



Promotion of Youth Led Enterprises in O Grid Renewable Energy

Prepared by the Youth Employment Summit (YES) Campaign
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Promotion of Youth-Led Enterprises in Off-Grid Renewable Energy

Introduction

The Youth Employment Summit (YES) Campaign appreciates the financial and moral support that the Global Environment Facility and the World Bank have given to the issue of youth employment. Since receiving the grant in January 2002, YES has strengthened the link between youth employment and renewable energy technologies. Given the environmental degradation and lack of livelihood opportunities for youth, this link is vital to the economy and future environmental sustainability of nations. The focus of this project was to address global climate change and, in the same context, analyze how proposed solutions could simultaneously enhance employment opportunities for youth.

The outcomes of the project include:

- Greater awareness and engagement of youth in climate change issues, including the need to promote renewable energy technologies;
- Greater awareness and understanding among youth and their communities about UNFCCC, Agenda 21, Earth Charter and other global environmental goals, and ways in which they can be implemented at the local level to deal effectively with issues related to climate change;
- Youth from five countries, with at least one from a Latin American country, will have developed business plans for renewable energy enterprises;
- Increase in sustainable livelihoods and employment opportunities for youth in five select sites around the world;

- Collection and dissemination of lessons drawn from the seed grant project activities and from other related global activities; and,
- Increased understanding about the need for replicating the seed grant model (which showcases how diverse stakeholders can promote income-generating activities for youth) in other communities throughout the developing world.

In order to monitor the progress of the project, a Monitoring and Evaluation plan was elaborated and submitted to the World Bank. This is attached as Annex 1.

In the following report, each of the deliverables has been highlighted and the status has been given. This is followed by the description of each deliverable and the activities that have been undertaken in the process of its development and completion.

Summary of Project Deliverables

INTRODUCTION TO PROJECT:

The two main components of this project were:

Component One: Promoting youth-led enterprises oriented towards environmentally sustainable enterprises. This component was further organized around two major efforts:

- a. *Generation of Knowledge*
- b. *Dissemination of Knowledge*

Component Two: Project Management, Monitoring and Evaluation

SUMMARY OF THE DELIVERABLES

Component One: Promotion of Youth-led, Environmentally Sustainable Enterprises

The team that led this project decided to do this work by organizing cross-cutting global activities that supported each other and intersected in highly meaningful ways.

I. GENERATION OF KNOWLEDGE	
A. Building the Knowledge Base	
<p>Methodology: <i>Knowledge building primarily involved the identification of model programs, policies and strategies worldwide that have succeeded in creating environmentally sustainable livelihoods for youth. The main focus was on renewable energy programs, and other environmental conservation and restoration projects were included.</i></p>	<p>Results:</p> <ol style="list-style-type: none"> 1) A fully functional web-based portal, the <i>Global Knowledge Resources (GKR)</i>, was launched in September 2002 at the Alexandria Summit. <p>Additional Inputs:</p> <ul style="list-style-type: none"> • The Website has been upgraded (design and function) two times over the last two years. <ol style="list-style-type: none"> 2) A Study on Effective Practices in promoting Renewable Energy (RE) entrepreneurships was also released in September 2002. This study identified the programs and policies that have succeeded in creating environmentally sustainable livelihoods for

	<p>youth in the field of renewable energy.</p> <p><i>Additional Inputs:</i></p> <ul style="list-style-type: none"> An additional thirty-nine publications were prepared and placed on the GKR in 2002 – 2003. These publications included 30 made prior to the Alexandria Summit in September 2002, and another 9 prior to the Hyderabad Forum in December 2003.
<p>B. Compilation of lessons learned</p>	
<p>Methodology:</p> <p><i>Through the experiences gained in designing youth entrepreneurship programs in RE, the YES Campaign now has a compendium of good practices to follow if/when another similar project is undertaken.</i></p>	<p>Results:</p> <ol style="list-style-type: none"> 1) Lessons Learned from the RE Fellows Program 2) Another publication “Lessons learned in training renewable energy entrepreneurs” was produced and disseminated in December 2004. 3) Determination of the Role of the Private Sector in promoting RE
<p>C. Renewable Energy Seed Grants</p>	
<p>Methodology:</p> <p><i>Small seed grants were provided to five young social entrepreneurs to undertake RE projects in selected countries.</i></p>	<p>Results:</p> <ol style="list-style-type: none"> 1) In 2003, a global competition was held for the five Renewable Energy Seed Grants. The winners were announced on Global Youth Service Day, April 11, 2003. 2) These five RE Fellows and their host institutions were provided with technical support to develop business plans for RE enterprises. 3) Beyond the scope of work for this GEF project these, RE Fellows launched their enterprises with mixed success.
<p>II. KNOWLEDGE DISSEMINATION</p>	
<p>A. Dissemination Products</p>	

Methodology:

The knowledge gathered through the aforementioned endeavors was disseminated through the creation of a variety of web- and paper-based publications.

Results:

- 1) A best practices study was produced for, and distributed at the Alexandria Summit 2002, Hyderabad 2003 and Mexico 2004 events.
- 2) The YES website, www.yesweb.org, which hosts the GKR, is a highly visited site and is promoted in 100 countries.
- 3) YES regularly moderates a YES Discussion List, which is subscribed to by 4200 people. Renewable energy was a popular topic of one of those discussions.
- 4) The biography of Dr. MS Swaminathan was produced, printed, and distributed at Alexandria 2002, as an example of a success story in RE entrepreneurship.

Additional Inputs:

- A second biography of Dr. MS Swaminathan was prepared for schoolchildren, printed and distributed at the Hyderabad Forum 2003.
- 5) One toolkit was developed and distributed in Alexandria Summit 2002, and also globally disseminated from the GKR.

Additional Input:

- The toolkit was translated into Russian.
- 6) Other publications included:
 - i. Six Renewable Energy Newsletters
 - ii. Rethinking the Future – Livelihoods in the Renewable Energy Sector
 - iii. Energizing Renewable Energy Entrepreneurship
 - iv. Publications in all nine focal themes: Education to Work, Transition to Work, Investing in Youth Employment, Private Sector Engagement, Building an Entrepreneurial Culture, Effective Government Policies for Youth Employment, Using Information and Communication Technology for Youth, and Employment, Rural Development, Building

B. Global Workshops

Methodology:

Three global workshops were convened to promote the learning from the research and project sites, showcasing renewable energy enterprise development as a viable option for the training and employment of youth.

In addition, a fourth workshop was later added to the series, and three RE entrepreneurship development projects were launched with funding provided by UNIDO.

Results:

- 1) The first series of workshops was held at the YES International Youth Forum 2002, hosted by Synergos in New York City, in January 2002.
- 2) The second series of workshops was held at the Youth Employment Summit held in Alexandria, Egypt, in September 2002 (Alexandria Summit 2002).
- 3) The third series of workshops was held at the Hyderabad Regional Forum, December 2003.
- 4) An additional series of workshops was held at YES Mexico 2004.

Additional Input:

UNIDO Projects: Following each of the YES Summits (Alexandria 2002, Hyderabad 2003, and Mexico 2004), RE entrepreneurship projects were launched in Zambia, India, and Mexico respectively. Each project was undertaken with the involvement of the YES Country Network in those countries.

Component Two: Project Management, Monitoring and Evaluation

I. PROJECT MANAGEMENT

A. Unique and Groundbreaking Methodology

Methodology:

It is the belief of the YES Project Team that no change can be imposed from above, and that engaging youth requires a completely different methodology than engaging non-youth. This project team very early on decided that success for this project meant the following:

- a) *RE and youth employment become linked in the mind of stakeholders, especially youth;*
- b) *RE had to be part of the overall plan for environmentally sustainable livelihoods for youth;*
- c) *Youth had to be placed in the center and at the vanguard;*
- d) *The project had to be fun and interesting in order to grab the imagination of youth; and*
- e) *Technology must be a driving factor.*

Results:

- 1) A youth leadership strategy was implemented to ensure that all activities were fun and exciting, and designed in consultation with youth.
- 2) A youth leadership group, the International Youth Leaders for Employment, was selected at the inception of the project to aid in its implementation.
- 3) The website, which houses the GKR, was prepared as part of the whole youth employment movement, and designed with an eye towards youth engagement and interest.
- 4) Jennifer Corriero, 22, founder of TakingITGlobal and winner of the World Economic Forum's Global Leaders of Tomorrow Award, was invited to join the YES Organizing Committee. She also played a key role in the development of the YES website and GKR.
- 5) All events had a message that "it can be done" and youth were seen, as key partners, not beneficiaries.
- 6) A global competition was held to ensure RE Fellows were not just appointed by the YES team.
- 7) All winners needed to enlist local institutions to support their efforts, and were awarded a seed grant to give them the financial and technical support to undertake the project.
- 8) Young people were encouraged to self-organize in each country to use a close-the-loop contextual approach to build synergies.

