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Sida Decentralised Evaluation

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Final review of CENTEC, Center for Environmental Technology, at the Embassy of Sweden in Beijing, China

Final Report

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August 2013**

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The views and interpretations expressed in this report are the authors' and do not necessarily reflect those of the Swedish International Development Cooperation Agency, Sida.

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Foreword

The following report is a review of the CENTEC project at the Embassy of Sweden in Beijing. The evaluation has been conducted independently by Sipu International and Ramböll Management Consulting in Sweden at the request of Sida. Anna George was the contact person at Sida. The review has been conducted by Martin Froberg, Francisca Herodes, Francesca Jessup, Jamie Smith and Anna Zingmark. Questions about the review will be answered by Anna George and/or Martin Froberg.

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Abbreviations and Acronyms

CENTEC	Center for Environmental Technology at the Embassy in Beijing
FAO	Foreign Affairs Office
IMT	International Environmental Technology Cooperation
PDC	Partner Driven Cooperation
R&D	Research and Development
Sida	Swedish International Development Cooperation Agency
SoE	State owned Enterprise
VINNOVA	Swedish Governmental Agency for Innovation Systems

Executive Summary

The CENTEC, Center for Environmental Technology at the Embassy in Beijing, project is a project that is located and managed by the Embassy of Sweden in Beijing. The main financier of the project is Sida. The project is active in initiating and supporting cooperation in the field of environmental technology between Swedish and Chinese stakeholders, both in the public and in the private sector. The overall objective of CENTEC is to contribute to the decrease of carbon dioxide emissions in China and to the improvement of living conditions at large. CENTEC was initially set up in 2007. The emphasis in the following review is on the period December 2011 until April 2013.

Sida will terminate its bilateral cooperation with China in December 2013 and the purpose of this review is threefold. First, the review evaluates CENTEC as a model for Partner Driven Cooperation (PDC). Second, the review discusses how CENTEC can be sustainable in the long run, and third to analyse how CENTEC has adapted to the changed conditions in China since the last review that was published in March 2010. The objectives of this review include to update the analysis of the results and to analyse the lessons learnt in the areas of PDC, business promotion and how CENTEC has interacted with other Swedish stakeholders in the public sector. Based on the observed results, the review contains a set of recommendations concerning how CENTEC should be organised and funded in the future.

It is the impression of the evaluator that CENTEC has been successful in promoting Swedish environmental technology solutions in China. One of the obvious results of CENTEC includes the value of the business deals generated as a result of CENTEC's activities (a total of at least 248 MSEK during the whole period of CENTEC's existence). Other results include the broad implementation of various activities, for instance delegation trips to Sweden or the hosting of seminars, which are likely to contribute to the overall awareness of sustainable development and of Swedish solutions in China. CENTEC has also been successful in defining its role in relation to other Swedish public stakeholders that are active in China. The recent shift of CENTEC's focus towards selected areas within environmental issues is a reaction to the change in demand on the Chinese market. One central observation of this review is that CENTEC and the project's approach has been successful in order to promote PDC.

During the evaluated period (December 2011 – April 2013) the communications work of was down-prioritised resulting in e.g. that the previous newsletter was not issued from February 2012 – March 2013. Even if the joint website with IMT was active during this period, the overall impression of CENTEC's activities among Swedish companies has been influenced by the decrease in communication activities. Furthermore, several Swedish stakeholders mention that they have the impression that CENTEC has become less active within business promotion in recent years and that CENTEC has become increasingly reactive rather than proactive.

This review shows that the communication activities are relevant and contribute to the overall objective of CENTEC. The review further shows that the organisation's location at the embassy is necessary in order to initiate contacts with public sector stakeholders in China. The major challenge ahead is to identify a sustainable solution for CENTEC and its activities in the future. It is the view of the evaluator that CENTEC must improve its ability to communicate its achievements. The achievements must be used to motivate CENTEC's existence and thus to enable future means of funding.

The future of CENTEC can be divided into before and after the 31st December 2014. As for now, CENTEC has funding until December 31 2013 and the current government's strategy for environmental technology runs until December 31 2014. The main challenge ahead for CENTEC is to bridge this gap year and "survive" in some form until then. After all the actors active within this strategy have been evaluated, it will be possible to understand how CENTEC has contributed to the overall strategy. In order to bridge 2014, it is the view of the evaluator that CENTEC should be prepared to scale down and focus on its core activities, i.e. policy issues and commercial cooperation.

As an overall conclusion, the work of CENTEC can be considered as relevant for Sino-Swedish relations and for the promotion of Swedish environmental technology in China. The diplomatic platform supplied by the Swedish Embassy in Beijing has proven to be necessary in order to create contacts with public sector stakeholders in China. The long-term perspective of the business promotion work has been a key success factor when supporting Swedish companies on the Chinese market. CENTEC has had positive impacts on both policy development in China and the promotion of Swedish environmental technology. In a wider sense, CENTEC's work has to a limited extent contributed to the overall objective to lower carbon dioxide emissions in China and thus to the improvement of the living conditions at large. More importantly, CENTEC has created a solid platform to work from and it is therefore desirable that activities now conducted by CENTEC should continue in the future.

1 Introduction

1.1 BACKGROUND TO REVIEW

The CENTEC project is a project that was initially set up by the Swedish Embassy in Beijing in order to promote Swedish companies in the area of environmental technology. The background to CENTEC was that the promotion work done for e.g. sustainable city planning and renewable energy had prior to CENTEC been perceived as fragmented by companies and lacking a clear follow up function. In addition, Swedish companies in the environmental technology industry called for better coordination of the public sector business promotion in this field.

In 2007 Sida initiated its support of the establishment of CENTEC as it was identified that the promotion of environmental technologies also contributes to sustainable development. The center was established to work with several issues simultaneously, including the development of sustainable city planning and policy dialogue with Chinese institutions. Moreover, it was assumed that the promotion of Swedish environmental technology in China would lead to a win-win situation where the implementation of Swedish technology was expected to lead to sustainable development in China and also to economic growth in Sweden. The CENTEC project works according to the Partner Driven Cooperation (PDC). PDC is Sida's instrument for extending previous bilateral development cooperation with a cooperation based on mutual interest.

Between 2007 – March 2011 Sida's financial support to CENTEC amounted to 6 MSEK. During this period, CENTEC received another 5 MSEK from the Ministry of Enterprise. In addition to the 5 MSEK, the Ministry of Enterprise funded the remainder of 2011 with 2MSEK (i.e. March-December 2011). During 2011-2013 Sida stepped in again with 6.8 MSEK. During the whole period the Ministry of Foreign Affairs also supported CENTEC by covering the cost of the head of CENTEC (50 per cent of a full time employment). During this second phase the management of CENTEC changed. This report focuses on the current period of CENTEC, i.e. the period 14.12.2011 – 31.12.2013. As of December 31 2013, the bilateral strategy for development cooperation for China is expected to end and thus, CENTEC will need to identify other sources of funding for its continuation beyond 2013.

In March 2011, the *Review of the Centre of Environmental Technology at the Swedish Embassy in Beijing*, by Mr Lars Rylander was published. Rylander's review concluded that CENTEC had achieved its objectives and contributed to an increased exchange between Swedish and Chinese actors in sustainable urban development and climate change. It was also concluded that CENTEC was a good model for PDC.

The following report contains the results obtained in a review of CENTEC that was conducted March-April 2013, in Beijing and in Stockholm. The review has been commissioned by Sida.

1.2 THE PURPOSE AND LIMITATIONS OF THE REVIEW

The following review has its starting point in the *Review of the Centre of Environmental Technology at the Swedish Embassy in Beijing*, by Mr Lars Rylander in March 2011. The review by Mr Lars Rylander covered the period 2007-2010. The review by Rylander analysed the results of CENTEC and listed lessons learnt based on relevance, effectiveness and institutional sustainability. The recommendations in Rylander's review included the statement that Sida should continue its support of CENTEC and suggested some modifications of its operations. The following report is an update of that review.

Sida has decided to update the review of Mr Lars Rylander for three different purposes (as stated in the Terms of References).

1. It is now clear that the bilateral development cooperation with China will finalise by December 2013. Sida needs to document results of Partner Driven Cooperation (PDC), and since CENTEC has been a model project it is important to further analyse its results as a facilitator for PDC. The intended win-win in combining the goals of development cooperation and promotion of Swedish environmental technology, and also in creating synergies by facilitation and cooperation with and reinforcing efforts of other official Swedish actors should be further analysed
2. There is a need to discuss how CENTEC in the long run can relate to and be part of the overall promotion work within the area of environmental technology and sustainable urbanisation. Should CENTEC, wholly or in part, continue after the phasing out of development cooperation?
3. CENTEC's priority projects have to some extent changed since the previous review. In parts, this has been influenced by changes in the Chinese priorities, but there could also be other reasons. CENTEC's strategies to cope with the changes and implications ahead need to be analysed.

The objectives of the assignment are six fold and include:

1. To update the analysis of the results achieved by CENTEC since the previous review (i.e. the review by Mr Lars Rylander)
2. To summarise and analyse lessons learnt, with regard to CENTEC as a model for promotion of environmental technology and sustainable urban development
3. To summarise and analyse lessons learnt, with regard to CENTEC as a model and facilitator for PDC. This part includes an analysis of the kind of partners CENTEC has provided facilitation support to, and whether the evolved relations are sustainable
4. To update the analysis to which extent the activities of CENTEC has contributed to business deals between Swedish and Chinese corporations

- 5. To update the analysis of the extent to which CENTEC has provided resources in support of, or cooperated with the Governmental Offices in Sweden, especially International Environmental Technology Cooperation (IMT) and Business Sweden (previously known as the Swedish Trade Council). The review further has the objective to analyse the potential win-win in supporting promotion of Swedish Environmental Technology in order to achieve the development cooperation goals. To this end, the review is expected to analyse if CENTEC has any add-ons to ordinary business promotion, to investigate if the results of CENTEC are sustainable in the long term and which aspects that have a strong ownership among Swedish and Chinese stakeholders respectively
- 6. The review should also give recommendations concerning CENTEC's work post 2013 in the sense of which issues that CENTEC should focus on, how it should be organised and how it should be financed. This review is expected to give input to the on-going discussions in the Swedish Government Offices and is not to be seen as a plan for how CENTEC should be organised in the future

At a general level, this review of CENTEC faces major challenges mainly since the results chain developed in this second phase of CENTEC does not supply the evaluator with the appropriate tools for evaluation. The notions of activities, outputs and outcomes do not follow in a logical order supporting a theory of change, and indicators and means of verification do not seem to have been particularly useful for analysing results. This resulted in that the evaluator had to focus more on the extent of activities carried out rather than their contribution to achieving particular objectives. To this end it should be added, that the absence of clear indicators in the project makes it difficult to measure what has occurred over time and thus to identify and analyse any success factors of the project.

1.3 METHODOLOGY

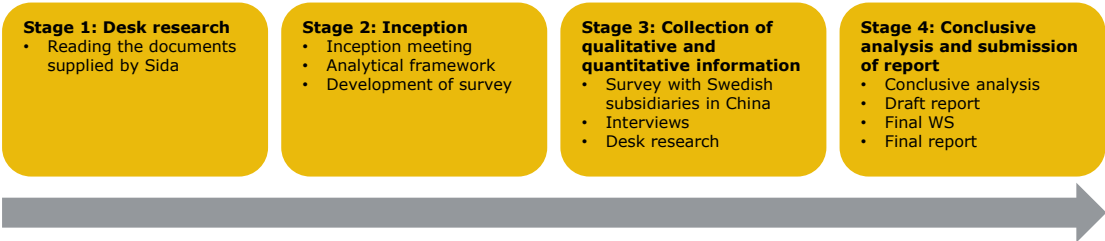
The implementation of the final evaluation has its starting point in a systematic method based on the guidelines for evaluation outlined by Sida. The method aims to ensure that the evaluation questions of the evaluator are answered and that the judgments conducted by the evaluators are transparent. This final evaluation is based on the following criteria: Efficiency and implementation, results, prerequisites for sustainable results and long term solution for the promotion of Swedish environmental technology in China. The table below is a summary of the analytical framework used in the final evaluation. The full version of the analytical framework can be found in the appendices of this report.

Table 1: Summary of analytical framework

Criteria	Main evaluation questions used
Results	Questions that investigate achievements of CENTEC
Lessons learnt	Questions that investigate the prerequisites for the created relationships to become sustainable in the long term and if CENTEC’s model is appropriate for its objectives
Long term solution CENTEC (recommendations)	Questions that deal with if and how CENTEC should/could become a long term solution

The review was conducted during the spring of 2013 and has been implemented in four stages as outlined in the figure below. In stage 1, written material such as Sida policies and decisions, available plans and reports from CENTEC, the previous review of CENTEC (Rylander, 2011), the review of the Government’s specific support for Export of Swedish environmental technology (Synnerholm, 2010) as well as other relevant material was studied. In stage 2, the inception meeting with Sida was held. In this stage, the analytical framework of the review was agreed and the survey was written. In Stage 3, the information collection stage, the survey with companies that have received assistance by CENTEC as well as the interviews with Swedish and Chinese stakeholders were conducted. Through the semi-structured in-depth interviews, the evaluator obtained qualitative information regarding partners’ and other stakeholders’ views on how the CENTEC project has been implemented. The interviews have been combined with responses from the survey. The interviews included telephone interviews, interviews that were held in person and a couple of group interviews with subsidiaries of Swedish companies in China. Stage 3 also contained some desk research, e.g. the material supplied by CENTEC in Beijing. During stage 4 the gathered information was compiled and the results of the review were reported to Sida.

Figure 1: The process of the review



The survey was conducted from April 2 to April 17. A total of 103 respondents were given to the evaluator by Sida in Beijing out of which 96 were valid email addresses. The respondents consisted of Swedish companies (including their subsidiaries in China) and organisations (including associations and municipalities) that have been in touch with CENTEC. A total of two reminders were sent (April 9 and April 15).

