



EVALUATION REPORT

EVALUATION OF THE PROJECT “ENHANCING AND IMPROVING
ACCESS TO ENERGY SERVICES THROUGH PUBLIC PRIVATE
RENEWABLE ENERGY PARTNERSHIPS” (5P PROJECT)

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List of Acronyms

5P	Pro-Poor Public Private Partnership
AEPC	Alternative Energy Promotion Centre
DESA	Department for Economic and Social Affairs
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
EGM	Expert Group Meeting
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EQ	Evaluation Question
GAR	Global Assessment Report
GIFT	Global Institute for Tomorrow
GSEP	Global Sustainable Electricity Partnership
IFAD	International Fund for Agricultural Development
JC	Judgment Criterion
MDG	Millennium Development Goal
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organisation
NRREP	National Rural and Renewable Energy Programme
PPP	Public Private Partnership
RC	Regional Commission
UN	United Nations
UNDA	United Nations Development Account

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EXECUTIVE SUMMARY

Scope, purpose and objectives of this evaluation

This report presents the final evaluation of the UNDA-funded project “Enhancing and improving access to energy services through development of public-private renewable energy partnerships” (i.e., the “5P project”)¹. The 5P project was carried out between November 2010 and December 2014. These 48 months included the original project period of 36 months, and two extensions of 9 and 3 months. The total UNDA financial contribution of UNDA over the life of the project was US\$ 1,006,500.

The evaluation was aimed at both establishing accountability and at facilitating learning among project stakeholders. Objectives of the evaluation therefore were to a) assess the relevance, effectiveness, efficiency and sustainability of project results; b) make recommendations for the design and implementation of possible future similar projects, both UNDA-funded and beyond.

Background of the 5P concept, and the 5P project

The objectives of the 5P project were to demonstrate the viability and replicability of a new model of public private partnerships that would be built on a tri-lateral partnership between the public sector, a private sector partner, and a community to make small rural energy projects into viable investment opportunities for the private energy companies. This concept of pro-poor public private partnership (5P) was

modelled after an earlier ESCAP-supported rural electrification project in Cinta Mekar, Indonesia. Based on the notion that this project had shown how to make rural electrification into a viable field for profit-oriented business entities, the 5P project intended to raise interest in this approach among member states of the Regional Commissions, and to build the capacity of policymakers, civil society and the private sector for carrying out these types of projects, and for “scaling-up” this approach in their national energy sectors. In the medium to long-term, this was meant to increase the use of renewable energy solutions in rural areas, and to improve access of rural populations to energy services.

The 5P project was the first UNDA funded project “omnibus” project, as it had been implemented jointly by all 5 Regional Commissions and DESA. In addition to two global 5P meetings, each Regional Commission organized at least one regional-level workshop and oversaw the development of a publication on public private energy partnerships in the regions. Three Regional Commissions (ECA, ECLAC, ESCAP) used UNDA funds to support the implementation of 5P demonstration projects in three countries².

Methodology of the evaluation

The evaluation used the analysis and logical reconstruction of the project’s intervention logic to develop a set of six evaluation questions that examined and compared the intended and the actual contributions of the project to the dissemination of the concept of pro-poor public private partnerships among member states, and to the replication and scale-up of the model in national energy sectors. Answers to the

¹ This means in particular that the evaluation did not extensively cover activities financed by the region-specific IFAD grant that has been providing additional support to public-private renewable energy partnerships through ESCAP.

² Chile, Lesotho, Nepal.

evaluation questions are based on both qualitative and quantitative data and information. Data collection included a document review, key informant interviews, a case study of the 5P demonstration project in Nepal, and an online survey of participants of 5P workshops.

Challenges encountered during the evaluation

The Regional Commissions had adapted very disparate interpretations of pro-poor public private partnerships as the main project concept. This negatively affected the evaluability of the overall project as one coherent initiative.

The budget set aside for the evaluation only allowed a one-week visit to Nepal as one out the three countries with UNDA-funded 5P demonstration projects. Data collection in Nepal was further by a series of strikes ahead of a deadline for constitutional negotiations. In addition, the availability of documentation on project progress and results varied considerably among the different Regional Commission, even among those who had managed 5P demonstration projects.

Main findings of the evaluation

EQ 1 – Relevance of the project

The idea of using public private partnerships for increasing access to energy of rural communities has been met with considerable interest by participating countries and other member states of the Regional Commissions. However, the project did not provide a sufficient overview of the key elements and challenges of this new approach, such as a clear definition of the conditions for which the 5P approach could serve as a viable model. The project also did not foresee sufficient technical assistance to help governments to adapt the 5P concept, and to scale-up the practice in their national energy sectors.

As a result, the core concept of pro-poor public private partnerships was operationalized very differently across Regional Commission and across participating Governments. Not all demonstration projects were in line with the main principles of the 5P approach, such as the idea of using PPPs to facilitate a long-term financial stake of private sector partners in rural energy projects.

EQ2 – Capacity Development

5P workshops and study tours presented valuable learning opportunities for project participants, on topics such as community engagement and on key 5P-related policy concepts, such as the approach of “net-metering”. This notwithstanding, information on pro-poor public private partnerships in key products, such as the regional reviews on PPPs and the global PPP assessment were not specific and practical enough to make them immediately useful for their intended audience. The 5P regional workshops successfully introduced the general notion of pro-poor public-private partnerships, but were relatively less successful in conveying information on how the operationalization of the approach. Follow-up at country level to these events was therefore limited to member states with actual 5P demonstration projects.

EQ 3 – Replication and Up-scaling

Although the 5P project has helped to publicize the notion of pro-poor public-private energy partnerships as a possible approach for increasing rural energy access, the concept had not yet been sufficiently mature to become the subject of several demonstration projects aimed at the scale-up of 5P as a project model. As several key questions related to the approach had not yet been sufficiently explored, Regional Commissions were challenged to provide the required conceptual and technical guidance on its implementation and scale-up.

As a result, demonstration projects encountered several setbacks and challenges in relation to their financial viability, the selection of appropriate business models, or the selection of appropriate communities. Although the 5P project team had begun identifying and answering many of the outstanding questions during the project's second half, more and systematic work would have been required to develop a viable 5P model and realistic scale-up vision.

EQ 4 – Partnership Approach

All regional commissions have collaborated with external partners to access specific expertise to complement the in-house technical capacity and know-how of the Regional Commissions. Although these partnerships offer potentially valuable technical and financial resources to the 5P project, the overall planning process of the project had not optimally facilitated their strategic utilization.

EQ 5 – Gender

Although the rationale of the 5P project emphasized the need to address the particular situation of women in relation to limited rural energy access, this emphasis was not picked up in the regional studies on PPP practices, nor the situation analyses for the demonstration projects. At most, reports cited global, high-level findings on gender-specific energy challenges, but without relating these findings to the specific scope of the 5P project. By and large, gender is also neither firmly integrated into the design of the 5P project, nor into the provisions for monitoring, evaluation and reporting in relation to project progress and (expected) results.

EQ 6 – Omnibus Approach

While the 5P project was meant to serve as the first example of a joint project of all Regional Commissions and DESA, the project strategy did

not foresee the required coordination processes and cooperation mechanisms to support a joint learning process across regions and time zones, and to allow the exchange and discussion of challenges and caveats of the 5P approach. The fact that the Regional Commission chose quite diverging approaches for their demonstration projects further limited the opportunities for cross-regional exchanges of experiences and lessons on the 5P approach.

Conclusions

C1: The focus of the 5P project on facilitating the stronger involvement and greater investments of the private sector in rural energy sectors helped to publicize the fundamental idea and possibility of pro-poor public-private energy partnerships among member states of the participating Regional Commission, and has been met with interest from relevant stakeholders (both government and private sector) in these countries.

C2: The 5P project has the potential to create a valuable body of experience and lessons on the basis of its work on pro-poor public private partnerships. The eventual transferability of these lessons to future 5P projects depends on the extent to which experiences with 5P demonstration projects are systematically processed and documented during the remainder of the project.

C3: The geographical and conceptual scope of the 5P project was too ambitious, considering that the concept of pro-poor public private partnerships had not yet been sufficiently defined and developed prior to the launch of the project. The relative lack of details on the operational and conceptual aspects of the approach meant that project participants and the cooperating Regional Commissions lacked much needed guidance for operationalizing the approach in their own countries.

C4: The proponents of the 5P concept have not yet sufficiently defined the specific context conditions that are required to ensure the viability of the approach. This made it difficult to decide for governments interested in the idea of 5P if the approach really offered a feasible option for advancing the access to energy in rural area, and how 5P projects should be targeted to particular communities in order to maximize their chance of success.

C5: For an intervention aimed at the development of a new project approach, the 5P project did not sufficiently emphasize the exploratory, analytical and learning-related aspects of the project. Project activities such as the regional studies on pro-poor public private partnerships that were meant to provide conceptual and practical details on the current use of public private partnerships in the energy sector lacked the theoretical foundations needed to provide specific information on the relative viability of the approach.

C6: The 5P project did not sufficiently differentiate between its main task of consolidating and further developing the concept of pro-poor public private partnerships into an actual project model, and the other objectives it had set out to achieve, namely to demonstrating the value of the 5P approach to interested Governments; to help these governments to develop a vision and strategy for scaling-up of the approach; and to assist in developing the capacity of these Governments (and their partners) to actually undertake the scale-up and subsequent governance of private sector investments in rural energy. This meant in particular that design of the project had not allocated sufficient resources and time to work towards the achievement of these last three objectives.

C7: The 5P project successfully started establishing outside partnerships throughout its

implementation, but did not yet capitalize on the complementary capacities of these partners.

C8: Purpose and objectives of the omnibus approach had not been sufficiently defined to add value to the implementation of the 5P project, in particular its learning aspects.

Recommendations

R1: ESCAP, and other Regional Commissions (if interested), should continue their work on non-traditional public private partnerships, including “pro-poor” public private partnerships beyond the end of the current 5P project, in order to ensure that experiences and lesson-learned from this project can be adequately captured and formalized.

R2: Towards the end of the current project, emphasis should be put on compiling, analyzing and capitalizing on the experiences and lessons-learned on pro-poor public private partnerships up to this point. The effort should be led by ESCAP, as the RC that has advanced furthest in the 5P project, but it should also include other the other RCs where 5P project were attempted (ECA, ECLAC). This process should be as informal and open as possible, and should include relative successes as well as challenges and “failures”.

R3: ESCAP should follow-up on this project by developing the 5P promising practice into an actual project model. The analysis of the demonstration projects in Nepal and Laos can be part of this effort (beyond this current evaluation), but that work should be complemented by a development of a more complete theoretical framework for small-scale PPPs in the rural energy sector on the basis of other (secondary) sources, including academic papers, grey literature, evaluations, etc.

R4: The development of a more complete model for pro-poor public private partnerships should also include a more detailed and

rigorous analysis of the context conditions that are required for the successful implementation of rural public-private energy partnerships. This analysis should not become a justification for expanding the scope of the 5P model to include presumably complementary interventions (such as rural economic development). Instead, the analysis (as an integral part of model-building) should help to clearly delineate the scope of the actual 5P model; and to clearly define the range of its applicability.

R5: Regional Commissions that choose to remain involved in the work on pro-poor public private partnerships should make better, more strategic use of the partnerships that have been established during the current 5P project. New partnerships should be established only on the basis of a clear understanding of the specific purpose that the partnership is expected to serve, stemming from a clearer understanding of the 5P approach as a project model (see above), and the added value that each partnership can bring to the project.

R6: Each Regional Commission that has pursued the implementation of 5P demonstration projects should develop appropriate options for the future of this initiative. This can include the continued support of the project under the heading of pro-poor public private partnerships, but this should not be considered as the only option. In cases where Regional Commissions and their partners that have started to pursue a model that significantly differs from the concept of public private partnerships (such as the cooperative model in Lesotho), Regional Commissions should have the freedom to continue these initiatives independent from the 5P framework.

R7: Future work on pro-poor public private partnerships should not automatically be conducted as a joint or even an omnibus project. Collaboration on this topic should be based on a clear understanding of the purpose of the

cooperation, and the ends that are being pursued by means of collaboration. The cooperation process and supporting tools (such as learning platforms, websites, etc.) should be designed accordingly. The cooperation process needs to be supported by the appropriate resources, both financially, technical and human resource related.

