*LifeLong Learning for Energy security, access and efficiency in African and Pacific Small Island Developing States*

# L³EAP – Results of Work Package 2

# Local Report from Germany

***Assessment of Needs for Lifelong Learning in the Energy Sector***
***And***
***Assessment of Needs for Capacity Building of University staff in partner institutions***

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## Content





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## List of Figures



## List of Tables





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# 1 Project LEAP and the aims of WP2

Project L$^3$EAP is a three year project on lifelong learning (LLL) for energy security, access and efficiency in Small Island Developing States (SIDS). Focus is placed on tailor-made learning opportunities on sustainable energy and increasing the capacity at universities for delivering high quality lifelong learning courses in African and Pacific SIDS.
Work Package 2 consists of the baseline study where training needs for lifelong learning in the energy sector is analyzed. The main aims are to collect data on the training needs of energy practitioners and collect data on the capacity building needs of HEI staff.
Germany is a leading developer and manufacturer of state-of-the art energy technologies and active in export, technology transfer and developing cooperation in the energy sector. Therefore, it is important to examine the knowledge of energy practitioners in the private sector in fields of energy access, security and efficiency (EASE) in SIDS. The survey covers questions about EASE and also laws and regulations in SIDS to assess the lack of knowledge in the private sector in Germany.
Many HEIs have programmes dedicated to renewable energy and energy efficiency; however, solutions for developing countries are not addressed. The planned courses will be developed, taught and administered by university staff. For this reason, the knowledge of university staff in fields of lifelong learning, EASE and administration is essential. If there is a lack of knowledge, the task cannot be performed successfully. Therefore, the questionnaire examines the skills of university staff and where capacity building is needed. It also analyses the knowledge demanded.

# 2 Methodology

For the survey, the template of the questionnaire prepared by the L$^3$EAP-Project on July 2014 was used for the HEI (see Annex 1) and the energy practitioner survey (see Annex 2). Two questions were added in both surveys. One in the first part of the questionnaire asking the participant's gender and another in the last part of questionnaire asking for the participant's e-mail address. The questionnaire was translated into German. We used survey monkey as the software tool and sent the questionnaire by email with a link to the questionnaire. The introduction in both templates was adapted for Germany by changing some sentences.

## *2.1 Energy Sector Needs Analysis*

The energy sector needs analysis was carried out using three different methods. First of all, the paper-based questionnaire was distributed at a REGSA Seminar on 9$^{th}$ of September 2014. The paper-based answers were transferred to the online software tool. Secondly, the web-based questionnaire was sent by email to 4649 possible participants. Finally, telephone calls were arranged. Forty-five companies were requested to participate but just five had a real interest in answering. The answers from these interviews were also transferred into the software tool.



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### 2.1.1 Survey questionnaire

The introduction in the template of the questionnaire was adapted to the German situation after the translation. The training needs referred to "various sections of the energy sector of SIDS" in the template. We added "to enable technology transfer" to this sentence.

The energy sector survey for energy practitioners contains five main questions, each divided into several parts. Question 1 was about the organization and some general data of the participant. In Question 2 participants gave their definition of energy-related phrases. The third question surveyed knowledge levels on a range between 0 (no knowledge) and 4 (expert level). Question 4 surveyed the training needs of energy practitioners on a range between 0 (not important) to 4 (very important). The last question was about the preferred delivery mode of courses. The paper- and web-based questionnaire were both treated the same.

### 2.1.2 Other activities

To get a better insight into the energy sector, telephone calls were conducted. Companies who are involved in producing energy systems like wind, solar, biomass and hydropower were searched for in the internet, especially private sector companies involved in producing and developing micro systems or appropriate technology. In total, forty-five companies were requested to participate.

## *2.2 University Staff Capacity Building*

Many HEIs have programmes dedicated to renewable energy and energy; however, solutions for developing countries are not addressed. There are several possible barriers for the development of training courses for energy practitioners which will be listed and analyzed in the following sections.

### 2.2.1 Analysis of institutional and structural barriers

Institutional and structural barriers can prevent the development of training courses for energy practitioners. The HAW is implementing studies for academic staff. Their experiences[1] and possible barriers are listed below:

**structural barriers**

- course development for LLL at experimental stage at HAW
- presence teaching highly distributed
- e-learning : intellectual property rights

**institutional barriers**

- Responsibilities of departments
- Cooperation needed
- HEIs primarily oriented toward students, not experts
- Auditoring in courses is allowed (participation certificate, not professional certificate) after admission and fee paying

[1]http://www.haw-hamburg.de/fileadmin/user_upload/CC3L/Fit_Weiter/Publikationen_AFW/FitWeiter_Berlin_final.pdf [last access 10/09/2014]



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**Others:**

- Marketing/Advertisement: addressing interested energy practitioners
- Financial problems

### 2.2.2 Staff survey

After translating the template of the questionnaire, the content of the introduction was modified. The introduction was adapted to the German participants by changing the localization to Germany.
The questionnaire was divided in Sections from A to D. A and D was for every participant. The Section B was filled out by academic staff who are developing and delivering the courses. Section C was intended for administrators and course developers. To assure that only applicable participants fill out the relevant section, the question whether they are administrators or developers was mandatory. There was the possibility of yes and no. If participants answered "yes", they were linked to the questions of the relevant section, otherwise the software skipped to the next section. Replying to other questions was obligatory. It was sent to the Hamburg University of Applied Sciences university staff and professors who are working in the field of energy. We sent out emails with a link to the questionnaire to 104 people and seventeen answered the questionnaire.

# 3 Results

## *3.1 Energy Sector*

### 3.1.1 Survey results

The survey was answered by twenty-nine people in total. Twenty-one male and seven female. This analysis contains all answered surveys including the paper-based survey (eight participants) web-based survey (sixteen participants) and five telephone interviews (see subsection 3.1.2 for special comments).

***Question 1: Basic bio-data***

The twenty-nine replies can be sorted into companies, NGOs, public authorities and others (see Table1). Seven companies are involved in the wind energy sector.

**Table 1: Types of Organizations of Energy Practitioners**

| Type of Organization | Count |
|---|---|
| Company/Private sector | 17 |
| NGO | 2 |
| Public Authority | 4 |
| Others | 6 |

The first questions in the survey are about the profession, position and energy-related duties in the organization. To analyze the replies of the first part, the classification was made by analyzing all answers from one participant given in the first part of the survey (see Table 2).



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**Table 2: Energy Practitioners Profession-classifications**

| Classification of Profession | Count |
|---|---|
| Administration/Management/Leadership | 10 |
| Project Development and Management, also Engineers | 16 |
| Consulting | 5 |

Therefore many participants can be sorted into several classifications. Classification shows that a third are involved in administration, management and leadership. Half of participants are involved in energy related projects in development, management and realization. Where consulting is stated, in many cases this refers to making Energy audits. The phrase 'energy efficiency' was mentioned by eight participants in the first part of the survey.