Judging by the email addresses, the respondents represented a maximum of 54 different companies/organisations.

A total of 51 respondents (equals 53 per cent) completed the entire survey and another nine respondents (equals 9 per cent) answered at least one of the questions. These 60 respondents represent a total of 37 companies/organisations, equalling 69 per cent of the companies/organisations that received the survey.

The response rate can be considered satisfactory given the time frame and the target group, where companies normally are less inclined to partake in web based surveys.

The final results were presented at Sida on June 12, 2013. The comments from the final presentation have been integrated in this review.

2 The evaluated intervention

2.1 BACKGROUND TO CENTEC

CENTEC started as a project at the Swedish embassy in Beijing in 2006, as a response to promote the concept of Sustainable City and renewable energy in China. At the time, these issues were prioritised by both the Swedish government and by Sida's policy on environmental sustainable development. In the case of the latter, Sida has the view that there is a clear link between the development of the environment and poverty reduction. During the early stages of CENTEC several Swedish delegations visited China and soon it became clear to CENTEC that a more thorough follow-up function was needed in order to obtain more sustainable results with the Chinese stakeholders. Moreover, it was also assumed that improved coordination between private and public entities would be beneficial for the overall promotion of environmental technology in China. In early 2007, Sida decided to support the project from July 2007 to June 2010 with 6.3 MSEK. The Center was formally inaugurated in June 2007. During this period CENTEC also received another 5.0 MSEK from the Swedish Ministry of Enterprise. CENTEC could then forward its unspent funds and extend the project until March 2011. The remainder of 2011 was bridged by the Ministry of Enterprise (2.0 MSEK). During that time it was decided that Sida would finance another period (14.12.2011 – 31.12.2013) with another 6.8 MSEK. During this period (referred to as the current period in the remainder of the report), the Embassy of Sweden in Beijing has also supported CENTEC by covering the cost of the head of CENTEC (50 per cent of a full time employment). CENTEC's funding is summarised in the table below. It should here also be mentioned that the agreement between Sida and the Embassy of Sweden in Beijing never defined the extent of the managerial service in terms of working hours.

Table 2: Funding of CENTEC 2007 - 2013

Time period	Funding body	Amount
July 2007 – March 2011	Sida	6.3 MSEK
July 2007 – March 2011	Swedish Ministry of Enterprise	5.0 MSEK
March 2011 – December 2011	Swedish Ministry of Enterprise	2.0 MSEK
December 2011 – December 2013	Sida	6.8 MSEK
July 2007 – July 2011	Embassy of Sweden in Beijing	Full-time managerial service

July 2011 – December 2013	Embassy of Sweden in Beijing	Half-time managerial service
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As previously mentioned, CENTEC was formally inaugurated in June 2007 and the initial period can be defined as a period of rapid development. According to the project application for the current period dated 31.03.2011, CENTEC soon became a platform for PDC between Swedish and Chinese stakeholders and activities (including e.g. seminars, delegations and conferences). The objective of PDC is to stimulate and strengthen the emergence of self-supporting relationships of mutual interest between Swedish partners and partners in low and medium income countries in order to contribute to poverty reduction and equitable and sustainable global development. The promotion of bilateral exchange has remained a priority throughout the existence of CENTEC.

According to Rylander's review, CENTEC's expected results for the period 2007 – 2010 were six and these are listed in the table below.

In the review by Rylander a new results chain was introduced. The results chain was later adapted by CENTEC and is now constitutes the framework for CENTEC in the current period. The results chain is summarised in section 2.2.

Table 3: Expected results 2007-2010

1.	Substantially increased levels of activities oriented towards dissemination and visibility of Swedish environmental technology focusing on sustainable urban development
2.	Increased co-ordination between Swedish companies, organisations and authorities
3.	Improved policy-dialogue between CENTEC and Chinese authorities, companies and organisations in the area of environmental technology in order that Swedish policies would gain acceptance and lead to demand for Swedish system solutions thereby contributing to sustainable urban development, promoting economic growth in China as well as in Sweden
4.	Establishment of a number of enterprise groups for marketing of environmental technology in China
5.	A number of investments of Swedish environmental technology companies in China;
6.	Several strategic demonstration projects identified, mobilised and presented for relevant enterprise groups, of which some should lead to contracts and implementation

The Chinese economy can in general be defined as a “political economy” where many business decisions are made by political stakeholders. As result of this, the co-operation between Sweden and China in the area of Environmental Technology are often initialised by Letter of Intent (LoI) or Memorandum of Understanding (MoU). Prior to the current period of CENTEC (i.e. 2007-2011), a total of ten MoUs were signed. These MoUs created a foundation for activities during the current period in

the areas of policy dialogue, institutional cooperation and promotion of environmental technology. These agreements also provide a platform for long-term sustainable relations.

In the area of sustainable urban development the demand for CENTEC's services grew substantially during the first period, and it soon became clear that CENTEC could not cope with the high Chinese demand under the current organisation. In order to support activities in Sweden, the Sino-Swedish Environmental Technology Cooperation (now known as IMT) was set up 2008 as a part of the Swedish Governmental Programme for environmental technology. The objectives of IMT were overlapping with those of CENTEC in the area of business promotion. The IMT is financed by Swedish Governmental Programme for Environmental Technology (Miljöteknikstrategin). The IMT project was evaluated by Mr Bo Synnerholm in 2010 and extended until 2014 (which coincides with the final date for Miljöteknikstrategin). In order to cope with the overwhelming demand by Chinese stakeholders, CENTEC also started to prioritise projects that were perceived as progressive (i.e. promoting new technologies) and that received both political backing and had a plan for funding.

During the early stages, it soon became clear that CENTEC functioned as “contact hub” for Swedish authorities and as a source of inspiration for the design of Sida's environmental technology promotion programmes in India and Vietnam.

A central finding in the review by Rylander 2011 was that nine subsidiaries of Swedish companies on the Chinese market had obtained sales contracts to an amount of 466 million SEK up to 2010 thanks to their cooperation with CENTEC. The review also introduced a results chain for CENTEC. The results chain was modified in 2012 and states the goals and objectives for CENTEC until 2013. This is described in section iii.

2.2 DESCRIPTION OF THE CENTEC PROJECT: STRUCTURE AND DESIGN

CENTEC consists of four employees whose activities are financed by Sida during 2011-2013, and the head of CENTEC (50 per cent of a full time service) is financed by the embassy. The CENTEC project finances five employees. During 2012 until now a position as communication officer has been vacant. During that time, the communications work was down-prioritised. During the first four months some external services have been acquired in order to boost the communication work. The evaluator has not been able to verify to which extent this has been made.

The organisation of the project is that the Head of CENTEC is responsible for ensuring that all administration requirements are fulfilled and has an important role for CENTEC's external representation. The Head of CENTEC also chairs weekly meetings that are held jointly with the Embassy's Center for Social Responsibility. All

formal and financial decisions have to be taken by the Head of CENTEC and be according to the rules of procedure of the Embassy. The project manager is responsible for the day-to-day running of the center and has the mandate to prioritise between tasks.

CENTEC works according to the Partner Development Cooperation (PDC) instrument. PDC is an instrument within the Swedish development cooperation that was developed on basis of a policy by the Swedish government. PDC has the aim to establish relations between Swedish stakeholders and stakeholders in other countries. Relations should be based on mutual interests and in the long term financed by other means than cooperation funding.

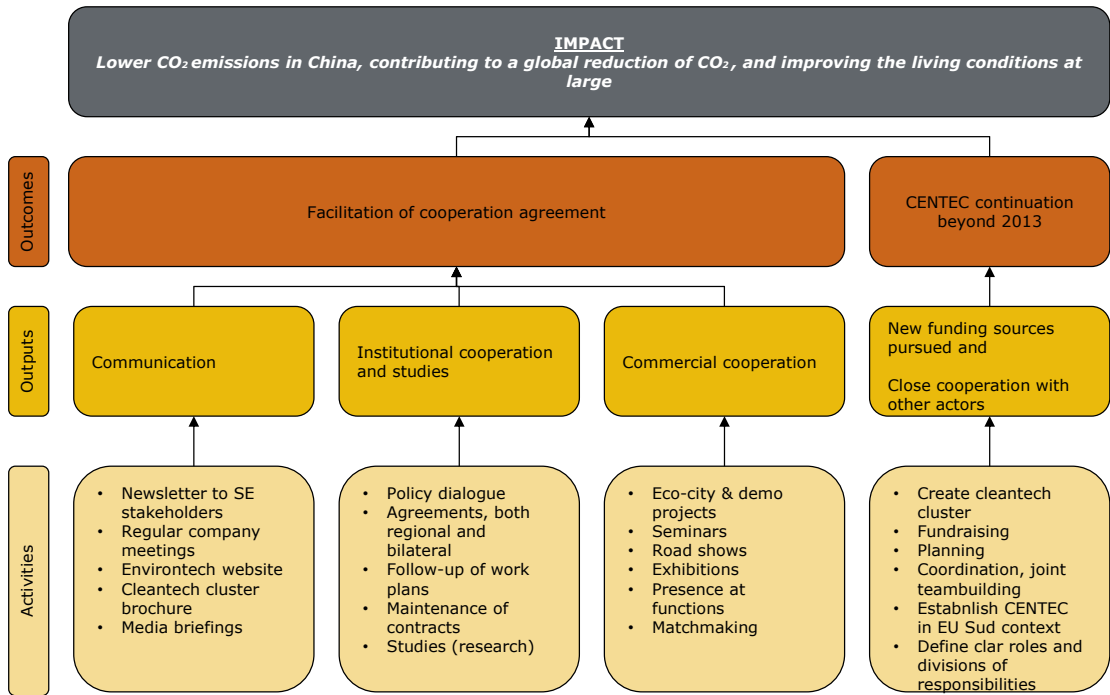
In the report by Rylander it is concluded that the CENTEC project initially had the character of a pilot project. In the first strategic plan there were a number of expectations formulated regarding the results to be generated until June 2010. These were not, according to Rylander, derived from a logical analysis of what was requested to be delivered by CENTEC in order to reach the project objective in a so-called logical framework analysis. The results were rather assumptions of what kind of results that CENTEC would be able to generate.

In the report by Rylander, a results chain was introduced. In the Additional Work Plan that was released by CENTEC in October 2012, the results chain had been modified to include four different outputs, two different outcomes and one overall impact. The results chain from the Work Plan is reproduced below. The logic of the results chain is from bottom to top, where the four categories of activities are supposed to contribute to the two outcomes facilitation of cooperation agreement and CENTEC's continuation beyond 2013. The impact (i.e. long term effect) is *to lower carbon dioxide emissions in China, contributing to a global reduction of carbon dioxide, and improving the living conditions at large*. The outcomes are twofold:

1. Facilitation of cooperation arrangements in sustainable development, energy conservation and environmental protection by system solutions and environmental technology in China.
2. CENTEC's continuation secured beyond 2013

For each of the outputs indicators have been developed.

Figure 2: Results chain of CENTEC



The additional work plan also contains a result matrix where indicators and baselines are included. The results matrix has the same structure as the results chain and to each output indicators are attached. The indicators are all quantifiable indicators and indicate results of the activities, where outputs are expected to contribute to the outcomes. The baseline of the outcomes is mid December 2011, and targets for the whole project are included in results matrix.

2.3 SWEDISH PUBLIC SECTOR STAKEHOLDERS WORKING WITH ENVIRONMENTAL TECHNOLOGY IN CHINA

2.3.1 Swedish stakeholders within Institutional and research cooperation

Even before the formation of CENTEC, there was a vivid institutional exchange between Swedish and Chinese stakeholders in the field of environmental technology and research. Public entities in Sweden that have contacts with Chinese public sector stakeholders include academic institutions, municipalities, regional organisations (Swedish country administrative boards and regional development agencies) and governmental agencies on the national level. The Swedish stakeholders that have been interviewed within the scope of this review all have their own objectives for their work in China. The municipalities that have been interviewed have partner cities in China and on the national level the authorities and organisations work with capacity building, knowledge exchange and policy dialogue.

Sida plays a central role in Sweden’s institutional cooperation in China. Sida works within two main sectors- enhancing democratic development and human rights (sector 1) and environment and climate (sector 2). In the field of environmental technology, Sida supports the cooperation between the Swedish Environmental Agency and the Chinese Ministry of Environmental Protection, where the think-tank China Council for International Cooperation on Environment and Development receives support from Sida. Organisations that the evaluator has been in touch with and that receive support from Sida include SIWI (project: China Water Section Cooperation Programme) and SKL International (project: The SymbioCity Pilot Project in Duyun). CENTEC has had contacts with both these projects.

Within R&D, the only Swedish institution that has been interviewed is the Swedish Environmental Research Institute (IVL). IVL is an independent, non-profit institute that has its own branch in China and a network of contacts with Chinese scientists. IVL’s work is to undertake research projects and contract assignments in the entire environmental field. IVL also has close contacts with various Chinese academic institutions and performs joint projects with these partner institutions.

2.3.2 CENTEC’s relations with Swedish stakeholders within commercial cooperation

Doing business in China is in many perspectives different to doing business in Sweden. In China, the political sphere plays a more central role and it is often defined as a political economy. The Chinese rules regarding public procurement is divided into two parallel systems, namely the *Government Procurement Law* and the *Bidding Law*. The former regulates the procurement procedures of governmental authorities, both locally and centrally. The latter of the two regulates the procurement of State owned Enterprises (SoE), especially when it comes to larger investments that are of general interest. There has recently been some international critique regarding the Government Procurement Law, and that it was discriminating against foreign suppliers. The law was changed in 2011 so that international suppliers no longer are supposed to be discriminated against in public contracts. The Bidding Law is perceived as more opaque and less transparent compared to the Government Procurement Law. According to CENTEC, other challenges for commercial cooperation include Chinese building standards, IPR issues, unrealistic payoff calculations in Chinese developments and corruption.