1 INTRODUCTION

1.1 BACKGROUND OF THIS REPORT

This reports presents the findings of the final evaluation the project “Enhancing and improving access to energy services through development of public-private renewable energy partnerships”. The project had been approved for funding under Tranche 7, with a total budget of US\$ 1,006,500 and an original project period of 36 months from November 2010 to December 2013. The project was granted an extension of 9 months and a further extension of 3 months until December 2014.

The objective of the project was to build the capacity of policymakers, civil society and the private sector for engaging in public-private partnerships to enhance the application of renewable energy and improve access to energy services. Although there are no specific MDGs on energy, the project was designed to contribute towards the achievement of the MDGs through widening access to energy services in rural areas with a view to alleviate poverty.

1.2 PURPOSE, OBJECTIVES AND OUTPUTS

The main purpose of this evaluation was the formative evaluation of the above-mentioned project, in order to support organizational learning and to inform future project design, implementation and up-scale. In addition, the evaluation was also meant to assess the project results for accountability purposes.

The main audience of this evaluation report are staff of the United Nations Regional Commissions (ECA, ECE, ECLAC, ESCAP, ESCWA, and DESA), both working-level and senior management, and representatives of the member States of the UN.

The evaluation objectives were:

- 1) To assess the relevance, effectiveness, efficiency and sustainability of the project results and partnership arrangements;
- 2) To formulate recommendations relating to the evaluation’s findings, for improving the design and implementation of future projects, in particular those funded by the Development Account; and
- 3) To formulate recommendations relating to the evaluation’s findings, on desired follow-up activities to be undertaken by ESCAP and its partners.

1.3 SCOPE OF THE EVALUATION

The scope of the evaluation was defined as follows:

- i. The evaluation covered activities of the 5P project that had been financed by the UNDA 5P grant. This meant in particular that it did not extensively cover activities financed by the region-specific

- IFAD grant (ESCAP)³.
- ii. Geographically, the evaluation covered the demonstration projects that had been implemented in specific countries, as well as the expert group meetings and seminar/workshops, which had broader coverage of countries from each region.
 - iii. The evaluation assessed the entire project period, including the 9 and 3-month extension, i.e. November 2010 to 31 December 2014; and
 - iv. Data collection focused on stakeholders involved (or partnership arrangement) in the project planning, activities and overall implementation, e.g. Secretariat staff managing the initiative in each Commission, officials and representatives from member States, participants in meetings, ESCAP consultants, project partners and civil society organizations, etc.

³ The survey conducted also collected data from project participants from Laos; and other participants who took part in a regional 5P training in Laos. However, other IFAD-funded activities were not included in the evaluation.

2 METHODOLOGY

In keeping with the provisions of the Terms of Reference, the evaluation applied a mixed-method, theory-driven approach. This meant in particular that the finalization of the evaluation questions, as well as data collection and analysis were based on an analysis of the intervention logic and theory of change of the 5P project. Using both qualitative and quantitative data and information (evidence), the evaluation examined the possible contributions of the 5P projects to the achievements of its intended expected accomplishments and objectives.

The 10+ draft evaluation questions and sub-questions from the Terms of Reference were consolidated into a list of six broad evaluation that together covered all the aspects and topics mentioned in the ToR, as well as all the evaluation criteria and issues (relevance, efficiency, effectiveness, sustainability, partnership approach, gender). In order to ensure the transparency of the evaluation and of the reasoning applied in the assessment of the different aspects of the 5P project, the scope of the each evaluation questions was specified with the help of sets of so-called “judgment criteria”. The judgment criteria were selected to reflect the specific nature and intervention logic of the 5P project, and were the criteria that used to assess the relative performance of the project in comparison to its originally intended purpose, strategy and results. Each judgment criterion was then operationalized with a set of quantitative as well as qualitative indicators that guided the structured data collection throughout the evaluation.

2.1 DATA COLLECTION

Data for this evaluation was collected in three phases:

- 1) A continued desk phase provided opportunities for the further analysis of key project documents, and other documents from project partners and other stakeholders. Where necessary, the document analysis was complemented by additional interviews of key project stakeholders, by skype or phone.
- 2) A field visit to Nepal of one week allowed the more in-depth assessment of the project dynamic on the ground, including in particular the implementation of the demonstration project in Nepal, but also the experience of project stakeholders with the project workshops and trainings
- 3) Finally, a questionnaire-based online survey was used to collect information from a wider selection of project stakeholders and beneficiaries across regions and countries. The invitation to participate in the survey was successfully sent to 118 participants of the 5P project, including participants who had worked on demonstration project, but also participants who had only attended one of the regional training workshops. 16 complete survey were returned, translating into a response rate of 14%. If partial responses are also included, the response rate for some questions reached 28%.

2.2 LIMITATIONS OF METHODOLOGY AND PROBLEMS ENCOUNTERED

The following table presents the major challenges and limitations encountered by the evaluator.

Table 1: Limitations of the evaluation and their implications

Limitations	Response by evaluator (if possible)
The theory of change of the 5P project was not well developed in the original project document, impacting the overall evaluability of the project	The evaluator invested considerable time to reconstruct the theory of change of the project, and to flesh out the theoretical elements in the project documents with information and theory from third-party documents (e.g., on up-scaling, joint learning and cooperation, standards of evidence for project models).
In the absence of a clear theory of change, and without a comprehensive definition of “pro-poor public private partnerships”, regional commissions adapted very disparate interpretations of the project concept. This also negatively affected the evaluability of the overall project as one coherent initiative.	The evaluator focused data collection and analysis on the 5P demonstration projects and accompanying activities that had remained closest to the intended concept of pro-poor public private partnerships. This meant in particular that much of the data was collected in relation to the work of the Economic and Social Commission for Asia and the Pacific
Field visit was short; and time available was further affected by strikes in Nepal at time of visit ahead of deadline for constitutional negotiations.	N/A
It was only possible to visit one out several countries in which demonstration projects were being implemented.	Data collection for the evaluation included an online survey that solicited information from a wider sample of project participants. <u>Note:</u> This limitation did mean, however, that it was in the end not possible to systematically disaggregate the analysis, conclusions and recommendations by Regional Commission.
Project was still ongoing during evaluation, which meant it was not possible to evaluate many of the intended effects of the project (e.g., those related to use of energy systems; maintenance, etc.).	Data collection and analysis focused on the implementation process, the coherence and quality of the project design, and likelihood of the achievement of the intended results.
The availability of documentation varied considerably among the different Regional Commission, even among those who had managed 5P demonstration projects. The most information was available on the work of the Economic and Social Commission for Asia and the Pacific (ESCAP); some documentation was available for the demonstration project in Lesotho (ECA); and very little information was available on the demonstration projects pursued by the Economic Commission for Latin America and the Caribbean.	The evaluator used interviews and the online survey to partially counteract this challenge. <u>Note:</u> This limitation did mean, however, that it was in the end not possible to systematically disaggregate the analysis, conclusions and recommendations by Regional Commission.

3 FINDINGS

The following chapters present the answers to the six evaluation questions. Each chapter first presents the evaluation question itself, as well as the judgment criteria that were used to assess the 5P project for each question. This is followed by a summary answer to the question, and a more detailed answer that references the individual paragraphs to the respective judgment criteria, to allow the reader to identify the respective evidence that supports the evaluation findings.

3.1 EVALUATION QUESTION 1 – RELEVANCE

<i>Evaluation Question 1</i>	
Question	<i>To what extent did the design and implementation of the 5P project take into account the development strategies, policies and priorities of Member States and other key stakeholders?</i>
Evaluation Criteria	Relevance
Judgment Criteria	JC 1.1: Responsiveness to deficiencies in rural electrification JC 1.2: Alignment of 5P project / approach w. existing policy & institutional framework JC 1.3: Added value of 5P approach

The idea promoted by the 5P approach of using public private partnerships for increasing access to energy of rural communities has been met with considerable interest by participating countries and other member states of the Regional Commissions. A considerable share of member states willing to consider this concept as an additional tool for their national energy sectors.

However, although the 5P project successfully introduced the overall idea of pro-poor public private partnerships to representatives of member governments, the business sector and other relevant stakeholders, the project did not provide a sufficient overview of many of the key challenges of this new approach, and of their possible solutions. This included a clear definition of the types of hybrid circumstances between commercial and non-commercial settings for which the 5P approach could serve as a viable model. In addition, the original design of the 5P project did not foresee a significant amount of resources to provide technical assistance to help participating countries with the adaptation and adoption of the concept of pro-poor public private partnerships, and to accompany and facilitate the wider process of scaling-up the 5P approach beyond the level of demonstration projects.

As a result, the core concept of the project, pro-poor public private partnerships, was operationalized very differently by each participating Regional Commission and their partners. Provided only with relatively general conceptual guidance on the 5P approach and the prospect of scaling-up this model, the participating Governments and their country-level partners made choices in the design of their demonstration projects that were not necessarily in line with the main principles of the 5P approach, including the idea to use PPPs to facilitate a long-term financial stake of private sector partners in rural energy projects. The combination of these factors led to several setbacks in the implementation of the 5P demonstration projects, and also meant that the larger challenge of scaling-up the 5P concept was not always anticipated in how the demonstration projects were designed and carried out.

The idea promoted by the 5P approach of using public private partnerships for increasing access to energy of rural communities has been met with considerable interest by participating countries and

other member states of the Regional Commissions. A considerable share of member states willing to consider this concept as an additional tool for their national energy sectors. The different steps of the cooperation process envisioned by the 5P project were meant to facilitate the adoption of 5P-related practices by project participants: government representatives that were expected to start creating a more enabling environment for pro-poor public private partnerships; and private sector partners that were meant to take a greater interest in business opportunities in rural electrification, and make a long-term financial commitment to the financial viability of these projects. Members of the national team, led by the national focal point, were meant to work on the development of national policies in support of energy PPPs, aided by inputs from national and regional trainings, regional and sub-regional forums, and lessons from the national-level 5P demonstration projects. Several of the immediate expected activities of the project were relatively closely linked to this overall intervention logic, such as the identification of viable PPP models for rural energy projects through a set of regional assessments, an inter-regional Expert Group Meeting (EGM), or series of regional workshops to train participants on the details of pro-poor PPPs. **(JC 1.1, 1.3)**

Beyond these activities, however, the original design of the 5P project did not foresee any significant amount of technical assistance or other resources to help participating countries with the adaptation and adoption of the concept of pro-poor public private partnerships. This applied both to countries that had opted for the implementation of 5P demonstration projects, and to those who participated mainly through the attendance of training workshops on the 5P approach. In addition, the 5P model that was introduced at the beginning of the project had remained too general to provide much guidance to participating countries for the adaptation of the concept to their specific circumstances. Many of the key challenges of the approach had not been analyzed thoroughly enough prior to the start of the project, such as how specifically to mobilize the private sector to invest in and help finance the electrification of (poor) rural communities; and how to make these project financially viable⁴. **(JC 1.2, 1.3)**

A few examples can help to illustrate how these issues may have affected the 5P demonstration projects. In Nepal, the national focal point for the project had selected the two sites for the demonstration projects partly because of their relative remoteness and distance from the national power grid. The rationale was that this would make it less likely that any 5P-facilitated mini-grid would have to compete with centrally provided grid-energy in the short- to medium term. Notwithstanding the merit of this reasoning, it contradicted the implicit financial model of the Cinta Mekar project; the template for the current 5P intervention. In spite of this, the possible implications of this choice of project site were not further explored by ESCAP. Once the private sector partner had been selected, the company was faced with the challenge of devising a viable business plan for this site, on a short time-line, and with the awareness that the relative remoteness of the site posed an additional challenge for the financial viability of the project. At the time of the evaluation, the model of the most advanced demonstration project (Dubung) did not yet offer a clear way to significantly substitute public sector resources with private sector investments, as share of private sector investments still remained relatively low⁵; while the largest share was still financed by grants⁶. The fact that many of the operational details of the 5P

⁴ This is evident in particular in the general way in which the 5P approach is described in the project document (see JC 1.2, 1.3 for details)

⁵ Approximately 17% of overall required investment.