B. Staff and Other Human Resources

Methodology:

Key personnel were gathered from

Results:

- 1) A dynamic team, comprised mainly of qualified youth,

<p><i>pools of qualified youth and were aided with aided non-youth experts in their fields.</i></p>	<p>successfully organized and implemented all stages of the project, with the aid of expert non-youths.</p>
<p>II. MONITORING AND EVALUATION OF THE PROJECT</p>	
<p>A. RE Fellows Program</p>	
<p>Methodology: <i>The RE Fellows Program was a key part of the overall YES-GEF Project. The Program was to give youth concrete skills in how to develop a RE enterprise.</i></p>	<p>Results: 1) Five RE Fellows were selected from a global competition. Out of the projects, three were completed with high amounts of success, one is still ongoing due to delivery difficulties, and only one is less successful than planned due to the over-ambitiousness of the project planned.</p>
<p>B. Sustainability Analysis: Feasibility, Environmental and Social Analyses</p>	
<p>Methodology: <i>In order to ensure that the efforts were not wasted, a high level of analysis was undertaken to select the best possible location for the project to take place, and introduced the Fellows to important questions to be answered in a good business plan.</i></p>	<p>Results: 1) Because of the importance placed on the Feasibility Studies and analysis of social and economic factors, the projects implemented experienced a very low failure rate and many of them show signs of being viable sources of youth employment in their regions.</p>

Detailed Information of Project Deliverables

Component One: Promotion of Youth-led, Environmentally Sustainable Enterprises

I. Knowledge Generation

A. Building the Knowledge Base:

- 1) A fully functional web-based portal, the *Global Knowledge Resource* (GKR), was launched in September 2002.

Status: Completed (Dec. 2003)

Description:

The GKR was launched on September 7, 2002, during the Opening Ceremony of the Alexandria Youth Employment Summit. Since then, over 1500 entries have been uploaded to the GKR section of the YES website. The GKR has more than 1000 practices on sustainable development. Of these, 303 pertain to environmental sustainability, with 11 of those based on renewable energy exclusively. The GKR can be viewed on the YES website at <http://www.yesweb.org/gkr.htm>

The GKR is a web-based compendium of effective practices (Lessons Learned, Barriers to Overcome, Areas of Focus), papers, publications, and toolkits collected from all over the world that have contributed to youth development/employment on a variety of themes: Education to Work, Entrepreneurship, Investments Needed, Government Policy, Information and Communication Technology, Private Sector Engagement, Rural Development, Transition to Work, and Environmental Sustainability. The GKR is an invaluable resource database and communication medium/tool, where diverse stakeholders of the youth employment ecology can share and access innovative initiatives, useful toolkits, and comprehensive research and publications. Overall, the GKR connects stakeholder groups from different sectors of society interested in youth employment to governments, the private sector, NGOs and the youth themselves. Though the GKR initially focused on renewable energy programs, it also includes information about other environmental conservation and restoration projects, and youth employment in general.

Development Process:

In order to develop the GKR, the following activities were undertaken by the YES-GEF Team:

a. Convened the Knowledge Resource Advisory Group

A Renewable Energy Advisory Group was identified to support the development of the GKR, in addition to providing other deliverables. All members of the advisory group were RE specialists or professionals in other areas with significant interest in RE issues. The advisory group helped to identify model programs, policies and strategies worldwide that have succeeded in creating environmentally sustainable livelihoods for youth.

For more information review “YES Renewable Energy Advisory Group”, Annex 1.

b. Developed a database of key renewable energy stakeholders

To ensure that the project team was reaching out to all the diverse-stakeholders in the RE ecology, a database was created and information about this project was shared with them. In addition, this database was uploaded on the YES website and made available to the general public.

For more information see enclosed publication, “Renewable Energy Organizations Database” in Volume 1

c. Developed an action plan and solicited stakeholders to share information about their programs

In order to maximize its usefulness, the GKR had to be publicized as a tool that stakeholder groups could use to add their effective practices and search for programs, policies and practices, tools and publications. Letters were mailed to all major international development agencies to introduce the GKR to them and an email campaign was also undertaken. The result of these efforts is that non-team members have uploaded over 1000 projects, toolkits and research papers.

For more information see enclosed publication, “Renewable Energy Organizations Database” in Volume 1

d. Uploaded resources to the YES GKR website

Industry Canada provided the custom software that allowed the GKR to be developed. The software enabled the project team (consisting of the staff of both YES and TakingITGlobal) to develop the GKR and provide the matching criteria required to make it a very accessible and searchable database.

For more information review “GKR Guidelines and Operation Plan”, Annex 2

e. Developed publications for the GKR

Over 50 original publications have been prepared for the GKR and the various global meetings organized over the last 3 years.

For more information find a list of titles and the enclosed publications in Volume 1

B. Compiling the Lessons Learned

- 1) Lessons Learned from the RE Fellows program gathered.
- 2) The publication “Lessons Learned in Training Renewable Energy Entrepreneurs” was produced and disseminated in December 2004.
- 3) Role of the Private Sector in promoting RE determined.

Status: All three Completed (Dec. 2004)

Description:

Together these three publications hold a wealth of knowledge regarding ‘what works’ and the emerging trends in RE entrepreneurship. Promoting entrepreneurship strategies within the field of renewable energy is a challenging, yet rewarding endeavor. While benefiting the livelihood of young adults in the form of employment opportunities, the proliferation of renewable energy technologies also promotes sustainable development. As the population of the world continues to increase, it is especially important for developing countries to promote renewable energy practices, for there is an undeniable correlation between economic prowess and energy consumption.

The GKR is also the home of these lessons learned in promoting renewable energy entrepreneurship and training and supporting youth in developing and marketing business plans for renewable energy enterprises. These lessons cover how the barriers to providing renewable energy to the local communities were overcome, as well as the role that youth entrepreneurship and leadership played. The GKR also shares how the appropriate

renewable energy systems/technologies are identified and adopted, and how the youth groups managed these systems in partnership with other stakeholders (e.g., private investors, community leaders, government agencies, NGOs, etc).

Development Process:

In order to prepare these documents, the following activities were undertaken by the YES-GEF team:

a. Prepared Terms of Reference for the completion of these three documents

These Terms of Reference were created to ensure that each document was as meaningful as possible and fit into the overall objectives of the GEF RE Project.

For more information review "TOR for the Development of Lessons Learned", Annex 3.

b. Requested feedback for lessons learned through implementation of RE Fellowships Program

Lessons learned from the RE Fellows Program were gleaned from the responses to an evaluation of the five fellows and their projects.

For more information review "Lessons Learned from the RE Fellows", Annex 4

c. Captured Feedback for "Lessons Learned in RE Entrepreneurship"

One of the members of the YES Renewable Energy Advisory Group shared that in India and in many other parts of the world there were examples of RE Entrepreneurship that should be captured for the purposes of this project and disseminated to the 70 YES Country Networks and key stakeholders. The project worked with this Advisor to produce this publication.

For more information see enclosed publication, "Promoting Entrepreneurship in Renewable Energy, Sharing the Lessons Learnt" in Volume 2

d. Investigated the Role of the private sector in RE

At the Mexico Summit there was a session on the Role of the Private Sector in Promoting Youth Employment. Out of that session came the need to understand what the private sector is/was currently doing in this specific field. This publication was prepared by the Navneet Mathur, and included some of his suggestions, based on

information gained through his efforts preparing the 6 RE newsletters and moderating the discussion list.