***Question 2: What do you understand by the terms energy access, energy security and energy efficiency?***

***Energy Access:***
In total, twenty-six participants gave their personal definition of energy access. How energy access is understood by participants of the study can be divided into three topics. Receivers of energy like individuals, community and industry. Secondly, where the energy access is offered. This also includes infrastructure with regional potentials of energy production but mostly the differences between grid and off-grid systems. One statement is a good summary of all answers given: “coverage of electricity (energy) among population and in the territory”. The majority mentioned the word electricity in their answer. Different forms of energy such as heat, gas or oil were mentioned in seven cases. Mostly, participants used the word 'energy' in connection with availability.

***Energy Security:***
Twenty-eight people gave their personal definition of energy security. In nineteen cases, reliability and continuous energy supply was mentioned primarily. This count also includes comments on blackouts. Sustainable and not dependent energy supply from other countries was mentioned eight times. Three people gave a statement about the affordability of energy. Two participants refer to the quality of energy which is supplied. Overall the replies for energy security were similar to each other compared to the other definitions given.

***Energy efficiency of appliances or building and in process industry:***
Analyzing the definitions of energy efficiency given is difficult, because it is hard to find a classification within the answers. The similarity between energy efficiency of appliances or buildings and process industries is remarkable. The word 'ratio' was used very often. Sometimes a calculation is used to define energy efficiency. It is also obvious that best practice and efficient construction is used in the definitions.

***Question 3: Your personal knowledge in the following areas (0 = none, 4 = expert)***
The next analysis contains the answers of the question about the participant's personal knowledge in fields of energy related issues and of laws and energy policies in SIDS. In total, twenty-nine participants chose a range between none (0) and expert level (4) knowledge. The results of this question can be seen in Figure 1. The average of



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knowledge in the individual areas ranges between 0.7 for laws/legislation/regulations relating to energy in SIDS and 2.6 for energy efficiency and renewable energy technologies in SIDS.

The knowledge in fields of energy efficiency, renewable energy technologies and the relation between energy use and climate change is above moderate knowledge. The highest value in knowledge is stated for the relationship between energy use and climate change. The average knowledge level for other items was in the low range. It has to be pointed out that the lowest knowledge levels are stated in connection with energy policies and laws/legislation/regulations relating to energy in SIDS. Participants had an opportunity to comment on this question and one participant counter-questioned: who, besides experts, does have knowledge about energy and SIDS?

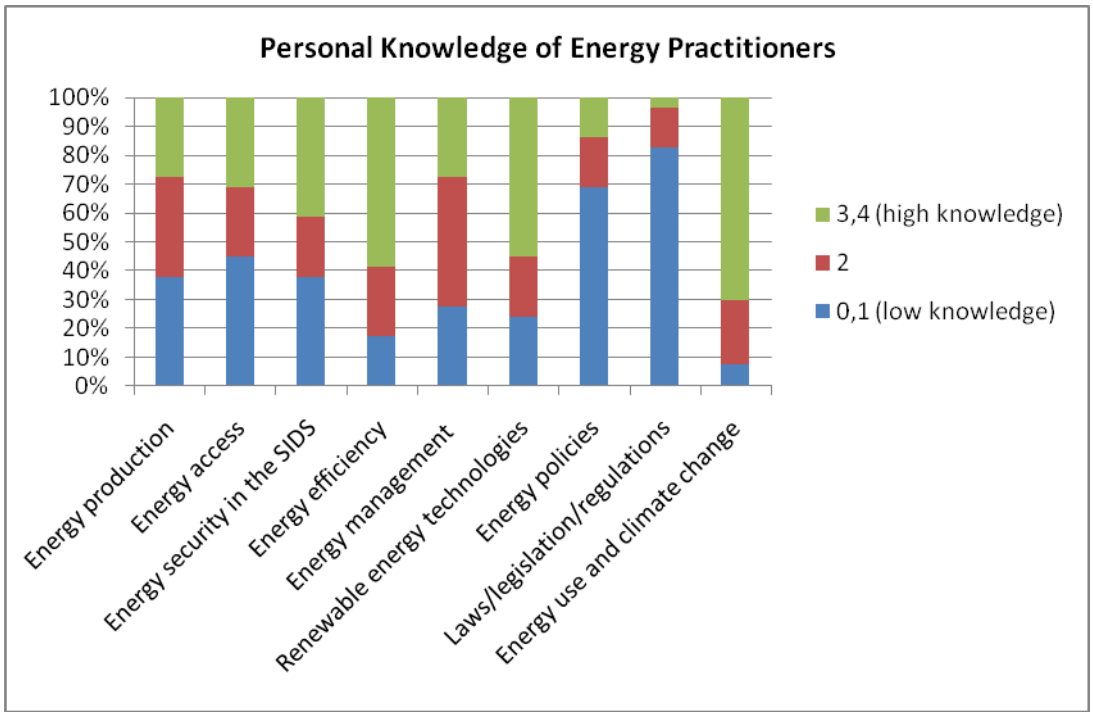


**Figure 1: Personal Knowledge of Energy Practitioners**



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***Question 4: On a scale of 0 (not important) to 4 (very important), which of topics listed in the table below would you like to see included in a course on energy access, security and efficiency?***

