KfW / Bliss & Gaesing Assoziierte Gutachter

Financial Cooperation with Cambodia.

Rural Electrification II

Poverty Impact Assessment

by

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The picture (1) on the title page of the report shows power supply lines in Phnom Penh (2007)

1. Summary and Recommendations

1.1 Summary

Rural electricity supply remains a challenge in Cambodia. In the rural districts of the Kampot Province between an estimated 7.4 (Tram Kak District) and zero percent (Dong Tung District) of rural households are connected either to an EDC or a REE grid. However, this low coverage rate is associated with excessive costs: Cambodia's electricity tariffs being among the highest in the world, in the rural areas of Kampot they are among the highest in Cambodia (between 2,000 to 3,000 Riel/kWh).

Although Kampot is considered a coastal region with a poverty rate below the national Cambodian average (17 percent) at least the six districts in the heart of the province are relatively poor with a headcount below the poverty line of nearer to 30 percent than to the coastal average. 30 percent is the average poverty rate for the Cambodian plains under similar conditions.

Targeting most needy and least served people and areas is a key element of the National Strategic Development Plan (Cambodian PRSP of 2006). Building rural infrastructure is one of the priorities including construction and rehabilitation of electricity generation and distribution networks. Availability of assured, abundant, low-cost electricity is considered a key to the development of the country.

In the Kampot Province with a population of an estimated 550,000 individuals, about 30 to 35 rural centres could be connected by high voltage electricity supply networks. Following the example of about 10 already connected centres, Rural Electricity Enterprises (REE) would most probably take over the construction of low voltage distribution networks in most of these centres. For the remaining centres EDC would claim responsibility. If we estimate that so far not more than 4,400 rural households (hh) are either supplied with generator based micro-grids (2,500 hh) or connected to the EDC grid (1,900), in mid-term, between 10,500 and 13,000 additional rural households could be targeted by the Rural Electrification Project.

There would be a broad development and poverty alleviation impact including a substantial improvement of living conditions. Migration to urban centres with better infrastructure could be reduced. In detail, impact from the project could be an increase in rural economic activities (e.g. agricultural processing on SME basis, a certain increase in employment opportunities and with it an increase in income. It is most probable that energy costs for private and commercial users would decrease. However, consumer behaviour could also lead to an increase in expenditure for electrical appliances and entertainment electronics.

1.2 Recommendations

The improvement in electricity supply should also and mainly include the poor population in the rural areas of Kampot Province. Therefore, high voltage (22 KV) lines should not only be limited to connections of the district centres near the main roads to the regional grid but should include all rural centres where a minimum population of 250-500 hh could be connected in an economicly

justifiable way by low voltage grids. In order to allow for a strategy which enables the connection of a maximum number of rural hh a close cooperation with the Rural Electrification Fund (REF) and REE or potential investors / entrepreneurs should be established.

Special measures should be considered which would allow the connection of poor households e.g., inter alia, families with women as hh heads to the local distribution networks. For these hh the initial investment costs of approximately 14 US$ (57,000 Riel) could perhaps be split and added to the monthly bills for a period of one year.

As long as public social aid does not exist in Cambodia, life-line tariffs for electricity like those having been adapted for the first 50 kWh in Phnom Penh (550 Riel/kWh) should also be introduced in the rural areas of Kampot. For this, an intensive dialogue between KfW and EDC / MIME but also with other leading donors in the electricity sector (World Bank, ADB, UNDP, China) is recommended.

Tariffs for EDC and REE in general should reflect production and distribution costs with an average profit marge for the entrepreneur. In order to ban proliferating and ensure lowest possible consumer tariffs KfW should also keep close contact with the regulation authority (Electricity Authority Commission) in order to monitor the tariff agreements.

As irrigation could contribute considerably to an increase of production and thereby to rural poverty alleviation according to the Cambodian NSDP, the option of promoting agricultural irrigation through rural electrification should be reviewed during the feasibility study. The possible challenges and chances for a Financial - Technical Cooperation should be taken into consideration.

Fig.2: Electricity supply in a rural centre in Kampot by REE based on diesel generators

2. Background and Target Groups

2.1 Background

According to the 2004 poverty assessment, headcount poverty fell between 1993-94 and 2004 from 39 percent to 28 percent in geographically comparable areas or, a one percentage point reduction in headcount poverty per year. The average real per capita consumption rose from 2,228 Riel / day to 2,392 Riel / day, i.e. a 32% increase (at 1993 prices)(cf. World Bank 2005). Other sources refer to a decrease of poverty from 47 percent in 1993-94 to 35 percent in 2004. These are estimates based on backward projection (e.g. EIC 2007, World Bank 2006a)[1].

Quality of housing, access to consumer goods and also access to electricity have all improved including amongst the poorest quintile of the population. Non-monetary aspects of welfare such as health service coverage and survival rates for children have also improved during the last years and primary school enrolement has expanded rapidly[2].

Per capita household consumption grew slowest in rural areas and amongst the poorest by a cumulative 24% in rural areas versus 35% in urban regions and 25% in Phnom Penh. It grew also only by a cumulative 8% for the poorest quintile versus the national average of 32%. Poverty severity, i.e. the depth or shortfall below the poverty line, remained largely unchanged from 3.1 percent to 3.3 percent. Inequality of consumption rose quite significantly: the Gini coefficient rose from 0.35 to 0.4. In 2004, the living standard of the richest fifth of the population rose five times as fast as for the poor, 45%. Similarly, rural living standards rose much more slowly than those in the capital Phnom Penh and some other urban centres (cf. World Bank 2007). Poverty is currently overwhelmingly a rural issue: 91 percent of all poor are rural.

Cambodia has witnessed a robust and steady macro-economic growth in the past years. GDP at constant prices grew at an average of 7.0 percent per year (i.e. per capita 4.7%)[3]. The engine of pro poor growth was primarily urban manufacturing, construction, and tourism concentrated in Siem Reap, Sianoukville and Phnom Penh while the poor remain concentrated in rural Cambodia (cf. World Bank 2006a).