For companies in the environmental technology industry, there are two different ways to enter the Chinese market:

1. By targeting decision makers that work on behalf of public authorities (business-to-government), including publicly owned and controlled development companies, which often are instrumental in local implementation of eco-city development
2. By targeting other companies as a subcontractor (business-to-business)

As mentioned above, CENTEC has focused on the promotion of integrated overall solutions within sustainable cities, rather than promoting individual companies. Thus, CENTEC activities focus on the business-to-government sector. The activities in this field include the organisation of delegations to Sweden, demo-projects, conferences, seminars and road shows. There are some obvious differences between CENTEC and “ordinary” business promotion, including e.g. the *long term perspective* and the fact that the model for promotion is *demand driven*. The long term perspective is necessary as the procurement process of environmental technology in China takes a long time. The procurement process is often handled by SoEs and normally includes a great degree of diplomacy. CENTEC’s work is demand driven in the sense that CENTEC works with identifying a demand on the Chinese market and then reacts. With “ordinary” business promotion work the business logic is the other way around i.e. it is often the case that the supplier is first identified and then the promoter tries to identify the demand.

CENTEC further cooperates with Swedish authorities in China, including VINNOVA (project for eco-innovations in China) and with the Swedish Agency for Economic and Social Growth (project demo environment).

When CENTEC was initiated, the bearing idea was that CENTEC would focus on the business-to-government contacts while the Swedish Trade Council (Business Sweden) would focus on business-to-business contacts. The logic was that the Swedish Trade Council (Business Sweden) will become more involved the closer the discussions come to a business deal and that the Swedish Trade council (Business Sweden) can offer more company-specific support (CENTEC only promotes groups of companies). Nevertheless, during the first period of CENTEC (2007-2010), according to Rylander’s report, there was still some degree of indeterminacy regarding the role of CENTEC and its interplay with other Swedish organisations present on the Chinese market. In order to continue the work with division of activities the Embassy, Business Sweden and Growth Analysis developed a joint plan where activities were assigned to the different organisations. The joint plan was set up in February 2013.

Activities that are jointly organised with Business Sweden include the planning and execution of business delegations in China. Together with Business Sweden, Growth Analysis (the Science and innovation office of the Embassy), the Swedish Consulate General in Shanghai, the Swedish Consulate General in Hong Kong and IMT, a platform for cooperation called *Team Sweden* has been formed. These organisations meet on a regular basis in order coordinate their activities.

Another organisation that CENTEC has a close relationship with is IMT. IMT was set up in 2008 in order to act as a partner organisation to CENTEC on the Swedish market. This was done in order to organise the reception of Chinese delegations in Sweden and to be a point of contact for Swedish stakeholders in Sweden. The IMT secretariat has the aim to facilitate contacts between Swedish business and the Chinese public sector, resulting in increased exports of environmental technology, energy effi-

ciency and infrastructure for urban development. The head of IMT is the former State Secretary Mr Mats Denninger. Mr Denninger is the Government's High Representative for International Environmental Technology Cooperation.

IMT, Business Sweden and CENTEC have performed some joint activities recently. One such activity has been a road show together with the trade organisation *SweHeat and Cooling* in the area of district heating, where a road show was organised to three different Chinese cities.

This review is not a comprehensive mapping of activities performed by Swedish organisations on the Chinese market. The table below is a summary of the findings that have been done within the scope of this evaluation.

Area	Actors active in Sweden	Actors active in China
Commercial cooperation: Business-to-business	Business Sweden	Business Sweden, Swedish Chamber of commerce
Commercial cooperation: Business-to-government	IMT, VINNOVA, Swedish Agency for Economic and Regional Growth and to some extent also municipalities and regional organisations	Business Sweden, CENTEC, Swedish Consulate General in Shanghai and Swedish Consulate General in Hong Kong

Moreover, the Embassy and Business Sweden have identified four industry clusters, one of which is environmental technology. The idea behind the cluster model is to work with industries where Swedish companies have a proven track record and a large growth potential. One of the rationales behind the cluster model is that cooperation between different Swedish stakeholders on the Chinese market can generate more business opportunities. The role of the Embassy is to assist all political contacts.

3 Findings

As shown in Figure 2: Results chain of CENTEC the activities of CENTEC are divided into four different “blocks” including institutional and research cooperation, commercial cooperation, communication and activities concerned with establishing CENTEC’s activities beyond 2013. Activities conducted by CENTEC include inter alia visits to public institutions, delegation trips to China and Sweden, arranging company meetings, participating in working groups, screening of applications for Swedish projects within environmental technology and the organisation of the participation at trade fairs.

During 2012 there was in addition to the day-today activities a focus to define and anchor the results chain of CENTEC, and also, to develop standards for financial and activity reporting. Another issue that was addressed during this time was to further develop the division of roles of CENTEC and other Swedish organisations to form a joint plan of action for environment technology promotion in China.

The following chapter starts with a summary of CENTEC’s achieved results. This section follows the project chain of CENTEC (i.e. impact, outcomes, outputs and activities). Each section describing the results contains evaluative conclusions, reflecting the evaluator’s concluding assessments. Section 3.2 discusses the findings within PDC and the final section of the chapter contains a summary of how different stakeholders perceive CENTEC.

3.1 CENTEC’S ACHIEVED RESULTS

3.1.1 Impact

As shown in the results chain of CENTEC (Figure 2: Results chain of CENTEC), the overall aim (IMPACT) of CENTEC is to *lower carbon dioxide emissions in China, contributing to a global reduction of carbon dioxide, and improving the living conditions at large.*

As shown in the sections below, the work of CENTEC has resulted in several concrete results; including e.g. that different facilities have been installed as a result CENTEC’s activities in the commercial cooperation area. Several of the installed facilities have introduced new environmental technology in China that has clearly had

a positive impact on the reduction of carbon dioxide emissions. This impact has however not been recorded by CENTEC and therefore the exact impact of CENTEC's work is not known¹. Other results of the commercial cooperation include planning and preparatory work for city planning as well the supply of technical services. This may not have a direct impact on the emission of carbon dioxide, but may prove to be important in the long run.

The work that is conducted in the field of institutional cooperation has also shown some success, e.g. in terms of meetings with decision makers in China and cooperation between Swedish and Chinese public sector stakeholders. The relation between institutional cooperation and the overall impact cannot be quantified. It can however be assumed that achieved results have created interest for environmental technology and put more emphasis environmental issues. The cooperation on different levels have also created a platform for future development and intensified contacts.

Evaluative conclusion: Impact of CENTEC

Conclusion: There are several examples of how CENTEC's work has contributed to the introduction of new technology and to the creation of knowledge exchange between Chinese and Swedish stakeholders. The overall impact of CENTEC's work has however not been quantified and this conclusion is therefore based on qualitative assumptions.

3.1.2 Outcomes

As shown in the results chain of CENTEC (Figure 2: Results chain of CENTEC), the two outcomes that are supposed to contribute to overall impact of CENTEC include the Facilitation of cooperation agreements and the continuation of CENTEC beyond 2013.

i. Outcome 1: Facilitation of cooperation agreements

According to the project plan of CENTEC, the results within the outcome facilitation of cooperation agreement include the initiation and agreement of a total of eleven local MoUs as well as nine demonstration projects during the whole period of CENTEC's existence up until April 2013. In addition, CENTEC has also played a subordinate role in another six MoUs on both on a national and on the local level. The role of CENTEC within the different MoUs has varied. On the national level, the role of CENTEC has been to support involved stakeholders and to actuate the progress. On

¹ During the final presentation at Sida in June 2013 it was discussed to which extent the measurement of carbon dioxide emissions is possible.

the local level, CENTEC has, apart from the MoU with Wuxi, played a more central role.

These agreements are necessary for the initiation of policy dialogues and work as a starting point for continued cooperation with Chinese authorities. Demonstration projects are where new policies and/or new technology are introduced. Thus, the demonstration projects serve as tools for changes in policies, rules and standards. Moreover, the demonstration projects can play an important role in order to promote Swedish solutions. In order to receive the status of a demonstration project, the project must be acknowledged by the authorities (national, regional or local). In demonstration projects, research side is always involved, through authorities' advisors and experts at universities in China, securing the bridge to policy development.

As mentioned, CENTEC has played a central role in initiating and entering in eleven of local MoUs (including the MoU with the Chinese SoE *Tianjin Real Estate Development Group Co. Ltd*). During the period 2009-2010 ten local MoUs were entered by the Embassy in the area of environmental technology. Since 2011, one new MoU has been signed (with Changsha municipality). CENTEC also, during 2012, had discussions with the highest political level of the province of Hainan. The table below contains a list of the MoUs where CENTEC has been active or played a central role in obtaining the MoUs (including the local MoU that was signed between Wuxi Municipal Government and the Swedish Ministry of the Environment)

Table 4: List of MoUs entered 2009-2013

Level	Year entered	Signing parties and description
National	2012 (Renewed)	<u>CHN</u> : Ministry of Environmental Protection (MEP) <u>SWE</u> : The Ministry of the Environment of the Kingdom of Sweden
		<u>Main areas of cooperation</u> : To promote cooperation between the parties in the field of environmental protection and sustainable development, on the basis of equality and mutual benefit. Also to acknowledge the longstanding bilateral cooperation, involving various actors, in the areas of capacity building, public environmental management, environmental technology and policy dialog within the China Council.
	2012	<u>CHN</u> : Ministry of Commerce (Mofcom) <u>SWE</u> : Ministry of Foreign Affairs
		<u>Main areas of cooperation</u> : Environmental protection and energy conservation in the field of trade and economy, working group under the China-Sweden Economic and trade joint commission.
	2011	<u>CHN</u> : Ministry of Science and Technology (MOST) <u>SWE</u> : Ministry of Education and Research
		<u>Main areas of cooperation</u> : To build sustainable development research and innovation cooperation networks, based on

		mutual benefits and existing cooperation on research and innovation between the two countries (the VINNOVA-MOST joint programme on eco-innovations is conducted within the framework of this MoU).
	2010	<u>CHN</u>: Ministry of Housing and Urban Rural Development (MOHURD) <u>SWE</u>: The Government Offices of Sweden represented by the Ministry of the Environment <u>Main areas of cooperation</u>: Cooperation in the field of sustainable urban development, with focus on developing sustainable and low-carbon eco-cities and to make full use of gained experience from demonstration projects with the aim to encourage a positive development in urban-rural areas.
	2008 (expired 2013)	<u>CHN</u>: China National Development and Reform Commission (NDRC) <u>SWE</u>: Ministry of environment, Ministry Enterprise, Energy and Communications as well as the Ministry of Foreign Affairs <u>Main areas of cooperation</u>: To carry out technology cooperation and technology transfer in the areas of environment and energy. Overall all objective is to promote sustainable development and address climate change.
Local	2013	<u>CHN</u>: Changsha Municipal People's Government <u>SWE</u>: Embassy of Sweden in Beijing <u>Main areas of cooperation</u>: Cooperation regarding eco-city planning and development
	2010	<u>CHN</u>: Beijing Municipal Commission of Development and Reform <u>SWE</u>: Embassy of Sweden in Beijing <u>Main areas of cooperation</u>: Cooperation in low carbon eco-town planning
	2010	<u>CHN</u>: Beijing Future Science and Technology Park Development and Construction Co. Ltd. <u>SWE</u>: Embassy of Sweden in Beijing <u>Main areas of cooperation</u>: Application of environmental protection technology and the construction of an eco and green technology zone
	2010	<u>CHN</u>: People's Government of Pinggu District of Beijing <u>SWE</u>: Embassy of Sweden in Beijing <u>Main areas of cooperation</u>: Cooperation on the Ru River New Area Project in the New Town of Pinggu District
	2010	<u>CHN</u>: People's Government of Shunyi District of Beijing <u>SWE</u>: Embassy of Sweden in Beijing <u>Main areas of cooperation</u>: Cooperation in the New Town Project of Shunyi District
	2010	<u>CHN</u>: New Town Administration Committee of Tongzhou District of Beijing

		<u>SWE:</u> Embassy of Sweden in Beijing
		<u>Main areas of cooperation:</u> Cooperation in the New Town Project of Shunyi District
	2010	<u>CHN:</u> Tangshan City Government of Hebei Province
		<u>SWE:</u> Embassy of Sweden in Beijing
		<u>Main areas of cooperation:</u> Cooperation projects in relation to the “city of tomorrow”
	2010	<u>CHN:</u> Tangshan Caofeidian International Eco City Administrative Committee
		<u>SWE:</u> Embassy of Sweden in Beijing
		<u>Main areas of cooperation:</u> Cooperation projects in relation to the international eco city of Caofeidian
	2010	<u>CHN:</u> Tianjin Real Estate Development Group Co. Ltd.
		<u>SWE:</u> Embassy of Sweden in Beijing
		<u>Main areas of cooperation:</u> To provide support to Tianjin City to construct low carbon and ecological projects
	2010	<u>CHN:</u> Wuxi Municipal Government
		<u>SWE:</u> Ministry of the Environment
		<u>Main areas of cooperation:</u> Cooperation in low carbon eco-town planning and to develop a Sino-Swedish demonstration area
	2009	<u>CHN:</u> Municipal People’s Government of Chongqing
		<u>SWE:</u> Embassy of Sweden in Beijing
		<u>Main areas of cooperation:</u> Priority areas include inter alia energy efficiency, renewable energy, sustainable urban development and sustainable transport solutions
	2009	<u>CHN:</u> Shenyang Urban and Rural Construction Committee
		<u>SWE:</u> Embassy of Sweden in Beijing
		To develop the cooperation in the construction industry, environmental protection and the application of new technology.

In general, the MoUs on the national level are different to those on the local level in the sense that the ones on the national level are not as business-oriented as those on the local level. On the national level, MoUs are more focused on obtaining a policy dialogue and here CENTEC often cooperates with the relevant authorities in Sweden. The most central role that CENTEC plays is the one with MOHURD where one of the employees is active in a committee regarding standards for passive houses. Apart from this action the cooperation with MOHURD is not as intense as laid out in the MoU (for instance, the working group that was stipulated in the MoU has not been established). In the other MoUs, CENTEC does not play an active role at the moment, but Swedish authorities such as VINNOVA (with MOST) and the Swedish Environmental Protection Agency (with MEP) do. VINNOVA works together with MOST

within eco innovations and the Swedish Environmental Protection Agency works together MEP on a project dealing with mercury in clean water.