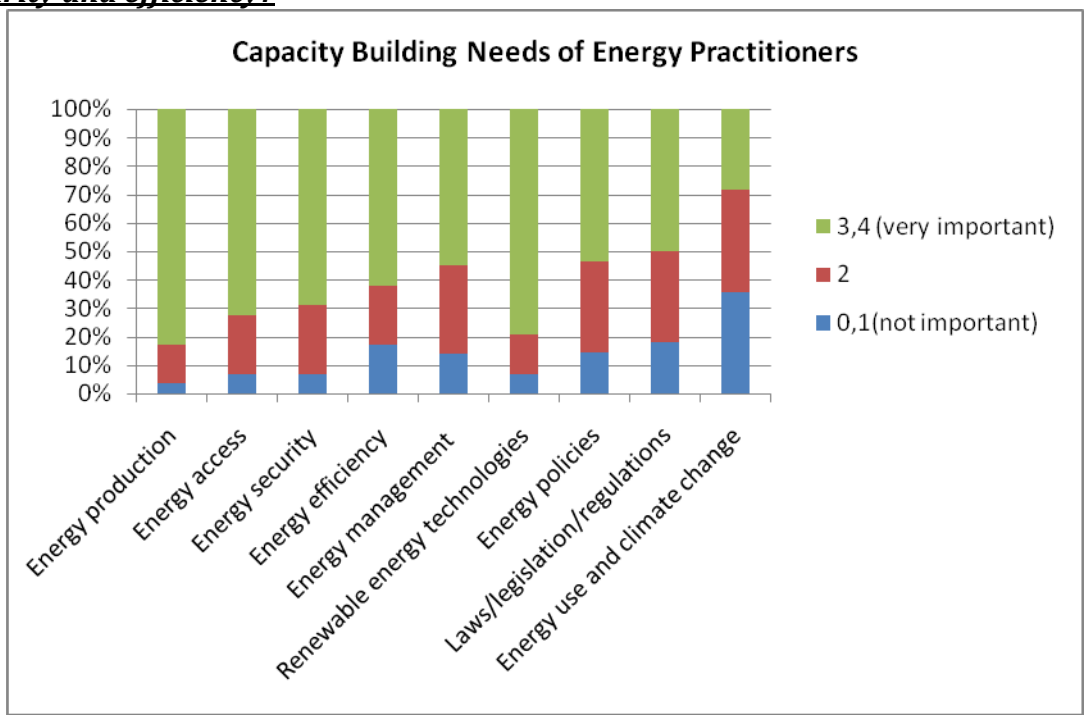


**Figure 2: Capacity Building Needs of Energy Practitioners**

Participants were asked how important it is to include the listed topics in a course on energy access, security and efficiency. Participants chose a range between 0 (not important) and 4 (very important).Twenty-nine participants started answering the items but the count was reduced to twenty-eight for the last three items.
On average, every item got values between 2.2 and 3.3. The highest average value was given for renewable energy techniques in SIDS, though a high level of knowledge was stated. In total every given item is important or very important for more than 50% of participants (see Figure 2). With the exception being the relation between energy use and climate change. Two-thirds chose a value between 0 and 2 for the importance of this.

***Listing of further topics***

Participants listed further topics they would like to see in a course and commented on the question. The comments are very individual depending on the participant. Out of eleven comments, there are three that are similar: about local potential or limitations and initial problems. The comments show participants defining some of the given items:

***Issues of energy production in SIDS:***

- information about local potential, consumption, demand, prices, etc
- not only advantages but also problems or limitations related with RE, the relevance of initial conditions, the relevance of the specific context



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***Renewable energy technologies in SIDS:***

- Application of appropriate technology
- Wind energy in SIDS
- Renewable energy implementation in SIDS: maybe involving cluster

***Laws/legislation/regulations relating to energy in SIDS:***

- Building regulations

***Others:***

- Inclusion of locals especially in production of energy production plants
- How to implement training courses, workshops and capacity building
- Integrated concepts (potential strategies, added value, arrangements, implementation, public), 100% renewable energy strategy, policy advice, scenarios, master plans, participation and international utility, 100% RES
- Expert knowledge level within companies, problems are very country specific
- Consequence of climate change on sea level due to energy consumption

***Question 5: How will you apply the knowledge gained from the proposed course?***

In total, twenty-four participants stated how they would apply the knowledge gained in the course about energy security, access and efficiency. One third of statements included the idea of implementing energy concepts in SIDS and off-grid technologies.
Consulting, research, teaching and project development were stated in five cases. Three participants mentioned they would appreciate gaining knowledge for market development or assessment. Two others stated they appreciate realization.

***Question 6: Preferred delivery mode:***

The most preferred delivery mode for the course is a mixed mode. Face-to-face and online/e-learning have an equal number (see Figure 3).

***Question 7: Further comments***

One person requests some examples for SIDS on order to understand better. For another participant, it seems important who is holding the courses. An expert is not necessarily an expert in teaching.

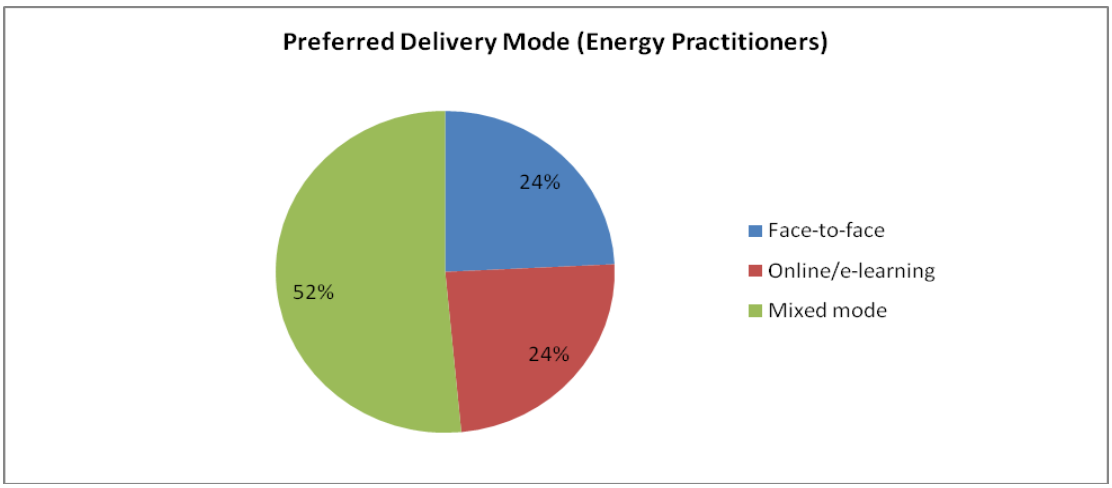


**Figure 3: Preferred Delivery Mode (Energy Practitioners)**



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### 3.2.2 Other activities

Forty-five companies in the private sector were asked to participate in the survey but most of them stated no interest. Sometimes it was not possible to find a contact person or a person who had time for the questionnaire. Some companies generally do not participate in surveys by telephone.

The five companies are involved in producing energy technologies, mostly in the wind sector (three participants). In these private consultations it was noticed that people were unsure about SIDS. Most participants needed examples of SIDS in order to understand better. Participants are involved in leadership, management and sales and are predominantly female (four out of five). In section 3.1.1,some participants stated that they would like to apply the knowledge from the course for market assessment. Two of these answers were given in a telephone interview. Two participants also stated an interest in receiving further information about the courses. Because of their interest, it is necessary to go into their answers in more detail. Both participants stated their lack of knowledge of regulations and law issues in SIDS. Therefore, it is important to have contact persons who can assist in market assessment. Another stated point was involvement of local partners for production of energy producing systems, as well as replacement of spare parts. Participants are aware of the possibility of problems occurring and are unsure about the specific problems. They know that there is a lack of knowledge and would like to decrease the risk of problems occurring.

In two other calls, it was observed that the interest in gaining knowledge in the fields of regulations issues and laws in SIDS is not necessary because these issues are always dependent on the country. If there is a need for special information about a country it can be obtained.

## *3.3 University staff*

### 3.3.1 Structural and institutional barriers to course development and teaching

It was analyzed which possible structural and institutional barriers to course development and teaching there are. First of all, the HAW does have special courses for LLL but these are courses for Public Health and in the Department of Computer Science. The Competence Center for Lifelong Learning (CC3L) organizes and implements LLL at HAW. The courses offered are at an experimental stage and they state that there are no regulations for the development and implementation of training courses. They also mention the lack of responsibility. Besides this, there is a lack of financing for courses related to LLL. In the special case of e-learning, there are HAW platforms where implementation of these courses is explained and training courses are offered but intellectual property rights is a major problem which makes development of e-learning difficult. The e-learning platforms are mostly used for storing lecture notes and additional information.

In German HEIs, presence teaching is highly distributed and HAW is oriented toward young students and not experts. Auditoring the students courses is permitted after admission and paying the fees. Participants are awarded a participation certificate but not a professional certificate.