Reasons for poverty in Cambodia are multifaceted and interdependent. The 30 years of war and civil war between the late 1960ies and 1990ies with the genocide in 1975-78 as their climax is the most important and lasting reason. While development efforts and decrease in poverty are visible in Phnom Penh and other urban centres most rural areas are excluded from this trend. There, the lack of infrastructure is one cause for slow development. Admittedly, difficult natural conditions and a regionally extremely dispersed population prevent a fast connectivity to road and electricity networks. But also governance, in the broadest sense, is a major problem in Cambodia and one of

[1] The difference is mainly resulting from the fact that the first poverty assessment of 1993-94 covered only about two thirds of the country (due to safety reasons some mainly rural and especially poor areas were not included). Therefore, the entire country considered the decrease of poverty remains lower than shown by the figures from the common reference areas of both surveys.

[2] from 55% in 1997 to 76% in 2004 and faster amongst girls than boys, closing the gender gap (cf. Conway 2006).

[3] Certainly, a part of this “growth” results from the formalization of previously informal economic activities which were not recorded by the official statistics.

the reasons for retaining poverty alleviation efforts. Considerable shares of the national budgets are misused due to vast endemic corruption and even major shares of ODA support is branched off by local and national government staff.

Fig.3: Typical home in rural areas of the Kampot Province

Target group of the project is the entire population of the Kampot Province (about 550.000 inhabitants). There are eight districts with a population between 24,000 and about 165,000 individuals and 92 communes. According to DIME, roughly 30 to 35 of these communes dispose of a village or small town with an agglomerated population of more than 500 households and could be considered as urban centres. The population of these centres and of a certain number of other condensed villages would be the core target group of the Rural Electrification Project (REP). However, even more dispersed settlements are concentrated near paved or solid laterite surface roads so that only a minority of the people would live outside a corridor of one km on either side of the traffic routes.

Kampot belongs to the coastal region of Cambodia. However, with the exception of Kampot town industry and business are extremely poorly developed throughout the whole area. The findings of the 2004 poverty assessment that poverty headcounts dropped from 40 to only 17% in the coastal areas cannot be adopted at least to the six up-country districts. Here, the situation is rather comparable to the so-called plains where the current degree of poverty remains on a 30 percent level.

PIA Table 1: Agreement on Intervention

General poverty situation (in country, province)	The current poverty rate in Cambodia amounts to between 28 and 35 percent of the population (based on a national poverty line which is below the OECD/DAC definition. According to our own estimates the population of the Kampot Province lives only little above the national average (i.e. a percentage of 30 being poor is more realistic than that of the given 17 percent for "costal" regions).
Existing national strategies (programmes)	Amongst the NSDP's key strategies and actions is the targeting of the most needy and least served people and areas. To further

relevant to the intervention	advance rural development, the accent will be on building rural infrastructure. Priorities in rehabilitation include electricity generation and distribution networks. Availability of assured, abundant, low-cost-electricity is the key to development of the country. Promotion of SME and increase in agricultural irrigation are other targets of the NSDP. The establishment of a national electricity grid with an affordable standard tariff is a challenge of the Energy Sector Strategy.
Short description of the intervention and how it aligns to national strategies	Electrification of up to 35 rural centres through 22 KV electricity line connections could target a population of 17.500 households and more. Electricity costs could decrease by at least 50 percent at average and by up to 80% for the poorer consumers considering the tariffs in Phnom Penh. Rural electrification is considered the precondition for economic development.

The scheduled Electricity Supply Programme in Southern Cambodia aims at improving living conditions for rural and urban households and the development of regional business and industries. In addition, agricultural irrigation could be promoted. So far, rural electricity supply remains a major challenge in Cambodia. In rural Kampot between an estimated low 7.4 percent (Tram Kak District) and yet zero percent (Dong Tung District) of rural households are connected either to an EDC or an REE grid. Cambodia's electricity tariffs being among the highest in the world, in the rural areas of Kampot they are among the highest in Cambodia (between 2,000 to 3,000 Riel/kWh). The currently lowest tariff in the province is applied by EDC for 1,900 customers in Kampong Trah with only 650 Riel/kWh. In Kampot town, it amounts to 1,100 Riel and the lowest tariff by a REE is 2,000 Riel/kWh in Bantey Meas.

Fig.4: Many settlements in rural areas are extremely dispersed and currently not accessible to electricity connection

It is estimated that about 30 to 35 rural centres in the Kampot Province could be connected by high voltage electricity supply networks. If we assume that so far not more than 4,400 rural households (hh) in about 10 - 15 centres are either supplied with generator based micro-grids (2,500 hh) or connected to the EDC grid (1,900), in mid-term, between 10,500 and 13,000 additional rural households could be targeted by the Rural Electrification Project.

2.2 Stakeholders

Concerning the implementation of the programs there are mainly seven (groups of) stakeholders:

(i.) The entire population of the Province of Kampot (eight districts) with a total population of an estimated 550,000 persons,

(ii.) Mainly micro, small and middle enterprises in the area of intervention,

(iii.) Electricité de Cambodia (EDC), which is so far a state owned utility under the Ministry of Industry, Mines and Energy (MIME),

(iv.) The Electricity Authority Commission (EAC) as the responsible regulation authority for electricity tariffs,

(v.) The eight district administrations of Kampot Province and two municipality administrations of Takeo and Kampot,

(vi.) seven (?) private Rural Electricity Entreprises which currently supply mainly the District centres of rural Kampot with diesel generator based electrical power.

Key stakeholders are the beneficiaries (the population of Kampot Province), which could be divided into three major categories:

(i.) private consumers,

(ii.) the business sector, and (indirectly)

(iii.) "clients" of budget or governmental institutions (e.g. school children, patients).

In order to correspond to the particularities of the target groups (mainly their socio-economic heterogeneity) it is advisable to also specify the private consumers in various subgroups. Thus, two categories have been adopted:

(i.) all consumers in general,

(ii.) the poorer segments of the population which are estimated at about 25 percent of the rural population (Kampot town excluded).

Socio-cultural heterogeneity in the project area is mainly limited to socio-economic differentiation. There is a small Muslim minority in the Northeast. Specific gender-issues are not yet visible. It has to be kept in mind that in the Dong Tung District migration for work to foreign countries is high.