It is the opinion of CENTEC and involved stakeholders that the cooperation with MEP and MOST will continue regardless of CENTEC. The cooperation agreements with MOHURD and NDRC are, according to CENTEC, idle and should be revived. The relatively limited cooperation that CENTEC has today with MOHURD and NDRC is done without the active participation of Swedish public sector stakeholders. In the MoU with MOHURD it says that a working group will be established. According to CENTEC, this has not been done and the cooperation with MOHURD today is focused on the “Department for Housing Industrialisation”, in the form of direct involvement in elaboration of Chinese standards for passive houses. In the case of NDRC, the cooperation is limited to one Swedish subsidiary of a Swedish company that is believed to have some contacts. The MoU with NDRC expired earlier in 2013.

On the local level, the cooperation with the different municipalities focuses on sustainable city planning and/or the development of eco-city concepts. The cooperation with some municipalities stands out. The cooperation with Tangshan and the international eco-city of Caofeidian is perhaps the cooperation that has been the most far-reaching. During the first period of CENTEC, this relation was given much attention and was widely seen as successful project that had been initiated by CENTEC. In a presentation at the annual meeting at Sida in January 2013, it was said that the Caofeidian project had resulted in far-reaching discussions (labelled *City of tomorrow*) and a total of five different business opportunities to a value of circa 70 MSEK were realised. With the economic downturn in 2011, the project’s intensity stalled. Today, the Swedish city of Malmö (that has a twinning agreement with Tangshan that dates back to the 1970s) has cooperation with Tangshan that mainly concerns knowledge exchange in the area of sustainable city planning and biofuel. CENTEC here plays a role when it comes to initiating and assisting high-level meetings. The meetings are organised by CENTEC on request of Malmö.

In Beijing, the cooperation with local authorities has been and still is close. Inter alia, CENTEC has organised a policy seminar at EnerChina with BDRC and an application for an EU-funded programme regarding the recycling of mercury in low energy lamps together with BEEC (which is also part BDRC).

The cooperation with Chongqing has been successful in the sense that a subsidiary of a Swedish company in China has been able to set up a waste management plant. Today, CENTEC does not maintain the contacts with Chongqing on a frequent basis, but some Swedish companies do. That said, the process that was initiated by CENTEC continues through other Swedish stakeholders.

The cooperation with Shenyang was initiated in 2010 and the first months was characterised by intense contacts in the area of eco-city planning. Soon the cooperation came to a halt because the lack of political support. The cooperation was dormant for

the next coming two years and in early 2013 CENTEC organised a district heating delegation to Shenyang. Today, CENTEC maintain contacts with the urban planning office and environmental protection office of Shenyang.

As mentioned above, nine demonstration projects have so far been initiated during the lifetime of CENTEC. The demonstration projects include Tangshan/Caofeidian eco-city, Beijing eco-town development, four districts in Beijing on eco-towns (Changping, Tongzhou, Pinggu and Shunyi), Wuxi Eco-city, Tianjin/Tianfang and Changsha.

In Tianjin there are currently far reaching discussions regarding a demonstration project for passive housing. The demonstration project in Changsha is currently under progress and the demonstration project in Wuxi is also active. The MoU and demonstration project in Wuxi are however administrated by IMT, and CENTEC only has a subordinate role.

Evaluative conclusion outcome *facilitation of cooperation agreements*

Observation 1: The MoUs that CENTEC has initiated with different authorities and municipalities constitute a solid foundation for deepened relations with Chinese authorities and municipalities

Observation 2: CENTEC has been able to initiate cooperation agreements both on the national and on the local level that have a strong ownership and a potential to develop into sustainable long term relationships

Conclusion: The official status of CENTEC has been a prerequisite in order to initiate contacts with Chinese public sector stakeholders. CENTEC has been successful in initiating contacts with Chinese decision makers and also in establishing contacts between Swedish and Chinese public as private sector stakeholders. The fact that the pace of new MoUs has decreased is according to planned, where CENTEC aims to maintain and develop the MoUs that already have been entered. The work of the demonstration projects are delayed

ii. Outcome 2: CENTEC continuation beyond 2013

The outcome of securing CENTEC continuation beyond 2013 is divided into two outputs including i) identifying and pursuing new funding sources and ii) close cooperation with other actors. The objective of the continuation is to sustain Sweden's role as an important and relevant actor in sustainable development in relation to China.

In section 3.1.3-iv the conducted activities and outputs are summarised. This shows that a continuation beyond 2013 has not so far been secured.

Evaluative conclusion outcome *continuation beyond 2013*

Conclusion: At the moment the continuation of CENTEC beyond 2013 remains unclear

3.1.3 Activities and outputs

The following section contains a summary of the activities conducted within communication, institutional cooperation and studies, commercial cooperation and activities conducted in order to secure CENTEC’s continuation beyond 2013.

i. Communication

The activity-levels within communication have been lower than anticipated during the current period of CENTEC’s existence. For instance, the previous newsletter has not been distributed as previously from February 2012 onwards. Other activities that have not been conducted as planned include media briefings and interviews as well as contributions to affiliated websites (such as swedenabroad.com and Sweden.cn). CENTEC has also not employed a communication officer as laid out in the project plan.

CENTEC means that the decreased levels of communication activities can be explained by capacity restraints, and as a result, the current head of CENTEC decided to down-prioritise communications work. Given the capacity restraints, CENTEC chose to prioritise company meetings, personal meetings and direct communication. Moreover the joint website with IMT was up and running all the time (this is seen as an important channel for communication).

According to the financial report for 2012, the communication work was mentioned as a prioritised area in 2013. In April 2013 however, the position as a communication officer was however still vacant. CENTEC means that the reason is the lack of office space and the pursuit of synergies with CSR Center (i.e. resource efficiency).

Evaluative conclusion outputs: Communication

Observation: The work within communication has not been conducted as planned and this has had an impact on the overall impression of CENTEC’s work

Conclusion: Well-functioning communications activities integrated in daily work is central to the activities of CENTEC as much of the work conducted within public and private cooperation depends on visibility

ii. Institutional cooperation and studies

According to the CENTEC project chain, the CENTEC project has the aim to promote and assist policy dialogue, demonstration projects and delegations in the areas of sustainable development, energy conservation and environmental protection.

The activities that CENTEC conduct in institutional cooperation include policy dialogue, demonstration projects, studies, the organisation of Chinese delegations to Sweden and receiving Swedish delegations in China (delegations are often organised together with IMT). Hosting and attending seminars are also important activities in this area.

The research cooperation consists of the execution of studies together with Chinese organisations in the area of sustainable city planning. The studies are supposed to function as a support in the communication activities of CENTEC.

Activities that are conducted with Chinese public sector stakeholders include policy dialogue, studies and organisation of delegations both in China and in Sweden. Other activities include attempts to affect policy development when it comes to building standards for wooden houses and standards for biogas.

CENTEC has worked as a point of contact for Swedish public sector stakeholders in China – a function that is seen as helpful. For instance, both VINNOVA and the Swedish Agency for Economic and Regional Growth have mentioned that CENTEC acts as a point of contact for them in China and that CENTEC often functions as a sounding board for them regarding the Chinese market.

The status of the activities within the institutional cooperation shows that CENTEC's progress is in line with the project plan, including activities such as policy dialogues and Chinese delegations to Sweden. The activities within research cooperation could not be prioritised previously planned due to capacity constraints. The activities that have occurred within research cooperation include the project called DemoMiljö with the Swedish Agency for Economic and Regional Growth and MOHURD (regarding passive houses).

In the interviews with Chinese public sector stakeholders the evaluator received the impression that their perceptions of CENTEC were positive (this is discussed in more detail in section 3.3) and that the overall knowledge for Swedish environmental technology in China had increased. CENTEC has the intention to conduct a so called quality index in order to measure the knowledge of Swedish environmental technology among Chinese public sector stakeholders. As of May 2013, no such survey had been conducted, and thus the impact of CENTEC's work in this field has not been monitored.

Evaluative conclusion outputs: Institutional cooperation and studies

Observation 1: CENTEC has in general been able to conduct the majority of its anticipated activities within institutional cooperation.

Observation 2: CENTEC functions as natural a point of contact within environmental technology for both Swedish and Chinese public sector stakeholders

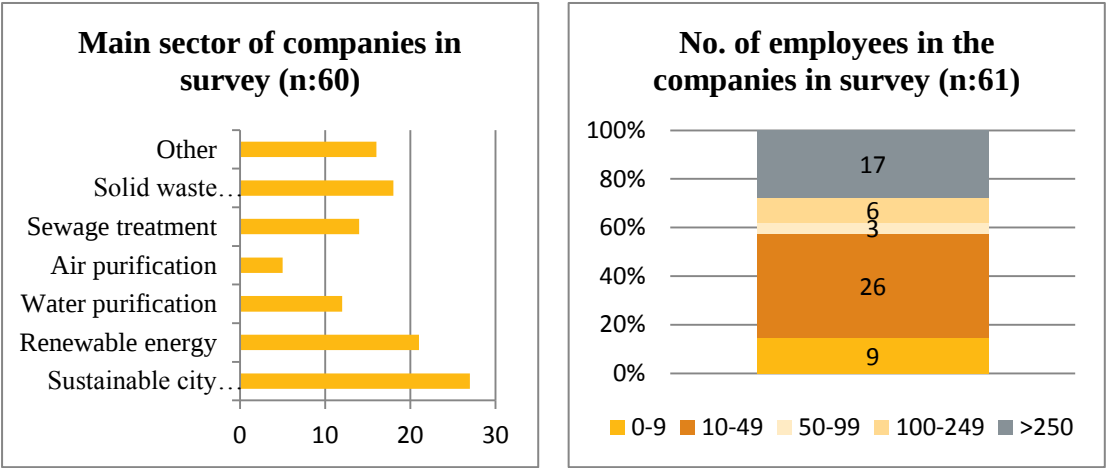
Observation 3: The activities within institutional cooperation have had a positive impact on the awareness **of** Swedish environmental technology solutions among Chinese public sector stakeholders. The extent of the impact has however not been measured

Conclusion: As public sector stakeholders in China have an influence on both policy and on investments within environmental technology, the work of CENTEC has positive on both policy development and on business promotion

iii. Commercial cooperation

CENTEC has been able to reach companies in many different sectors and as shown in the figure below the most common sectors are the sustainable city and renewable energy sectors. As for the size of the companies that CENTEC has cooperated with, 26 of 61 (circa 43 per cent) companies have between 10 and 49 employees. 17 (circa 28 per cent) companies have more than 249 employees.

Figure 3: Sector and size of companies

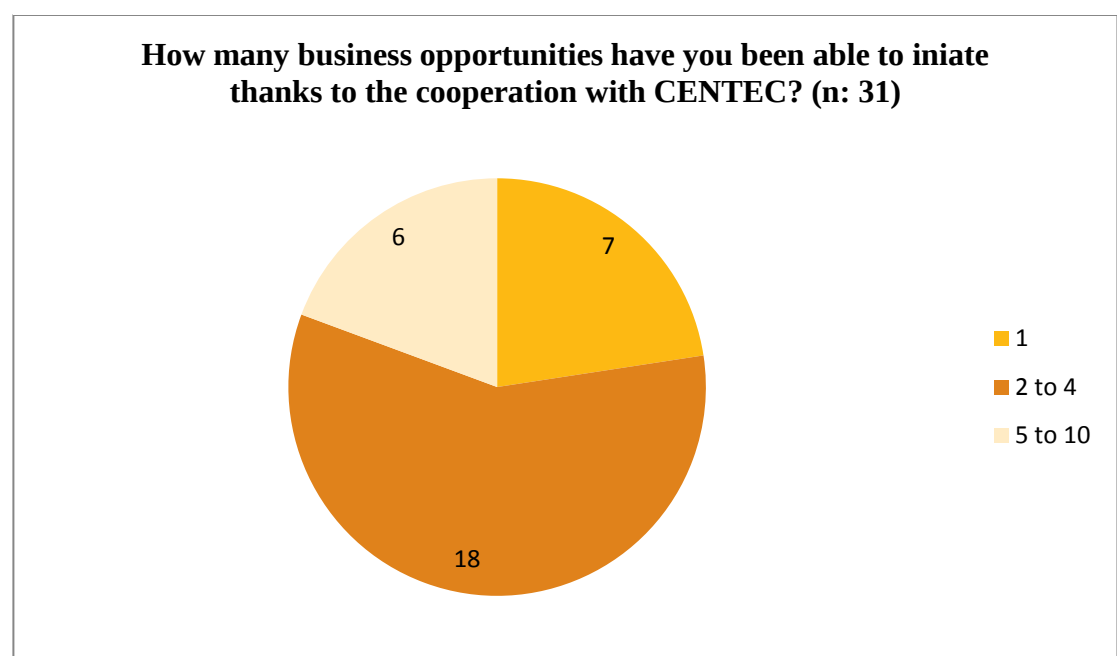


When asked what the companies would have done without the contacts with CENTEC, 26 of 45 companies thought that they would have established their current operations regardless of their contacts with CENTEC. 17 companies thought that that they would have established their operations in China, but it would have taken longer.

Two companies thought that they would not have established their operations in China if they would not have received support from CENTEC. 24 of 42 companies also thought that they have increased their activities in China as a result of their cooperation with CENTEC.

One question that was asked in the survey conducted in this review was if the cooperation has led to any business opportunities. 31 of 52 respondents believe that the cooperation has led to business opportunities. The results show that 25 of the respondents have been able to reach a maximum of four business deals, and six companies have been able to reach five to ten business deals thanks to the cooperation with CENTEC.