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### 3.3.2 Staff capacity building survey results

***Section A : Basic bio-data***

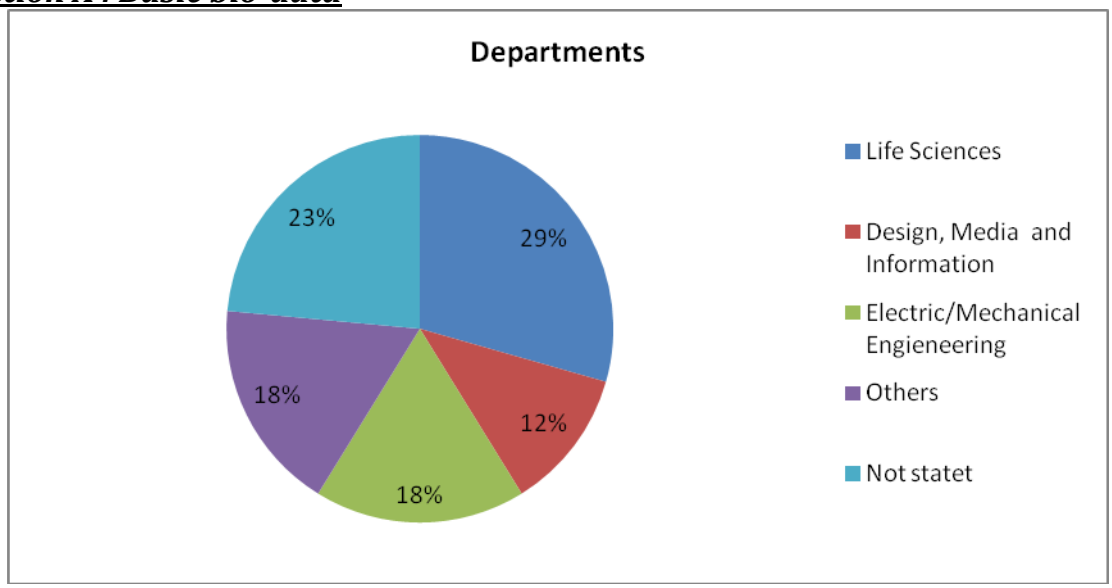


**Figure 4: Departments of Participants (HEI)**

The majority of the participants are staff from the HAW. Only one participant is employed at the University of Hamburg. Half of those involved are in the department of Life Sciences. Apart from this, there are answers from the Electric and Mechanical Engineering, from the Design, Media and Information Department (DMI) and the Economics Department (see Figure 4). Nine out of seventeen are men, five are women. Three others did not state their gender.

***Section B (Academic staff)***

Section B was to be filled out only by academic staff of the university who will develop and deliver courses. Participants chose a range between none (0) and expert level (4) knowledge. Twelve people started answering this section but one did not answer any questions and not all finished this section.

Energy access, energy security and energy efficiency is part of research or teaching. Energy efficiency is the most frequently mentioned (7). Energy security is mentioned in five cases, energy access in just three. These answers also represent the knowledge of the HEI. In energy efficiency, the average personal knowledge is high. Half of participants involved stated that their personal knowledge is at expert level. Energy security and access is not so often part of research and teaching, and so the personal knowledge is more varied. This is also true for issues of energy production in SIDS. There is a lack of knowledge of energy policies and laws/legislation/regulations relating to energy, except for one person who states a high personal knowledge in this area. The knowledge of the relation between energy use and climate change is high. Only one participant stated expert knowledge and a high level in every area, so the majority shows a varied distribution of knowledge (see Figure 5).



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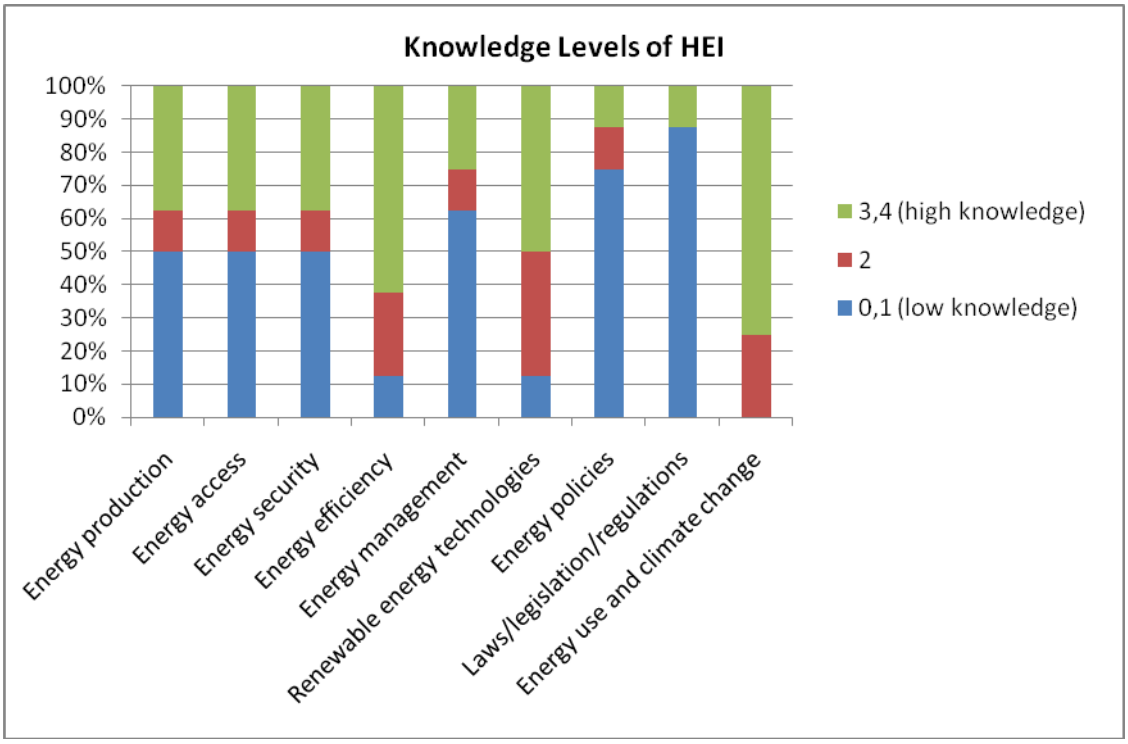


**Figure 5: Personal Knowledge of HEI Staff**

The question about the interest of benefitting from training courses shows that half of participants would like to benefit. In the comments it was mentioned that issues of energy production in SIDS should include the status quo and future perspectives. This comment is also valid in the context of issues of energy access and issues of energy security in SIDS. Within the area of energy management, it was stated that the demand management side is of interest. In the area of renewable energy technologies in SIDS, the comments show an interest in an overview of basic and robust technology. Another person's interest is wind, solar energy and storage technology.