The objectives of all relevant stakeholders, their roles and aspects that affect a pro-poor agenda are summarized in the following table:

PIA Table/Matrix 2: Analysis of the project institutions and interest groups

Stakeholders (target groups/ intermediaries) Institutions (1)	***Main tasks of stakeholder/ main role of institution*** (2)	***Interests and pro-poor agenda, aspects that might hinder them to have a pro-poor agenda (details and risks)*** (3)	***Rating of their pro-poor agenda (+/-)*** (4)	***Mitigating and/or reinforcing measures*** (5)
All customers	Be connected to the low voltage grids	Target group of project	**++**	Inform about opportunities
Poorer hh	Be included in project	Special target group; non-availability of money for connection costs and high tariffs	**++**	Direct targeting and individual support
Micro and SME	Use electricity for expanding business	Special target group; low availability of capital for an economic use of (additional) electricity supply	**+**	Provide credits for investment (not included in the project)
EDC	Guarantee connections to rural areas	High coverage of rural areas by grids; high production and distribution costs for electrical power supply	**+**	Ensure life-line tariffs, dialogue with all major donors
EAC	Support low tariffs	So far little pro poor agenda; susceptible to vested interests	**- (?)**	Dialogue on a one-to-one basis
District administrations	Support connection of poor	Supporting stakeholders; low capacities	**+**	Motivate to invite investors (REE)
REE	Invest in large low voltage grids	No pro-poor interests; lack of capital; maximum of profit main target	**-**	Allow for payment of connection fees on account

KEY Matrix 2	Strength/direction impact	**+ +**	**+**	**0**	**-**	**- -**
		Very positive	Positive	Not relevant	Negative	Very negative

2.3 Appraisal

Aspects that might hinder a pro-poor agenda are mainly

- the limited financial capacity of the poor to pay for connection fees and tariffs,
- the difficult access to capital for micro and SME for investments which would allow them to profit from improved electricity supply, and
- the unclear role of the EAC with regard to a minimum tariff policy and its possible proneness for vested interests (mainly with regard to benefits for REE).

It remains also unclear if EDC will be able to introduce rural life-line tariffs according to the current practice in Phnom Penh. With the forthcoming establishment of a regional electrical power supply grid this challenge should be resolvable.

Concerning the REE, i.e. their investment policy and their financial capabilities it is doubtful whether they will cover all the potentials for local grids in the Kampot Districts. Most probable REE will select

those rural centres for investment where a large number of hh can be connected with minimal costs thus leaving the cost-intensive sites to EDC. This could cause some annoyance amongst customers who will pay the higher tariffs for EDC supplied electricity while their neighbours supplied by REE in the next rural centre will pay less.

Fig.5: Typical one-person work shop along the main street in rural Kampot

3. Transmission Channels, Output/Outcome/Impact on Target Groups

Table/matrix 3 provides an overview of the links between the project interventions and the outcomes for the target group by means of six transmission channels: prices, employment, transfer, access, authority, and assets (cf. DCD/DAC/POVNRT 2007). According to our assessment, questions of authority are almost irrelevant within the frame of the project as there is neither any contribution to the performance of EDC, REE or EAC intended nor are there plans to organize the population e.g. in user groups and/or introduce other participatory elements.

As T0, T1, and T2 show prices could considerably be influenced by the project. The main challenge is whether the supplied hh would mainly use the new and cheaper supply to substitute other types of energy or whether consumption patterns would change and lead to a larger increase in consumption (in energy units or kWh). With regard to commercial/industrial electricity consumers it would be important if it was able to change their energy sources (i.e. from generators to electrical grid) fast.

Impact on employment as demonstrated by T3 substantially depends on general business conditions. Investment in additional devices in order to expand business activities would be a precondition. It should be noted that most probably additional employment will first start within the families of the small scale entrepreneurs and not until later lead to the employment of additional staff.

So far, transfer (of public welfare / subsidy) would only occur in case of the introduction of life-line tariffs (T4) with a cross-subsidy element. Most probably there would be a converse transfer of financial resources from the rural population including the poor to the government if taxes on electricity were not abolished or reduced (T5).

Improved access to public services is the main target of the Rural Electrification Project. Although a key argument of many donors including the World Bank is that there is no evidence without further in-depth analysis in the field that an improved electricity supply would reduce time (especially of women and girls) spent for hh purposes which could alternatively be used for income generating activities. In many regions of Cambodia firewood is available close to the homes and it is not sure that electricity due to its high costs would replace other sources of energy. This is especially important with regard to domestic cooking. With a tariff of 600 or more Riel per kWh most rural hh cannot afford using a 1.5 kWh stove three or four hours a day.

With regard to assets, mainly water supply would be affected. So far, no short-term impact from electricity supply on drinking water supply should be expected. Only few projects are being implemented in this sector and any additional system would require large investment. In contrast, the potential for agricultural irrigation water supply is very high in all districts. Electrical pumps are cheap and could be used in short-term and without the definite need for safe land rights. However, the subject requires in-depth studies in order to assess the relevance of the subsector, the possibility for realization and the potential impact on poverty.

In case of high usage of electricity for business purposes income flow would increase. If electrical power supply was used more for domestic comfort purposes this transmission channel would be less important.

PIA Table/Matrix 3: Transmission Channels, Output/Outcome/Impact on Target Groups

Transmission Channels & Details		Transmission Channel Used	Output/Outcome/Impact of Transmission Channel Categories			Information Sources (S)
		Details & Risks (T) that may influence the effectiveness of this channel for intervention	Short Term (+/-)	Medium Term (+/-)	Details & Risks (D)	
Prices	Production	**T0**	**+**	**+**	**D0**	SL,S2
	Consumption	**T1**	**+**	**+**	**D1**	SL,S2
	Wages	**T2**	**0**	**+**	**D2**	LG
Employment (including self-employment)	Public formal		**0**	**+**		
	Private formal	**T3**	**+**	**+**	**D3**	SL,S2,S3
	Informal	**T3**	**+**	**+**	**D3**	SL,S2,S3
Transfers	Taxes	**T4**	**-**	**-**	**D4**	SL,LG
	Public welfare/subsidy	**T5**	**+**	**+**	**D5**	S1,S2,SL, LG
	Private remittances		**0**	**0**		
Access	Public services	**T6**	**++**	**++**	**D6**	S3,S2,S1
	Other/Time	**T7**	**?**	**?**	**D7**	S2
Authority	Formal organizations		**0**	**0**		
	Informal relations		**0**	**0**		
Assets (change in returns and/or in levels)	Electricity	**T8**	**++**	**++**	**D8**	S3
	Drinking/irrigation water	**T9**	**0/+**	**+/+**	**D9**	SL,LG,S2
	Skills/education	**T10**	**0**	**+**	**D10**	SL,S2
	Health		**0**	**0**		
	Networks		**0**	**0**		
	Income flow	**T11**	**+**	**+**	**D11**	S2,LG,SL