For more information see enclosed publication “Energizing Renewable Energy Entrepreneurship” in Volume 2

C. Renewable Energy Seed Grants – RE Fellows Program

- 1) Small seed grants were provided to 5 young social entrepreneurs to allow them to undertake RE projects in selected countries.

Status: Completed (Dec. 2004)

Description:

The purpose of the YES Renewable Energy Fellowships was to provide an opportunity and develop models for young people all over the world to create RE enterprises. The goal of the program was to promote the learning from these fellowships in order to build the marketplace for RE enterprises, which would then lead to reducing the negative impact of climate change on the earth's atmosphere. In other words, the resulting projects were helping to improve the environment through the application of a business model. Renewable energy sources (solar, wind, biogas, water, geothermal, and others) have immense potential to increase energy production without damaging the earth's atmosphere, and provide a relatively easy avenue for youths to engage in entrepreneurship. The basic principle underpinning this project is the belief that successful implementation of renewable energy businesses requires community education to build the demand, education and training institutions to focus on developing capacity to promote RE business, young people willing to take on the challenge of building these innovative businesses and, most importantly, availability and affordability of appropriate technologies.

Efforts to promote learning need to be grounded in grassroots action. This project had two major goals – **one**, to gain knowledge and develop tools and other resources to promote the inextricable link between renewable energy and livelihoods generation, and **two**, to make the connection real in the minds of young people and their communities that it is possible to have income-generating businesses in the RE sector. The RE Fellows program was an effort to publicize the possibility of such RE businesses and to encourage young people to apply for the Fellowships.

The application process was diligent and detailed, thereby ensuring that only serious applications came through. Two criteria were very important to the success of an application: i) sharing a good idea for a RE business and ii) finding an institution willing to be a co-applicant and host for the RE Fellow's training and development. Efforts were made to train and develop the capacity of the host institution and the RE fellow to understand the RE market, get the appropriate training, materials and other services to develop their business plans. In March 2003 the technical assistance plan was prepared and the RE fellows and host institutions began receiving financial support for training and development.

The YES Country Network was also required to accept the application and co-sponsor it. This was done in an attempt also to build the capacity of the members of these YES Networks by including them as essential partners with the RE Fellows and the host/training institution. Their inclusion allowed the RE Fellowship Program to have positive ramifications beyond those originally intended and thereby maximize the benefits it generated.

The RE Fellows were finally selected by a jury of their peers – International Leaders for Youth Employment – an advisory group within the YES Campaign. The GEF mandate for the project was only to help young people develop business plans; however, **all of the RE Fellows went one step further and tried to launch their businesses.**

For more information about their experiences refer to "The Journey of the Five RE Fellows", which accompanies this Report.

Development Process:

The following activities were undertaken to complete this deliverable:

a. Management of the RE Fellow Application Process:

The GEF midsize brief called for nominations for the RE Fellows, but after the Alexandria Summit, the team decided that in order to really promote the RE businesses concept, and also to get the most motivated Fellows, a competitive process would be the most effective way of accomplishing these goals. In January 2003, the Seed Grant

Program (GEF/WB) Renewable Energy Fellowship competition was announced on the web and by mailing materials to Global Youth Service Day institutions all over the world. Application forms were also distributed to several large networks, and publicized through youth groups and in conjunction with the Global Youth Service Day promotions. Over thirty correctly filled applications were received from all major regions – North America, Latin America and the Caribbean, Africa, Asia, and Europe.

b. Selection of the RE Fellows

The process followed was diligent but clear. Applications were carefully reviewed under the following criteria:

1. How knowledgeable was the applicant in the field?
2. What was her/his level of project management skills?
3. What was the overall standard of the application (taking into account the goals, activities and budget)?
4. Did the budget reflect the actions of the written working plan?
5. What was the opportunity for youth involvement in the project?
6. What youth employment opportunities could be created as a result of the project?

After checking the application forms carefully, 10 candidates were short-listed for the final round. These short-listed candidates' applications were sent to the YES International Youth Leaders for Employment (IYLE) Advisory Group, who then selected the five winners. The official announcement was made on the Global Youth Service Day, April 12, 2003.

For more information see enclosed publication, "Application Process for the RE Fellowship" in Volume 3

c. Preparing the Individual Training Programs

Each country has its own particular situation and level of development and expertise. It was, therefore, essential that the host/training institution develop the training programs themselves, according to guidelines provided to them by the project team.

For more information see enclosed publication, "Guidelines and Methodologies for the RE Fellows" in Volume 3

d. Conducting Feasibility Studies in the five RE Fellows' Communities

The project team worked with the RE Fellow and the host/training institution to develop the feasibility studies of alternative ways to provide renewable energy in the 5 RE Fellows' communities in Georgia, Ghana, India, Malawi, and Peru. In May 2003, in anticipation of launching the RE Fellows' Seed Grant Project five feasibility studies were commissioned in target communities in the five countries mentioned above. The purpose of these studies was to identify the needs of the community in energy and renewable energy; assess the financial and technical requirements needed to bring renewable energy technologies to the community; analyze the social and environmental needs; and provide community education by sharing experiences. These feasibility studies identified the technical, financial, and institutional needs of the communities, and the social and economic context in which project activities were undertaken, and were completed by local experts. While rural communities were targeted, accessibility to the local area was considered essential for project success. The community development activity likewise included community education and training programs to best identify least-cost energy alternatives for the community.

e. Training the RE Fellow in business plan development and launching the enterprise

The first phase of the YES RE Fellows Projects was training, including a three-month training period, a one-day workshop held after this training period, and continuous support in preparing business plans. The training was offered in each of the five RE Fellows' countries: Georgia, Ghana, India, Malawi and Peru, and took place from June to August, 2003, with the one day workshop following in September 2003. The training included site visits and support to prepare business plans for their RE enterprises. Training was dividing into two categories: General Subject on Renewable Energy and Economics and Special subject for individual RE Fellows. Each RE Fellow was provided materials electronically through emails and also through mailed hard copies. At the end of the RE Fellows first phase of training, a video illustrating the experiences they had was produced and the Fellows were introduced to the special format for the monthly and final reports required of all RE Fellows.

Technical Assistance was also provided to the five RE Fellows and their host institutions. All RE fellows received training and technical assistance in developing

business plans to bring renewable energy to their communities. They also learned the general context of sustainability and climate change issues. Training included several aspects: knowledge of renewable energy in their community; economic and project development methodology; preparing a business plan; and understanding micro-enterprise development. According to the need, which comes from Fellows, individual training programs were prepared.

For more information see enclosed publication, "The Journey of the Five RE Fellows" in Volume 3

f. Community Engagement with the RE Fellows

By the end of 2003, efforts were made in the 5 RE Fellows communities to engage their community members and seek their participation in the project. This was done by various means such as providing community education by hosting workshops, sharing information on different kinds of relevant RE technologies and their applications, and offering advice on using RE.

II. Knowledge Dissemination

A. Preparing and distributing products highlighting the knowledge gained

1) Printing and Disseminating the Study

Status: Completed (Dec. 2003)

Description:

A Report on Youth Employment Opportunities in the Renewable Energy Sector was released at the Alexandria Summit in September 2002. This report focuses on effective programs in the RE sector geared towards generating employment, and can be viewed at <http://www.yesweb.org/gkr/>.

This report looks at youth employment opportunities in the RE sector. It first gives the reader a background on the current scenario with regard to climate change and renewable energy. The potential of renewable energy as a sustainable energy source is discussed. The key points are that it is clean energy, it is not dependent on limited supplies of fossil fuels,

and it is a viable means of providing electricity to off-grid areas in developing countries, thereby facilitating sustainable development. The report looks at the various barriers to the adoption of renewable energy projects, gives examples of the types of employment opportunities available, and lists institutions working in the field of renewable energy. The report then goes on to describe each type of renewable energy – how it works, what are the successful examples, and what kinds of employment opportunities lie in each area. In addition, institutional structures and organizations that promote renewable energy are described, along with different funding sources for the development of renewable energy projects. The report concludes by describing the enormous potential of renewable resources, which can meet the world energy demand several times over. Globally, the potential that exists in renewable sources can contribute to long-term sustainability; while it can also be harnessed effectively to create new employment opportunities. Enormous market potential in the field of renewable energy technologies is a reality. For the unemployed youth, that means jobs, careers, and business opportunities.