Figure 4: Number of business opportunities generated



In the survey the question *What is the total value in USD of the business opportunities that you have been able to initiate thanks to the cooperation with CENTEC* was asked. As some companies have had several respondents in the survey (some of which have answered this question differently) the amount must be expressed as an interval. The total amount of business that has been created is in the interval \$39.5m to \$52,1m (248 – 327 MSEK according to exchange rates in May 2013). A total of eleven companies were able to put an amount to the sales that they have been able to achieve thanks to their contacts with CENTEC. That means that another 24 companies have reported that they have been able to reach business deals on the Chinese market thanks to CENTEC but have not quantified these deals in the survey. Therefore, the interval presented here can be presumed to be lower than the actual amount that Swedish companies have been able to export thanks to their cooperation with

CENTEC. The time period indicated in the survey include the whole existence of CENTEC.

Compared to the report made by Rylander, the results in this survey indicate that the amount was actually lower than that of Rylander (466 MSEK). This can possibly be explained by the fact that different companies choose to partake in the different surveys and/or currency fluctuations.

The size of the companies that have been able to reach deals are predominantly small companies (10-49 employees) or large companies (>250 employees). Also interesting to note is that none of the nine companies that have 0-9 employees have been able to obtain any business deals as a result of their contacts with CENTEC.

Evaluative conclusion: Commercial cooperation

Observation 1: 24 companies in the survey believe that the support of CENTEC has had a positive impact on their activities in China during the whole period of CEN-TEC's existence

Observation 2: 31 of 52 respondents believe that the cooperation has led to business opportunities in China during the whole period of CENTEC's existence

Observation 3: According to the survey in this review, the total amount of business that has been created as a result of CENTEC is in the interval 248 – 327 MSEK during the whole period of CENTEC's existence

Conclusion: CENTEC has been very successful at supporting in the generation of business opportunities for Swedish companies. Given that CENTEC has received a total of circa 20MSEK (out of which only a fraction is within pure business promotion) for its six years of operations, this must be considered money well spent

iv. Findings within activity block CENTEC's continuation beyond 2013

The continuation beyond 2013 is a top priority for CENTEC for the time being. The activities related to CENTEC's continuation include the foreseen foundation of a membership based Swedish cleantech cluster in China and to enter new cooperation agreements with public sector stakeholders in Sweden. These activities are done as an attempt to ensure CENTEC's future funding and existence.

The cluster model was initiated by Business Sweden in Beijing. Environmental technology has been identified by Business Sweden and the Embassy of Sweden as one of four industries of strategic interest for Sweden on the Chinese market (the other three industries are transports, life science and information technology). The business model for these clusters is that they become a membership organisation where the companies pay annual fees. The cleantech cluster is paradoxically the one which still remains to be formally founded. According to CENTEC, the reason why the cluster not has been established includes constraints in combining Sida finance with membership

fees. In January 2013, Business Sweden, Council General Hong Kong, Council General Shanghai, IMT, Growth Analysis and CENTEC – founded a coordination and cooperation group which has the aim to enable a forthcoming “cluster” also for clean-tech. Activities of cluster organisation include commercial cooperation activities such as road shows, seminars and the organisation of high-level meetings. So far, two activities have been carried out within the framework of the cluster organisation.

The cluster is planned to be financed by inter alia membership fees. In the interviews with the companies within the scope of this review it was however few companies that expressed an interest to pay for the participation in such a cluster.

Another path planned by CENTEC is to enter cooperation agreements with public sector stakeholders in Sweden. Organisations that are targeted include governmental agencies, regional organisations (Swedish country administrative boards and regional development agencies), Swedish municipalities as well as industry associations and regional business promotion organisations within environmental technology.

In addition to this, CENTEC has also tried to explore possible means of funding with all relevant governmental agencies. Several of the interviewees in this review have the impression that environmental technology in Sweden does not have the same political priority that it had a couple of years back, and thus the interest among public sector stakeholders for CENTEC’s continued work is not as intense as before.

Evaluative conclusion outcome *continuation beyond 2013*

Observation: The continuation beyond 2013 is a top priority for CENTEC for the time being.

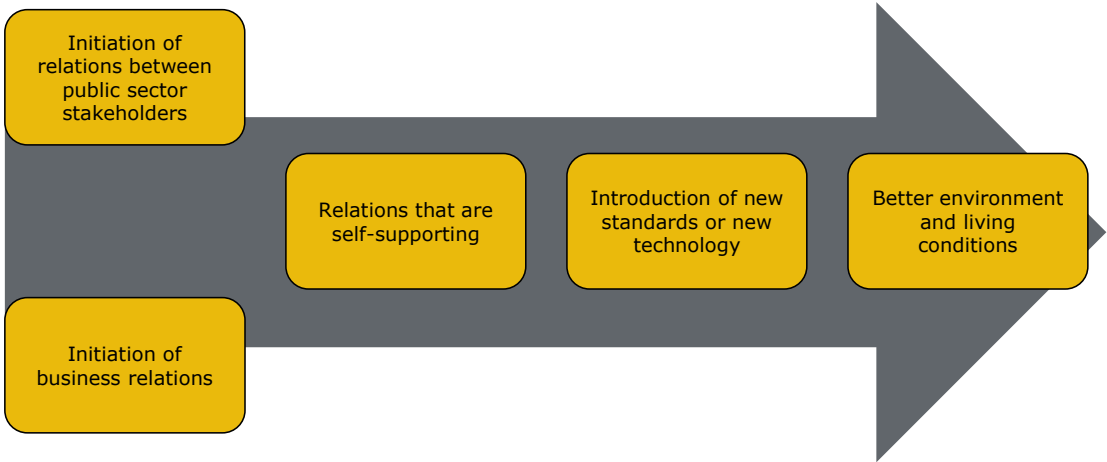
Conclusion: CENTEC is investigating all possible means of future funding. At the moment however, the future funding however remains unclear.

3.2 CENTEC’S AS A MODEL FOR PARTNER DRIVEN COOPERATION (PDC)

According to Sida, the purpose of PDC is to establish sustainable relationships of mutual interest between Swedish and foreign stakeholders. The idea is that the relationship between the partners is self-supporting in the long term, characterised by shared ownership and responsibility, both administratively and financially. A key aspect of PDC is that both parties find a mutual benefit and interest in cooperating. The activities that create these relationships should be time limited and catalytic. The goal of this type of development aid is to create three winners and stimulate a so-called “win-win-win” situation. The winners will eventually be people in poor conditions, actors in the partner countries and actors in Sweden.

The CENTEC model for PDC is of course very closely interlinked to its activities, i.e. activities in order to create relations between Chinese and Swedish public sector stakeholders as well as business relations between Chinese stakeholders and Swedish companies. The figure below is an attempt by the evaluator to visualise the logic of how CENTEC contributes to the facilitation of PDC.

Figure 5: CENTEC as a model for PDC



As mentioned in section 3.1.1, one important prerequisite for CENTEC to be able to initiate contacts with the Chinese public sector stakeholders is to be part of the Swedish Embassy, thus receiving an official status. This official status is also boosted by the function of IMT. Once the contacts with the Chinese public sector stakeholders have been established, CENTEC (with the assistance of IMT) has been able to match the Chinese demands with the relevant Swedish public sector stakeholders in Sweden. This in turn has in some cases led to cooperation projects that are self-supporting and sustainable. In the area of business promotion CENTEC has introduced Swedish companies to Chinese decision makers through presenting the Swedish solutions within environmental technology. As outlined in the previous section, this in turn has led to business opportunities and to relations that may result in future agreements. The relations created in the commercial cooperation can be assumed to be self-supporting as long as Swedish companies can convince their Chinese counterparts to acquire their products and/or services.

As shown in sections 3.1.1 of this report, CENTEC has initiated contacts with different Chinese public sector stakeholders that in turn have resulted in a total of ten MoUs. Some of the MoUs have in turn resulted in sustainable relationships that fulfil the principles of PDC. Within the business cooperation field, CENTEC’s work has been to introduce Swedish companies to Chinese stakeholders. These contacts have in turn resulted in several business deals that have introduced new technology in China. It can therefore be concluded that the model used by CENTEC is successful when it comes to generating relationships that fulfil the principles of PDC.

3.3 PERCEPTION OF CENTEC

3.3.1 Perception of CENTEC

Perception of CENTEC among public Chinese stakeholders

All but one of the governmental agencies in China believes that the cooperation with CENTEC has been fruitful and that the contacts have improved over time. Many agencies also mention that CENTEC is their point of contact and main source of information when it comes to Swedish environmental technology and believe that the contacts with CENTEC has contributed to the understanding and awareness of Swedish solutions when it comes to sustainable city planning. Three of the agencies believe that CENTEC has contributed to knowledge exchange and capacity development within environmental issues.

Several Chinese agencies view CENTEC as representative of the Swedish government and emphasise the importance of this function. Many agencies and SoEs also mention that they believe that the Swedish public efforts should increase in China and that the Swedish government should finance more demonstration projects. Here, one prestige project in Hainan was said to be lost to Singapore investors since the Swedish stakeholders did not show interest.

Perception of CENTEC among Swedish stakeholders

Compared to their Chinese counterparts, the Swedish public stakeholders have a more mixed impression of CENTEC's work. Positive aspects that are raised include the long-time perspective of CENTEC when it comes to business promotion and that CENTEC has played an important role in the coordination work between different Swedish interventions, something which is mentioned by e.g. Business Sweden. The municipality of Malmö mentions that their contacts with CENTEC have been important and that CENTEC has assisted them in obtaining contacts with decision makers in Tangshan. Other stakeholders mention that CENTEC has fulfilled a function as a facilitator at meetings with Chinese counterparts. Many of the national agencies in Sweden also stress that their activities are not dependent on CENTEC, since their relations in China now are self-sustaining.

As mentioned, some of the Swedish agencies are more nuanced in their view of CENTEC. Some of the Swedish stakeholders believe that activity level of CENTEC has been reduced since December 2011 and that CENTEC does not have a clear focus on what the aims are. It is the view of the evaluator that this perception can at least in part be by the decrease in communication activities.

The Swedish Ministry of Enterprise, Energy and Communications feels that CENTEC has done an important job in the area of promoting Swedish environmental technology in China. At the same time, representatives from the ministry feel that the present focus of CENTEC seems to have changed. The Ministry of Enterprise, Energy and Communications has the impression that CENTEC at present is not as active as before in networking in the area of environmental technology and that the business promotion aspects in this area are not as obvious as before.

IMT's view is also more nuanced, and even if IMT considers CENTEC an important counterpart on the Chinese market, IMT feels that the cooperation with CENTEC has become less fruitful than previously. IMT has the impression that there has been a shift away from clear business promotion towards more policy dialogue and diplomatic contacts. IMT does not have the impression that the business promotion work that was previously conducted by CENTEC has been taken over by any other organisation.

Perception of CENTEC among Swedish companies

In the survey conducted in this review the companies were asked to rate all activities that they had utilised in their cooperation with CENTEC. According to the survey, the most appreciated activities included the company delegations, the organisation of conferences/exhibitions and the initiations of cooperation agreements. The least appreciated activity was the organisation of policy dialogues.

In the interviews with the companies it was emphasised that CENTEC's greatest contributions include the publicity that the project has generated for Swedish environmental technology and that CENTEC has been able to reach different levels of the Chinese government. The general impression of the companies is that CENTEC's work is necessary on the Chinese market and that the support they receive is of high quality. The companies also believe that CENTEC is very responsive to their needs and that CENTEC is a willing support if official contacts are necessary. Another positive aspect of CENTEC is the long term dedication, and that the services of CENTEC mainly are for free.

There is however also a sense that CENTEC has become more reactive rather than proactive since December 2011. Moreover, many stakeholders have the impression that that CENTEC has become less active within business promotion. CENTEC should, according to the companies, become better at identifying business opportunities and to communicate these with the companies. Several companies also mention that CENTEC should continue their support after a contact has been initiated and to assist until the business deal has been concluded.

Regarding the optimal focus of CENTEC's business promotion work, the companies are very fragmented. Some companies praise the holistic view of CENTEC and that the marketing of SymbioCity is the right path in the contacts with Chinese stakeholders. Other companies are critical to this approach and believe that the Swedish companies would not be able to set up a whole city district like that of Hammarby Sjöstad on the Chinese market. Instead, CENTEC should focus on specific sub-industries such as waste management or water purification.

A couple of companies believe that CENTEC's promotion should include contacts with investors.

3.3.2 Analysis of the different perceptions of CENTEC

From the outside, it seems that CENTEC's cooperation with Chinese public institutions has been very successful in the sense that contacts have been established and CENTEC has had a positive effect on networking between Swedish and Chinese stakeholders and knowledge exchange. Several public sector Chinese stakeholders mention however that the Swedish government sometimes shows a lack of interest in the demo-projects that are set up in different Chinese provinces. Here it seems like CENTEC and Swedish stakeholders have not been able to communicate clearly how the Swedish government work with business promotion, i.e. that investments in certain demonstration projects not are permitted according to Swedish regulations.

Some Swedish stakeholders has the impression that CENTEC is not as business oriented as prior to December 2011 and that overall activity levels have gone down. The impression of the evaluator is that there are several possible explanations to this. The obvious explanation is of course the reduction in staff resources (that is circa 20 per cent less than anticipated in the project plan), but other issues may have contributed as well, including e.g. CENTEC's low level of activity within communication and the initial focus to develop new reporting standards and administrative routines. The latter has diverted capacity away from the activities within business promotion. Moreover, the Embassy has dedicated less resources to CENTEC than previously (the work of the Head is divided between CENTEC and the CSR-Center), something which is likely to also affect the overall impression of CENTEC.

Another possible explanation is the division of work with Business Sweden. With the new division of work and increased cooperation, some of the activities that previously have been conducted by CENTEC are now the responsibility of Business Sweden. In general this means that CENTEC strictly works with introducing Swedish companies to Chinese public sector decision makers. More business-to-business contacts are handled by Business Sweden.

4 Lessons learned

4.1 RELEVANCE

The overall objective of CENTEC is to contribute to the global reduction of carbon dioxide and thus to improve living conditions at large. According to the international energy agency, China stands for one fourth of the global emissions of carbon dioxide, and actions of China thus have a substantial global effect.