+ KEY Matrix 3:	Strength/direction impact	**++**	**+**	**0**	**-**	**--**
		very positive	positive	not significant	negative	very negative

Detail of Transmission channel used by the intervention and Potential Risks that may affect the ability to use that Channel and its effectiveness; (number of each item preceded by T)		Significance	Quality Info.
T0	Production costs could decrease due to lower electricity tariffs	mod	mod
T1	Consumption prices for public services (electricity) would decrease due to lower tariffs	hi	hi
T2	In the mid term wages could increase as the result of increased employment	lo	mod
T3	It is most probable that employment (both as additional numeric employment and as less under-employment) in the formal and informal sector will increase if electricity can be used for productive purposes	mod	mod
T4	The percentage of money paid for taxes will increase as electricity is highly taxed in Cambodia	lo	mod

T5	For the poorer hh a (limited) welfare transfer would be possible in case that life-line tariffs were adapted	mod	hi
T6	Access to public services and living conditions in rural areas will be improved a lot	hi	hi
T7	There is no evidence without in-depth analysis that electricity supply will reduce time (especially of women and girls) which could be used for income generating activities. In many areas firewood is available close to the homes and it is not sure that electricity due to its high costs would replace other sources of energy	mod	lo
T8	Electricity supply is the main target of the project	hi	hi
T9	Electricity supply could support both, the establishment of drinking water supply lacking almost everywhere and the usage of agricultural irrigation facilities	hi	mod
T10	There is little evidence that the change from battery lamps to a permanent electricity supply would change the learning pattern at home. Some schools would introduce a second shift in case of availability of electricity between 5:00 and 7:00 pm		
T11	In case of high usage of electricity for business purposes income flow would increase	hi	mod

Details of Output/Outcome/Impact of each Transmission Channel Category and Potential Risks they will not incur; plus any mitigation measures to address negative results for Target Groups and Other Poor (number of each item preceded by D)		**Signifi-cance**	**Quality info.**
D0	It remains uncertain if micro and SME owners of generators would quickly change their energy supply sources; it is also important for them to have access to credits in order to buy new equipment	mod	mod
D1	Extensive usage of electricity by private consumers, using additional entertainment electronics etc. could also cause an increase in the expenditure for energy	mod	mod
D2	It is assumed that competition for employment will be reduced	lo	lo
D3	The scale might be limited due to the fact that under-employment is widely spread and much additional workforce will be mobilized from the families of the micro and SME owners	mod	mod
D4	There are seven percent import tax and ten percent VAT imposed on imported electricity (from Vietnam); it should be discussed amongst the donor community and with the government if at least import tax for electricity could be abolished	hi	hi
D5	Without life-line tariffs there would be no long-term pro-poor component in the project design	hi	hi
D6	If all major rural centres are connected to the high voltage grid	hi	hi
D7	Time saving impacts of energy projects are so far most theoretical without field analyses	hi	hi
D8	Cf. T8	hi	hi
D9	Currently, there are few development support activities in the drinking water supply sector in Kampot. The potential for agricultural irrigation is very high in all districts. The subject requires further in-depth studies about the probable demand and economic feasibility	hi	mod
D10	So far, a second shift in schools depends on the provision of additional teachers and budgets		
D11	Increase in income depends a lot on general conditions: increase of electricity usage for economic purposes, access to credits, etc.	mod	mod

Sources of Information (number each item preceded by S) - use for all three matrices	**Quality Info.**

SG	Assumptions, estimates	mod
SL	Local knowledge (interviews)	hi
S1	Ministry, municipality, utility (EDC) information (statistics, assessments)	mod
S2	Documents (primary studies, secondary analyses)	mod
S3	Project appraisal documents	mod

KEY for Matrix 3:	hi	mod	lo
Significance: of risks / assumption			
Quality Info(rmation) and analysis			

Remarks:

In donor documents public security is sometimes linked to electricity supply. However, there is no evidence that in rural Kampot street lighting would affect public security in a positive way. Due to lack of budgets communes would probably not be able to establish public lighting systems and pay for their operation.

With regard to the asset health, currently no impact is visible. Rural health centres (better: first aid posts) do not depend on electrical power supply and all rural hospitals in the district centres (which exclusively dispose of medical doctors and provide more extensive services) are already supplied with electrical power.

As the PIA format does not support the discussion of the ability to pay for tariffs some remarks should be added here:

(i.) there are no figures about the disposable income in rural households of Kampot. If we assume that a five person hh just above the poverty line disposes of 0.5 US$/pc pd the family will have about 75 US$ cash pm.

(ii.) If this model hh consumed only the amount of kWh provided by the life-line tariff (i.e. 50 kWh - so far only provided in Phnom Penh) the family would already pay 5.55 US$ pm for electricity or roughly nine percent of their income.

(iii.) 50 kWh pm for one hh allows lighting and watching TV but does not provide the opportunity to use electricity for cooking.

It is impossible during a short PIA exercise to assess the needs for involuntary resettlement. At the moment it appears that there is only very little requirement for land for 22 KV high voltage lines.

4. Output/Outcomes/Impact of All Stakeholders and Their Capabilities

Based on the definition of the target population and its subgroups under section 2, the project's impact on the different subgroups is summarized in this section. The outcomes are rated with regard to poverty reduction. As the programs would also have a certain impact on the other stakeholders, this is also described where possible.

Five capabilities are recognized for escape from, or avoidance of, poverty (according to the OECD/DAC capability framework): (i.) economic capability to use assets in order to attain and pursue a sustainable livelihood, (ii.) human capability (e.g. including health and education), (iii.) political capability to participate politically, (iv.) socio-cultural capability to be included in social and cultural life, and (v.) protective capability to lessen vulnerability and to withstand economic shocks.

With regard to the capabilities of the stakeholders the main outcomes can be expected as follows:

- **Economic** capabilities of target group will be likely to increase at least in mid-term through an increase in economic usage of electrical power supply (i.e. by expanding their already existing economic activities and starting additional small business).

  At short notice, costs for new power connections and change of devices or additional acquisition could reduce impact (even expand households expenditure).

  The project does not include participatory or governance elements and therefore impact on **human, political, socio-cultural,** and **protective** capabilities would be very low or non existent.

- In short notice, the poorest would not profit **economically** from a rural electrification project. In mid-term they would benefit from a general economic development in rural areas and especially from an increase in local and/or regional employment.