For more information see enclosed publication, “Youth Employment Opportunities in Renewable Energy” in Volume 4

2) Developing, testing, printing, and disseminating the Renewable Energy Toolkit

Status: Completed (Dec. 2003)

Description:

The toolkit on developing a business plan in the Renewable Energy sector was released at the Alexandria Summit in September 2002. It provides youth with guidance on how to draw up feasible and viable business plans for the promotion of renewable energy. The toolkit included information from the Knowledge Resources and was translated into Russian. It can be viewed on the YES website at <http://www.yesweb.org/docs/retool.pdf>

The toolkit was designed and developed for this project by the African Rural Energy Enterprise Development -AREED. It is targeted towards those youth who want to establish renewable energy enterprises, but do not have the expertise to draw up viable business plans. The topics covered in this toolkit include evaluating objectives, preparing a financial analysis, determining one’s distribution strategy, and compiling data in an informative and convincing manner so as to attract financing. The toolkit has four main sections: and

Introduction to business plans and using the toolkit, Fact-Finding, Feasibility Studies, and how to make your business plan attractive to Investors. These four sections culminate in the development of a high-quality business plan that can be sent to potential lenders and investors. After several months of active discussions within the experts on RE, the toolkit was uploaded on the website and translated into Russian.

In April 2003 the Toolkit was delivered to all the RE Fellows and their host/training institutions and customized training programs were prepared based on it.

For more information see enclosed publications, "Renewable Energy Tool Kit" in English and in Russian, Volume 4

3) Developing and maintaining the Global Knowledge Resource Website

Status: Completed

Description:

In today's world the web has become the greatest equalizing tool in the world. Young people are especially savvy with the web. It was clear from the inception of this project that a database driven interactive website presented the best opportunity for sharing effective practices, tools and publications. A highly acclaimed website was developed by TakingITGlobal with software from Industry Canada that matched requests with resources. In addition, working groups and discussion lists were launched to continue the work of identifying effective practices, policies, and strategies for developing RE enterprises. The website can be viewed at www.yesweb.org/gkr.htm.

In partnership with TakingITGlobal and Industry Canada, the project team designed the GKR as a searchable database of effective policies, programs and tools for youth employment. The targeted audience is not just youth, but anyone interested in youth employment around the world. The YES Themes covered in the website include: Education to Work; Entrepreneurship; Investing in Youth Employment; Government Policy; Information and Communication Technology; Private Sector Engagement, Rural Development; Transition to Work; and Environmental Sustainability. Papers, publications, and various toolkits are also available on-line.

With the information gathered from the analysis of 800 to 1200 projects, effective practices were compiled. Under the heading “Effective Practices,” exist three subsections. “Lessons Learned” describes the positive and negative lessons that have been learned from programs, and policies. The “Barriers to Overcome” section identifies the barriers to youth employment, and the opportunity that overcoming the barriers brings. And lastly, the “Areas of Focus” section lists the various themes related to youth employment and sustainable livelihoods, and the barriers, programs and policies that correspond to each area. In addition there are links to relevant toolkits, YES member profiles, country reports and regional information.

4) Coordination of 4 global workshops

Status: Completed (Dec. 2004)

Description:

The first workshop was held in New York in January 2002 and was co-hosted by Synergos. The second was held in Alexandria, Egypt in September 2002, and was hosted by the Government of the Arab Republic of Egypt. The third global workshop was held in Hyderabad, India during the YES Regional Forum in December 2003, and was hosted by the Government of Andhra Pradesh. The fourth workshop was held in Veracruz, Mexico in September 2004 as part of the Second Global YES Summit and was co-hosted by the Government of Veracruz and E Foundation. The summary reports can be viewed at www.yesweb.org.

For more information see enclosed publication, “Four Global Workshops in Renewable Energy” in Volume 4

Descriptions of Each Global Workshop:

Global Workshop 1: A two-day global workshop on “Training Youth Advocates for Employment” took place from January 31 to February 1, 2002, in New York City. This event was co-hosted by the Innovative Development Network of the Synergos Institute and the YES Headquarters. Thirty-five young people from 23 countries came together to learn more about YES and to develop actions plans for their own countries by contributing to the Global Campaign for Youth Employment. The agenda included a workshop that looked at

the opportunities for YES Country Networks in the renewable energy sector. Presented at this workshop, was also the pilot project developed by YES in collaboration with the Global Environment Facility and the World Bank.

Global Workshop 2: A four-day summit was held in Alexandria, Egypt, from September 7 – 11, 2002, with all-day workshops on the 12th. There were more than 1600 participants from 120 countries. Participants came from around the world and from all sectors of society, including the government, the private sector, civil society, and youth. All these groups interacted to jointly address the problem of youth unemployment. A wide variety of sessions were held each day, with speakers expressing their views and concerns about the state of youth unemployment, and suggesting solutions to the problem. Suggested solutions were varied, ranging from economic to environmental to social solutions. The role of renewable energy was highlighted as a means of bringing about sustainable development in rural areas and developing countries.

There were two plenary sessions on Renewable Energy. In the first plenary session, Promoting Youth Employment through Sustainable Development, renowned experts in the field of renewable energy expressed their views and enlightened the audience on the huge potential of renewable energy. Youth leaders, along with the experts, also expressed their views. Addressing the session, Dr. M.S. Swaminathan, the recipient of the World Food Prize, dismissed pessimism surrounding sustainable industry, saying that there should be an “Ecology of Hope” initiative. Dr. Swaminathan pointed out that an environmentally friendly approach to business has been proven to be economically viable. He referred to a Global Environment Facility (GEF) Initiative, which has set up an online web resource listing 5000 economically and ecologically viable jobs and employment opportunities.

Dr. Mohamed El-Ashry, CEO and Chairman of the Global Environment Facility, said that sustainable development should comprise progress and growth that are economically, socially, and environmentally sustainable. Dr. El-Ashry pointed out that ecotourism, renewable energy, and forest conservation are efficient forms of promoting sustainable development. Youth speakers said sustainable economic development and employment initiatives are of immense importance to the developing countries that face rapid

environmental degradation. They stressed that future development paradigms should be infused with explicit references to environmentally sustainable development.

The second plenary session, “A Focus on Renewable Energy,” emphasized the need to promote renewable energy globally. During this session, Dr. Ajay Mathur from the World Bank said that the amount of energy used in the developing countries is far less than in the more developed ones. He continued by saying that the quality of life in any population is dependent on the amount of available energy. Furthermore, there are a large number of people in the developing world who do not have proper access to energy. Even the ones who have some level of access, the quality of services is very low. For example, the rural populations who use biomass energy resources use it inefficiently with only 8-10 percent of the potential energy being utilized. Mr. Mathur said that the current world energy practices are not in any way sustainable, leading to air pollution, global warming and other environmental and health hazards. Hence, the need for renewable energy has increased. Nevertheless, Mr. Mathur commented that there are significant obstacles that are preventing renewable energy proliferation, such as capital costs, centralized energy production, and centralized power grids. The grant initiatives undertaken by the Global Environment Facility (GEF) have helped communities in a number of developing countries to overcome these barriers.

Global Workshop 3: The YES Campaign organized an international seminar named “Rethinking the Future: Youth Employment Opportunities in Renewable Energy” on December 15, 2003 in Hyderabad as an integral part of the Hyderabad YES Regional Forum from Dec 14 – 18, 2003, in conjunction with the State Government of Andhra Pradesh, India.

The Seminar hosted over 600 delegates who were affiliated with governments, the private sector, media, NGOs and other civil society organizations from all over the world. The agenda was well developed, covering a wide range of topics such as rural development, eco-enterprises, water and sanitation, information and communication technologies and HIV/AIDS; however, the main focus was on Renewable Energy. Several well-known international and national level speakers addressed the delegates, including Dr. Hafiz Pasha, Assistant Secretary General of the UN, Dr. George Assaf, Country Representative to

UNIDO, and Shri. Jannat Hussein IAS, Secretary of Energy in the Government of Andhra Pradesh.