## ***Section C (Administrators)***

The section C was filled out by administrators and course developers. In total, six participants chose a range between none (0) and expert level (4) knowledge. The majority of participants are not involved in developing continuous professional development courses and in managing continuous professional development courses. The experience and knowledge of LLL is low (see Figure 6). Just one person stated involvement in LLL development and management and also has high level skills. The other participants have low skills in every given field. The knowledge is especially low in advertisement/marketing, costing/financial aspects and logistics. Despite the lack of knowledge, there is no interest in benefitting from training courses. Participants mentioned an interest in curriculum, module development and e-learning. One comment mentioned development of classical curricula in higher education facilities in comparison with LLL courses is of interest.



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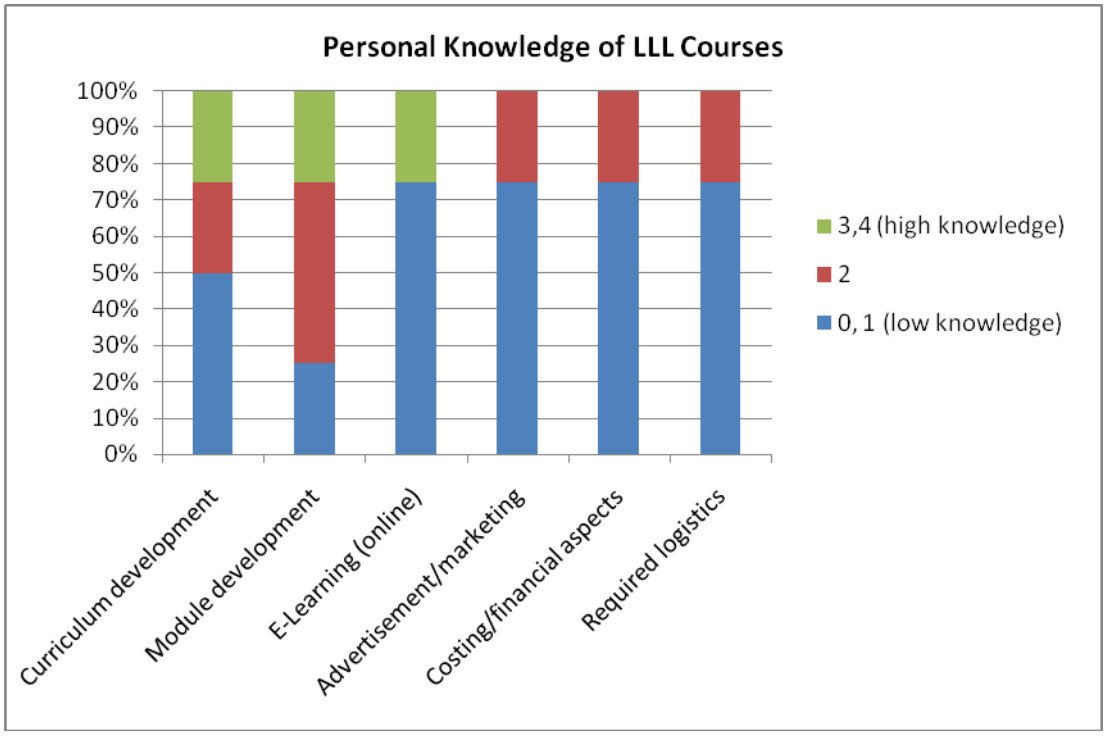


**Figure 6: Personal Knowledge/Experience in Areas of LLL Courses**

***Section D(All staff)***

Further topics for the capacity building were mentioned in this section. Modern approaches for capacity building in environmental management, economics, waste management, e-mobility and logistics for spare parts are of interest. In Figure 7, the distribution of preferred delivery mode of courses is shown.

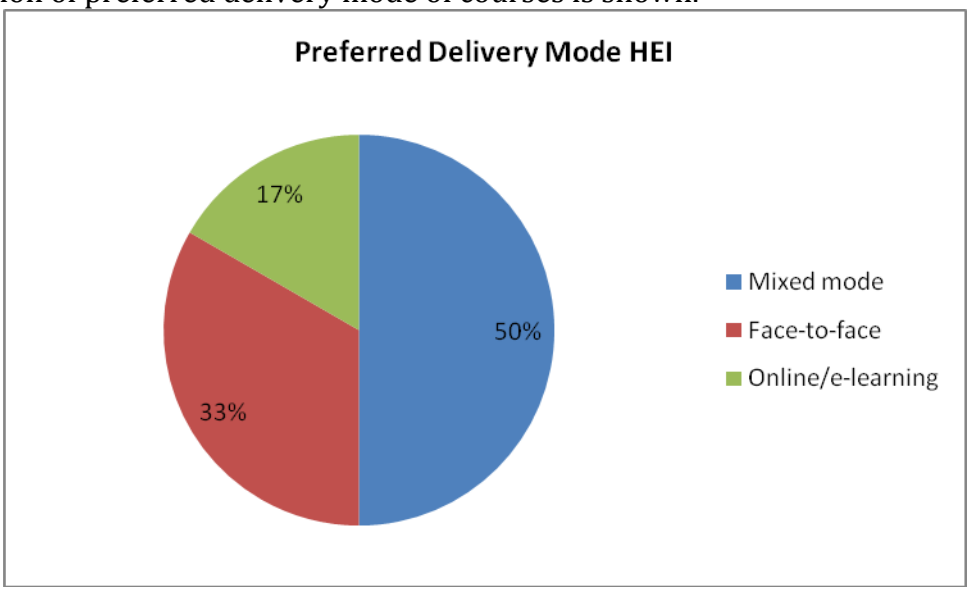


**Figure 7: Preferred Delivery Mode for Capacity Building (HEI)**

Further comments stated that a growing tourism sector should be integrated into concept requirements. In architecture in particular, there is an opportunity for combining western and traditional designs.



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# 4 Conclusions and recommendations

EASE in SIDS is of interest for many different departments at HEI, therefore it is important that various departments work together. Academic staff thatwill develop and deliver courses is involved in energy efficiency research and for this reason the knowledge is high. Depending on the person, the knowledge varies in different areas of EASE. There is a lack of knowledge of energy policies and laws/legislation/regulations relating to energy in SIDS, except for one person who states a high personal knowledge. In any case, the participants do not show interest in this field. Administrators and course developers have low experience and knowledge of LLL. Therefore, they are interested in the development of courses but not in administration aspects such as advertising, finance, logistics. The preferred delivery mode is mixed mode. A third of participants chose face to face as the preferred delivery mode for courses. Staff capacity building for HEI should therefore contain module development and possibilities of e-learning.

In total, twenty-nine energy practitioners participated the survey. Most of them are involved in the private sector and project development. Personal knowledge in EASE is stated as being high but capacity building which includes topics of EASE is also appreciated because of the awareness of possibly occurring problems. Trying to get telephone interviews showed that the interest of energy issues in SIDS is not high in the private sector. However, the people who were interested do have a special interest in the local potential. This also includes the inclusion of local partners. Specific laws and regulations in SIDS are of interest and most participants stated application of gained knowledge in projects, consulting and market assessment. Therefore it is recommended to point out the distinctive aspects of SIDS when it comes to EASE issues. The delivery mode should be mixed mode.