  So far, many poor are excluded from substitutes for electricity such as the excessive usage of batteries which the better-off families can afford even for high prices. We do see direct **socio-cultural** benefits from the future equal share of access to public services. However, there is the **risk** that poorest hh would not be able to pay for electricity in case of high tariffs.

  Furthermore, the poorer strata of the population could experience economic (financial) losses due to the investment costs and payment of electricity bills for the first time. Their capability to lessen vulnerability and to withstand income fluctuations could be reduced if a certain part of their income was absorbed for electricity tariffs. From other examples it is known that payment obligations for such tariffs could compete directly with financial resources intended to be invested in food and clothing. There often is a "social must" to be connected to the grid.

  Many of the poorest, amongst them an unknown number of women headed households, would be excluded from the project outcomes if life-line tariffs were not granted to them. A part of the population (in most districts one third or 30% of the population was mentioned) would have problems to pay for tariffs if the costs per kWh exceeded a limit of approximately 600 to 800 Riel.

- The impact on commercial (business and industry) electricity users is still unclear. These consumers could make use of the new service and improve their economic capability. However, in some cases calculations are required to ascertain whether the access to the public electricity network will reduce or raise the energy supply costs compared to the current solutions (mainly private generators).

  In the mid-term, it is assumed that most existing micro and SME would yield a direct and especially **economic** profit from electrical power supply. **Human** capabilities would also increase due to enhancement of different or new business activities. There is the **risk** that without improved general pro-growth business conditions impact might be limited. Provision of training, of favourable credits and in many communes an improved road access would be essential. Improved governance would be another precondition for rural business development.

- Budget institutions which have already been supplied would in some cases gain **economic** (financial) capabilities due to lower tariffs. Other institutions which are not yet connected to the nets would lose economic capabilities (their superior institutions have to pay the bills).

Fig.6: Battery charging station near Kampot. Charging a 12 V battery costs 0.5 US$

- In mid-term, the administrative staff of the communes (and the districts?) could gain some qualification in promoting economic development (i.e. a **human** impact) if they take over the role of an intermediator between REE, local businesses and external support institutions. We also expect some impact on the **political** capability of local functionaries if the commune representatives achieve the construction of an electric power supply network in their area of responsibility

- Currently, a significant impact on EDC's and EAC's capabilities is not properly visible. In case of accompanying measures by German FC such impact could be expected with regard to **human** and perhaps also to **economic** capabilities. With regard to EDC, investment would be raised and the supply systems broadened. This could result in lower operation costs and more competitiveness.

- REE profit most from the project's support to rural electrification. At short notice, the shareholders of the REE will have to invest their money and wait some time until they can make profit. However, in mid- and long-term, shareholders will derive a major profit from

their investment. **Human** capabilities will substantially be strengthened and it is most probable that REE owners will also gain some **political** influence.

Table/Matrix 4 – Assessment of stakeholders' and target groups' capabilities

	Outcomes in terms of capabilities										Details & risks	Infor-mation sources	Miti-gation or rein-forcing measures
	Economic (*/-)		Human (+/-)		Political (+/-)		Socio-cultural (+/-)		Protective Security (+/-)				
Stakeholder/ target groups	Short term	Medium term	Short term	Medium term	Short term	Medium term	Short term	Medium term	Short term	Medium term			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Target group	**0**	**+**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	D1	SL,SG,S1	
Poor hh within target group	**0**	**+**	**0**	**0**	**0**	**0**	**+**	**+**	**0**	**0**	D2	SL,SG	D2a
Micro and SME	**+**	**++**	**0**	**+**	**0**	**0**	**0**	**0**	**0**	**0**	D3	SL,SG, S1,S2	D3a
Budget institutions	**0**	**0**	**0**	**+**	**0**	**0**	**0**	**0**	**0**	**0**	D4	SL	
EDC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	D5	SL,S1,S2	
EAC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	D6	SG	
Communes	**0**	**0**	**0**	**+**	**0**	**+**	**0**	**0**	**0**	**0**	D7	SL	
REE	**0**	**++**	**+**	**++**	**+**	**+**	**0**	**0**	**0**	**0**	D8	SL,S1	

KEY	Strength/direction impact	**+ +**	**+**	**0**	**-**	**- -**
		Very positive	Positive	Not relevant	Negative	Very negative

	Details of Output/Outcome/Impact of Capabilities and Stakeholders and Potential Risks they will not incur; plus any mitigation measures to address negative results for Target Groups and Other Poor (number each item preceded by D)	**Signifi-cance**	**Quality information**
D1	**Economic** capabilities of the target group will increase in mid-term through economic usage of electric power (i.e. by expanding existing economic activities and starting additional business). At short notice, costs for new power connections and change of devices or additional acquisition could reduce impact (even expand expenditure). The project does not include participatory elements and, therefore, impact on **human, political, socio-cultural,** and **protective** capabilities would be very low or non existent.	mod	mod
D2	In short notice, the poorest would also not have **economic** profit. In mid-term, they would benefit from a general economic development in rural areas and especially from an increase in employment. We do see direct **socio-cultural** benefits from the equal share of access to services. However, there is the **risk** that poorest hh would not be able to pay for electricity in case of high tariffs.	mod	mod
D3	Most existing micro and SME would have a direct and especially a high mid-term **economic** profit from supply of electric power. **Human** capabilities would increase somehow due to enhancement of and different or new	hi	mod

	business activities. There is the **risk** that without improved general pro-growth conditions (training, credits, road access, governance, etc.) impact might be limited.		
D4	Budget institutions could support **human** capabilities slightly by improvement of educational and health care services.	lo	mod
D5	We do not see any particular impact on EDC's capacities as the energy supplier is already considered as good performing and receives much support from ADB and WB.	lo	mod
D6	Also EAC will not be affected in a positive or negative way by the project.	lo	mod
D7	In mid-term, commune staff could gain some qualification in promotion of economic development (i.e. a **human** impact) if they took over the role of an intermediator between REE, local businesses and external support institutions. We also expect some impact on the **political** capability of local functionaries if the commune representatives achieve the construction of an electricity grid in the area of responsibility.	lo	mod
D8	**Economically**, REE profit most from project's support to rural electrification. At short notice, they will have to invest and wait some times for profit, however, in mid- and long-term, they will draw a major profit from their investment. **Human** capabilities will substantially be strengthened and it is most probable that REE owners will also gain **political** influence.	hi	mod

KEY for Matrix 4:	**hi**	**mod**	**low**
Significance: of risks / assumption			
Quality Info(rmation) and analysis			

5. Outputs/Outcome/Impact of MDG

In this section the impact of the programs, as regards the overall poverty reduction objectives, will be summarized. With the exception of gender equality only those MDGs will be dealt with which are relevant for the target systems of the programs.