⁶ Currently about 67% of total investments; possibly more if contribution of local authorities does not materialize.

approach had not been comprehensively analyzed in the previous phases of the project⁷ made it more difficult for ESCAP to offer specific and concrete technical and financial advice to both country level partners throughout this process. **(JC 1.1, 1.2)**

This situation was exacerbated by the fact that the project, at least in its original design, had not foreseen a significant amount of resources to provide technical assistance to participating countries to support the adaptation and adoption of the concept of pro-poor public private partnerships to their specific policy and institutional frameworks, and to facilitate the wider process of scaling-up the 5P approach beyond the demonstration projects. While the training of individual staff members which is foreseen by the project is able to help in the promotion of rural energy PPPs, the “strengthening the institutional capacities” that is among the objectives of the project is a larger, more comprehensive goal that cannot be accomplished by trainings alone. Similarly, mainstreaming the 5P approach into national priorities goes beyond the development of individual policies, but includes other elements of the governmental process, such as, the anchoring of the approach within the organizational structure of a particular agency, the alignment of the overall governmental planning process with the approach, both within and beyond the energy sector, and, ultimately budget-related decisions that would ensure that the scale-up of the approach is backed by the required amount of financial resources. It is not clear, which activities of the 5P project are in place to support these processes. **(JC 1.2)**

At the same time, the 5P project overall has been facing very disparate policy frameworks and other context conditions in each of the countries with demonstration projects, making the task of adapting the general idea to the specific situation in each country anything but trivial. Among the countries with 5P demonstration projects, Nepal has been the country with the comparatively best-suited policy framework in energy, in particular with regard to rural energy.⁸ In contrast, the applicable policy framework in Lesotho seems to be still under development, with a 2003 draft of a national energy policy the most recent and up-to-date overall policy document. The development of other policies, including a national “Renewable Energy Policy”, and a “National PPP Policy” had started in 2011, but had not yet been finalized by the time of this evaluation. **(JC 1.2)**

In spite of the comparatively favorable policy environment in Nepal⁹, the integration of the 5P project into its organizational environment and the national institutional environment has not been very deep up to this point. Although the project is situated within the AEPC, the agency in charge of implementing Nepal’s National Rural and Renewable Energy Programme (NRREP), it has not yet been formally integrated into the NRREP¹⁰. As a result, the project has not yet always had easy access to all of AEPCs resources, even when these that could potentially have helped to advance project implementation, to flesh out the specific 5P approach for Nepal and eventually, to advance scale-up. Although it was a

⁷ See Evaluation Questions 2, 3 and 6 for more information on this issue.

⁸ Consisting chiefly of a Rural Energy Policy (2006), and a Subsidy Policy for Rural Energy (2009; updated in 2013).

⁹ The 5P demonstration in Nepal is consistent with the comprehensive catalogue of existing priorities of the Nepalese Government in several ways: Firstly, the overall strategic direction of Nepal to focus on renewable, off-grid energy solutions to reach the remote and difficult to access rural areas of the country is in line with the model adopted by the 5P demonstration project. The national strategy also specifically foresees the use of some form of a public private partnership to pursue this goal. The national policy also emphasizes the participation of “local bodies” in increasing the access to energy in rural areas; including cooperatives, user groups and NGOs. The policy calls for increasing the “human resource capacity of the rural population for rural energy development”, which is very much in line with the 5P approach as implemented by ESCAP in Nepal.

¹⁰ At the time of this evaluation, the integration of the project into the NRREP was foreseen for June / July 2015.

conscious choice of project stakeholders to locate the 5P project in this way, the low degree of integration might present a hurdle during the eventual scale-up of the 5P approach. **(JC 1.2)**

In the case of Lesotho, the project partners selected a model for the demonstration project that in many ways fell outside the definition of a public private partnership. In the cooperative model for the Lekokoaneng Energy Center, the private sector merely is expected to play the role of a service provider (fee for service), without a continued stake and interest in the continued success of the cooperative¹¹. Also, the adaptation of a 5P model to the national circumstances of Lesotho promises to be more challenging than would be the case for Nepal. The relevant policy framework in Lesotho is less detailed and comprehensive than the one in Nepal, although it is broadly in line with the project strategy and priorities.¹²

¹¹ See in particular the comparative analysis of the design of the demonstration projects in Table 12 in the evaluation matrix. In Lesotho, a champion or change agent is only involved in the project very short-term, in the form of a local NGO contracted to undertake two-day capacity building workshop (on modern energy issues; linkages energy to productive activities). The private sector is only involved as a “service provider”, providing initial hardware for energy system, as well as training; and to upgrade the building of the “Energy Centre” (building) for energy efficiency.

Assumed motive: Profit (no investment)

¹² The draft Energy Policy of the Government of Lesotho broadly emphasizes the importance of renewable energy technologies for the electrification and energy supply of rural areas; and also consider privatization and “public / private joint ventures” as a means towards achieving this end. It recognizes the importance of making available adequate financing mechanisms for the acquisition and installation of renewable energy technologies, and refers to its “National Rural Electrification Fund” as a mechanism to ensure that this financing can be made available. The draft policy also supports the participation of communities and local government structures in local electrification.

3.2 EVALUATION QUESTION 2 – CAPACITY DEVELOPMENT

Evaluation Question 2	
Question	<i>To what extent has the 5P project helped to strengthen the capacity of policy-makers for developing and implementing policies and other measures to use PPPs for facilitating the sustained increased access to renewable energy solutions in rural areas?</i>
Evaluation Criteria	Effectiveness, Sustainability
Judgment Criteria	JC 2.1: Relevance of 5P services for pro-PPP institutional national reforms JC 2.2: Utilization of training elements / other project support by stakeholders in partner countries JC 2.3: Improvements in the institutional framework for energy PPPs in partner countries

The 5P project has provided several valuable learning opportunities that have helped to trigger follow-up initiatives in member states, albeit mostly in countries that are the site of 5P demonstration projects. In these cases, 5P workshops and study tours introduced relevant information and concepts that were used to revise project-related approaches (e.g. on community engagement), and to inform the debate on relevant policy concepts, such as “net-metering”.

This notwithstanding, many of the technical contributions of the 5P project offered only relatively general information, and often lacked some of the specificity that would have been needed to make them immediately useful for their intended audience. The regional reviews and global assessment report, for example, offer a comprehensive overview of main concepts and energy-related statistics; however, the reports do not address to the challenges specifically associated with the approach of pro-poor public private partnerships. The 5P regional workshops successfully introduced the general notion of pro-poor public-private partnerships, but were relatively less successful in conveying information on more specific topics related to pro-poor PPPs. This limited the ability of the project to aid participants in the operationalization of the 5P approach in their countries; and to provide concrete approaches for addressing some of the major barriers for using pro-poor public private partnerships in the rural energy sector.

The regional reviews and global assessment report that constitute some of the major outputs of the 5P project provide a comprehensive overview of main concepts and statistics related to the energy sectors in countries that participated in the 5P project. However, the documents provide little information on the specific challenge of creating pro-poor public private partnerships in the particular types of context conditions encountered in the regions and countries covered by the report. The definition and presentation of the concept of 5Ps specifically emphasizes the greater business risks typically associated with the provision of services to poor communities as one of the defining characteristics that underlies the type of situation that 5Ps are meant to help address. Nonetheless, the main publication of the 5P project (the Global Assessment Report (GAR)) offers relatively few and only quite general lessons on the topic of risk management or the distribution of risk in PPPs or pro-poor PPPs, such as that “a diversity of stakeholders should be involved in each project”, and that it was important to create “checks and balances”. **(JC 2.1)**

Although the Cinta Mekar project in Indonesia has had a key and central role in inspiring current the 5P project, its set-up, specific success factors and constraints are not comprehensively analyzed in the

Box 1: Success of 5P workshops and study tours in conveying 5P-related information (results of online survey)

Overall, approximately 76% of respondents to the online survey considered the 5P regional workshops to be successful or very successful in preparing them to advance the concept of 5Ps in their countries. The comparatively most successful aspects of the workshops were the introduction and explanation of the concept of pro-poor PPPs and the provision of corresponding examples and other overall information on these structures. Over 70% of respondents thought the workshops had successfully achieved these goals.

The regional workshops seem to have been comparatively less successful in conveying information on more specific topics related to PPPs: Less than 50% of respondents thought the workshops had successfully explained how to make investments in low-carbon electricity in rural communities profitable for private businesses; what government policies and regulations were required for promoting and managing these kinds of PPPs; how communities could be successfully mobilized to participate in these initiatives; or how funding from governments, private sector partners or development partners could be mobilized for these types of PPPs. Between 20% to 30% of respondents thought the workshops had been “not very successful” or “not at all successful” in covering these more specific topics, compared to only 5% to 10% who thought the same for the more general introductory topics (see above).

Compared to the regional workshops, the study tours seem to have met with more success in illustrating suitable approaches for community engagement: Between six and eight out of the eight respondents to the survey who had participated in either the study tour to Indonesia, or the tour to South Africa thought that the event had been successful or very successful in conveying information on different aspects of community engagement.

Global Assessment Report, as to inform the development of strategies for its replication in other countries. Several of the specific circumstances that made the Cinta Mekar project possible remain unmentioned in the report: For example, while the case study on Cinta Mekar / Indonesia in the Report emphasizes the fact that the private sector partner (HIBS) provided extensive financing for the project¹³, and also agreed to “underwrite an cost overruns” of the project, it did not mention the particular constellation and personal relationships in Indonesia that made this arrangement possible; and that would make it unlikely that this financing model could be easily replicated in other countries, where these factors are not present. ESCAP had recognized in its own internal documents that the private sector partner in Cinta Mekar had approached involvement in the project more from “social business perspective”, i.e., in that the partner did not expect a competitive return on its investment, but merely aimed at cost recovery. Furthermore, the fact that Cinta Mekar project design and financial model would only translate into low returns on investment for the private sector had already been emphasized by IBEKA (the Indonesian NGO partner of the Cinta Mekar project) among the “key lessons from Cinta Mekar” during the September 2011 Expert Group Meeting and inception workshop. The fact that the Global Assessment Report was not used to discuss this key caveat of the Cinta Mekar project, and to discuss possible strategies to adapt the concept of pro-poor PPP to address this challenge limited the relevance and usefulness of this key publication for meaningfully informing parties in other countries on the strategic options for implementing similar projects. **(JC 2.1)**

Another aspect that was not comprehensively explored by the Global Assessment Report was the relationship between the supported mini- or micro-grids, and the central energy suppliers in project countries. Again, the Cinta Mekar project as the main template for the 5P project offered important lessons in this area. Appropriately, the Global Assessment Report does

mention that the stakeholders of the Cinta Mekar project had negotiated a power-purchase agreement with the national Directorate General of Energy Electricity Utilization in Indonesia. However, although

¹³ i.e., 1/3 of the capital outlay.

this agreement was essential for the financial viability of the project, the publication does not go on to stress the importance of such type of “anchor customer” arrangements for the financial sustainability of a public private partnership for rural electrification / energy access. In key chapters (e.g., the “Indicators of successful PPPs”), the publication emphasizes the importance of collecting data on “demographic characteristics, economic conditions, willingness to pay, access and service preference and the existence of small entrepreneurs in the local community who are willing to provide these services needed at least for the short- and medium term”. However, it does not elaborate on any specific financial models or their components that could help to make the 5P approach economically and financially sustainable in countries around the world. **(JC 2.1)**

This patterns manifests itself in the relative success and usefulness of the regional workshops on pro-poor PPPs that were a key component of the project’s capacity building approach. Based on feedback from participants, the workshops were successful in introducing and explaining the general notion of “5P”, and in providing examples on the current use of similar concepts (see Box 1). However, they were relatively less successful in conveying information on more specific topics related to pro-poor PPPs, such as how to make investments in low-carbon electricity in rural communities profitable for private businesses; a major requirement for the approach to work; what types of policies and regulations Governments require to be able to promote and manage these kinds of PPPs; how communities could be successfully mobilized to participate in these initiatives; or how funding from governments, private sector partners or development partners could be mobilized for these types of PPPs. However, the topic of community engagement was successfully covered by the study tours organized by the 5P project (again, see Box 1). **(JC 2.2)**