Four publications were prepared for this Renewable Energy workshop, and a total of two thousand publications were distributed at the YES Regional Forum. The publications provided a knowledgeable resource on youth employment to all the delegates who participated at the conference. The publications were: *Rethinking the future: Youth employment opportunities in renewable energy*; *A living legend: Dr. Swaminathan, Father of Green Revolution in India, A Biography for Children*; a Compendium of YES Network Reports 2003; and the Renewable Energy Newsletter.

To ensure large stakeholder participation, a concerted effort was made to promote the Seminar and the Forum in the region by circulating invitations and subsequent follow-up. Effort was also made to mobilize a team of volunteers to help facilitate the event. This team helped to build awareness among the youth about the need to volunteer and build grassroots commitment to join the YES Country Networks.

The Renewable Energy Seminar brought access to comprehensive effective practices and innovative information on youth employment initiatives in renewable energy. The seminar also led to the creation of several pilot projects to demonstrate and test what works in the field. Overall, the Seminar built a strong network in the state and strengthened the existing YES RE Network.

UNIDO also funded two projects in Renewable Energy and youth entrepreneurship. One project was to be undertaken in India, with the other to be located in Zambia.

Global Workshop 4: The YES Mexico 2004 was held in the World Trade Center (WTC) in Veracruz, Mexico, from October 4 - 7, 2004. There were 105 countries represented from all over the world, with over 1500 delegates attending the Civil Society Forum. Thirty Ministerial delegates attended the Ministerial Forum.

Some of the highlights of the workshop included the release of *The State of the YES Campaign Report* and the renewal of commitment to the YES Campaign by over sixty-nine

YES Country Networks who took the opportunity of being together to prepare their regional and national action plans. Also, workshop participants set a vigorous and groundbreaking agenda for the next two years of the campaign.

The Mexico Summit promoted the mission of YES, which is to empower youth to create sustainable livelihoods, with a special focus on Renewable Energy. Two thematic sessions specifically highlighted the role that renewable energy plays in enhancing job opportunities for youth. **These** sessions discussed several approaches on how renewable energy could serve remote and inaccessible areas. The seminars also explored how to enable youth to use their capacities towards benefiting society, and set forth a proactive process leading to sustainable energy for income generation and productive use activities.

With the increasing concern about possible global climate change, the focus has shifted to the development of renewable energy. The workshop highlighted that youth unemployment and environmental degradation are two highly pressing challenges. While the youth unemployment agenda takes account of many different facets in the ecology of employment, across many sectors and thematic areas, many of the key environmental degradation issues are linked to energy generation and utilization in both developed and developing countries. Further, the lack of reliable energy services also acts as a serious constraint to development of rural areas in many developing countries.

In the first session, speakers from UNIDO and the Electric Institute in Mexico shared the project activities that are implemented in partnership with the YES Campaign in expanding the youth entrepreneurship in renewable energy. The speakers included Dr. Pradeep Monga, who is the Senior Technical Adviser for Industrial Energy Efficiency Branch, PTC Division at UNIDO, Mr. Ulises Cano from the Electric Research Institute in Mexico, and Mr. Lubunda Mambwe from the YES Zambia Network Coordinator. The second session also had Dr. Pradeep Monga speak, along with Ms. Jodie Roussel from the American Council on Renewable Energy and Ms. Úrsula Carrascal, the YES Perú Network Coordinator.

Overall the fourth global workshop was a success. It gave youth the opportunity to learn about the possibilities that exist in the renewable energy industry from experts in the field.

Additionally, UNIDO launched another project on renewable energy and youth entrepreneurship in Mexico.

5) Additional Input:

a) Six special edition YES Renewable Energy Newsletters and one Booklet published.

Status: Completed (Dec. 2004)

Description:

YES published 6 special issues of the YES newsletter discussing Renewable Energy and 1 Booklet on RE History, Solar Thermal, and Solar PV Systems

The first issue of the special edition newsletter contained articles from eminent people in the field of renewable energy, as well as articles from youth. Each of these newsletters featured the latest developments in the renewable energy sector. The first article shares the different Renewable Energy technologies and their various applications. The featured article was by Dr. Mohamed El-Ashry, CEO and Chairman of the Global Environment Facility (GEF). In the newsletter he wrote about the importance of youth involvement in the field of renewable energy, and how GEF is committed to creating a sustainable renewable energy market for developing countries with the cooperation of various business groups, including the World Business Council for Sustainable Development. Other highlights of the newsletter were the description of the various renewable energy projects and upcoming conferences.

The second issue of the special edition newsletter contained articles from winners of the Seed-Grant programs in the field of renewable energy. The articles highlighted the fellows' country, renewable energy projects, and their goals. The newsletter also featured the latest developments in renewable energy and had sections devoted to specific areas such clean hydrogen transportation as a youth employment opportunity and many other successful case studies worldwide. Shorter articles highlighted the International Finance Corporation announcing the Financing of Projects Based on the use of Renewable Energy Resources, tunnels used to irrigate water using a concept called Tunnel Vision, and the latest news on wind energy in Pakistan.

The third issue of the Renewable Energy Newsletter started with an article linking John F. Kennedy's dream of Tidal Energy to the actual implementation of projects from Hawaii to the United Kingdom. In addition, the newsletter offered a page-long discussion on the ethical grounds of producing ethanol, which seemingly is a renewable energy; however, there is some controversy surrounding its production. For those interested in new technology, this edition also featured the development solar-powered strato-planes in Britain. Lastly, the different facets of Green Marketing were highlighted.

The fourth issue of the special newsletter contained articles from YES RE Fellows about their projects and developments. There was also an article about Global Youth Service Day 2003 with instructions and explanations regarding global participation.

The fifth issue included information about renewable energy development in Africa, how renewable energy promotes new jobs for youth, and how the RE field is growing. The newsletter shared information about the geothermal pump, the cost of adopting the Kyoto protocol for USA, and other interesting topics. These other topics covered the facts of wind power and actions that youth can take to promote wind energy in their respective communities, GEF's promotion of renewable energy in the rural communities of Argentina, barriers to biomass in Thailand, the benefits of fusion, and the renewable energy campaign that was launched in the UK.

The sixth issue is about careers in renewable energy, the next generation of solar cells that could be placed on power stations in space, more information about wireless power transmissions, and some lessons from history learned through a profile of a pioneer of renewable energy in USA.

The booklet briefly reviews the history of the renewable energy and some of the major breakthroughs. Additionally, Solar Thermal and Solar PV Systems are explained, including graphics and some other relevant information.

The newsletters and the booklet can be viewed at: <http://www.yesweb.org/newsletters.htm>

For more information see enclosed publication, "6 RE Newsletters and 1 Booklet" in

Volume 4

- b) Success story booklet highlighting the accomplishments of a leader in renewable energy and sustainable livelihoods published.

Status: Completed (Dec. 2003)

Description:

The biography of M.S. Swaminathan was released at the Alexandria Summit. Prof. M.S. Swaminathan is currently the UNESCO Chair in Ecotechnology and Chairman of the M.S. Swaminathan Research Foundation, Chennai, India. He is a recipient of the World Food Prize, The Ramon Magsasay Award in Community Leadership and the Indira Gandhi Prize for Peace, Disarmament, and Development. He was Chairman of the UN Scientific Advisory Committee for Science and Development, President of the World Conservation Union (IUCN) and Independent Chairman of the FAO Council. The University of Bonn, Germany, conferred on him an honorary doctorate degree in July 2002 for his “extraordinary contribution to the alleviation of hunger in the world through his scientific efforts in capturing yield enhancing technologies and promoting their adoption resulting in the Green Revolution; and for his timeless pursuit of sustainability in agriculture, protection of the environment, and conservation of biodiversity”. This biography can be viewed at www.yesweb.org/gkr/

For more information see enclosed publications, “Biographies of Dr. M.S. Swaminathan” in Volume 4

COMPONENT TWO: Project Management, Evaluation, and Monitoring

I. Management of Project Activities

A. Promotion of Youth-Led Enterprises in Off-Grid Renewable Energy

Status: Completed.