Electricity supply would contribute to a general increase in economic activities. Interview partners especially expect an increase in agricultural processing, and in business and trade in the vicinity of main roads. In the mid-term, an increasing demand for labour can be expected and finally the creation of additional employment and income for the poor.

An impact on primary education is only conceivable in the long-term. Currently, only very few schools are connected to an electricity grid. In some areas with extremely limited access to class rooms, the supply of electric power could enable a third (evening) shift. However, this is uncommon even in areas with an existing power supply and would demand additional budgets and teachers.

The project has no gender impact[4]. Women and men would profit more or less equally from improvement of electricity supply. While some household obligations of women could perhaps be alleviated (it is very unclear if firewood operated hearths could be substituted by electrical stoves) men would profit most from electricity usage for business purposes.

Fig.7: Many households use such charcoal hearths for their daily food preparation

The project aims at reducing the amount of firewood required for cooking. However, in rural Kampot deforestation does not exist and - as mentioned above - poor hh would hardly have the money to use electric stoves. Of course, substitution of batteries would contribute to reducing environmental pollution by reducing the dumping of oil from generators and used batteries which are currently used for electric power generation and distribution in areas which have no electricity grids into nature.

The project supports pro-poor growth as in rural areas any economic stimulation would provide additional income to the entire population out of which about one third are more or less poor or very poor.

The project does not contribute significantly to the security of the global environment unless energy production will be based on renewable resources.

[4] Gender impact means that the socially constructed roles of men and women would be changed directly or indirectly through activities of the project.

PIA Table/Matrix 5: Outputs/Outcome/Impact on MDG

MDG / "Plus"	Outputs/Outcomes/Impacts		Details & Risks (D)	Information Sources (notes under matrix 3)
	Short Term (+/-)	Medium Term (+/-)		
MDG 1: eradicate extreme poverty/hunger	**0**	**+**	D1	SG, SL
MDG 2: universal primary education	**0**	**+**	D2	SL,SG
MDG 3: gender equality / empower women	**0**	**0**	D3	SL,SG,S2
MDG 7: environmental sustainability	**0**	**+**	D4	SG, SL, S1, S2, S3
Plus 1: pro-poor growth	**+**	**+**	D5	SG, SL, S1, S2
Plus 3: global environmental security	**0**	**0**	D6	

KEY Matrix 5:	+	0	-	--	
Strength/direction impact	very positive	positive	not significant	negative	very negative

Details of Output/Outcome/Impact of MDG++ and Potential Risks they will not incur; plus any mitigation measures to address negative results for Target Groups and Other Poor (number each with D)		**Signifi-cance**	**Quality Info.**
D1	Electricity supply would contribute to a general increase in economic activities (e.g. SME, agricultural processing, trade) thus also increasing the demand for labour and finally creating additional income for the poor.	hi	mod
D2	So far, most schools are not connected to an electricity grid. In some areas with extremely limited access to class rooms, electric power supply could enable a third (evening) shift. However, this is uncommon even in areas with an existing power supply.	low	mod
D3	The project has no gender impact. Women and men would profit more or less equally from improvement of electricity supply: while some household obligations of women would be alleviated men would profit most from commercial electricity usage.	hi	mod
D4	The project aims at reducing the amount of firewood required for cooking and could also contribute to reducing environmental pollution by reducing the dumping of oil from generators and used batteries which are currently used for electric power generation and distribution. However, in rural Kampot deforestation does not exist.	low	mod
D5	In rural areas any economic stimulation would support the entire population out of which about one third are more or less poor or very poor.	hi	mod
D6	There is some positive local environmental impact if batteries and oil from generators would no longer be dumped into nature (cf. D4) but no global impact visible. Deforestation does not exist in rice plains.	mod	mod

KEY for Matrix 5:	**hi**	**mod**	**low**
Significance: of risks / assumption	high	moderate	low

Quality Info(rmation) and analysis

Attachment 1: Terms of Reference

ToR for Ex ante Poverty Impact Assessment - PIA
Financial Cooperation with Cambodia.
Rural Electrification II

Background and Objectives of the Expert Assignment

In the international Paris Declaration of 2 March 2005, the participant countries/organisations committed themselves to making joint efforts to improve the quality and impact of their development cooperation. In addition to various methods to ensure that project implementation procedures are designed more efficiently and with greater international harmonisation, this Declaration also contains a call to improve the ex ante poverty impact assessment (PIA) of donor interventions. PIAs assist donors and partner countries in their efforts to ensure that the identification/selection, design and implementation of project activities are more closely geared to poverty reduction. Projects and programmes may address poverty directly (target group-oriented poverty impacts) or via cross-project, broader based poverty impacts (pro-poor growth - approach). Accompanying measures may be developed which specifically support or protect the poor people affected by the intervention. In addition, PIAs render decisions with respect to the selection, design and implementation of a project more transparent to all – local and international – stakeholders. Thus, they may help to create a mutual understanding and acceptance of the different stakeholders' expectations with regard to the project's outcome.

Two basic methodological principles are relevant to a systematic, donor-wide application of this instrument. On the one hand, PIA's should be carried out by all donors in a harmonized manner – i.e. according to an agreed methodology and depth of analysis, and with recourse to all the data and information already acquired by other donors. Inefficiencies and irritations that arise with partner governments because of divergent donor requirements can thus be avoided. Appropriate use can be made of the analytical framework devised by the OECD and the World Bank, which works with simple evaluation procedures and standardised evaluation tables.[5] Consistently involving the local partners in the analysis is crucial to achieving the above-mentioned transparency/acceptance objective. The guiding principle for this approach: "The exercise of implementing a PIA is just as important as its results".

On the other hand, assessments of this kind need to involve a reasonable, i. e. limited amount of time and effort. Donors need to accept that a PIA does not generally include primary data research but is prepared on the basis of available information and with reasonable input in terms of time, staff and financial resources. PIAs are guided by the principle that "it is better to be roughly right than precisely wrong" on the potential impacts of projects on the well-being of people. The PIA may therefore be considered to be a "light" version of the PSIA (Poverty and Social Impact Analysis) used by the World Bank.