Nonetheless, the workshops and the study tours have resulted in some concrete follow-up steps in particular in the countries with ongoing demonstration projects. The follow-up ranges from the launch or facilitation of the demonstration project itself (as in the cases of Lesotho and Laos), to the review of the demonstration project’s community engagement strategy and approach, and the triggering or at least reinforcement of a national discussion on the concept of net-metering as a tool to integrate micro- and mini-grids with the national power grid (as in the case of Nepal)¹⁴. There is no evidence of any concrete follow-up steps taken in countries without demonstration projects. **(JC 2.3)**

¹⁴ At the time of the evaluation, Nepalese stakeholders were discussing the possibility of developing a net-metering policy, to facilitate the connection of decentralized mini-grids to the national grid. High-level staff government representatives who had participated in the study tour to Indonesia had learned about the concept of net-metering during the trip, and reported back to their respective Ministries upon their return. The actual chances for successfully developing a net-metering policy were uncertain, though. (see JC 2.1)

Table 2: Relative effectiveness of 5P project in addressing main barriers to 5P approach in project countries¹⁵

Issues as potential barriers to 5P approach	Is issue a barrier f. 5P?		How effective has 5P project been in addressing this barrier?		
	Count	Percent	Very effective / effective	Somewhat effective	Not very / not at all effective
Inadequate policy and regulatory framework for private investments in rural electrification	16	100.0%	37.5%	31.3%	25.0%
Insufficient returns on investments in rural electrification projects (independent of private sector know-how)	12	75.0%	33.3%	33.3%	16.7%
Insufficient know how of public sector for investing in rural electrification	8	50.0%	37.5%	25.0%	37.5%
Insufficient know how of private sector for investing in rural electrification	7	43.8%	42.9%	42.9%	14.3%
Insufficient willingness to pay of rural communities for electricity services	5	31.3%	60.0%	20.0%	20.0%

The effectiveness of the 5P project to address some of the main barriers that are preventing a greater use of pro-poor public private partnerships for energy access in rural areas has been mixed: Findings from the online survey suggests that two of the main barriers for the 5P approach are inadequate policy and regulatory framework for private investments in rural electrification; and insufficient returns on investment in rural electrification projects. However, only about 1/3 of the respondents who had identified these issues as barriers thought that the 5P project had been effective in helping to address these barriers; another third of respondents thought the project had been “somewhat effective”, and between 16% and 25% of respondents who had identified these issues as barriers did not think that the project had helped to address these barriers at all (see

¹⁵ These numbers are based on the 16 complete questionnaires that were returned as part of the online survey (an approx. response rate of 14%).

Table 2). **(JC 2.3)**

3.3 EVALUATION QUESTION 3 – REPLICATION & UP-SCALING

Evaluation Question 3	
Question	<i>To what extent was the 5P project successful in identifying viable building blocks for the replication and up-scaling of the 5P approach, in particular in the Asia-Pacific region?</i>
Evaluation Criteria	Effectiveness, Sustainability
Judgment Criteria	JC 3.1: Robustness of incentives for (comprehensive) private sector involvement JC 3.2: Public sector ownership of 5P approach JC 3.3: Viability of approach f. community involvement in PPPs JC 3.4: Maturity of 5P model / concept (Note: additional JC ¹⁶)

The public sector of countries involved in the 5P project is overall receptive of the notion and concept of public-private partnerships as a way to increase energy access in rural areas. Also, the 5P project has helped to further promote this concept. The demonstration project in Nepal has also shown that it is possible to successfully introduce the idea of public-private partnerships to rural communities, if the community engagement is facilitated long-term, and backed-up by consistent and regular follow-up, and visible, tangible commitments by the public and the private sector.

However, overall, the model of pro-poor PPPs was not yet sufficiently mature and had not been defined and fleshed out early-on in the project to become the subject of several demonstration projects aimed at the scale-up of the 5P approach. With only the Cinta Mekar project as the main template for the concept of pro-poor public private partnerships, many key questions and potential challenges of the 5P approach had not yet been sufficiently explored and answered. This manifested itself in the demonstration projects, where Regional Commissions and their partners were required to operationalize the 5P idea without sufficient conceptual and technical guidance. As a result, projects encountered several setbacks and challenges concerning the financial viability of the concept; the feasibility of possible business models, or the appropriate processes and criteria for the selection of communities or private sector partners. 5P project team had already begun to identify and examine many of these questions. Although the 5P project team has begun identifying and answering many of the outstanding questions in particular during the second half of the project period, more and systematic work will be required to develop a viable 5P model and realistic scale-up vision.

The idea of using public private partnerships to help increase access to modern energy services in rural, relatively poor communities is enjoying sufficient support stakeholders of the 5P project to serve as a basis for future efforts to develop a viable model for pro-poor PPPs; and to promote this model among the participating member states. Although support for public private partnerships in the energy sector most likely was already relatively high among stakeholders before the implementation of the project, the project has helped to further promote this concept, and in particular to bring it into play as a potential way for eventually aiding to increase energy access in rural areas of member states (see Box 2).
(JC 3.2)

¹⁶ Added after submission of evaluation plan

Box 2: Attitudes towards using PPPs to increase (rural) energy access

70% of respondents to an online survey considered PPPs to be suitable, or very suitable for increasing access to energy in their countries; and 64% of respondents indicated that their governments were using PPPs in the energy sector at the time of this evaluation. While support for using PPPs for increasing energy access specifically in rural, relatively poor communities was somewhat smaller, still a majority of project participants (58%) considered PPPs to be a suitable approach for this purpose. Support for the use of PPPs to increase energy access in rural areas is similarly high if only Government respondents are considered: approx. 58% of respondents who represented Governments from UN member states thought that PPPs were either “suitable” or “very suitable” for aiding in increasing rural energy access. 42% thought PPPs were only “somewhat suitable” or “not very suitable” for this purpose. A majority of respondents (56%) (independent of their affiliation) also thought that Governments in their countries had a “very high” or “high” willingness to participate in public-private partnerships to increase rural energy access.

8 out of 18 respondents (44%) thought that the project had been “very effective” or “effective” in promoting the model of pro-poor PPP, while 7 of 18 respondents (39%) thought the 5P project had only been “somewhat effective” or “not very effective” in successfully promoting pro-poor PPP as a model. Among respondents from government organizations, 6 of 9 respondents thought the project had been “very effective” or “effective”; 3 of 9 respondents thought it had been only “somewhat effective”.

The interest in the approach is also illustrated by the overall high level of commitment of the main governmental partners in advancing and making use of the UNDA-funded demonstration project in Tanahun District of Nepal (Dubung). The demonstration projects are being implemented under the direct supervision of the AEPC managing director as part of Nepal’s National Rural and Renewable Energy Programme (NRREP), and umbrella for the multiple donor-funded interventions in Nepal’s energy sector. At least formally, 5P project activities are supposed to be coordinated with other subcomponents of the NRREP such as biogas, biomass, solar, monitoring and other subcomponents as required “to achieve the goals and objectives as envisaged through this initiative”¹⁷. AEPC also has made available certain resources to

promote the implementation and to ensure the supervision of the 5P project, including high level staff members who have made professional commitments to the success of the project. **(JC 3.2)**

The demonstration project in also Nepal suggests that it is possible to successfully introduce the idea of pro-poor public-private partnerships to rural communities, and to encourage them to invest and take an active interest in this type of initiative. As a result of the engagement of the facilitating NGO¹⁸, the target community in Tanahun District (Dubung) has committed to investing its own resources into project; in terms of labor (e.g., the hewing and transport of granite for the power house), time (e.g., repeated attempts of registration of energy cooperative, and financing. The community also recognizes the investment of the private sector partner in their community, and expressed concern for the financial risk the company might face if the system is not built. However, the experience in Nepal also shows that such engagement is a long-term undertaking that needs to be backed-up by consistent and regular follow-up, and visible, tangible commitments by the public and the private sector. **(JC 3.3)**

However, overall, the model of pro-poor PPPs was not yet sufficiently mature and well defined at the start of the project in order to become the object of a series of 5P training workshops and demonstration projects. When the 5P project was identified and conceived, the project in Cinta Mekar / Indonesia had not yet been thoroughly evaluated, and the transferability of its theory of change to other context had not yet been comprehensively assessed. The positive outcomes of the Cinta Mekar project

¹⁷ AEPC, 2012, pp. 8-9

¹⁸ The Rural Empowerment Society Damauli Tanahun (RESDTN)

notwithstanding, the key factors that had made the success of that project possible had not yet been clearly identified. Although the project could be considered a “promising practice”, based on several (anecdotal) reports and testimonials, it did not yet offer the evidence-base required to classify the 5P approach as a “model” or “good / best practice” whose replication could be attempted in various sets of differing circumstances (see Table 3). **(JC 3.4)**

Table 3: Standard of evidence for the development of project models and best practices

Category	Standard of evidence
Innovation	Minimal objective evidence
Promising practice	Anecdotal reports and testimonials
Model	Positive evidence in a few cases
Good practice	Clear evidence from several settings / evaluations
Best practice	Evidence of impact from multiple settings and meta-analyses
Policy Principle	Proven in multiple settings, considered widely applicable; a “truism” essential for success

Source: *Scaling up - From Vision to Large-Scale Change. A Management Framework for Practitioners*, Management Systems International (2012).

As a result, many key questions with regard to the 5P approach were lacking clear answers that normally should have guided the implementation of the demonstration projects; and that should have been conveyed to project teams and other stakeholders during 5P training workshops. While the 5P project was based on the assumption, for example, that there existed a middle ground between commercial energy projects that could be of interest to purely profit-oriented private sector actors, and clearly non-commercial projects that would need

to rely on traditional grant-financing, it was not comprehensively explored how this “hybrid” zone between commercial and non-commercial endeavors was defined, and what types of business and financial models would be suitable to help occupy this hybrid space.¹⁹ Only after the 5P project had already started was it noticed that the business and financial model of the Cinta Mekar project was not based on (albeit more moderate) profit motives, but that the Indonesian private sector partner was content with merely recovering its investment costs. The Cinta Mekar project partners had alerted the 5P project team of the need to set low profit expectations for possible private sector partners during the initial Expert Group Meeting in September of 2011²⁰. Although this “interregional EGM” at the beginning of the project was meant to play a central role in the joint learning process; and was supposed to function as the platform for processing the information and findings of the different regional assessments of current PPP practices, the full implications of the particular social “cost recovery” business model of the Cinta Mekar project, and the constraints this put on the replicability of that particular project design were not noted until later in the 5P project²¹. **(JC 3.1)**

As guidance on this and other key issues did not yet exist, the stakeholders of the various demonstration projects largely had to develop their own strategies for operationalizing the 5P concept in their respective country settings. In the example of Nepal, the private sector partner was required to develop its own approach for possible financing models of the demonstration project (Dubung), on a short timeline, and, at least initially, without mobilizing the intended local private investments into the project. In the end, the success in developing a viable financial approach for the 5P demonstration project relied on

¹⁹ Neither the project document nor the 5P communication strategy on the approach contains a clear definition of this hybrid space, in terms of expected rate of return, typical context conditions, etc. None of the 5P workshops provided more information on this issue (See JC 3.1 for further details)

²⁰ See EQ 6 for more details on the proceedings of the Expert Group Meeting, and the learning processes associated with that meeting.

