkeeping, financial management, sales and marketing.
1.4	Quality control of services and products is ensured	Quality control is institutionalised within the project (e.g. assignment of responsibilities) and measures are carried out in regular intervals.
	<b>Technology providers / producers</b>	
1.5	Prices cover costs and create profit	Technologies are priced to cover all costs and to allow for a profit margin that gives an incentive to maintain the business alive.
1.6	Technology meets purchasing power of consumers	Consumers (Customers) have sufficient purchasing power either by their own or supported by credit facilities.
1.7	After-sales structure exists	Existence of an after sales structure

Item	Sustainability criteria	Explanation
1.8	Capability for product adjustments	Producers have the capacity of adapting the product design if necessary as well as of adapting their production efficiency and capacity in case of a shift in the consumer preferences and/or a change in the market conditions.
	<b>Service providers</b>	
1.9	Sufficient income is generated to cover all costs	Providers of electricity and other energy services generate sufficient income to cover running costs, re-investments and generate profit, if necessary supported through available credit infrastructure
1.10	Tariffs are set to cover costs	Tariffs are set to cover all costs mentioned above
1.11	High share of consumers pay for services	A high (sufficient > 90%) share of users pays for the services
1.12	Financial reports of community utilities	Public annual financial reports by community owned utilities
1.13	Grid extensions only if tariffs cover the costs and power supply is stable	Villages are connected to the national grid that is managed by a respective utility. This option is only considered if the national electricity supply system is sound and stable enough to take up new customers without frequent power shortages.
	<b>Subsidies</b>	
1.14	Clear exit strategy	A clear (credible) and transparent exit strategy will be part of any subsidy scheme
1.15	Long term viability of products without subsidies	Thorough investigations of the long-term viability of products or services after the withdrawal of subsidy schemes have to be carried out.

Item	Sustainability criteria	Explanation
1.16	Local contribution	Use of start-up subsidies (for investment costs, not for the costs of operation) at a maximum level of 90% for village electrification schemes. The local contribution ensures ownership. In some cases they are provided as labour during construction. The user tariffs are set in a way that guarantees the coverage of all running costs (operation and maintenance), as well as major repairs for at least 15 years (in most cases for much longer).
2	<b>Consumers' view on economic sustainability</b>  <b>Key Question:</b> <i>Are the technologies and services offered attractive and affordable from an energy user's perspective?</i>	
	<b>General</b>	
2.1	Attractive and affordable products and services	Products and Services are affordable and attractive to users.
2.2	Products for different abilities to pay	A range of products is offered to meet different needs and particularly different abilities to pay
2.3	Products/services contribute to development	The impact of the acquired products or services (P/S) lead to a standard of living that is higher than without these P/S, i.e. they don't take away household budget that could be spent more effectively like for clean water or school fees.
2.4	Low risk credit schemes	If Credit schemes are offered they are designed in a way to reduce the risk for the credit taker, like to reduce to risk of no income during droughts or after a loss of a harvest.
2.5	Products suited for large user groups	Available Products are adapted to cover the needs of a large user group (and not only niche consumers)



Item	Sustainability criteria	Explanation
2.6	Customer satisfaction	Consumers/Users are satisfied with products and services and state that they will reinvest in a product after the end of the lifetime or continue to subscribe to an energy service
2.7	User awareness of benefits	Users are well-informed about the significant monetary and non-monetary benefits that go along with modern energy services, such as reduced fuel consumption and costs, time savings from reduced cooking and wood collecting time, less health hazard through smoke emissions
<b>Energy for productive use</b>		
2.8	Additional income is created by productive use of energy	Additional income from productive use through the supply of energy. There is an improvement of the standard of living.
<b>Energy for institutions (social infrastructure)</b>		
2.9	Ability to pay for services	Explicit commitment (ownership) and credible ability for paying for operation and maintenance has to be ensured.
2.10	Clearly defined assignment of responsibilities	Responsibilities for operation and maintenance have to be clearly defined, training on user level for handling the technology, small repairs and training of service structures.
2.11	Accounting standards are met by institutions	Institutions that do not meet minimum accounting standards will not benefit from energy services under the partnership agreement, as a system failure after a short term is hardly avoidable.
2.12	Fund for maintenance	A fund will be set up to pay for maintenance, repairs and spare parts if the structures allow for a “sustainable” fund management.
2.13	Technical service is organised	Creation of service contracts with private service providers and training of service provider and institutions (in managing service contracts) will be provided.

Item	Sustainability criteria	Explanation
3	<b>Policy requirements</b> <b>Key question:</b> <i>Is the project philosophy in line with policies at the local and regional and national levels?</i>	
	<b>General</b>	
3.1	Project is in-line with policies	The project fits into existing local, regional and national policies or their development.
3.2	Legal framework is supportive or at least not prohibitive	Existing legal framework allows for or is supportive for project execution (an for example individual power generation or charcoal production is not illegal)
4	<b>Social, cultural and environmental considerations</b> <b>Key question:</b> <i>Does the project take these aspects into account?</i>	
	<b>General</b>	
4.1	Service or product fit into cultural environment	Service or product fits into the customers' cultural environment, i.e. it should respect the customers' traditions and customs
4.2	Project meets local demand	The project meets local demands and problems and does not conflict with local cultural traditions.
4.3	Living conditions for women improved	Living conditions for women do actually improve
4.4	Awareness of key actors concerning the benefits	Consumers decision makers and "local trend-setter "are aware of monetary and non-monetary benefits of energy access

Item	Sustainability criteria	Explanation
4.5	Neutral to immediate environment or protective	Does the project not burden the local and regional environment or, better, does the project improve local and regional environmental conditions? <i>(Reduce rate of deforestation and hence contributing to a sustainable fire wood supply reduction of frequency of respiratory problems)</i>