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**Annex 1**

# Umfrage zur Qualifizierung von Hochschulangestellten hinsichtlich Energiesicherheit, -zugänglichkeit und -effizienz in SIDS

## Inhalt dieses Fragebogens:

Das Projekt L³EAP entwickelt ein Lernprogramm zur Schulung und Weiterbildung von Personen, die in den Bereichen Energiesicherheit, -zugänglichkeit und -effizienz im Energiesektor in kleinen Inselentwicklungsländern (Small Island Developing States, SIDS) tätig sind oder tätig sein möchten, da sie einen großen Einfluss auf das Leben in den Gemeinschaften in diesen Entwicklungsländern darstellen.
Die Kursinhalte werden von Hochschulangestellten (wie Ihnen) in Deutschland, gelehrt und verwaltet. Der Zweck dieses Fragebogens ist die Bestimmung dessen, was Sie wissen müssen, um diese Aufgaben erfolgreich durchzuführen.
Die Ergebnisse der Umfrage werden wir verwenden, um verschiedene Seminare/Workshops zu erstellen und Universitätsangestellte in der Entwicklung, Lehre und Verwaltung der Kurse zu schulen. Sie werden eine Einladung zu diesen Schulungssitzungen erhalten.
Wir bedanken uns herzlich für Ihre Hilfe bei dieser Qualifizierungsumfrage!

## Abschnitt A. Allgemeines

1.1 Name Ihrer Einrichtung:

_____

1.2 Ihre Abteilung und Funktion:

_____

1.3 Ihr Geschlecht:

☐ Männlich ☐ Weiblich

## Abschnitt B - Für Lehrpersonal (Nur von Hochschullehrpersonal auszufüllen, das die Kurse entwickeln und halten wird. Andernfalls bitte weiter mit Abschnitt C.)

**2. Hat Ihre Forschung oder Lehre Bezug zu Energiezugänglichkeit, Energiesicherheit oder Energieeffizienz?**

Energiezugänglichkeit ☐ Nein ☐ Ja
Kommentar: _____

Energiesicherheit ☐ Nein ☐ Ja
Kommentar: _____

Energieeffizienz ☐ Nein ☐ Ja
Kommentar: _____



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**3. Wie schätzen Sie Ihr Wissen in den folgenden Gebieten ein (0 = keines, 4 = Expertenwissen)? Bitte kreuzen Sie die zutreffende Spalte an.**

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| i) Energieherstellungsprobleme in SIDS | | | | | |
| ii) Energiezugänglichkeitsprobleme in SIDS | | | | | |
| iii) Energiesicherheitsprobleme in SIDS | | | | | |
| iv) Energieeffizienz (z. B. Geräte, Gebäude, Verkehr) | | | | | |
| v) Energiemanagement (z. B. Energieaudit, Energiemanagementsysteme) | | | | | |
| vi) Erneuerbare Energien und entsprechende Technologie in SIDS | | | | | |
| vii) Energierichtlinien in SIDS | | | | | |
| viii) Gesetze/Rechtsprechung/Verordnungen zu Energie in SIDS | | | | | |
| ix) Zusammenhang zwischen der Verwendung von Energie und dem Klimawandel | | | | | |

Weitere Kommentare (einschließlich Kommentare zur obigen Tabelle):

_____
_____
_____
_____
_____



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**4. Sind Sie an einer Teilnahme an Schulungen in den folgenden Bereichen interessiert:**

| | Nein | Ja | Falls ja, bitte näher ausführen (z. B. Themen, Schulungsniveau) |
|---|---|---|---|
| i) Energieherstellungsprobleme in SIDS | | | |
| ii) Energiezugänglichkeitsprobleme in SIDS | | | |
| iii) Energiesicherheitsprobleme in SIDS | | | |
| iv) Energieeffizienz (z. B. Geräte, Gebäude, Verkehr) | | | |
| v) Energiemanagement (Energieaudit, Energiemanagementsysteme) | | | |
| vi) Erneuerbare Energien und entsprechende Technologie in SIDS | | | |
| vii)Energierichtlinien in SIDS | | | |
| viii) Gesetze/Rechtsprechung/Verordnungen zu Energie in SIDS | | | |

Weitere Bereiche mit Energiebezug, zu denen Sie sich Schulungen wünschen würden:

_____

_____

## Abschnitt C. Für AdministratorInnen/KursentwicklerInnen (Falls dies nicht auf Sie zutrifft, bitte weiter mit Abschnitt D)

**5. Sind Sie in die folgenden Aktivitäten involviert:**

Entwicklung fortlaufender beruflicher Schulungskurse (beispielsweise Kurse zum lebenslangen Lernen oder Fortbildungskurse)

☐ Nein ☐ Ja

Management fortlaufender beruflicher Schulungskurse (Kurse zum lebenslangen Lernen oder Fortbildungskurse)

☐ Nein ☐ Ja



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**6. Wie schätzen Sie Ihr Wissen/Ihre Erfahrung in den folgenden Gebieten zu Kursen zum lebenslangen Lernen (LLL) ein (0 = keines, 4 = Expertenwissen)? Bitte kreuzen Sie die zutreffende Spalte an.**

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| i) Lehrplangestaltung von LLL | | | | | |
| ii) Modulentwicklung zu LLL | | | | | |
| iii) E-Learning (online) zu LLL | | | | | |
| iv) Werbe-/Marketingaktivitäten zu LLL | | | | | |
| v) Kosten/finanzielle Aspekte zu LLL | | | | | |
| vi) Logistik für LLL (z. B. Veranstaltungsort, Projektor, Arbeitsblätter) | | | | | |

Weitere Kommentare (einschließlich Kommentare zur obigen Tabelle):
_____
_____
_____

**7. Sind Sie an einer Teilnahme an Schulungen in den folgenden Bereichen mit LLL-Bezug interessiert:**

| | Nein | Ja | Falls ja, bitte näher ausführen (z. B. Themen, Schulungsniveau) |
|---|---|---|---|
| i) Lehrplangestaltung | | | |
| ii) Modulentwicklung | | | |
| iii) E-Learning (online) | | | |
| iv) Kurswerbe-/-marketingaktivitäten | | | |
| v) Kurskosten / finanzielle Aspekte | | | |
| vi) Logistik (z. B. Veranstaltungsort, Projektor, Arbeitsblätter) | | | |



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## Abschnitt D. Für alle Angestellten

Führen Sie bei Bedarf weitere Themen, in denen Sie eine zusätzliche Qualifikation erwerben möchten, oder weitere Empfehlungen auf:

_____
_____
_____
_____

**8. In welcher Form würden Sie Qualifizierungsschulungen gerne erhalten?**

☐ Präsenzschulung ☐ Online/E-Learning ☐ Gemischt

**9. Haben Sie noch weitere Kommentare oder Anmerkungen?**

_____
_____
_____
_____
_____
_____
_____
_____
_____

**10. Wenn Sie weiterhin über Aktivitäten des L³EAP-Projekts informiert werden möchten und zu statt findenden Schulungen eingeladen werden möchten, dann geben Sie bitte ihre E-Mail Adresse an.**

_____

***Vielen Dank für Ihre Unterstützung!***

Erstellt durch Project L³EAP, Juli 2014



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**Annex 2**

# University Staff Capacity Building Survey in Energy Security, Access and Efficiency in SIDS

## What this survey questionnaire is about:

Project L³EAP is developing a learning programme to train and up-skill people involved in the energy sector of Small Island Developing States (SIDS) in aspects of energy security, access and efficiency as they impact on the lives of communities in these developing countries.