²¹ Based on an analysis of the workshop output documents (see JC 3.1 in the evaluation matrix for further details).

the private partner's own initiative and ideas, as the company was not able to benefit from specific lessons-learned from the prior expert group meetings and workshops on the financing challenge of 5P projects. **(JC 3.1, JC 3.4)**

Another important issue that had not been clarified and fleshed out a part of a possible 5P project model before the start of the demonstration projects was the relationship between the supported renewable micro- and mini-grids, and the national energy grids. Even the low return on investment of the Cinta Mekar project was contingent on the ability of the mini-hydro grid to sell electricity to the Indonesian power agency. Both communities for the demonstration projects in Nepal, on the other hand, were specifically selected because it was deemed unlikely for the national grid to be extended to these relatively remote areas within the next two to three years²². This decision eventually posed a challenge for the project in multiple ways: Firstly, it changed in a fundamental way the financial model of the project that had served as a template for the overall 5P project, without a clear exploration what this decision meant for the financial viability and sustainability of the micro-grid; Secondly, it placed the micro-grid essentially in competition with the national grid, as the project's stakeholders could only hope to sell the more expensive micro-grid electricity to the communities if the grid was in fact not extended to the target communities.²³ And thirdly, the decision to target communities at "safe distances" from the national grid (and thus, by implication) relatively remote from economic centers also reduced the opportunities to identify viable commercial clients for the renewable energy from micro-grids in the target communities, who might have had a higher willingness to pay than clients who were looking to use electricity primarily for domestic, non-productive purposes. **(JC 3.1, JC 3.4)**

Even beyond the question of the model itself as a "a solution that works" in different circumstances, there were other elements of a "scale-up vision" that were not sufficiently defined at the start, or at least early-on in the project to provide guidance to participating countries for developing the required preconditions for scale-up. There are other questions related to the "how" and the "who" of scale-up that each demonstration project will need to answer, and that the 5P project overall has not yet examined sufficiently, and translated into concrete technical guidance²⁴. Once the demonstration projects in Nepal and elsewhere find a model that works under the specific circumstances, it will still be an outstanding challenge to find a way to deliver that particular solution at an affordable costs; to develop a strategy to provide that model on a larger scale, and to identify and bring on board the stakeholders that are required to carry out all needed functions during and after the scale-up. In the case of Nepal, this would mean that the 5P project would need to find an organizational home that would integrate it more closely with AEPC's relevant directorates, and with the programmes they administer, i.e., the NRREP, or the solar sub-component of the programme. Beyond AEPC, the project would also need to determine where the scaling should occur; geographically, in terms of "services" delivered; and the types of communities that should be targeted. A scale-up vision would also need to

²² This principle is reflected in the selection criteria for the Nepalese demonstration projects (see JC 3.4)

²³ This is also illustrated by the fact that the demonstration project in the Tanahun District (Nepal) had to select new target communities for the project twice, when it became clear that the previously targeted communities would be integrated into the national grid in the foreseeable future. It also posed a potential challenges at the time of this evaluation, shortly before the construction of the micro-grid for Dubung was scheduled to begin, when even the community of Dubung received news that it was meant to be connected to the national grid within the coming year (information collected during field visit to Nepal, see JC 3.1 for more details).

²⁴ Based, among other things, on the analysis of the project document, the workshop reports, and the 5P related publications produced by the project. Complemented with findings from interviews in Nepal (see JC 3.4 in the evaluation matrix for additional information).

identify stakeholders beyond AEPC that would be required to replicate the model at a larger scale to ensure that 5P projects are done in coherence with other national development plans, intentions for expanding the electricity grid, and the overall short- and long-term allocation of financial resources. **(JC 3.4)**

At the time of this evaluation, the 5P project team had already begun to identify and examine many of these questions. However, bringing this work to a conclusion will require continued and systematic efforts, on behalf of the teams of the demonstration projects, and on behalf of the 5P project team, overall.

3.4 EVALUATION QUESTION 4 – PARTNERSHIP APPROACH

Evaluation Question 4	
Question	<i>To what extent did the utilization of partnerships²⁵, coordination with key stakeholders and other relevant actions help to optimize resource availability and utilization during project planning and implementation?</i>
Evaluation Criteria	Effectiveness, Efficiency
Judgment Criteria	JC 4.1: Scale of partnership contributions to project implementation JC 4.2: Complementarity of partnership roles JC 4.3: Coordination of partner contributions

All regional commissions have collaborated with external partners on the implementation of the 5P project overall; and the demonstration projects in particular. For the most part, these partnerships aimed at accessing specific expertise to complement the technical capacity and know-how of the Regional Commissions themselves. Only ESCAP has so far been able to solicit a significant financial contribution from one of its partners (i.e., IFAD). Although these partnerships potentially offer valuable and complementary know how and technical resources to the 5P project, its overall planning process has not yet optimally facilitated the strategic utilization of these resources

All regional commissions have collaborated with external partners on the implementation of the 5P project overall; and the demonstration projects in particular. ESCAP, most significantly, has developed a partnership with the International Fund for Agricultural Development (IFAD), which involves the contribution of approx. \$1.35 million towards the budget of the 5P project in Asia and the Pacific (administered by ESCAP)²⁶. **(JC 4.1)**

The partnership with IFAD is the only one that involves a financial contribution to the project. Other partnerships of the Regional Commissions aimed more at accessing specific expertise to complement their own capacity and know-how. Following this model, ESCAP partnered with the Global Institute for Tomorrow (GIFT) to provide high-level business expertise to project participants. ECLAC organized its regional workshop in partnership with the Global Sustainable Electricity Partnership (GSEP), a not-for-profit organization whose membership is composed of some of the main global electricity companies²⁷. This partnership thus potentially provided technical and regulatory competence, as well as access to a network of stakeholders that could be used for data collection, dissemination and resourcing of ideas, or the provision of other technical resources. ECA included in its national team a selection of local banks, development institutions as well as relevant non-governmental organization, in the expectation that this would also potentially make available relevant expertise to project stakeholders.²⁸ At least potentially, IFAD also has relevant expertise to offer, specifically in economic development in rural areas, which the project team in ESCAP considers to be a necessary complement for energy access to rural communities²⁹.

²⁵ The concept of partnerships refers to stakeholders who are not directly integrated into the project strategy (i.e., as implementing partners, or beneficiaries), but who have formed a short- or longer term alliance with the project to deliver specific inputs in the cooperation process.

²⁶ Document analysis and interviews ESCAP staff and partners (see JC 4.1 for details in evaluation matrix).

²⁷ Interviews with ECLAC staff and document analysis (see evaluation matrix; JC 4.1 for details)

²⁸ Interview with ECA staff.

²⁹ Analysis of IFAD portfolio and mandate (regionally and globally).

However, although both organisations (ESCAP and IFAD) coordinated the selection of project sites for the IFAD funded demonstration project; and also feedback information on progress of the overall progress, the extent of substantive coordination, and use of IFAD's specific resources has been limited³⁰.
(JC 4.2)

Although partnerships established under the 5P project potentially offer valuable and complementary know how and technical resources, the overall planning process of the project has not yet optimally facilitated the strategic utilization of these resources for advancing the overall progress of the project.
(JC 4.3)

³⁰ Interview with stakeholders of the partnership.

3.5 EVALUATION QUESTION 5 – GENDER

Evaluation Question 5	
Question	<i>To what extent did the project design and implementation appropriately identify, target and respond to gender-specific needs and constraints in access to sustainable energy?</i>
Evaluation Criteria	Relevance
Judgment Criteria	JC 5.1 Consideration of gender aspects in problem analysis JC 5.2 Inclusion of gender-specificity in project design and implementation arrangements JC 5.3: Consideration of gender aspects in M&E, reporting and model-building

Rationale and purpose of the 5P project emphasize that the project is meant to take into account and promote the specific situation of women in relation to limited rural energy access. However, neither the regional situation analyses that became part of the Global Assessment Report on Partnerships for Universal Access to Modern Energy Services, nor the situation analyses for the different demonstration projects analyzed the gender-related barriers and challenges of the specific populations the project was targeting. The ESCAP regional report cites global, high-level findings on certain gender-specific challenges of low access to modern energy services, but without putting these findings into the context of the specific scope of the 5P project, and without identifying specific policy levers or other measures that could be addressed by the 5P project. The concept of gender is by and large also neither firmly integrated into the strategy and theory of change of the 5P project, nor the monitoring, evaluation and reporting in relation to project progress and (expected) results.

Gender aspects were largely not specifically considered in the problem analysis for the 5P project, beyond mentioning overall that the consideration of gender-specific elements was an important aspect of the project. The concept of gender or the particular focus on women is only mentioned once in the project concept note; in relation to the analysis of the energy-related situation at regional levels, and the implications of providing renewable energy services also with regard to the "impact on women". The project document itself reiterates this commitment, and further specifies that the project will be used to identify and replicate good practices for, among other things, "innovative approaches to involve the disadvantaged, such as women and the poor". No further details are provided in the project document on how this should be done.³¹ **(JC 5.1)**

Regional assessment reports make either no or only very cursory references to gender concepts in relation to energy access. ESCWA and ECLAC reports do not discuss region-specific gender-related limitation of access to energy at all. The ESCAP regional report cites (relatively dated) global, high-level findings on certain gender-specific challenges of low access to modern energy services; however, without putting these findings into context with the specific scope of the 5P project, or specific policy levers in the region that could be targeted under the 5P project. The ECA report (on Lesotho) is the report with the relatively most specific information on gender (however, also owed to the fact that the report is focusing on one particular country, as opposed to an entire region). However, the report also does not discuss possible actions that could be taken in the context of the promotion of pro-poor PPPs to advance gender equity in this sector. **(JC 5.1)**

³¹ Analysis of 5P project documents.

In the case of Nepal (one of the countries with 5P demonstration projects), “gender” or the specific situation of women in the target communities is discussed in neither of the two project concept papers for Nepal (Baidi / Dubung; Raksirang), which means that the fundamental challenge of lack of access to modern energy services is not analyzed / understood from a gender perspective. The 5P project did finance a comprehensive socio-economic survey for the Baidi / Dubung project site. This survey of the heads of 150 households noted the gender of the household head, and also provided disaggregated data on the number of children living in the household at the time of the survey. However, on a number of other key variables, the analysis of the survey was not disaggregated by gender, including key information such as ethnic affiliation, the number of people living in the household permanently or seasonally, the willingness to pay, income sources and income levels, or the propensity of households to start businesses if energy access was to be improved.³² **(JC 5.1)**

The concept is gender is by and large not firmly integrated into the strategy of the 5P project; neither in the umbrella strategy of the overall project document, nor in the individual demonstration projects³³. Only in the case of the demonstration project in Lesotho is gender mentioned; as one of the selection criteria for choosing the cooperative that should be supported by the 5P project. The criteria stipulate that the project should support a community that facilitates gender mainstreaming and women’s empowerment, and the empowerment of youth. The training on 5P in Lesotho also made certain references to gender, and the support of women through pro-poor public private partnerships; however, the training does not seem to have gone into detail on how to mainstream gender into 5P projects. In the case of Nepal, neither of the two demonstration projects financed by the UNDA grant made a specific reference to gender in the project strategy.³⁴ **(JC 5.2)**

Gender is not specifically emphasized in monitoring, evaluation and reporting related to the 5P project. The annual progress reports re-iterate the intent of using the 5P project and concept for advancing the empowerment of women in the targeted communities³⁵, but they do not provide analyses of specific project effects or changes in context conditions that may have resulted from the project. In the case of Nepal, the M&E framework for the national demonstration projects does not include any gender-specific indicators or related data-collection activities. Gender is also not specifically mentioned with regard to the issues to be assessed country-specific evaluations of the 5P project in Nepal. **(JC 5.3)**

³² Analysis of the results of the socio-economic survey. See JC 5.1 in the evaluation matrix for details.

³³ Gender is by and large not specifically mentioned in the documents of the projects, at least not in relation to gender-specific activities.

³⁴ Based on an analysis of concept notes for each of the projects; and interview findings (Nepal). For details, please see JC 5.2 in the evaluation matrix.

³⁵ The sections of the progress reports on the ECA demonstration project stress again that the selection of the cooperative model for the Lesotho demonstration project holds potential for ensuring the inclusion of the community in the execution of the project.

3.6 EVALUATION QUESTION 6 – OMNIBUS APPROACH

Evaluation Question 6	
Question	<i>To what extent did the omnibus approach, i.e., the involvement of all 5 regional commissions in the project, add value to the implementation and results of the 5P project?</i>
Evaluation Criteria	Effectiveness, Efficiency
Judgment Criteria	JC 6.1 Clarity of justification (rationale and purpose) of joint approach JC 6.2 Appropriateness of coordination mechanisms JC 6.3 Achievements of realized joint approach (related to project results, project process)

While the idea of omnibus projects was developed in order to intensify the cooperation between all 5 Regional Commissions and DESA, the concept was adopted for the 5P project without a clear notion of the added value that this joint approach would have for this particular intervention. The purpose of the joint approach is not explicitly mentioned in the project strategy, and could only be implicitly deduced from an analysis of the project's strategy. In accordance with the understanding of core members of the 5P project team, this purpose was to facilitate a joint learning process among Regional Commissions and their partners that would help in the development of a new model of pro-poor public private partnerships as financing mechanism and project model for rural energy projects.