Description:

There were two aspects to managing the Project Activities:

1. *A Unique and groundbreaking methodology*
2. *Staff and other human resources*

1. Methodology for this Project:

The methodology used in this project is unique and innovative. It is the belief of the YES Project team that no change can be imposed from above, and that engaging youth requires a completely different methodology than engaging non-youth. This project team very early on decided that success for this project (in addition to fulfilling the deliverables) meant the following:

- ❖ Renewable Energy and Youth Employment must become linked in the minds of diverse stakeholders, especially youth;
- ❖ Renewable Energy had to be part of the overall plan for environmentally sustainable livelihoods for youth;
- ❖ Youth had to be placed in the center and at the vanguard;
- ❖ The project had to be fun and interesting to grab the imagination of young people; and
- ❖ The project needed to be highly technology driven (web and Internet).

Development Process:

Therefore, in order to bring about the above characteristics, the following actions had to be undertaken:

In order to mainstream this thinking it was deemed essential that this project be led through an innovative youth leadership strategy. This strategy included ensuring that all the activities were fun and exciting and designed in consultation with young people.

A leadership group of youth was selected at the inception of this project called International Youth Leaders for Employment (IYLE), and this group has been extremely supportive of this initiative.

The website, which was to house the Global Knowledge Resource, was prepared as part of the whole youth employment movement, and designed to engage youth and make it interesting for them.

To ensure that youth were formally placed at the center of the Campaign, a young leader, Jennifer Corriero, was invited to join the YES Organizing Committee. At 22 years of age, Jennifer was the founder of TakingITGlobal and the winner of the World Economic Forum's Global Leaders of Tomorrow Award. As a technology specialist, she was provided with the charge of leading the development of the YES Website and the Global Knowledge Resource. The site is simply one of the best in its category and hosts pages for 60 YES Country Networks where youth leaders update on progress, and each time they log in get to visit the main site and receive key messages.

All the events organized have a message that states that 'it can be done' and youth are partners and not 'beneficiaries'.

In order to make sure that the RE fellows were not simply the creation of the YES team, a global competition was held and the results publicized heavily in all countries during the Global Youth Service day on April 11 and 12, 2003.

In addition all the winners had to enroll local institutions to support their efforts without which they were not eligible. And as part of the competition and award a grant was also provided to the institution to build their capacity to support the Fellow and other youth in the community.

A close-the-loop contextual approach has been followed consistently to leverage resources and build synergies. Young people have been self-organized in each country to form the infrastructure to information dissemination, project planning, for providing leadership in their countries for environmentally sustainable development through youth livelihoods.

2. Staff and Other Human Resources:

The project was managed by the Project Director, Poonam Ahluwalia. Other members of the team were as follows:

- ❖ Jennifer Corriero, Founder TakingITGlobal - designed and provided overall guidance for the Global Knowledge Resource

- ❖ Jose Ruiz Salas – prepared the guidelines and criteria and solicited nominations
- ❖ Puneetha Palakurthi – prepared the Terms of Reference for publications and managed the process of publications preparation
- ❖ Fred Clark – worked on the RE Fellows application and business plan process
- ❖ Nugzar Meladze – managed the RE Fellows program, prepared the RE Database, translated documents into Russian and kept the young people engaged
- ❖ Navneet Mathur – prepared all the YES RE Newsletters, moderated the discussion list and prepared the Private Sector publication.
- ❖ Kenroy Roach – engaged the coordinators of the 60 YES Country Networks in the RE and GEF projects
- ❖ Bremley Lyndoh – built partnerships with other environmentally focused institutions
- ❖ Niraj Shekhar – redesigned the YES website and GKR in November 2004, and designed all the covers and inner pages of this report.
- ❖ Gustavo Payan and Nubia Perez – aided in the preparation of this report

II. Monitoring and Evaluation of Project

A. RE Fellows Program

Status: Completed (Dec. 2004)

Description:

The YES RE Fellowship program was quite successful. The five Fellows completed their business plan implementation and prepared final and monthly reports. Together with the local experts, the Fellows started the monitoring and evaluation process.

For more information see enclosed publications, “Guidelines and Methodologies for the RE Fellows” and “The Journey of the Five RE Fellows” in Volume 3

Country-Specific Descriptions:

Georgia: After participating in a 3-month training workshop, Mr. Levan Khobakhidze, the RE Fellow from Georgia, prepared a renewable energy business plan with a budget of 5000 USD. His project consisted of establishing a Portable Photovoltaic Panels Production Enterprise and Distribution Network. After the necessary equipment was purchased, the enterprise offered 15 young people in Tbilisi, Georgia, new employment opportunities.

Once product manufacturing began, product distribution spread to Telavi, Kutaisi, and Batumi. Mr. Khobakhidze also organized an advertising campaign, using booklets and pamphlets to spread the benefits of solar energy.

Ghana: Emmanuel Edudzie is the RE Fellow from Ghana. Working closely with the Ghana Energy Foundation, Mr. Edudzie organized a one-day renewable energy workshop for 20 representatives of various youth organizations. Initially, the plans were to develop a small hydroelectric site; however, under the advisement of the Energy Foundation, the project changed to installing a wind-powered water pump for a farming community near Keta. The wind turbine has been erected, giving part-time employment to five youths for operation and maintenance of the facility. The Energy Foundation will closely monitor the performance over the next year, with the hopes of giving recommendations on its economic benefit to interested farms and entrepreneurs in the area.

India: Michelle Chawla, the RE Fellow from India, used 2000 USD to attend a training workshop by the YES campaign on “Eco-Entrepreneurship” in Chennai. The remaining 5000 USD was used to establish a successful renewable energy business called Sogve. The products offered by Sogve include solar lanterns, solar box cookers, solar pathway and decorative lights, and solar-based mini-home lighting systems. After less than a year, the business has begun to earn a profit margin large enough to employ six people, including the RE Fellow. Much of the project’s success is attributed to the mentorship of Mr. Kaustubh Shah, director and founder of Energie Solar, which is a technical and capacity building institution that promotes solar energy products. Sogve has become a full-fledged solar center, with solar energy and climate change workshops, road shows to villages, and a solar library.

Malawi: The lack of irrigation is a serious developmental problem for Malawi. For this reason, Jane Tawina Kopa, the RE Fellow from Malawi, envisioned harnessing the benefits of wind energy to pump water for communities. With a budget of 7000 USD, Ms. Tawina Kopa spearheaded the development of a Wind Energy Youth Project, which would have comprised of a windmill that drew water for domestic use and irrigation purposes. The project also included cultivation of a nearby vegetable garden that would have generated additional income by selling produce to the general public. The plans were to involve at

least 100 youth in the Mbvumbi Village— a Lumbadzi area in the Dowa District, for the management and maintenance of the project.

Unfortunately, despite Ms. Tawina Kopa's efforts to continue the momentum that started after hosting a successful day-long renewable energy training for 20 youth, the project faced a setback. Marine Engineering Services, the company hired to erect the windmill, was behind in fulfilling its obligation as outlined in the contract. The company claimed that the delay was due to the difficulty of transporting the wind turbine components. The current status of the project is still ongoing. The Wind Energy Youth Project sought the aid of the National Youth Council of Malawi (NYCOM). This group agreed to assist the contractor in transporting the components to the site.

Peru: As the third largest country in South America, Peru faces many of the same problems as other developing countries. Air pollution caused by greenhouse gases is one of the biggest environmental concerns of the nation. Ursula Carrascal, the Seed Grant recipient in Peru, helped establish the BIOSOL project of the YES Peru network to promote the use of high-quality, low-cost biodigesters and solar cookers, which help meet the energy needs of rural, urban-rural, and marginal populations. Though there were people in the YES Peru Network interested in the project, and a working group that participated in a renewable energy training workshop, the project overall has not lived up to its promise. Part of the problem was that the goals set were too ambitious; therefore, goals such as creating job opportunities for young people were not met. Also, three of the biodigesters and three solar cookers were not working. Currently, a community impact statement is not possible because the RE fellow was not able to reach out to the community members.