The programme of courses will be developed, taught and administered by university staff (such as yourself) by universities in Germany. The purpose of this questionnaire is to find out what you need to know to enable you to perform these tasks successfully.

The results of this survey will be used to prepare a series of seminars/workshops to prepare and up-skill university staff to develop, deliver and administer these courses. You will be invited to attend these training sessions.

Your assistance in developing this staff capacity-building survey is highly appreciated.

## Section A. General Information

1.4 Name of your institution:

_____

1.5 Your department and position:

_____

1.6 Your Gender

☐ Male ☐ Female

**Section B - For Academic Staff** (To be filled only by academic staff of the university who will develop and deliver the courses. Others please proceed to section C)

4. **Are you doing research or teaching in areas relating to energy access, energy security or energy efficiency?**

Energy access No ☐ Yes ☐
Any comment: _____

Energy security No ☐ Yes ☐
Any comment: _____

Energy Efficiency No ☐ Yes ☐
Any comment: _____



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**5. What is your personal knowledge in the following areas (0 = none, 4 = expert level). Please tick in the appropriate column.**

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| x) Issues of energy production in the SIDS | | | | | |
| xi) Issues of energy access in the SIDS | | | | | |
| xii) Issues of energy security in the SIDS | | | | | |
| xiii) Energy efficiency (e.g appliances, buildings, transportation) | | | | | |
| xiv) Energy Management (e.g. Energy Audit, Energy Management Systems) | | | | | |
| xv) Renewable Energy Technologies in SIDS | | | | | |
| xvi) Energy Policies in SIDS | | | | | |
| xvii) Laws/Legislation/Regulations relating to energy in SIDS | | | | | |
| xviii) Relation between energy use and climate change | | | | | |

Any further comments you wish to make (including comments about the above table):

_____
_____
_____
_____
_____



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**4. Would you be interested in benefitting from training in the following areas:**

| | No | Yes | If yes, please specify details (eg topics, level of training) |
|---|---|---|---|
| ix) Issues of Energy production in the SIDS | | | |
| x) Issues of energy access in the SIDS | | | |
| xi) Issues of energy security in the SIDS | | | |
| xii) Energy efficiency (e.g appliances, buildings, transportation) | | | |
| xiii) Energy Management (Energy Audit, Energy Management Systems) | | | |
| xiv) Renewable Energy Technologies in SIDS | | | |
| xv) Energy Policies in SIDS | | | |
| xvi) Laws/Legislations/Regulations relating to the energy in SIDS | | | |

Add any other energy areas in which you would like to have training:

_____

_____

_____

**Section C. For Administrators/Course developers**(If not applicable to you, please proceed to section D)

**5. Are you involved in the following:**

Developing Continuous Professional Development courses (i.e. Lifelong Learning Courses or Continuing Education Courses)

☐ No ☐ Yes

Managing Continuous Professional Development courses (Lifelong Learning courses or Continuing Education Courses)

☐ No ☐ Yes



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**6. What is your personal knowledge/experience in the following areas of Lifelong Learning courses (LLL) (0 = none, 4 = expert level). Please tick in the appropriate column.**

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| i) Curriculum development in LLL | | | | | |
| ii) Module development in LLL | | | | | |
| iii) E-Learning (online) in LLL | | | | | |
| iv)Advertisement/marketing of courses in LLL | | | | | |
| v) Costing/financial aspects of the courses for LLL | | | | | |
| vi) Required logistics for LLL (e.g arranging for venue, projector, handout, etc) | | | | | |

Any further comments you wish to make (including comments about the above table):

_____

_____

_____

**7. Would you be interested in benefitting from training in any of the following areas of lifelong learning courses:**

| | No | Yes | If yes, please specify details (eg topics, level of training) |
|---|---|---|---|
| i) Curriculum development | | | |
| ii) Module development | | | |
| iii) E-Learning (online) | | | |
| iv)Advertisement/marketing of courses | | | |
| v) Costing/financial aspects of the courses | | | |
| vi) Required logistics (e.g venue, projector, handout, etc) | | | |



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## Section D. For all staff

List any further topics you would like to have capacity building in, and make any further recommendations:

_____
_____
_____
_____

**8. Which type of delivery mode would you prefer for the capacity building course for staff**

☐ Face to face ☐ Online/E-learning ☐ mixed mode

**9. Are there any other comments you wish to make?**

_____
_____
_____
_____
_____
_____
_____
_____
_____

**10. If you want to be kept informed of activities of the L³EAP project or want to attend to the training courses, please provide us with your e-mail.**

_____

***Thank you for your help!***

Prepared by Project L³EAP, July 2014



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Annex 3

# Energiesektorumfrage zur Energiesicherheit, -zugänglichkeit und -effizienz in SIDS

## Inhalt dieses Fragebogens:

Das Projekt L³EAP entwickelt ein Lernprogramm zur Schulung und Weiterbildung von Personen, die in den Bereichen Energiesicherheit, -zugänglichkeit und -effizienz im Energiesektor in kleinen Inselentwicklungsländern (Small Island Developing States, SIDS) tätig sind oder tätig sein möchten, da sie einen großen Einfluss auf das Leben in den Gemeinschaften in diesen Entwicklungsländern darstellen.
In den Kursen werden die Themen Energiezugänglichkeit, -sicherheit, effizienz und umweltfreundliche Energienutzung (einschließlich erneuerbare Energien) in den SIDS behandelt. Sie werden speziell auf den Schulungsbedarf von Personen (wie Ihnen) zugeschnitten, die in den verschiedenen Bereichen des Energiesektors von SIDS arbeiten oder arbeiten wollen, um einen Technologietransfer zu ermöglichen. Der Zweck dieses Fragebogens ist die Bestimmung dieses Schulungsbedarfs.
Wir bedanken uns herzlich für Ihre Teilnahme an dieser Umfrage!

**1.7 Name Ihrer Organisation:**

_____

**1.8 Art der Organisation:**

_____

**1.9 Bitte beschreiben Sie Ihren Beruf.**

_____

**1.10 Welche Funktion haben Sie in Ihrer Organisation inne?**

_____

**1.11 Bitte nennen Sie Ihre Hauptaufgaben im Unternehmen in Bezug auf Energie:**

_____

**1.12 Bitte nennen Sie Ihr Geschlecht**

☐ Männlich ☐ Weiblich

**6. Was verstehen Sie unter den Begriffen *Energiezugänglichkeit, Energiesicherheit, Energieeffizienz*?**

Energiezugänglichkeit

_____

_____

Energiesicherheit

_____

_____



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Energieeffizienz (eines Geräts oder eines Gebäudes)

_____
_____

Energieeffizienz (in der verarbeitenden Industrie)

_____
_____

7. **Wie schätzen Sie Ihr Wissen in den folgenden Gebieten ein (0 = keines, 4 = Expertenwissen)?** Bitte kreuzen Sie die zutreffende Spalte an.