The PIA may supplement the "logframe" analysis used in FC by adding an explicit focus on the poverty impacts of the planned FC project. The following Part A (General) of the PIA-Terms of Reference reflects the methodological approach of a PIA, dealing with the issues to be addressed in terms of consecutive, modular analytical steps. Part B shall draw the attention of the expert to such project specific problems that are already known to be particularly important/critical and need more emphasis.

Part A – Analytical steps to be taken in the PIA

Module I: Relevance of the planned intervention to the national and donor-based poverty reduction strategies - assessment of

(a) the general poverty situation in the country, broken down into sectoral, regional, or demographic poverty issues; political and socio-economic/cultural framework conditions of poor people; relevance of problems related to (ecologically) sustainable development; gender equality;

[5] See: OECD/DAC: Harmonising ex ante Poverty Impact Assessment, www.oecd.org/dataoecd/32/44/36573576.pdf

(b) national poverty reduction strategies and their priority areas/target groups. Matching of these strategies with the key problems of the national poverty situation identified under (a);

(c) any mismatch of the key problems and strategies identified under (a) and (b) with the expected poverty impact of the project in question. Assessment of the project with regard to poverty reduction guidelines/policies of German DC. Assessment of the poverty orientation of the project as per German DC poverty classification.[6]

Module II: Stake holders and institutions / (political) decision-making bodies:

(a) Identification of all stakeholders and target groups (individuals, interest groups, local intermediaries/implementing institutions, political decision-making bodies) that are directly or indirectly relevant to the impact of the project;

(a) Assessment of the roles and interests of those stakeholders/target groups within the project;

(b) Recommendation of measures for better / positive integration of the stakeholders, i.e. with a view to reaching the target groups better through the project.

Module III: transmission channels used and overall results by channel

(a) Analysis of the project's potential stakeholders/target groups, summary of the process by which the intervention is anticipated to influence the stakeholders and (poor) target groups (relevant transmission channels[7]), overall result expected per channel;

(b) Expected impact and potential quantitative and/or qualitative outcome of the project for the target group in general and the poor sections of this group in particular.[8] The study should differentiate between directly target group related poverty impacts and its broader outcome on macro/sector level (pro-poor-growth);

(c) Details and risks which may influence the effectiveness of these transmission channels.

Module IV: assessment of the impact of the project on specific population groups in terms of positive outcome, but also risks and mitigation, e.g.

(a) on women;

(b) on particularly poor or vulnerable sections of the population;

(c) on other stakeholders, whose interests and actions may further or undermine the impact of the project.

Module V: Overall impact of the project with regard to the MDGs and other strategic objectives[9]:
Presentation of the impacts of the project in the overview on

(a) The MDGs at the national level (if the impacts extend significantly beyond the direct impacts for restricted groups targeted by the project);

(b) Other strategic objectives of the partner country or the FC in that country.

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[6] In accordance with the guidelines for assessing the poverty orientation of cooperation projects, BMZ November 1997.

[7] The breakdown of the transmission channels applied by the PIA includes prices, employment, taxes and transfer payments, access to social and economic infrastructure, authority and equity (relations with authorities in the political, legal, social and cultural environment of poor households including political co-determination rights and opportunities), the availability or access to assets (tangible assets, natural assets, human assets, social assets, financial assets).

[8] The OECD/DAC Capability Framework distinguishes between five capabilities or qualities of life, the promotion of which comprises the poverty reduction benefits of development projects – economic capabilities (assets, income), satisfaction of human needs (such as health, education, clean water and homes), political capabilities (access to human rights and political decision-making at all levels), socio-cultural rights and social position, and security (susceptibility for the risk to human life and material assets, including unfair treatment by the state).

[9] For the MDGs and other relevant development objectives at the national level, see Annex 4.

Module VI: Overall evaluation and recommendations

This part of the analysis is to be presented as a brief overview at the beginning of the PIA report. It should contain the following components:

(a) Type of intervention and relation to the national poverty reduction policy

(b) The main advantages of this intervention, impact hypotheses

(c) Potential risks observed

(d) Possible changes in the design (recommendations on design or implementation issues)

(e) Overall assessment of the quality of the data used, as appropriate recommendations on the collection of further data and/or implementation of further analyses

(f) Recommendations for accompanying measures

  (i) To provide support for the main stakeholders of the project
  (ii) To cushion negative impacts on disadvantaged or vulnerable groups
  (iii) To strengthen the broader pro-poor-impact of the project

(g) Recommendations on dealing with open questions, as well as on the design of an appropriate monitoring system to pursue poverty-related impact hypotheses and risks in the implementation phase; proposal for an appropriate reporting system

Tables 1, 2, 3, 4 and 5 on subject areas I to V, appended as Annexes, are to be completed similarly and detailed comments to be included in the report.

Part B – Aspects of the current project which are particularly crucial to the above analyse

The project to be examined here (Rural Electrification II) follows an earlier engagement of the German Financial Cooperation in the same sector and region (Rural Electrification – 2005 66 133).

The experience with this earlier project (appraised in December 2006) suggests that the PIA-study should , in the context of its modules II, III, and IV, focus in particular - but not exclusively – on the following aspects:

Ref. Module II (Stakeholder analysis):

- Assessment of the private sector's implication in this sector (Rural Electricity Enterprises), the project's potential to meet the particular interests of these stakeholders without compromising its impact on poverty reduction.
- The role and performance of the "Electricity Authority Commission (EAC)", supervising the private SMEs

Ref. Module III (Transmission channels and overall results)

The project puts particular emphasis on the transmission channels such as ***prices*** (REE's tariff structure) and ***income generation*** (indirect poverty reduction by promotion of electricity based farming/irrigation as well as small scale manufacturing and services sectors, job creation, etc.). The expected project outcome is, therefore, mainly focused on economic income generation. To this extent, the study should pay particular attention to

- the quantity and quality (capacity to pay for electricity) of suppressed demand, as reflected in a wide-spread use of low voltage – batteries for electrical appliances, in particular among poor households,
- the accessibility of REE's electricity supply for those poorest target groups (cost and subsidization of grid connections, maximum level of tariffs acceptable for poor households),
- the potential for above mentioned new, electricity based income generation activities,

- the project's contribution to reduce the cost of electricity production and distribution in the project zone (reduced production cost by switching to the national grid, reduced losses in the distribution systems), as well as the private operators' incentive to pass over these savings to the customers,
- other relevant transmission channels/outcomes of the project (e.g. reduced migration, improved quality of / access to social infrastructure such as water supply, education and health services, enhanced security by public street lighting, etc.).[10]

Ref. Module IV (impact on specific population groups):

Particular attention should be given to the project's impact on

- private electricity supplier (REEs),
- population groups touched by resettlement issues.