III. Sustainability Analysis: Feasibility, Environmental and Social Analyses

Status: Completed (Dec. 2004)

Description:

Starting in May 2003, feasibility studies were initiated for 5 communities in Georgia, Ghana, India, Malawi and Peru. The purpose was to identify the following: i) the needs of the community with regards to renewable energy; ii) the financial and technical needs required

to bring renewable energy technologies to their community; iii) the social and environmental needs; and iv) the ability to provide community education by sharing experiences.

Feasibility studies were undertaken at communities where the RE fellows had decided to launch their RE enterprises. These feasibility studies identified technical, financial, and institutional needs of the communities, and the social and economic context in which project activities would be undertaken. While rural communities were targeted, easy access was considered essential for project success. The community development activity also included community education and training programs to help identify the least cost alternative for the community.

Development Process:

In order to complete these analyses, the following activities were undertaken:

1. *Conduct feasibility studies for alternative ways to provide renewable energy to selected communities in Georgia, Ghana, India, Malawi and Peru.*

During preparation of business plans, each Fellow initiated a feasibility study in their target communities in order to understand the market, the most suitable and affordable technologies and ways to use renewable energy effectively.

For more information see enclosed publication, "The Journey of the Five RE Fellows" in Volume 3

Annex 1

YES Renewable Energy Advisory Group

From 1 to 4 June 2004, Germany hosted the International Conference for Renewable Energies Bonn 2004, as announced by Chancellor Gerhard Schröder at the World Summit on Sustainable Development in September 2002 in Johannesburg.

The conference – Renewables 2004 – charted the way towards an expansion of renewable energies worldwide, responding to the call of the Johannesburg Summit for the global development of renewable energy. It also kept up the momentum generated by the coalition of like-minded countries for promotion of renewable energies (known as the Johannesburg Renewable Energy Coalition, JREC). 3600 participants met in Bonn, among them official governmental delegations including energy, environmental and development ministers, representatives of the United Nations and other international and non-governmental organisations, civil society, the private sector and youth organizations.

Renewables 2004 addressed these central issues: How can the proportion of renewable energies used in industrialised and developing countries be substantially increased, and how can their advantages and potential be better used? The conference concentrated in particular on the following themes:

- Formation of enabling political framework conditions allowing the market development of renewable energies
- Increase in private and public financing in order to secure reliable demand for renewable energies
- Human and institutional capacity building, and coordination and intensification of research and development.

Renewables 2004 fulfilled all expectations:

On Friday, 4 June, government delegates from 154 countries adopted the Political Declaration of renewables 2004. The declaration contains definitions of common political objectives for promoting the role of renewable energies.

In the International Action Programme, governments, international organisations and stakeholders have committed to a plethora of activities that are geared towards the increased use of renewable energies. About 200 proposed voluntary actions and commitments from all over the globe have been accepted for incorporation into the IAP. All submitting parties express a strong willingness to promote renewable energies.

The Policy Recommendations give practical advice on how to promote the development of the market for renewable energies in the North and South.

Mr. Bremley Lyngdoh, Program Manager of the Youth Employment Summit (YES) Campaign represented the Campaign at Renewables 2004. There he met with different Renewable Energy professionals from around the world who were interested in supporting the work of the YES Campaign. The list of the people that Mr. Lyngdoh met at the conference whom he then invited to join the YES Renewable Energy Advisory Group (REAG) and who have confirmed are the following:

Christine Eibs Singer
Director
E+Co Energy through Enterprise
USA

Koakutsu Kazuhisa
Researcher
Institute for Sustainable Energy Policies
Japan

Nishant Bhardwaj
Engineer Energy & Climate Change
IT Power India Pvt Ltd
India

Irene B. Stockl
Secretary General
UN Youth and Student Association of
Austria
Austria

Claire A. Stockwell
Research Assistant
Potsdam Institute for Climate
Impact Research
Canada

Noara Kebri
Engineer Consultant
Micro Energy International
Algeria
Dr. Omar Benchikh
Responsible Energy & Renewable Energies

UNESCO
France

Marc Nebelung
Coordinator
Youth Energy Summit 2004
Germany

Jodie Roussell
Associate
American Council on Renewable Energy
USA

Tomislav Tomasevic
Project Manager
Friends of the Earth
Croatia

Martin G. Viehöver
President
Youth for Intergenerational Justice and
Sustainability
Germany

Moshe Tsehlo
Program Manager
Participatory Ecological Land use
Management
Lesotho

Yongamele Mbopa
Electrical Engineering Student
Fhaachen University of Applied Science
South Africa

Ole von Uexkull
Researcher
Right Livelihood Award Foundation
Sweden

Follow up:

After returning to the YES Campaign HQ in Boston, Mr. Lyngdoh made follow-up calls with all the RE Advisors whom he had met in Bonn and thanked them for their commitment in supporting the work of the Campaign.

He then organized the first international conference call with the YES RE Advisors. The purpose of the call was to introduce the Advisors to each other and to follow up what has happened since they all met in Bonn, by sharing on going projects and activities in the RE sector. Mr. Lyngdoh also wanted to find out how many of the RE Advisors were planning to come to Veracruz, Mexico for the 2nd Global Youth Employment Summit that was held between 4-7 October 2004.

Before the call all the RE Advisors were asked to read through the different modules of the YES RE toolkit at <http://www.yesweb.org/temp/yesre.html> that Francis who coordinated the UNIDO RE project in Zambia had develop. The Advisors were asked to send their inputs, which were then further, discussed in the conference call.

The outcomes of YES Renewable Energy Advisory Group conference call meeting:

Conference Call initiated from YES Campaign HQs at 10:00am EST on July 2, 2004.

Attendees:

1. Poonam Ahluwalia from Boston
2. Puneetha Palakurthi from Boston
3. Bremley Lyngdoh from Boston
4. Nishant Bharadwaj from India
5. Claire A Stockwell from Germany
6. Jodie Roussel from USA
7. Martin G Viehvver from Germany
8. Yongamele Mbopa from Germany
9. Irene B. Stockl from Vienna

1. Bremley welcomed everyone to the conference call. Introductions were given. Each participant also presented what they are doing in the field of RE.

2. Nishanth in India was working on "stand alone solar home systems", Irene in Austria was organizing a conference from August 8 –12, 2004 in Vienna, Jodie in the USA just completed organizing Wall Street conference on financing RE initiatives, Martin in Germany was involved with advocacy and policy making for promoting RE in, Claire in Canada was running a campaign for raising awareness about RE and Yongamele in South Africa was involved in developing a website that would help raise awareness among the South African youth regarding RE issues.

3. Poonam thanked all the members for joining the Advisory group. She gave a brief over view of the YES campaign and its focus on identifying and developing entrepreneurial or income generating opportunities in five focal areas such as RE, Rural Development, ICT, Water and Sanitation and HIVAIDS. She also explained the reasons for such an advisory group in RE and what the expectations of the YES Campaign from them were.

4. Some of the expectations from the Campaign are:

- I. RE advisory group to advice the Campaign on some of the initiatives that have worked well and are amenable to scale up and replicate.

- II. Make contributions to the RE Newsletter.
 - III. Popularize YES Campaign in their networks.
 - IV. Allow YES Campaign to use their names on the RE Newsletter.
 - V. Develop a document based on effective practices in RE.
5. Some of the expectations of the Advisory Group are:
- I. Regular conference calls.
 - II. Sharing of information about all the members.
 - III. Creating an e-group or discussion list for the members.
 - IV. Terms of Reference for a document based on effective practices.

GKR Guidelines and Operation Plan

Introduction

Efforts to address the challenge of youth unemployment and “sustainable development through youth employment” are often stymied by lack of information about effective strategies, initiatives and programs, education and training, resources, and opportunities that are already working successfully around the world. To address this lack of information, and to support creative, effective programs and policies, YES provides the necessary technical information and knowledge to promote youth employment and sustainable livelihoods worldwide.