All current trends, including the twelfth five-year plan of the People's Republic of China, indicate that environmental issues will become increasingly important in China in the future. The relations created by CENTEC, both political and commercial, provide a good platform to continue from. The platform of relationships and collaboration that has already been created by CENTEC can partly be said to be long-term sustainable regardless of the support provided by CENTEC. Examples include the cooperation with the Chinese ministries MOST and MEP (where CENTEC has played a supporting role in intensifying the cooperation) as well as the business relations created between Swedish companies and different Chinese SoEs. As outlined in section 3.2, it can therefore be concluded that CENTEC is a good model for PDC.

In a more narrow perspective the work of CENTEC is however also relevant for the promotion of Swedish environmental technology and thus to Swedish exports and economic growth. CENTEC's work within commercial cooperation offers at least two advantages when compared to "ordinary" business promotion. First, its location at the embassy is a "door unlocker" when it comes to high-level meetings. Meetings with political decision makers are important for environmental technology companies, as the investment decisions often are made by politicians. To this end, the close cooperation with IMT has enabled Swedish stakeholders to initiate high-level contacts with Chinese counterparts. Another advantage of CENTEC is its long term perspective. It takes time to penetrate the Chinese market, and in order to do so, a long-term perspective is necessary. For several Swedish SMEs, the support of CENTEC has been necessary in order for them to establish activities in China.

Now that Sida ceases its activities in China as of January 2014, the ownership of the future work of CENTEC is not clear. There cannot however be any doubt that CENTEC's work is relevant for reducing global emissions of carbon dioxide. It is also relevant for Swedish environmental technology and for Sweden's economic growth.

4.2 EFFECTIVENESS

In the report by Rylander it was concluded that CENTEC had “...since 2007/2008 developed from being mainly an instrument for follow-up of high level visits into an organisation with a coherent strategy for support of eco-city development projects”. The eco-city concept (SymbioCity) was seen as key to promoting Swedish solutions on the Chinese market. However, the marketing of the eco-city concept seems to have caused some confusion among the Chinese counterparts as they often received the impression that a Swedish eco-city could be purchased as all-integrated technical solution. To avoid misunderstandings with Chinese stakeholders, there has been a shift during the current period of CENTEC towards becoming more focused on certain areas. In general terms, this move to become more specialised seems to be well adapted to what Swedish companies can supply. It is also the impression of the evaluator that the Chinese interest has shifted towards becoming more interested in specific solutions (e.g. bio-gas for public transports) than eco-cities. Showcasing and promoting integrated system solutions are still important for the “sectorial” activities.

CENTEC’s work to contribute to the overall objective can be said to be divided into two major blocks, i.e. institutional/research and commercial cooperation. During the current period of CENTEC’s existence, there seems to have been a shift away from commercial cooperation towards becoming more focused on cooperation with public sector stakeholders. Reading previous annual reports from CENTEC, this change in focus seems to have been deliberate. In the area of institutional/research cooperation, the work has largely had its starting-point in the platform that existed in December 2011, and during 2011-2013 the relations with certain Chinese stakeholders have been intensified. There are several examples that the relationships initiated by CENTEC are sustainable in the long run, suggesting that CENTEC is a good model for PDC.

The work of CENTEC has contributed to raising the awareness of sustainable city planning and Swedish solutions among Chinese decision makers. CENTEC has also contributed to raising awareness of Swedish solutions. This work has contributed for laying the foundation for future business opportunities in the area of environmental technology.

In the commercial field CENTEC has contributed to introducing new Swedish companies on the Chinese market and also to contribute to the creation of business opportunities. The latter is perhaps the most visible example of CENTEC’s contribution to the overall objectives. It can here be concluded that CENTEC’s work both contributes to the deployment of new environmental friendly solutions in China and to an increase in Swedish exports. Thus, there is a clear win-win situation in supporting promotion of Swedish Environmental Technology in order to achieve the development cooperation goals.

Simultaneously, CENTEC has played a central role in coordinating Swedish efforts in China. This coordination has resulted in a division of work between CENTEC, Business Sweden, Growth Analysis and the Consulates General in Shanghai and in Hong Kong. The work of CENTEC in this field has contributed to the formation of a platform for a more integrated “Swedish” approach within environmental technology in the future. With this cooperation, the level of clarity has increased substantially and now there is an obvious point of contact for both Swedish and Chinese stakeholders.

4.3 INSTITUTIONAL SUSTAINABILITY

In the report by Mr Lars Rylander, the initial phases of CENTEC are described as a “trial and error agenda”. During this first period, CENTEC appears to have been more of a pilot project. It is the impression of the evaluator that some improvements have been made in order to make the CENTEC project more structured in the current period of CENTEC’s existence. For instance, according to the head of CENTEC great emphasis have been put on the financial routines. According to Sida, one contributing factor for the administrative shortcomings is that the Embassy not has disposed sufficient staff resources to support the Head of CENTEC in monitoring results and complying with the administrative requirements of the project.

There are however still substantial weaknesses in the structure of the project. In the current results chain it is not entirely clear which activities lead to which results. Moreover, the results chain does not establish links between activities and outputs, and the outcome “*facilitation of cooperation agreements*” is too general. If CENTEC is to continue its operations, the theory of change issues must be addressed. Once the theory of change is established, the results of CENTEC can be monitored more clearly. These results can then be used in order to communicate the achievements CENTEC. It is the view of the evaluator that the achievements of CENTEC must be traceable in order to attract the interest and willingness of funding or paying membership fees.

The future funding possibilities of CENTEC can be divided into funding by the private sector and by the public sector. Based on the interviews conducted with the companies in this survey, the willingness to pay for the services conducted by CENTEC seems to be low. It is the view of the evaluator the planned membership fees in the future cleantech cluster must be complemented by other sources of funding.

It is further the impression of the evaluator that Swedish public stakeholders have not decided whether they will fund CENTEC in the future or not. Several public sector stakeholders have expressed a desire that the activities of CENTEC should at least continue during 2014 (in order to be aligned with the current government’s strategy for environmental technology).

As mentioned in the previous section, CENTEC's activities can be divided into two major blocks, i.e. institutional and commercial cooperation. The commercial cooperation is clearly dependent on the contacts with Chinese public sector stakeholders (since the public sector stakeholders conduct the procurement decisions). The contacts with the Chinese officials should be conducted by the Embassy of Sweden in Beijing. In order to improve the commercial cooperation aspects of the future activities within this field should be separated from the activities within institutional cooperation. This is outlined in more detail in relation to Figure 6: Suggestion future TOC CENTEC.

This split of activities is necessary to ensure that both institutional and commercial cooperation are prioritised simultaneously. This split is also desirable in order to obtain a solution that the people that work with these issues are specialised within institutional and commercial cooperation respectively.

5 Recommendations

The recommendations in the following section are based on the questions listed in section 4.4 in the terms of reference.

1. *What are the “drivers” to make CENTEC’s work sustainable in the long run, i.e. what aspects of CENTEC’s work have a strong ownership among Swedish and Chinese stakeholders respectively?*

The aspects that have a strong ownership among CENTEC’s different stakeholders depend on the objective of the stakeholder. The two MoUs that seem to be sustainable in the long run on the national level include the MoUs with MEP and MOST. In these cases the interests of the Chinese and Swedish stakeholders have been matched and there is a clear ownership. As for the MoUs on the local level, i.e. the MoUs with the municipalities, the sustainability of the cooperation is business-opportunity based. Here the cooperation with Chongqing and Shenyang seem to have a big commercial interest for Swedish companies. Another successful example of how CENTEC has contributed to create a platform for future cooperation is the establishment of Swedish subsidiaries on the Chinese market. Here the market information and support provided by CENTEC paved way for at least two companies to establish their operations on the Chinese market. Another 17 companies thought that the cooperation resulted establishing their operations faster in China, than they would have done without the assistance of CENTEC.

A general obstacle for cooperation between Swedish and Chinese public sector stakeholders is the funding of the cooperation. CENTEC only progresses with projects that are considered to be progressive and that have a clear plan for funding. For the Chinese counterparts, the political backing is also decisive. The stalled cooperation with Tangshan and the Caofeidian eco-city can constitute as examples of what happens to “promising” projects when the funding is withdrawn.

2. *What consequences will the phase out of Sida support to CENTEC have on Swedish environment technology promotion and Sino-Swedish relations in the environment field?*

Sweden’s public efforts in China within the environmental field has have both been decreased and increased over the last three years. For instance, the Swedish Consulate General in Shanghai has until June 2013 a person that works with business promotion of environmental technology. Another example is the Swedish Environmental Protection Agency (financed by Sida) that had a representative for environmental issues at the Swedish Embassy in Beijing 2008-2010.

New Swedish efforts in China include e.g. the environmental technology cluster that Team Sweden intends to set up as a cluster for Swedish companies. The cluster is

supposed to be chaired by Business Sweden and is expected to be financed by the participating companies (through a membership fee). The evaluator is doubtful if such a cluster will work without public funding. The interviews with the companies in this review revealed that the interest in such a membership financed cluster is not very big.

Another possible increase is that the Embassy in Beijing has sent in an application to set up a function of a new environmental attaché. Such an attaché would complement CENTEC and if CENTEC would cease to exist, the attaché is likely to work with some of the issues that CENTEC perform today within institutional cooperation.

Other new efforts in China that the evaluator has come across include the joint project to promote Swedish environmental technology exports initiated by VINNOVA and the Swedish Energy Agency. The programme runs during 2013-2017 and total funding is 40 MSEK. Other efforts include the cooperation agreements between Swedish and Chinese municipalities, e.g. Malmö and Tangshan as well as Vara and Huangchan. According to a representative in Malmö Municipality, the cooperation between Malmö and Tangshan is however not likely to persist without the active support by the Embassy.

At the moment the future of CENTEC is unclear, and thus it is too early to say what impact Sida's phase-out will have on the promotion of environmental technology and Sino-Swedish relations. If however, the activities of CENTEC are terminated, this will of course have negative impacts on the Sino-Swedish relations and on the promotion of Swedish environmental technology. All Chinese public sector stakeholders interviewed in this review understand the role of CENTEC and appreciate the role that CENTEC has at the Embassy of Sweden in Beijing. Within the business promotion area, the vast majority of Swedish companies believe that CENTEC has an important role to play when it comes to enabling contacts with Chinese public sector stakeholders. These contacts are considered as very important. In the long run it can be concluded that a future termination of these activities is also likely to have a negative effect on the Swedish reputation within environmental issues.

3. *Give recommendations concerning CENTEC's work post 2013: what it could focus on, how it could be organised and financed. Does the consultant recommend CENTEC to continue, wholly or in part, with other financing if possible?*

The future of CENTEC can be divided into before and after last of December 2014. The current government's strategy for environmental technology runs until December 31 2014, and it is important that CENTEC can "survive" in some form until then. After all the actors active within this strategy have been evaluated, it will be possible to understand how CENTEC has contributed to the overall strategy. In order to bridge 2014, it is the view of the evaluator that CENTEC should develop a gap organisation. The evaluator suggests that the gap organisation should be placed at the Embassy and co-exist with the center for Cooperate Social Responsibility (just like it does today).

In this review the evaluator has approached different agencies in order to enquire if the funding issue of CENTEC can be solved before January 2014. The Ministry of Enterprise, Energy and Communications has clearly indicated that they so far have

not been involved in the funding discussions of CENTEC and indicate that future funding of CENTEC not is possible at the time being. The Ministry of Foreign Affairs says that they have not decided if the ministry will fund CENTEC next year. One person with insight in the possible funding of CENTEC revealed that the bridge funding of CENTEC can be solved as long as a convincing continuation beyond December 2014 can be communicated.

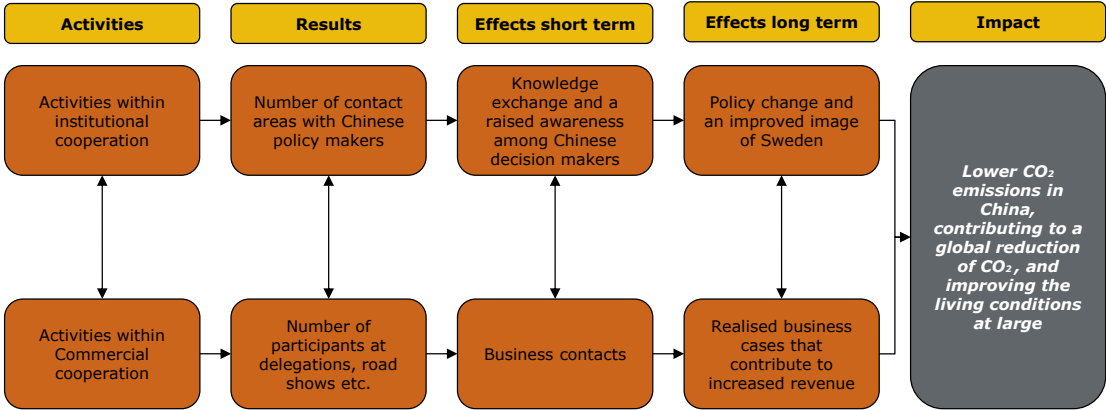
For CENTEC, other sources of income include the membership fees from the cluster in environmental technology as well as screening applications for other interventions (one being VINNOVA's program *international cooperation for environmental technology innovations*). Another funding source could possibly be organisations for regional development in Sweden. In the past, some Swedish organisations for regional development co-financed the function of the environmental technology representative at the Swedish Consulate General in Shanghai.

The major source of funding for CENTEC's operations in 2014 must come from the Embassy (the head of CENTEC) and from the Ministry of Foreign Affairs. The other options listed above can only contribute with a minor fraction of the needed funds.