[10] Please consult the report on a case study carried out for KfW in Indonesia on the contribution of rural electrification projects to poverty reduction.

Attachment 2: Working plan in Cambodia

Prof. Dr. Frank Bliss
Poverty Impact Assessment Rural Electrification of Southern Cambodia
27th October until 5th November 2007

Date/ Time	Program/Whom to meet	Where	Remark
Sa 27/10	Departure from Frankfurt		
Sun. 28/10	Arrival with TG at 8:55am		
	Study of documents	**Phnom Penh**	Pick up by Mr. Rambo (driver) 012 844 873 and local consultant Ms. Vanny Chin 012 867 990 Accommodation at Hotel Bougainvillier, Sisowath Quay, 023 220 528
21:30	Meeting with Mr. Christian Richter (Director KfW Regional Office Hanoi)	Elephant Bar Hotel Le Royal	
Mon. 29/10	PP-Kampot		
7:00		Departure to Kampot via National Road Nr.4 Thnol Tor Teung, Road Ang Doung, Chhum Kiri	Accompany by EDC Staff Mr: Thach Sovanreasey : 016 649 125 and local consultant
9:30-10:30	Meeting with District Governor and REE	**Chhum Kiri**	District Governor : TL: 012 727 685 REE: TL : 012 843 694
11:00-11:30	Meeting with District Governor and REE	**Chhouk**	District Governor : TL:012 736 436 REE: TL : 012 900 803
12:00-12:30	Meeting with REE representative	**Tram Kak (Town)**	REE: TL : 012 342 442
13:00-14:00		**Lunch at Ang Ta Saom**	
14:00-15:00	Meeting with District Governor	**Ang Ta Saom (Tram Kok District)**	District Governor : TL: 012 630 942, EDC: TL : 016 885 869
15:00-16:00	Meeting with District Governor and REE	**Angkor Chey**	District Governor : TL: 012 627 818, REE: TL : 012 608 783
16:30-17:30	Meeting with District Governor and REE	**Bantey Meas**	District Governor : TL: 012 550 922
			Overnight in Kampot
Tue. 30/10			
8:00-9:00	Meeting with EDC manager of Kampot	**Kampot**	Director EDC, TL: 012 330 183
9:00-10:00	Meeting with Provincial Governor	**Kampot**	
10:00-11:00	Department of Commerce and Department of Industry Mine and Energy	**Kampot**	Director DIME, TL: 012 781 126
12:00-14:00	Meetings with SME owners: ice factory, battery charger, rice mill, forgery, restaurant	**Kampot**	
14.30	Lunch		
4:15-5:30	Meeting with president of	**Kampot**	

	Chamber of Commerce		
			Overnight in Kampot
Wed. 31/10			
8:00-9:30	Departure to Phnom Penh via Kep Meeting with District Governor, EDC and REE	**Damnak Chang Aeur**	District Governor : TL: 012 330 081, REE: TL : 012 686 978
9:30-11:00	Meeting with District Governor and REE	**Kampong Trach**	District Governor : TL: 012 739 289
11:00-12:30	Meeting with District Governor and REE	**Dong Tung**	District Governor : TL 012 922 673, REE: TL : 012 900 803
13:30		**Lunch at Ang Ta Saom**	
14:30	Visit of weaving factory	**Ang Ta Saom**	
17:15 – 18:00	Meeting with Mr. Martin Orth (GTZ Rural Team Leader)	**Phnom Penh** Airport restaurant	
			Overnight in Phnom Penh
Thu. 1/11			
8:30 – 9:30	Mr. Daniel Haas, first Secretary, German Embassy	**Phnom Penh** German Embassy	Accompany by Mr. Vann Kiet contact 012 927754
9:45 – 10:45	Meeting with WB Mr. Tim Conway (Poverty Specialist)	WB office	
11:00 – 12:00	Lunch		
14:00 – 15:00	Meeting with ADB	ADB office	
15:15 – 16:15	Meeting UNDP (Mr. Kati Veijone)	UNDP office	023 216167-232 (Mr. Sokundara)
17:00 – 18:15	Meeting with Mr. Christian Richter (Director KfW Regional Office Hanoi)	Art Café	
Fri. 2/11			
8:30 - 9:30	Meeting with MIME and EDC	**Phnom Penh** EDC main office	Mr. Nou Sovandara TL: 012 921 214 Mr: Thach Sovanreasey : 016 649 125
10:00 -11:30	Meeting with WB infrastructure specialist Mr. Veasua Bun	WB office	
13:00 -14:30	Meeting with MP Mr. Nhem Thavy, energy specialist	Parliament building	
17:00 -18:30	Meeting with Mr. Jörn Rieken, GTZ governance project, Ministry of Commerce, Dept. for Domestic Trade	Dept. of Domestic Trade	
Sa. 3/11			
	Protocol of meetings and interviews		
Su 4/11			
	Study of documents		
Mon. 5/11			
9:55	Departure with TG to Germany		

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Attachment 4: Acronyms

ADB	Asian Development Bank
c	person
cf.	compare
d	day
DAC	Development Assistance Committee of OECD
EAC	Electricity Authority Commission (regulation authority in Cambodia)
EDC	Electricité de Cambodge
et al.	and other (authors)
EU	European Union
EUR	Euro
FC	Financial Cooperation
HDI	Human Development Index (UNDP)
HDR	Human Development Report
hh	household/s
inh.	Inhabitant/s
KfW	Kreditanstalt für Wiederaufbau
kWh	Kilowatt hour/s
m	month
Mio	million
n.d.	no date
NSDP	National Strategic Development Plan (Cambodian PRSP)
OECD	Organization for Economic Cooperation and Development
O+M	Operation and Maintenance
p	page
pa	per year
pc	per head
pd	per day
pm	per month
PRSP	Poverty Reduction Strategy Paper
REE	Rural Electricity Enterprises
REP	Rural Electrification Project
Riel	Cambodian currency, about 4,200 Riel = 1 US-$; 5,700 Riel = 1 EUR (11/2007)
s.a.	see above
s.b.	see below
SME	Small and Middle Enterprises
ToR	Terms of Reference
UN	United Nations
UNDP	United Nations Development Programme
$US	US Dollar
WB	World Bank
WHO	World Health Organization