In light of this challenging proposition, the coordination process and the supporting mechanisms were not appropriately designed or implemented to support such joint learning process among Regional Commission located across several time zones, and faced with very different socio-economic realities in their member states. Two important coordination mechanisms that had been foreseen to facilitate the joint learning process among the Regional Commissions, i.e., a project website, and an e-learning system were never developed. A series of global, inter-regional workshops and learning forums that played a pivotal role for the exchange of information among Regional Commissions, in particular in the absence of the other electronic information exchange platforms, did also not sufficiently allow the exchange and discussion of challenges and caveats of the 5P idea to produce concrete and actionable lessons to help with the operationalization and further development of the initially quite generally defined concept of pro-poor public private partnerships. As a result, the Regional Commission eventually chose quite diverging approaches for the implementation of the 5P approach, which limited the opportunities using their experiences for developing a cross-regional catalogue of experiences and lessons regarding the viability of the 5P approach.

The purpose of using the omnibus approach for the 5P project was largely left undefined in the project document. The only passage in the document mentioning the joint character of the project discusses the need to take into account the “lessons learned” on joint interventions from previous projects, but subsequently refers mostly to the “increased transaction costs”; and the “need for appropriate coordination” in joint projects and omnibus projects, without stipulating the specific purpose of the joint approach, and thus justifying the required coordination efforts and the associated costs. The document thus does not provide a clear justification of the increased transaction costs. **(JC 6.1)**

Possible objectives or intended effects of a joint approach were indirectly described in the overall project strategy. It broadly alludes to “sharing of information”; jointly drawing on “analytical work, interventions, good practices” in view of a refined 5P approach as the main purpose of collaborating

across Regional Commissions. The “interregional Expert Group Meeting” (EGM) at the beginning of the project (September 2011) was meant to play a central role in this learning process; as it was supposed to be the platform for processing the information and findings of the different regional assessments with regard to “current PPP practice”. Findings from the EGM were supposed to influence the approaches of the RCs on operationalizing the 5P approach, including the various materials, such as guidelines, training materials and 5P training modules for regional workshops. Although not explicitly mentioned in the project strategy, the purpose and rationale of the omnibus approach for the 5P project therefore was to facilitate a joint learning process among Regional Commissions and their partners that would lead to the development of a new model of pro-poor public private partnerships as a the main product of the cooperation. This matches with the predominant understanding among 5P project staff of the purpose of the omnibus approach, i.e., to allow the Regional Commissions to pursue a common interest in the 5P concept, and to help amplify the awareness of the 5P approach in member states across regions, translating to the spread the idea to a greater number of people. **(JC 6.1)**

In order to facilitate the cooperation among RCs, the project strategy foresaw several formal coordination mechanisms; namely a) a project steering committee; b) a system of focal points, with specific staff members serving in that capacity in each regional commission that would meet and otherwise exchange information on a regular basis; c) a “project webpage” to disseminate project information centrally, and d) an “e-learning system” that was meant to become operational in early 2013. The e-learning system was eventually not developed, and the project webpage was also not online at the time of the evaluation.³⁶ **(JC 6.2)**

In addition to the above mechanism, the project financed a series of global, regional and sub-regional workshops and meetings that were meant to facilitate the exchange of information among members of the project team, but also among resources people and project participants to discuss project progress and the content related to the 5P concept. The global (i.e., inter-regional) level meetings, i.e., the *Global Expert Group Meeting (EGM)* that was combined with the *Global Inception Workshop*, and the *Inter-regional Forum on 5P Scale-up Strategies* that among other things were attended by members of the 5P project steering committee, and the regional project focal points are shown in Table 4.

Table 4: Global 5P workshops and meetings among Regional Commissions and DESA

Timing	Workshop / Meeting	Stated Purpose
09/2011	Expert Group Meeting (EGM) (Global)	Review regional assessments; share experiences on different PPP models; identify strengths, weaknesses, gaps in current practices.
09/2011	Inception Workshop ¹ (Global)	[Not specified]
11/2012	Inter-regional Forum on 5P scale-up strategies (Global)	Sharing of findings from regional assessment studies among other RCs; presentation of training materials to RCs (by ECE) “Discuss potential strategies to scale-up such partnerships to improve access to modern energy services.” (5P Progress Report 11/2013).

In the logic of the project strategy, and in the absence of the other originally foreseen learning platforms and websites, these workshops played a pivotal role for the exchange of information among Regional Commissions, and also had an important function with regard to the further development of the 5P

³⁶ Interviews with staff of the Regional Commissions; online search and verification of 5P website.

concept and approach, based on the findings from the regional reviews on PPP practices.³⁷ Considering that the 5P concept had remained relatively general and undefined in the project document³⁸, both the EGM and the inter-regional forum would have been the only opportunities built into the early stages of the project to flesh out many of the core details of this new concept; and to answer important questions on the approach, such as those regarding its financial viability, the relationship between the supported mini-grids and national power grids, the role of anchor customers, etc.³⁹

Contrasting the actual proceedings and results of these workshops with their originally intended results, however⁴⁰, suggests that their outcomes fell short of the intended goals in several ways. While the relatively short Expert Group Meeting / Inception Workshop⁴¹ did allow ESCAP as the initiator of the project to explain the basic elements of the 5P approach, and to present experiences from the Cinta Mekar model project, the specific format of the meeting might not have allowed in particular the participants from other regional commissions to carefully reflect on possible caveats of the concept, and to examine and question the applicability of the approach to their own particular contexts, which should have been an important part of the joint learning process. It is important to note in this regard that the idea of pro-poor public private partnerships was known to ESCAP staff from their previous experience with the Cinta Mekar project in Indonesia, while the concept was mostly new to representatives from the RCs. Additionally, even the ESCAP staff members had not had direct and personal experience with the 5P approach, as the project had been implemented by ESCAP's Indonesian project partners. While this is of course a typical set-up for donor-funded projects, it did mean that ESCAP staff had not had the chance to go to a process of experiential learning in relation to the 5P approach. All project staff and project partners thus needed relied on the inputs from IBEKA to understand the opportunities and constraints of the 5P concept. In the absence at that time of a formal evaluation of the Cinta Mekar project, this represented the only basis for all project stakeholder to understand and adapt the approach to their particular requirements. **(JC 6.2)**

In fact, IBEKA did present several key lessons from the Cinta Mekar project to the participants of the Expert Group Meeting⁴², among which were several issue that ultimately proved to be problematic for demonstration projects in Nepal⁴³. For example, IBEKA stressed that 5P projects should be linked to national energy programs, and should be consistent with clear policy measures for the regulation of the utility, and the pricing of the services. Furthermore, the Indonesian partner stressed that it was important to set low expectations with regard to returns on investments that private sector partners could expect from these initiatives; an issue that later became a challenge for the demonstration project in Nepal. Although these issues were emphasized by IBEKA, it is not clear that the Expert Group Meeting was used to further discuss these challenges, and to examine their implications for the development of a viable 5P model that could be tested across Regional Commissions. **(JC 6.3)**

Participants beyond the IBEKA representatives also tabled several potentially important observations, lessons and challenges that could have helped to refine the project strategy; and the 5P model and

³⁷ As mentioned in the project document, the EGM and the inter-regional forum were explicitly meant to provide a platform for sharing findings from these studies.

³⁸ See EQs 1, 2 and 3.

³⁹ Again, see EQs 2 and 3 for more details on these issues.

⁴⁰ Based on outcome documents / workshop reports of the individual workshops.

⁴¹ The inception workshop only lasted one day.

⁴² Analysis of EGM report.

⁴³ Findings of the field mission / Nepal country visit. Also see EQ 1 on Relevance.

approach early on during the project. This includes issues such as the importance of micro-finance supporting 5P projects, the emphasis on “follow-up” advisory services to project capacity development activities, threats to the sustainability of benefits (rooted in small project size), and the chances and limitation for successfully replicating the model; and the process and criteria for choosing the appropriate renewable energy technologies. Many of these contributions raised issues that eventually ended up being among the important challenges and bottlenecks of demonstration projects, and the underlying 5P model. **(JC 6.3)**

The documentation of the Expert Group Meeting does not suggest that the participating Regional Commissions had the opportunity to discuss these lessons and challenges associated with the 5P approach during the workshop, and to devise appropriate strategies to respond to them⁴⁴. With the opportunities for the joint conceptual refinement during the EGM limited, the different RCs would have had to pursue the further idea development, reflective observation, and the abstract conceptualization of the 5P approach on the basis of the EGM results during the subsequent preparation of their respective demonstration projects, and other region-specific project elements. No indication exists that this follow-up occurred as a joint effort of the regional commissions. The documentation of the EGM itself emphasizes the order of proceedings, and the main content related contributions, but did not offer any information on conclusions drawn by the participants on the basis of these inputs. Without close contact with their colleagues in other Commissions, and across time zones, it would have been difficult for individual RCs to seek clarifications; and to ask questions during this important “conceptualization” phase. **(JC 6.3)**

The documentation of the 5P Inter-Regional Forum in Bangkok a year after the EGM (i.e., in November 2012) suggests a similar pattern for this follow-up event. Formally, the purpose of the Forum had been to facilitate the sharing of findings from regional assessment studies among other RCs, to discuss potential strategies to scale-up pro-poor public private partnerships to improve access to modern energy services, and to present the 5P training materials that had been prepared by the ECE. In contrast to the clear learning purpose of the joint event, however, the documentation of the Forum, including the “conclusions and recommendations” of the report mainly summarize the proceedings of the joint workshop, instead of providing information on the content of the discussions; and of the conclusions reached. This includes information on crucial aspects of the 5P process, such as “key assessment factors” or a 5P demonstration project that were presented by ECE. The workshop report made note of the presentation itself, but did not report the key assessment factors themselves, which means that this important information did not become part of the official record of the event, and the 5P project overall. **(JC 6.3)**

It is not clear if all required inputs for the Forum had in fact been finished in time for the joint learning event. This is the case in particular for the 5P Training Handbook that ECE had been tasked to prepare and provide to the other Regional Commissions in time for the Forum, and as a resource for any subsequent regional 5P workshops. A version of July 2013 of this Handbook (which is eight months after the Inter-Regional Forum) still shows several key chapters as partly or even completely unfinished,

⁴⁴ This is also supported by findings from the online survey. The three respondents who attended the EGM were overall satisfied (2) or even very satisfied (1) with the event, and thought that the workshop fared well in explaining the scope and strategy of the 5P project. However, these same respondents thought that the workshop had been only “somewhat successful” (2) or even “not very successful” in facilitating an open exchange among its participants of their experiences related to public-private partnerships and rural electrification. (see JC 6.2).

including chapters on important topics such as “Securing Finance”, the development of “Pro-Poor Business Plans”, or the “Feasibility of Pro-Poor Investments”; all of which are topics that would have been central for complementing the rough outline of the 5P approach from the Project Document. **(JC 6.3)**

4 CONCLUSIONS

The following chapter presents a set of 8 conclusions that are based on the findings of the six evaluation question. Each conclusion is referenced to the specific set of evaluation question it is derived from.

4.1 CONCLUSION 1: RELEVANCE OF PROMOTING THE 5P APPROACH

The focus of the 5P project on facilitating the stronger involvement and greater investments of the private sector in rural energy sectors helped to publicize the fundamental idea and possibility of pro-poor public-private partnerships among member states of the participating Regional Commission, and has been met with interest from relevant stakeholders (both government and private sector) in these countries.

Based on EQ 1 (Relevance), EQ 2 (Capacity building), EQ 3 (Replication & Up-Scaling)

The 5P project has helped to broaden the basis and the possible target audience for this approach for increasing rural energy access. Although many questions on the viability of the approach remain to be answered, the work of the project team has helped to shape part of the discussion of concerning the potential role of the private sector outside of well-established bounds of commercial energy projects.