In the longer perspective, it is the view of the evaluator that the activities of CENTEC should continue. The institutional/research cooperation contributes to a positive development of the environmental awareness of policy makers in China. China as a country has the largest emissions of carbon dioxide in the world, and their emissions are of global concern. Environmental issues are recognised as problematic by the central government in Beijing and this is an area where Swedish policy can have some influence. The environmental issues may also be interesting in order to establish relations with Chinese decision makers. Once the relations are established other and perhaps more controversial issues can be addressed. In the area of commercial cooperation, the Chinese market is subject to increased competition and an economic downturn, but nevertheless it is still a market that offers a huge potential for Swedish companies. The results of CENTEC obtained in this review show that the government funds spent for business promotion are money well spent. There are reasons to believe that this positive development will continue.

In order to become more efficient in the future, the evaluator suggests that the institutional cooperation and the commercial cooperation is split into two different sets of activities. One set of activities contains the institutional cooperation and the other the commercial cooperation. A suggestion to a simplified theory of change (TOC) is presented in the figure below.

Figure 6: Suggestion future TOC CENTEC



The TOC contains activities, result, effects in the short term, effects in the long term and the impact. The activities within both institutional and commercial cooperation are similar to those that CENTEC perform today, but the institutional cooperation should be conducted by the Embassy and the commercial cooperation by an external organisation. The communication work should support the commercial and institutional cooperation and should be coordinated jointly. By this division of work, the business cooperation can become more specialised. The cooperation between the Embassy and the organization that conducts the commercial cooperation must be very close (as indicated by the vertical arrows in the figure).

The location of the commercial cooperation is a challenge. One possible location for the commercial cooperation would be Business Sweden. Something that speaks in favour for being a part of Business Sweden would be the proximity to the business promotion competences of Business Sweden and that overlaps with Business Sweden's other activities could minimised. In addition, the activities would benefit from the commercial competences of Business Sweden.

Another option could be to keep the name CENTEC and to place the office in the same location as Business Sweden. Through a shared location, the cooperation between Business Sweden and CENTEC is likely to increase. Another suggestion by the evaluator is to investigate if IMT could have a representative in China.

The long term financial solution would be that the institutional cooperation would be conducted by the environmental attaché and the ambassador (if needed). In case IMT continues its operations in Sweden, this function could also assist at high-level meetings. The funding possibilities of the commercial function are many and difficult to assess. One future solution would be to approach the issue through funding from many different sources, such as regional stakeholders, municipalities, membership fees (cluster organisation), fees for screening applications, trade organisation and to charge companies for certain services. The future political agenda in Sweden within environmental technology might also offer new possibilities for funding. One possible path could also be to investigate how future promotion of Swedish environmental technology could be aligned with the work conducted by the EU.

In order to secure future funding the monitoring of the results of CENTEC's must be monitored and measured. In order to monitor CENTEC's performance, indicators measuring the environmental impact and the concluded business deals must be developed. Once such indicators have been developed, the results of CENTEC can be used in order to motivate its existence. During the seminar on June 12 2013, it was indicated that a future study of CENTEC should identify and analyse success factors of CENTEC. It is the view of the evaluator that a future study also should compare the input of labour hours over time with the results of CENTEC in more detail.

Annex

A. ANALYTICAL FRAMEWORK

Category	Issues
Objectives of assignment	Summarise and analyse lessons learnt, with regard to CENTEC as a model for promotion of environment technology and sustainable urban development
	Summarise and analyse lessons learnt, with regard to CENTEC as a model and facilitator for Partner Driven Cooperation (PDC) This part should include an analysis of the kind of partners CENTEC has provided facilitation support to, and whether the relations that evolved are sustainable
	Update the analyses of to which extent CENTEC activities has contributed to deals concluded between Swedish and Chinese corporations.
	Update the analyses of the extent to which CENTEC has provided resources in support of, or cooperated with the Government Offices of Sweden, especially IMT (previously MTK) and Business Sweden (previously the Swedish Trade Council) to analyse the potential win-win in supporting promotion of Swedish Environmental Technology in order to achieve the development cooperation goals. What are the “add-ons” to ordinary promotion work specific for CENTEC? What are the “drivers” to make CENTECs work sustainable in the long run? What aspects of CENTECs work have a strong ownership among Swedish and Chinese stakeholders respectively?
Lessons learnt	What lessons have been learnt regarding the contents of the work and organisation?
	Which conclusions can be drawn with regard to CENTEC as a model for promotion of environment technology and sustainable urban development on the one hand, and for Partner Driven Cooperation (PDC) on the other hand?
	The review should analyse the potential win-win in supporting promotion of Swedish Environmental Technology in order to achieve the development cooperation goals. Is there such a win-win?

	- What are the “add-ons” to ordinary promotion work specific for CENTEC? - What could the future promotion work learn from this, even if there are other financing sources than Sida? - What is the value of this innovative working model – to achieve goals of development cooperation and promotion respectively?
	How has CENTEC dealt with changes in the Chinese context and priorities?
	What conclusions can be drawn regarding the Embassy’s and other stakeholders’ efforts in order to identify external financing for CENTEC?
Recommendations	What are the “drivers” to make CENTEC’s work sustainable in the long run, i.e. what aspects of CENTEC’s work have a strong ownership among Swedish and Chinese stakeholders respectively?
	What consequences will the phase out of Sida support to CENTEC have on Swedish environment technology promotion and Sino-Swedish relations in the environment field?
	Give recommendations concerning CENTEC’s work post 2013: what it could focus on, how it could be organised and financed. Does the consultant recommend CENTEC to continue, wholly or in part, with other financing if possible? This review will provide an input in the general discussions on-going within the Government Offices and is not expected to bring the whole solution.

B. CONTACT LIST

Organisation	Name	Title
Bioprocess Control AB (China)	Jiang Liu	Chief Technical Officer
Business Sweden (Sweden)	Håkan Dahlfors	Head of Trade Business Unit Energy & Environmental Technology
CENTEC (China)	Britt Linder Norberg	Project Manager
CENTEC (China)	Ma Margret	Project Coordinator
CENTEC (China)	Yu, Ping	Senior engineer
CENTEC (China)	Guo, Sonrisa	Commercial officer
CENTEC/Swedish Embassy in Beijing (China)	Anders Wollter	Minister Counsellor, Head of CENTEC
Center for Science and Technology of Ministry of Housing and Urban-rural Development (China)	Zhang Xiaoling	Division Chief of International Cooperation
Changsha Bianjiang New City Construction and Development Co. Ltd. (China)	Wang Xu	General Manager Executive Vice General Manager
China Association of Environmental Protection Industry (China)	Su Fan	Director of the International Department
China Association of Environmental Protection Industry (China)	Yang Yan	Deputy Director of the International Department
Cleantech Östergötland	Gert Lindgren	Managing Director
Envac (China)	Susan Duan	Sales Manager
Swedish Consulate General Shanghai (China)	Linda Backteman	Counsel
Göteborg Municipality	Lars-Göran Larsson	Head, International Office
Government Offices of Sweden - International Environmental Technology Cooperation (Sweden)	Mats Denninger	High Representative
Government Offices of Sweden - International Environmental Technology Cooperation (Sweden)	Lennart Nilsson	Country Director China
Government Offices of Sweden - International Environmental Technology Cooperation (Sweden)	Monique Wanding	Country Director Russia
Implement Consulting Group (Sweden)	Mats Röjdmark	Partner (previously employed as Trade Commissioner at Business Sweden in China)
Hainan-Shenzhen Renewable Energy	Luo Haofou	Chairman of the Board
IVL Swedish Environmental Institute (Sweden)	Östen Ekengren	Deputy Director
IVL Swedish Environmental Institute (China)	Gao Si	Senior Coordinator
Malmö Municipality	Joakim Nordqvist	Project Manager, TangMa-project, Malmö City
Ministry of Enterprise, Energy	Bengt Toresson	Head of Department, Depart-

and Communications		ment for Environmental Issues
Ministry of Enterprise, Energy and Communications	Per-Anders Widell	Desk Officer, Department for Environmental Issues
Ministry of the Environment (Sweden)	Tony Clark	Special Advisor
Ministry of Environmental Protection (China)	Liu Ning	Director, Division for European Affairs, Department of International Cooperation
Ministry of Environmental Protection - Foreign Economic Cooperation Office (China)	Huang Jinli	Program Assistant, Foreign Economic Cooperation Office
Ministry of Environmental Protection - Foreign Economic Cooperation Office (China)	Zhang Xiaolan	Deputy Division Chief, Foreign Economic Cooperation Office
Ministry of Foreign Affairs	Kerstin Nordlund Malmegård	Unit Manager, Unit for International Commercial Cooperation
Ministry of Housing and Urban Rural Development (China)	Mengyue Peng	Senior Researcher, Division of International Cooperation and Project Development
Purac Environmental System Co., Ltd. (China)	Amanda Zhang	Marketing Assistant
Sida (China)	Christina Danielsson	Head of development section/First secretary
Sida (Sweden)	Anna George	Programme Manager, Department for Reform and Selective Cooperation
Sida (China)	Yang, Hua	National Programme Officer
Scania(China)	Mats Harborn	Executive director China and previous chairman of the Swedish Chamber of Commerce
SIWI (Sweden)	Josh Weinberg	Communications Officer
SKL International	Paul Dixelius	Development Director
Sustainable Sweden Southeast AB	Ann-Christin Bayard	Managing Director
Sweco (China)	Tang Ying Nilsson	Chief Representative for Sweco China Market
Sweden China Greentech Alliance (Sweden)	Jonas Törnblom	Chairman of the board
Swedish Agency for Economic and Regional Growth (Sweden)	Tony Meurke	Programme Manager
Swedish Agency for Growth Policy Analysis (China)	Christer Ljungwall	Science Counsellor, Head of Section
Swedish Embassy in Beijing (China)	Lars Fredén	Ambassador
Swedish Embassy in Beijing (China)	Jakob Kiefer	Deputy Head of Mission and Head of the Commercial Section
Swedish Energy Agency (Sweden)	Sven Risberg	Senior Adviser/Program Manager
Swedish Environmental Protection Agency (Sweden)	Ping Höjding	Senior Advisor International Cooperation
Swedish Environmental Protection Agency (Sweden)	Katrin Ottosson	Programme Coordinator Policy Development Department/International Cooperation

Swedish Institute (Sweden)	Annika Rembe	Director General
Termoekonomi (China)	Zhang Chong	Marketing Representative
Termoekonomi (China)	Tan Lei	Chief Representative China
Tricorona (China)	Björn Ödenbro	Chief Representative
Tianjin Real Estate Development (China)	Qiao Jiamin	Chairman of Board of Directors/President
Tsinghua University (China)	Shi-Zhong Li	Executive Director MOST-USDA Joint Research Center for Biofuels
Vara Municipality (Sweden)	Helena Thorsell	International Coordinator
VINNOVA – Sweden's Innovation Agency (Sweden)	Sylvia Schwaag Serger	Director International Strategy

C. SURVEY

Following section is a copy of the online-based survey that was sent to the companies that have been in touch with CENTEC.

To Swedish companies that have cooperated with CENTEC at the Embassy of Sweden in Beijing, China

Dear Madam or Sir,

As you may be aware of, the Swedish International Development Cooperation Agency (Sida) intends to terminate its funding to the project Center for Environmental technology, Centec, at the Embassy of Sweden in Beijing China in January 2014. At the moment, a review of the project is carried out on behalf of Sida. The objectives of the review are threefold. First, it is investigated how well Centec as a project has reached its anticipated goals. Another objective of the review is to evaluate Centec as model for promotion of environmental technology as well as partner driven cooperation (PDC). The third objective is to understand the prerequisites for a sustainable solution for Centec once the funding from Sida has ceased.

In order to understand the needs of different stakeholders we try to reach out to as many different stakeholders as possible. This survey is directed at Swedish environment technology companies that have been in contact with or been supported by Centec. We would therefore like you to answer the following survey in order to gather your views and opinions. Your input is important in order to obtain an overview of the current status of the Centec project and to compose a set of recommendations for Centec on how to become a sustainable organization in the future (i.e. if desired by stakeholders). Please respond to the following survey (that takes approximately 5-10 minutes to respond!). The answers are handled anonymously. Last date to respond to the survey is **April 15, 2013**.

For technical assistance please contact Martin Froberg at martin.froberg@ramboll.com

General information: If you intend to go back and review your answers, use the arrows supplied in the survey and not the "back arrow" in your browser.

What is your company's main sector?

- (1) ☐ Sustainable city planning
- (2) ☐ Renewable energy
- (3) ☐ Water purification
- (4) ☐ Air purification
- (5) ☐ Sewage treatment
- (6) ☐ Solid waste management
- (7) ☐ Other, please specify _____

How many people are totally employed at the company you represent?

- (1) ☐ 0-9
- (2) ☐ 10-49
- (3) ☐ 50-99
- (4) ☐ 100-249
- (5) ☐ More than 250

Which of the following services provided by Centec have you utilized/been part of?

- (1) ☐ Initiation of cooperation agreements (including e.g. MoUs and LoIs)
- (2) ☐ Promotion (e.g. included in media briefings,
website, newsletters)
- (3) ☐ Policy
dialogues
- (4) ☐ Market
research studies

- (5) ☐ Swedish
delegation in China
- (6) ☐ Chinese
research delegations in Sweden
- (7) ☐ Chinese
company delegations in Sweden
- (8) ☐ Conference
and exhibition
- (9) ☐ Seminars
or workshops
- (10) ☐ Road
show
- (11) ☐ Partook
in a model project
- (12) ☐ Other, please specify _____

Please rate the activities that you have utilized/been part of (1: Bad; 5: Excellent)

	1	2	3	4	5	n/a
Initiation of cooperation						
agreements (including et al	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
MoUs and Lols)						
Promotion (e.g. included in						
media briefings,	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
website, newsletters)						
Policy						
dialogues	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Market	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐

	1	2	3	4	5	n/a
research studies						
Swedish delegation in China	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Chinese research delegations in Swe- den	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Chinese company delegations in Swe- den	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Swedish company delegations in Chi- na	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Conference and exhibition	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Seminars or workshops	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Road show	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Partook in a model project	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐
Other (as mentioned above)	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐	(6) ☐

Please correspond to the following and indicate with 1-5 (1: I do not agree; 5: I strongly agree)

1 2 3 4 5

Centec has helped my com-

pany on the Chinese (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐ _____

market

The expectations I had when

I first came in touch with Cen- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐ _____

tec have mainly been met

Centec

and its objectives have been (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐ _____

clear

Centec has clear links to the

Swedish promotional strategy

for Environmental Technology (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐ _____

(and its

organization)

Centec

is different to other public

business promotion projects

(1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐ _____

or agencies and that

the organization fills a com-

plementary role

Has your company increased its market efforts in China as a result of Centec?