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| i) Probleme bei der Energieproduktion in kleinen Inselentwicklungsländern (SIDS) | | | | | |
| i) Energiezugänglichkeitsprobleme in SIDS | | | | | |
| ii) Energiesicherheitsprobleme in SIDS | | | | | |
| iii) Energieeffizienz (z. B. Geräte, Gebäude, Verkehr) | | | | | |
| iv) Energiemanagement (z. B. Energieaudit, Energiemanagementsysteme) | | | | | |
| v) Erneuerbare Energien und entsprechende Technologie in SIDS | | | | | |
| vi) Energierichtlinien in SIDS | | | | | |
| vii) Gesetze/Rechtsprechung/Verordnungen zu Energie in SIDS | | | | | |
| viii) Zusammenhang zwischen der Verwendung von Energie und dem Klimawandel | | | | | |

Weitere Kommentare (einschließlich Kommentare zur obigen Tabelle):

_____
_____
_____
_____
_____



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**8. Bitte versehen Sie die Themen in der folgenden Tabelle nach der Wichtigkeit, die diese in einem Kurs über Energiezugänglichkeit, -sicherheit und -effizienz für Sie hätten, mit Werten auf einer Skala von 0 (unwichtig) bis 4 (sehr wichtig). Bitte kreuzen Sie die zutreffende Spalte an.**

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| i) Energieherstellungsprobleme in SIDS | | | | | |
| i) Energiezugänglichkeitsprobleme in SIDS | | | | | |
| ii) Energiesicherheitsprobleme in SIDS | | | | | |
| ii) Energieeffizienz (z. B. Geräte, Gebäude, Verkehr) | | | | | |
| iv) Energiemanagement (Energieaudit, Energiemanagementsysteme) | | | | | |
| v) Erneuerbare Energien und entsprechende Technologie in SIDS | | | | | |
| vi) Energierichtlinien in SIDS | | | | | |
| vii) Gesetze/Rechtsprechung/Verordnungen zu Energie in SIDS | | | | | |
| viii) Zusammenhang zwischen der Verwendung von Energie und dem Klimawandel | | | | | |

Bitte führen Sie gegebenenfalls weitere Themen auf, die Sie gerne in einem Kurs behandelt wissen würden, sowie weitere Kommentare.

_____

_____

**5. Wie würden Sie das Wissen gerne anwenden, das Sie in den Kursen auf der Grundlage dieser Umfrage erlernen?**

_____

_____

**6. In welcher Form würden Sie den Kurs gerne erhalten?**

☐ Präsenzschulung ☐ Online/E-Learning ☐ Gemischt

**7. Haben Sie noch weitere Kommentare oder Anmerkungen?**

_____

_____

**8. Wenn Sie weiterhin über Aktivitäten des L³EAP-Projekts informiert werden möchten und zu statt findenden Schulungen eingeladen werden möchten, dann geben Sie bitte ihre E-Mail Adresse an.**

_____

***Vielen Dank für Ihre Unterstützung!***

Erstellt durch Project L³EAP, Juli 2014



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Annex 4

# Energy Sector Survey on Energy Security, Access and Efficiency in SIDS

## What this questionnaire is about:

Project L³EAP is developing a learning programme to inform and up-skill people involved in the energy sector of Small Island Developing States (SIDS) in aspects of energy security, access and efficiency as they impact on the lives of communities in these developing countries.

The courses will address issues relating to energy access, security and the efficient and environmentally friendly use of energy (including renewable energy) in the SIDS. They will be designed to meet the training needs of individuals (like yourself) working or looking forward to work in various sections of the energy sector of SIDS to enable technology transfer. The purpose of this questionnaire is to find out what these training needs are.

Your assistance in this survey is highly appreciated.

**1.13 Name of your organization:**

_____

**1.14 Type of Organization:**

_____

**1.15 How do you best describe your profession?**

_____

**1.16 What is your position in your organization:**

_____

**1.17 What are your main energy-related duties in your organization:**

_____

**1.18 Your Gender**

☐ Male ☐ Female

**9. What do you understand by the terms *energy access*, *energy security*, *energy efficiency*?**

Energy access

_____

_____

Energy security

_____

_____

Energy Efficiency (of an appliance or building)

_____

_____

Energy Efficiency (in process industry)

_____

_____



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**3. What is your personal knowledge in the following areas (0 = none, 4 = expert level).** Please tick in the appropriate column.

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| ii) Issues of Energy production in small island developing states (SIDS) | | | | | |
| i) Issues of energy access in the SIDS | | | | | |
| ii) Issues of energy security in the SIDS | | | | | |
| iii) Energy efficiency ( in e.g appliances, buildings, transportation) | | | | | |
| iv) Energy Management (e.g. Energy Audit, Energy Management Systems) | | | | | |
| v) Renewable Energy Technologies in SIDS | | | | | |
| vi) Energy Policies in SIDS | | | | | |
| vii) Laws/Legislation/Regulations relating to energy in SIDS | | | | | |
| viii) Relation between energy use and climate change | | | | | |

Any further comments you wish to make (including comments about the above table):

_____

_____

_____

_____

_____



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**4. On a scale of 0 (not important) to 4 (very important), which of topics listed in the table below would you like to see included in a course on energy access, security and efficiency? Please tick in the appropriate column.**

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| iii) Issues of energy production in SIDS | | | | | |
| i) Issues of energy access in the SIDS | | | | | |
| ii) Issues of energy security in the SIDS | | | | | |
| iv) Energy efficiency (e.g appliances, buildings, transportation) | | | | | |
| iv) Energy Management (Energy Audit, Energy Management System) | | | | | |
| v) Renewable Energy Technologies in SIDS | | | | | |
| vi) Energy Policies in SIDS | | | | | |
| vii) Laws/Legislation/Regulations relating to energy in SIDS | | | | | |
| viii) Relation between energy use and climate change | | | | | |

List any further topics you would like to see included in the course, and make any other comments that you wish to make.

_____

**5. How do you wish to apply the knowledge gained from the courses that will be developed from this survey**?

_____

_____

**6. Which type of course delivery mode would you prefer**

☐ Face to face ☐ Online/e-learning ☐ Mixed mode

**7. Are there any other comments you wish to make?**

_____

_____

**8. If you want to be kept informed of activities of the L³EAP project or want to attend to the training courses, please provide us with your e-mail.**

_____

***Thank you for your help!***

Prepared by Project L³EAP, July 2014



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About the L³EAP project:

Lifelong learning for Energy Security, Access and Efficiency in the African and Pacific Small Island Developing States (L³EAP) is a three-year project that concentrates on tailor-made learning offers on sustainable energy. The purpose of the project is to increase the capacity of universities in African, Caribbean and Pacific Group of States (ACP) small Island Developing States (SIDS) for the delivery of high-quality lifelong learning courses on the topics of energy access, security and efficiency.

www.project-l3eap.eu

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