4.2 CONCLUSION 2: CONTRIBUTION TO A BETTER FOUNDED APPROACH TO 5P

The 5P project has the potential to create a valuable body of experience and lessons on the basis of its work on pro-poor public private partnerships. The eventual transferability of these lessons to future 5P projects depends on the extent to which experiences with 5P demonstration projects are systematically processed and documented during the remainder of the project.

Based on EQ 2 (Capacity Building), EQ 3 (Replication and Up-Scaling), EQ 6 (Omnibus Approach)

Through its work of applying the 5P concept to different country settings, the 5P project has provided potentially valuable experiences with the operationalization of this approach. Project stakeholders have gathered at least tacit knowledge on the pros and cons of private sector involvement in the rural energy sector, and have gathered important information that can be brought to bear in future similar initiatives.

Up to the point of this evaluation, however, a lot of this information and knowledge has not yet been carefully compiled, analyzed and categorized. While a lot of efforts have been invested into individual demonstration projects in order to ensure their successful completion, comparatively less work has gone into understanding how the experiences from these projects can eventually be applied to the scale-up of the underlying model in the project country itself, or to the replication of a more mature, and more comprehensively defined 5P model in other country settings.

4.3 CONCLUSION 3: THE MATURITY OF THE CONCEPT OF PRO-POOR PUBLIC PRIVATE PARTNERSHIP

The geographical and conceptual scope of the 5P project was too ambitious, considering that the concept of pro-poor public private partnerships had not yet been sufficiently defined and developed prior to the launch of the project. The relative lack of details on the operational and conceptual aspects of the approach meant that project participants and the cooperating Regional Commissions lacked much needed guidance for operationalizing the approach in their own countries.

Based on EQ 1 (Relevance), EQ 2 (Capacity Building), EQ 3 (Replication and Up-Scaling), EQ 6 (Omnibus Approach)

Prior to the current 5P project, the concept of pro-poor public private partnerships had only been applied in one other country; additionally, this initiative had not yet been comprehensively analyzed and evaluated. In spite of these circumstances, the current 5P project set out to demonstrate that the promising practice of pro-poor public private partnerships could be successfully replicated in other countries, as well. Moreover, the project was tasked to not only replicate the success of the original project in Cinta Mekar, but also to ensure that the approach, once replicated, would be scaled-up and repeated by the partnering governments on a larger scale. Finally, the project also was meant to help build the organizational capacity of interested governments for the replication and scale-up of the 5P approach.

In the end, even the first intended task of demonstrating the viability of pro-poor public private partnerships as a *project model* for the rural energy sector proved to be an ambitious, and nearly overly ambitious objective for the project. Too many important operational and conceptual details of the 5P approach were not yet well enough understood, for the project team to be able to offer concrete and actionable guidance on the implementation of the approach to project partners, and to participating Regional Commissions.

4.4 CONCLUSION 4: CONTEXT CONTINGENCY OF THE 5P APPROACH

In addition to the inherent logic of the 5P approach, the proponents of the concept have not yet sufficiently defined the specific context conditions that are required to ensure the viability of the 5P approach.

Based on EQ 1 (Relevance), EQ 2 (Capacity Development), EQ 3 (Replication and Up-Scaling), EQ 6 (Omnibus Approach and Joint Learning)

Experience with the demonstration projects implemented as part of the 5P project suggests that not all local conditions in communities or national policy environments are likely to be conducive to private sector investments, and pro-poor PPPs in the energy sector. Due to the often limited willingness to pay of poor, rural communities for energy services that would be used mainly for domestic consumption, and the often limited opportunities for the productive use of energy services in remote rural settings, many communities might unfortunately not be viable candidates for the 5P approach. Furthermore, certain policy provision might be absolute and necessary preconditions for the successful implementation of 5P programmes.

In the absence of a systematic classification of necessary contextual preconditions for the implementation of a 5P project, it was difficult to decide for potentially interested Governments a) if the approach really offered a feasible option for advancing the access to energy in rural area, and b) how 5P projects should be targeted to particular communities in order to maximize their chance of success. Even in the event of a scale-up of the 5P approach, this kind of information is required to selected suitable candidate communities for pro-poor public private partnerships.

One particularly important question in this regard is, to what extent and under what circumstances the 5P approach is really suitable for implementation in local conditions with only very little commercial potential, and thus few opportunities to put increased access to energy to productive use. The experience in Nepal suggest that absent of these factors, the willingness to pay of poor rural communities is very low. Although in the case of Dubung (Tanahun District, Nepal), the private sector and AEPC are still working on ways to make the solar grid project financially sustainable, it is well imaginable that this will not be possible in conditions where the willingness and ability to pay of local residents for more expensive renewable energy is even more limited.

Although responding to these challenges with efforts to stimulate local economic development might be a possible solution for some communities, it needs to be clear that this strategy considerable broadens the scope and possibly the cost of the pro-poor public partnerships as a project model. It only makes the model considerably more vulnerable to the unavoidable risks and contingencies of “rural economic development projects”. Stimulating economic development in structurally and economically depressed communities has proven to be a challenging proposition in most circumstances. If the financial viability of the 5P approach is made dependent on the success of these risky undertakings, this would invariably reduce the chances of developing a robust and dependable project model.

4.5 CONCLUSION 5: EXPLORATION, ANALYSIS AND LEARNING

For an intervention aimed at the development of a new project approach, the 5P project did not sufficiently emphasize the exploratory, analytical and learning-related aspects of the project.

Based on EQ 1 (Relevance), EQ 4 (Partnership Approach), EQ 6 (Omnibus Approach)

Considering the early stage of development of the 5P approach, the main challenge of the 5P project was to develop the promising practice pro-poor public private partnerships into a complete project model. Instead of pushing for the replication of this fresh approach, a possible alternative would have been to take the experience in the only previous 5P project (i.e., in Cinta Mekar, Indonesia), and to examine this particular project more closely. This way, staff and partners working on the project would have gathered important information on the strengths, but also the inherent weaknesses of the Cinta Mekar experience. This information could have provided a good foundation for any subsequent analytical work, and the examination of additional, carefully selected variants of public private partnerships in rural energy provision that could have added to the body of knowledge on this approach.

In the absence of this early analytical focus of the project, many of the subsequent activities that in principle could have provided valuable information on the viability of this type of approach lacked some the theoretical foundations that would have helped to more appropriately focus the scope of their inquiry. Most of the regional studies that were produced under the 5P project compiled useful

information on the structure of the energy sectors in member states, including their associated policy framework and other context data. However, the studies missed the opportunity take very concrete looks at the specific financial, policy-related, social and economic requirements of public-private partnerships in rural energy projects; and to base this analysis, among other things, on a very detailed, in-depth understanding of the Cinta Mekar model project, and the considerable existing literature on different types of public private partnerships. Combined potentially with a small and highly selective number of additional, in-depth case studies of partnership arrangements around the similar to the Cinta Mekar project, these activities would have likely provided a more appropriate basis for subsequent learning events and experimentation in a small number of pilot projects.

Without the foundation of detailed and specific information about the new project concept to share among Regional Commissions and project participants, the global / inter-regional workshops did not provide as much actionable and concrete guidance to their participants as would have been required to successfully operationalize the 5P approach in their own countries and regions. Although participants from Regional Commissions and project participants raised numerous challenges and caveats they had encountered with the new approach, the workshops were not used to discuss these challenges, and to work towards solving them. This might have been a factor of the limited time available for discussion during the workshop, but also limits of time, but also had to do with the fact that the evidence basis and appropriate body of knowledge on the very specific model of pro-poor public private partnerships had not been compiled in the time leading up to the workshops.

4.6 CONCLUSION 6: THE SEPARATE TASKS OF UP-SCALING AND CAPACITY DEVELOPMENT

The 5P project did not foresee sufficient resources and time to support the scale-up-related objectives of the 5P project (including the development of a vision and strategy for scale-up of the approach; and the development of the capacity of Government partners for scale-up and governance / regulation of private sector investments in rural energy)

Based on EQ 1 (Relevance), EQ 2 (Capacity Development), EQ 3 (Replication & Up-Scaling)

The 5P project did not sufficiently differentiate between its main task of consolidating and further developing the concept of pro-poor public private partnerships into an actual project model, and the other objectives it has set out to achieve, namely to demonstrating the value of the 5P approach to interested Governments; to help these governments to develop a vision and strategy for scaling-up of the approach; and to assist in developing the capacity of these Governments (and their partners) to actually undertake the scale-up and subsequent governance of private sector investments in rural energy.

Each of these additional objectives is linked to a particular set of necessary activities, each with its specific and unique challenges, and specific resource requirements; in terms of finances, technical know-how and engagement with the beneficiary governments that, in the current version of the project, have not been sufficiently considered and examined:

- The implementation of a project to *demonstrate* the feasibility of an already proven project model⁴⁵ to potentially interested stakeholders i.e., (a “demonstration project”) would need to focus on both the implementation of the actual project (i.e., the recruitment of a private sector partner, the selection of a suitable project site, the installation and operation of the infrastructure, etc.) but also on exploring, what possible implication the use of this approach would have for the governance structures of the respective energy sector. Demonstrating the feasibility of an approach thereby goes beyond the success of the demonstration project itself, as it also needs to take into account if the particular project model could usefully be integrated into the wider institutional, policy and regulatory framework that defines the opportunities and constraints in the particular energy sector. Many key questions linked to the scale-up of the approach would at least need to be asked by project staff during the demonstration project; and would need to be discussed internally, but also with stakeholders outside the immediate project who eventually will be affected by the roll-out of the approach. After all, all of these variables and stakeholders are likely to affect the *cost* of implementing and scaling-up the model; the *risks* involved in rolling out the approach, and the *benefits* that can be expected from using this tool. In that sense, the experiences made and lessons learned during the demonstration project provides an important foundation for the eventual development of a scale-up vision and strategy for the project model.
- During the actual development of the scale-up vision and strategy, project staff and their partners would take advantage of the lessons learned, experiences and contacts established during the implementation of the demonstration project, and would develop a strategic path that could lead the Government from one or few demonstration project to the roll-out of the approach on a larger scale. In order to ensure the eventual feasibility of the strategy, analytical work is as much part of this process as the anchoring of the scale-up plan in the political and institutional landscape of the implementing Governments. Project support thus needs to be adjusted and supplied accordingly.
- Finally, the task of supporting the government in acquiring / developing the needed capacity to actually implement the scale-up strategy, and to start using the 5P approach on a large scale is potentially a much larger and more comprehensive proposition than any of the previous objectives. Depending on the gaps in the policy framework and institutional system that were identified during the demonstration project and the formalization of the scale-up strategy, this step might involve providing capacity development support to the original host organization of the demonstration project, but it also might involve extending the support to other organizations that under the new approach have to take on new responsibilities, or in other ways are challenged to adapt their work to the new situation.

It is unlikely that all of these steps could be covered by one single project. This makes it all the more important to clearly distinguish between the different objectives and tasks; and to focus and delimit the activities of the current project on the right issues and challenges.

⁴⁵ As opposed to a pilot project that still focuses on experimenting with a new, potentially promising idea, with the intention of eventually establishing the promising practice as a new, proven, project model

4.7 CONCLUSION 7: USE OF COMPLEMENTARY CAPACITIES AND RESOURCES

The 5P project successfully started establishing outside partnerships throughout its implementation, but it did not yet capitalize strategically enough on the complementary capacities of these partners.

Based on EQ 4 (Partnership Approach), EQ 6 (Omnibus Approach)

All Regional Commissions started to work with and through outside partners for certain parts of the 5P project, ranging from the implementation of training workshops (such as in the case of ECLAC) to the mobilization of additional financial resources (in the case of ESCAP and IFAD).

While this cooperation has already proved to be useful for the project, a more intensive and strategic engagement of partners in different aspects of the project would likely have provided even more opportunities to use the complementary skills and resources to advance the 5P project itself. In the case of the cooperation between IFAD and ESCAP for example, the partners do not yet seem to have made full use of their complementary expertise and know how. While it is not clear if it ultimately would prove to be useful to link pro-poor public private partnerships closely to parallel rural economic development projects, it still would seem that IFAD has the potential to offer valuable expertise for defining the particular kinds of conditions in which the 5P approach might offer a viable alternative to purely grant-based energy projects.