(1) ☐ Yes

(2) ☐ No

(3) ☐ n/a

Has the cooperation with Centec resulted in any business opportunities?

(1) ☐ Yes

(2) ☐ No

How many business opportunities have you been able to initiate thanks to the cooperation with Centec?

(1) ☐ 1

(2) ☐ 2-4

(3) ☐ 5-10

(4) ☐ More than 10

What is the total value in USD of the business opportunities that have developed as a result of your contacts with Centec?

What would your company have done in China without Centec?

(1) ☐ We would not have tried to establish/expand our operations on the Chinese market

(2) ☐ We would have established/expanded our operations on the Chinese market, but it would have taken longer time

(3) ☐ We would have established our operations regardless of Centec

(4) ☐ Comments _____

Please indicate if you have been able to achieve any other results as a result of your cooperation with Centec:

- (1) ☐ Hooking up with other companies
- (2) ☐ Made the company known to potential customers
- (3) ☐ Decided that China not is an important market for your company at the moment
- (4) ☐ Support in contacts with Chinese authorities
- (5) ☐ Been able to set up a business plan thanks to your contacts with Centec
- (6) ☐ Other, please comment _____

What is needed according to you for Centec to become a sustainable organization and how should this be achieved?

How can Centec improve its activities in the future?

Thank you so much for participating in this this survey.

D. TERMS OF REFERENCE

Review to document the results of Centec, Center for Environmental Technology, at the Embassy of Sweden in Beijing, China

1. Background

Sida supported the establishment and operation of Centec between 2007- March 2011 with approximately 6 MSEK. During this time it was also co-financed by the Ministry of Enterprise with 5 MSEK. Additional funds of 2 MSEK from the Ministry of Enterprise financed Centec's operations during remaining 2011, until Sida took a decision to renew its financing to Centec with 6,8 MSEK between December 2011 – December 2013. In addition, the Ministry for Foreign Affairs contributes with the work time for a sent out diplomat² to function as Head of Centec (function shared 50/50 with the CSR Center).³

Centec staff was originally two (excluding the Head of Centec), increased to seven in 2010, and in 2011 had again decreased to five.

A substantial part of the work within Centec has been to create activities that would provide a platform for cooperation and business between Swedish and Chinese stakeholders, and to initiate and support the development of demonstration projects where Swedish know-how and solutions on sustainable development can come into practice, like the Eco-city Caofeidian, just outside Tangshan.

Partner Driven Cooperation.(PDC) is an instrument for project financing within the Swedish development cooperation that was developed on basis of a policy by the Swedish Government⁴. PDC aims at establishing relations between Swedish partners, and partners in other countries, that are based on mutual interest and in the long term financed by other means than development cooperation funding. Centec has been highlighted in the Strategy for Selective Cooperation with China 2009-2013 as a successful example of PDC and a model to promote in other sectors.

² Ministry for Foreign Affairs has financed the sent out Head of Centec during 2007-2013, with the exemption of the first half of 2010 when the Swedish Ministry of Enterprise financed the position.

³ In 2010, a Center for Corporate Social Responsibility (CSR Center) was also established in the Embassy following the model of Centec, but not to be mixed up with Centec.

⁴ Policy for Partner Driven Cooperation (Policy för aktörssamverkan), 2007

From Sida's point of view, Centec has worked as a facilitator/platform of PDC and contributed to establishing and developing relations between Swedish and Chinese partners. Commercial cooperation has been an important objective both in the short term and medium term perspective. Centec has combined this with promoting bilateral relation between cities and regions, cooperation between government agencies and to some extent within institutional cooperation and research. The model has also inspired Swedish environment technology cooperation in other countries, notably India, Vietnam and Russia.

An "in-depth review" of Centec was done during 2010, for the period of 2007-2010, and published in final version March 2011, "Review of the Centre for Environmental Technology, Centec, at the Swedish Embassy in Beijing" (Rylander, SPM Consultants).

The main recommendation from the review was for Sida to continue to support Centec for the remaining strategy period i.e until the end of 2013. It confirms that Centec is valuable to Sida's programme, due to its contributions to PDC and to sustainable urban development.

Sida would like to update the review for the following purposes

- It is now clear that bilateral development cooperation with China will finalise by December 2013. Sida needs to document results of PDC, and since Centec has been a model project it is important to further analyse its results as a facilitator for PDC. The intended win-win in combining the goals of development cooperation⁵ and promotion of Swedish environment technology, and also in creating synergies by facilitation and cooperation with and reinforcing efforts of other official Swedish actors, should be further analysed.
- There is a need to discuss how Centec in the long run can relate to and be part of the overall promotion work within the area of Environment technology and sustainable urbanization Should Centec, wholly or in part, continue after the phasing out of development cooperation?
- Centec's priority projects have to some extent changed since the previous review. In parts, this has been influenced by changes in Chinese priorities, but there could also be other reasons. Centec's strategies to cope with the changes and implications ahead need to be analysed.

⁵ Centecs relation to the goal of poverty reduction is one of attribution, where the link can be established to the development goal of a better environment and climate, which is believed to be positive for poverty reduction on the general level.

2. Objectives of the assignment

The objective of the assignment is

- to update analysis of the results achieved by Centec since the previous review.
- to summarise and analyse lessons learnt, with regard to Centec as a model for promotion of environment technology and sustainable urban development
- to summarise and analyse lessons learnt, with regard to Centec as a model and facilitator for Partner Driven Cooperation (PDC) This part should include include an analyses of the kind of partners Centec has provided facilitation support to, and whether the relations that evolved are sustainable.
- to update the analyses of to which extent Centec activities has contributed to deals concluded between Swedish and Chinese corporations.
- to update the analyses of the extent to which Centec has provided resources in support of, or cooperated with the Government Offices of Sweden, especially IMT (previously MTK) and Business Sweden (previously the Swedish Trade Council) to analyse the potential win-win in supporting promotion of Swedish Environmental Technology in order to achieve the development cooperation goals. What are the “add-ons” to ordinary promotion work specific for Centec? What are the “drivers” to make Centecs work sustainable in the long run? What aspects of Centecs work have a strong ownership among Swedish and Chinese stakeholders respectively?
- In light of the phasing out of Sida’s support, give recommendations concerning Centecs work post 2013: what it could focus on, how it could be organized and financed. This review will provide an input in the general discussions ongoing within the Government Offices and is not expected to bring the whole solution.

3. Methodology

The review shall include reading of Sida policies and decisions, available plans and reports from Centec, the previous review of Centec from 2011 (Rylander), the review of the Government’s specific support for Export of Swedish Environment technology and sustainable urban development to China (Synnerholm, 2010) and other relevant written material.

The review shall also include interviews in person, by phone or e-mail with stakeholders, including but not limited to, relevant government offices and agencies, government field offices and agencies in China, Chinese counterparts, Swedish companies in China, Swedish companies in Sweden, Swedish and Chinese research institutions and academia representatives.

4. Issues to address

4.1 Interviews

The interviews with stakeholders should include the following issues and other, that the consultant may identify. These are the same questions posed to interviewees in 2010, and the Consultant should therefore notify the interviewee that this is a follow up.

- How they have come in contact with Centec
- In their eyes, what role does Centec play
- What kind of interaction the stakeholder had with Centec
- How do they relate to the Sida aspect of poverty alleviation – has this aspect been touched upon and/or being discussed? Is it useful to include development issues in the dialogue with Chinese counterparts?
- Experience of working with Centec, including good and bad experiences and if Centec has delivered on expectations. .
- If experiences are good, which has been the value added by Centec
- If experiences are good, what is seen as key success factors
- If experiences are less good or bad, which are the suggestions for improvement
- The stakeholders reflection on the results achieved
- Size and type of business created through facilitation by Centec
- Other outcomes known to the stakeholder, such as partnerships, policy dialogue, projects etc.
- Lessons learnt (when relevant)
- Should Centec continue – why or why not?
- Comments on the Swedish business promotion in general, specifically regarding environmental technology

4.2 Results analyses

The Consultant should analyse the results, in relation to the objectives and expected results in the project document including the complementary results tree and results framework.

Further, any unexpected positive or negative results identified should be mentioned.

How has Centec dealt with changes in the Chinese context and priorities?

The review should summarize, and if possible measure, to which extent Centec activities has contributed to deals concluded between Swedish and Chinese corporations. How are these deals, in turn relevant to the goals of Centec? Such a study was made in the Rylander review, and should be upgraded.

Since Centec is also believed to have contributed to other relations than the commercial, the review should in the same way summarize to what extent Centec activities

have led to partnerships between organisations, municipalities, research entities or other non-commercial actors.

Results in relation to stakeholders expectations should also be commented on,

How Centec relates to the Swedish promotional strategy for Environmental Technology and its organization should be discussed.

In general, the Consultant shall, with the review from 2011 as basis and comment on whether there has been any changes relevant to the results analysis and stakeholders views/expectations on Centec. If so, what are the reasons?

4.3 Lessons learnt

What lessons have been learnt regarding the contents of the work and organisation?

Conclusions shall be drawn with regard to Centec as a model for promotion of environment technology and sustainable urban development on the one hand, and for Partner Driven Cooperation (PDC) on the other hand.

The review should analyse the potential win-win in supporting promotion of Swedish Environmental Technology in order to achieve the development cooperation goals. Is there such a win-win? What are the “add-ons” to ordinary promotion work specific for Centec? What could the future promotion work learn from this, even if there are other financing sources than Sida? What is the value of this innovative working model – to achieve goals of development cooperation and promotion respectively?

From the beginning, Sida has been clear about the fact that support is temporary and on a pilot basis. The review should comment on any findings related to work done by the Embassy and/or other stakeholders to identify external financing for Centec,

4.4 Recommendations for the future

What are the “drivers” to make Centecs work sustainable in the long run, i.e what aspects of Centecs work have a strong ownership among Swedish and Chinese stakeholders respectively?

What consequences will the phase out of Sida support to Centec have on Swedish environment technology promotion and Sino-Swedish relations in the environment field?

Give recommendations concerning Centecs work post 2013: what it could focus on, how it could be organized and financed. Does the consultant recommend Centec to

continue, wholly or in part, with other financing if possible? This review will provide an input in the general discussions on-going within the Government Offices and is not expected to bring the whole solution.

5. Time Schedule and reporting requirements

The assignment starts 2013-03-01 (earlier if possible!)

The field visit to China will preliminary start week 12 (earliest) and last for approx. 1 week.

It is estimated that meetings/interviews in Sweden and report writing will take approx. two weeks.

At the Embassy, Ms Yang Hua and Centec will be responsible for preparing the programme in China.

Sida and the monitoring consultant shall meet directly after the return to Sweden of the monitoring consultant from the field work in order to review progress.

Final report shall be delivered 2013-04-30 at the latest.

If required, the Consultant should prepare to participate in meetings with stakeholders to present the report during May and June.

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6. Budget

According to budget proposal from SIPU

7. List of persons to meet / interview – to be added and amended as required

Go through Rylanders interview list

China:

Chinese counterparts:

Centec has cooperated in particular with five cities/provinces.

Meetings/telephone conversations with choice of representatives.

Choice and meetings organised by Sida staff at the Embassy.

(questionnaire not recommended)

Swedish company representatives in Centecs network

Embassy: Ambassador Fredén, Anders Wollter, Jakob Kiefer, staff of Centec, Growth analysis. (Christer Ljungwall, Ulf Andreasson)

Sida (Embassy)Christina DanielssonYang Hua

Swedish Consulate General in Shanghai,, Consul General Viktoria Li.

Swedish Consulate General in Hong Kong, Consul General Jörgen Halldin

Business Sweden - Charlotte Rylme (Trade Counsellor China), Anna Clarin (area manager northern China – check title), Hanna Elving (Sustainable Business Sweden, based in Shanghai).

Meet with Chinese authorities and corporations.

Choice and meetings organised by Sida staff at the Embassy.

(questionnaire not recommended)

Representatives of Swedish corporations

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Sweden:

Sida Stockholm: Åsa Heden, Anna George

Business Sweden: Mats Paulsson, Head of International Markets, Vice President (I ledningsgruppen), , Fredrik Fexe, Deputy Head of International Markets, Vice President (I ledningsgruppen), Håkan Dalfors (area manager cleantech). Mats Röjdmarm (former Swedish Trade Counsellor in China, now on subsequent employment in Sweden)

IMT, Mats Denninger, Lennart Nilsson, Monique Wannding

Bengt Toresson, Johan Norin, Näringsdepartementet

Swedish Ministry of the Environment, Environment Ambassador Annika Markovic, Tony Clark,

UD/ASO (Magnus Stuxberg, Anette Nilsson)

UD/Övriga

Vinnova (Sylvia Schwag Serger) -

Ev Svenska institutet, gd Annika Rembe (p.g.a. bakgrunden Caofedian)

Exempel på regioner och städer som samarbetat med Centec:

Malmö Kommun – Joakim Nordqvist

Jönköpings regionförbund –Anne-Marie Hagström-Hirschberg <Anne-Marie.Hagstrom-Hirschberg@regionjonkoping.se>t

Göteborgs kommun – utrikeschef Lars-Göran Larsson

Enskilda föreningar: SCTC (Sweden China Trade Council), VD Margareta Söderström (Sweden China Greotech Alliance)



Final review of CENTEC, Center for Environmental Technology, at the Embassy of Sweden in Beijing, China

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