Even beyond this, a more strategic involvement of project partners also across Regional Commissions would seem to hold considerable promise. ECLAC partnered with the Global Sustainable Electricity Partnership (GSEP) to carry out one of its project-related training workshops. An organization whose members consist of some of the “world’s leading electricity companies” would likely also be able to make valuable contributions to other parts of the 5P project. In order to be able to usefully solicit inputs from this or other partners, however, the staff of the 5P project will have to adopt a more comprehensive and strategic perspective on the project that brings into focus not just individual demonstration projects, but the larger endeavor of developing a viable model for public-private partnerships for rural energy projects.

4.8 CONCLUSION 8: OMNIBUS APPROACH AND LEARNING

Purpose and objectives of the joint omnibus approach had not been sufficiently defined to add value to the implementation of the 5P project, in particular its learning aspects.

Based on EQ 1 (Relevance), EQ 2 (Capacity Development), EQ 4 (Partnership Approach), EQ 6 (Omnibus Approach)

In the current project, the purpose and rationale, and the expected benefits of using an omnibus approach was not clearly enough defined at the outset of the project in order to create sufficiently strong incentives for the project teams in the different Regional Commissions to engage in the time- and resource intensive task of cross-regional cooperation. While an intensive exchange between Regional Commission and their partners in the different regions could potentially have added value to the main proposition of the project, i.e., to learn about the viability of public private partnerships in small scale

rural energy projects, this purpose was not clearly enough reflected in the intervention logic of the project, overall, and thus also did not become the defining end for the interactions between Regional Commissions. Instead, the flow of information between regions became increasingly limited to the formal exchange of progress reports, and project deliverables.

Not sufficiently emphasizing the learning purpose of the omnibus cooperation might also have contributed to a situation in which originally foreseen learning platforms; and learning tools (such as the project website, or the online learning tool) received less attention than they should have. Although cooperation, exchange of information and joint learning across great distances is a challenging proposition even in the best of circumstances, tools like the ones mentioned above could have helped to facilitate the more regular flow of information between regions. Still, even with these tools in place, any cooperation and exchange of information would have needed to be guided by a clear understanding among the partners of a) why it was expected to be necessary or beneficial to cooperation on this particular project; b) what kinds of activities the cooperation should entail; and c) what joint objectives were being pursued by means of the cooperation.

5 RECOMMENDATIONS

This chapter is used to present 8 recommendations for the continuation of the 5P project, and possible follow-up projects. Each recommendations clearly references the specific conclusions it is based on.

5.1 RECOMMENDATION 1: CONTINUATION OF WORK ON PRO-POOR PPPS

Recommendation deals with:	Continuation of investment in pro-poor public private partnerships
Recommendation is directed at:	ESCAP, other interested Regional Commissions

Based on Conclusions 1 (Relevance), 3 (Concept maturity)

Statement of overall recommendation:

ESCAP, and other Regional Commissions (if interested), should continue their work on non-traditional public private partnerships, including “pro-poor” public private partnerships beyond the end of the current 5P project, in order to ensure that experiences and lesson-learned from this project can be adequately captured and formalized.

Short-term actions to be taken:

- In accordance with Recommendations 3 (5P Project Model), 4 (5P Context Contingency), and 6 (Follow-Up Demonstration Project), ESCAP and other interested Regional Commissions should start to outline the options for continued work on the concept of pro-poor public private partnerships. Follow-up is necessary to ensure that results from the current 5P projects, such as those in Nepal and Laos, can be consolidated.
- ESCAP and other interested RCs should start identifying possible funding sources for the continuation of the work on pro-poor public private partnerships within the UN system and beyond.

5.2 RECOMMENDATION 2: KNOWLEDGE AND LEARNING

Recommendation deals with:	Compilation of and capitalization on lessons learned from 5P project
Recommendation is directed at:	ESCAP, ECA, ECLAC (RC with demonstration projects), possibly ECE, ESCWA

Based on Conclusions X, 6 (Learning)

Statement of overall recommendation:

Towards the end of the current project, emphasis should be put on compiling, analyzing and capitalizing on the experiences and lessons-learned on pro-poor public private partnerships up to this point. The effort should be led by ESCAP, as the RC that has advanced furthest in the 5P project, but it should also include other the other RCs where 5P project were attempted (ECA, ECLAC). This process should be as informal and open as possible, and should include relative successes as well as challenges and “failures”.

Short-term actions to be taken:

- Participating Regional Commissions should be invited to review and comment on their experience participating in the 5P project, and (where applicable) implementing 5P demonstration projects.
- This initial review should ideally follow a common format, but should otherwise be as informal as possible. Regional Commissions should be encouraged to mention positive as well as negative aspects of the approach, and their experiences with it. ESCAP might consider to use this evaluation as a tool to solicit feedback from the Regional Commissions
- ESCAP should compile and process all materials for the formulation of lessons learned from the current 5P project (not just concerning ESCAP's work, but also including the work of the other Regional Commissions), and should write an internal discussion paper on the approach, and the work of the Regional Commissions on the approach
- ESCAP should consider organizing an informal workshop with interested project stakeholders (RC staff, project partners from government, business sector). This workshop needs to be carefully prepared by ESCAP, has to be structured as to facilitate focused yet open discussion of the project-related experiences (based on the discussion paper), and, ideally, should be facilitated by a third party with experience in moderating joint learning processes.
- Results from this workshop should be captured in an analytical workshop report (possibly an amended version of the discussion paper). This report needs to go beyond reporting on the proceedings of the workshop, but needs to reflect the substance and content of the discussions.

5.3 RECOMMENDATION 3: 5P PROJECT MODEL

Recommendation deals with:	Formulation of an actual 5P project model
Recommendation is directed at:	ESCAP

Based on Conclusions

Statement of overall recommendation:

ESCAP should follow-up on this project with work to develop the 5P promising practice into an actual project model. The analysis of the demonstration projects in Nepal and Laos can be part of this effort (beyond this current evaluation), but that work should be complemented by a development of a more complete theoretical framework for small-scale PPPs in the rural energy sector on the basis of other (secondary) sources, including academic papers, grey literature, evaluations, etc.

Short-term actions to be taken:

- Review the evaluation of the Cinta Mekar project in light of the findings of this evaluation, and the experiences gained from the current 5P demonstration projects.
- Complement the review of the Cinta Mekar evaluation with a desk analysis of relevant academic, grey, project-specific literature in order to lay the foundation for a more complete theoretical framework for pro-poor public private partnerships in the energy sector
- Use the findings from the previous steps to draft Terms of References for the evaluation of the demonstration projects in Nepal and Laos. Once these projects are completed, conduct the evaluations, using the previously drafted project theory as a guide.
- Use the findings from both evaluation to refine the initial theoretical framework.

- Use the results of these steps to design a subsequent, small-scale pilot project to test the refined theoretical framework.

5.4 RECOMMENDATION 4: 5P CONTEXT CONTINGENCY

Recommendation deals with:	Defining context conditions suitable for 5P projects
Recommendation is directed at:	ESCAP

Based on Conclusions

Statement of overall recommendation:

The development of a more complete model for pro-poor public private partnerships should also include a more detailed and rigorous analysis of the context conditions that represent necessary pre-conditions for the successful implementation of public-private partnerships in rural energy sectors. This analysis should not become the justification for expanding the scope of the 5P model to include presumably complementary interventions (such as rural economic development). Instead, the analysis (as an integral part of model-building) should help to clearly delineate the scope of the 5P model; and to clearly define the range of its applicability.

Short-term actions to be taken:

- Use the findings from the evaluation of the Cinta Mekar project, the findings from this evaluation, and the experiences with the implementation of the current demonstration projects to identify context factors that have influenced the implementation and (expected) performance of the different projects.
- Use a review of analytical and grey literature to identify suitable analytical frameworks or theories that help in the explanation of these observations re. context factors. Use findings from this step to add to refine the current 5P project model.
- Test the refined 5P project model, including in particular its components related to context contingency of the 5P model in the evaluation of the 5P demonstration projects in Laos and Nepal.
- Use the findings from the evaluation to select appropriate sites for the follow-on 5P pilot project (see previous recommendation).

5.5 RECOMMENDATION 5: PARTNERSHIPS

Recommendation deals with:	Establish partnerships with clear understanding of their intended purpose
Recommendation is directed at:	ESCAP, ECA, ECLAC, ESCWA, ECE, DESA

Based on Conclusions

Statement of overall recommendation:

Regional Commissions that choose to remain involved in the work on pro-poor public private partnerships should make better, more strategic use of the partnerships that have been established during the current 5P project. New partnerships should be established only on the basis of a clear understanding of the specific purpose that the partnership is expected to serve, stemming from a

clearer understanding of the 5P approach as a project model (see above), and the added value that each partnership can bring to the project.

Short-term actions to be taken:

- Regional Commissions that choose to stay involved in work related to pro-poor public private partnerships should approach their current partners to gauge interest in a continued involvement in 5P initiatives.
- A list of interested partners should be shared among Regional Commissions, along with a short summary of the potential value that each partner is expected to bring to the work on PPPs / 5Ps.
- During the planning of possible follow-on initiatives (model building, pilot project) participating RCs should identify possible areas where past / current partners are able to add value / bring specific expertise to the table.
- Opportunities for partnerships, and their specific purpose, should be clearly identified in the corresponding project documents.

5.6 RECOMMENDATION 6: FOLLOW-UP DEMONSTRATION PROJECTS

Recommendation deals with:	Follow-up on demonstration projects
Recommendation is directed at:	ESCAP, ECA, ECLAC

Based on Conclusions

Statement of overall recommendation:

Each Regional Commission that has up to now pursued the implementation of 5P demonstration projects should develop appropriate options for the future of this initiative. While this can include the continued support of the project under the heading of pro-poor public private partnerships, this should not be considered as the only option. In cases where Regional Commissions and their partners that have started to pursue a project model that significantly differs from the concept of public private partnerships (such as the cooperative model in Lesotho), Regional Commissions should have the freedom to continue these initiatives independent from the 5P framework.

Short-term actions to be taken:

- Towards / at the end of current funding for 5P demonstration projects (UNDA, IFAD) project managers should take stock of the status of the respective projects, and should work with the national team in the project countries to identify the main threats to the sustainability of the achievements. Members of the national team should be encouraged to clearly document these threats.
- ESCAP, ECA, ECLAC and (if applicable) other Regional Commissions should consider if a follow-up to the current project is in line with their organizational and financial capacity. Interested Regional Commissions should work with the government to develop a suitable follow-up project, and seek adequate funding.
- Regional Commissions who consider it beyond their capacity to further support the consolidation of results from the demonstration projects should work with the partnering governments on identifying suitable donors and development partners for the follow-up work.

5.7 RECOMMENDATION 7: COOPERATION AMONG REGIONAL COMMISSIONS

Recommendation deals with:	Base future cooperation on pro-poor public private partnerships on clearly defined expectations
Recommendation is directed at:	ESCAP, ECA, ECLAC, ESCWA, ECE, DESA

Based on Conclusions

Statement of overall recommendation:

Future work on pro-poor public private partnerships should not automatically be conducted as a joint or even an omnibus project. Future collaboration on this topic should be based on a clear understanding of the purpose of the cooperation, and the ends that are pursued with its help. The cooperation process and supporting tools (such as learning platforms, websites, etc.) should be designed accordingly. Also, the cooperation process needs to be supported by the appropriate resources, both financially, technical and human resource related.

Short-term actions to be taken:

- When designing follow-on actions for the current 5P project, individual Regional Commissions should carefully analyze if there is added value in continuing the cooperation with other Commissions on these actions.
- Regional Commissions interested in cooperation should seek to identify the main purpose of their efforts to collaborate, and should formulate clear, specific results that they will aim to achieve by working together.

Annexes

Annex I: Evaluation Results Matrix (data and information for each of the indicators of the evaluation matrix).

Annex II. Management response (to be completed by ESCAP management)

Annex III. Terms of reference

Annex IV. List of documents reviewed

Annex V. List of interviewees

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