The YES GKR provides diverse stakeholders an opportunity to access, utilize and share information on the programs, policies, and strategies that are working on the ground to promote youth employment. The GKR is an easy-to-use, interactive “portal” / website (that is part of the YES website) that provides a flow of information and a database of program and project information, including model policies, lessons learned, good practices, innovative initiatives, effective tools and methodologies, and successful strategies from pilot projects that YES implements.

The GKR connects and provides those involved in youth employment the information they require. The information sources include new content creation (as commissioned by YES and others) connected to other websites as well as content found and uploaded by YES.

The GKR is available online, on CD Rom and is also be available in print form (limited quantity).

Purpose

GKR is able to:

1. Provide a “one-stop” and centralized virtual space for information / knowledge on youth employment.
2. Deliver up-to-date information and knowledge needed for promoting youth employment initiatives worldwide.
3. Provide toolkits/ handbooks for policy makers, civil society and youth to develop and enhance their capacity to promote youth employment initiatives.
4. Connect those involved in youth employment globally.
5. Add to the wealth of knowledge and spur innovation on youth employment globally.

Outcomes

In summary, the GKR encompasses the following areas:

Effective Practices and Best Practices

- ❖ A collection of effective practices of unscreened programs and project information for review or replication by diverse stakeholders
- ❖ A collection of 100+ effective practices in each of the 6 E areas:
- ❖ Employability, Employment Creation, Equal Opportunity, Entrepreneurship, Environmental Sustainability and Empowerment.
- ❖ Model policies and legislation desegregated by region – with a focus on countries participating in the YES Hyderabad Regional Summit (Adds to the Ministerial component of YES)
- ❖ A screened section of 100+ best practices that have been “ground truthed” by country partners
- ❖ A special section, “Innovation Highlights,” featuring particularly innovative initiatives that are described in some detail. The section is updated on a regular basis
- ❖ A special section on “Employment Generators” and case studies on how they have created youth employment on a large scale.
- ❖ Widespread dissemination of the learning / outcomes of YES’ Pilot Projects and their replication in other countries.
- ❖ A dynamic interactive discussion list and web board

Toolkits

Toolkits supporting YES and youth employment available for dissemination; the following topics for Toolkits were identified:

- ❖ YES in Your Country
- ❖ The YES Media Guide
- ❖ Becoming a Youth Entrepreneur
- ❖ Starting a Youth Employment Project
- ❖ PV Training Manual for Youth
- ❖ Applying for a JOB – A guide for Youth
- ❖ How to write a funding proposal
- ❖ Implementing the Framework for Action, etc.

Select Toolkits are translated into Spanish and French.

Papers and Publications

A collection of commissioned and non-commissioned papers; the former includes all Alexandria Summit publications, as well as the State of Youth Employment 2003 and others. The latter includes the latest collection of papers on the subject.

Examples of Ministerial Policy papers:

Key country policies that affect youth employment and livelihoods

A synthesis of best practices in promoting youth employment and livelihoods

Connectivity

- ❖ An active / dynamic discussion list and weboard – with the latter linked to papers/practices/toolkits with same screen viewability
- ❖ Web board postings for requests and short messages on assistance needed
- ❖ Links to other organizations / technical partners / country networks / individual members etc. (i.e. active GA database linkages and use)

Youth Action Section

Interactive area for youth to download / upload action plans and other practical tools.

Other sections:

Country network action plans/institutional action plans as well as the individuals.

Market Space

A forum where service providers/those involved in youth employment as a business can profile their services/products (non vetted).

Searchability:

- ❖ Key word
- ❖ Country
- ❖ Sector
- ❖ Year
- ❖ Age group
- ❖ Related to (for example 6E's or the strategy areas)
- ❖ Linkage area
- ❖ Stakeholder
- ❖ Status
- ❖ Project size / investment

GKR Indicators

- ❖ GKR version 1 refined – version 2 in use.
- ❖ At least 100 entries into each stakeholder group and E area of effective practices.
- ❖ At least 100 best practices.
- ❖ At least 200 users per month.
- ❖ At least 100 GA members benefit from access to youth employment information and its technical network.
- ❖ At least one regional research center established that contributed to the GKR
- ❖ At least 10 projects refined based on information and access to partner network of GKR.
- ❖ At least one pilot project established based on GKR.

GKR Principles

The GKR is a dynamic, source based, low maintenance, user-friendly system. It requires the following components:

An Information management component

A database system that allows for easy and low cost input, updating, storage and processing of the information.

A user-friendly communication component

The GKR is able to be easily accessible by anyone (website / CD or hard copy). This requires a system that allows for easy collection and presentation, i.e. the back and front-end need to be simple, easy to use/manage and flexible.

A transaction-based infrastructure

People are able to register, obtain passwords to change their content/update, upload as well as to download information, templates, and toolkits and generally interact fully with the GKR. The system also links to other portals.

The following “principles” guide the GKR and determine its parameters:

- ❖ The GKR is a dynamic information flow and not static database;
- ❖ Retains a holistic perspective on all factors influencing youth employment; however does not try to influence them all at once;
- ❖ Responds to most promising opportunities to direct relevant decisions (investment, management, policy) to fostering youth employment
- ❖ Uses all available forms of communication;
- ❖ Does not create new structures, work with what exists, delegate and decentralises wherever possible – complements existing initiatives – not competes.
- ❖ Builds on strong institutional baselines of potential operating partners;

- ❖ Follows the “incremental approach” – step by step – starts small and then builds from there
- ❖ Has an internet portal design built around other successful mainstream sites. Does not create a new “centre of the universe”;
- ❖ Links to mainstream sites and assure targeted marketing of the network services to those in youth employment;
- ❖ Strengthens alternative assessment of youth employment practices prior to programme/policy/strategy decision making by focusing attention on activities that actually work;
- ❖ Facilitates the building of networks, institutional partnerships, joint venture and strategic alliances between all stakeholder groups; and
- ❖ Assures ongoing monitoring and evaluation to ensure impact and relevance.

Annex 3

Terms of Reference for the Development of a Report on Lessons Learned and to Upload a Renewable Energy Toolkit

Overview

The Youth Employment Summit, a project of Education Development Center, is seeking to partner with an institution with technical capacity in promoting renewable energy technologies to support by Global Environment Facility (GEF) / WB, Medium Size Project (MSP), titled “Global Promotion of Youth-Led Enterprises through Off-Grid Renewable Energy Technologies”.

The partnership entails the development of the following two deliverables:

- ❖ Compilation of lessons learned in designing youth entrepreneurship in renewable energy
- ❖ To upload renewable energy toolkit for youth, this was written by AREED Energy House

Background

There are over a billion young adults – between the ages of 15 and 24 – in the world today. Eighty-five percent of these live in developing countries where there are few opportunities for productive work. Worldwide, youth unemployment is double that of adults.

High levels of youth unemployment contribute to poverty, discontent, alienation, social unrest, conflict, and urban migration, all of which hinder economic growth and threaten political stability. Young adults must have meaningful employment opportunities in order for stable,

sustainable, beneficial development to be possible. Young people, when gainfully employed, represent a tremendous resource for developing and industrialized nations; they can bring energy, creativity, and imagination to many nation-building tasks, from building infrastructure to preserving the environment. But until a global, collaborative approach is developed that empowers youth to promote environmental sustainability, and make this an economically viable alternative, a valuable asset to help address global environmental goals will remain untapped.

It is from this situation that the Youth Employment Summit (YES) has come into existence. The overall vision of YES is to launch a Decade Campaign of Action so that additional 500 million young adults, especially youth facing poverty, will have productive and sustainable livelihoods by the year 2012.

To achieve this, the vision and role of YES is to create awareness of the issues and opportunities of youth employment around the world, and to spur and empower diverse stakeholders world wide to take the actions needed to create the necessary jobs and sustainable livelihoods for youth.

The platform for launching the actions needed is the Youth Employment Summit, which will be held from September 7 through 11, 2002 in the Library of Alexandria - Alexandria, Egypt. The Summit is being hosted by the Arab Republic of Egypt, and will be a forum where diverse stakeholders from all over the world will share innovative policies, practices, and ideas that will be used to initiate committed action. Over 2,000 people are expected to attend, of which 1,000 will be youth. Moreover, the Summit will be an opportunity for getting organized, solidifying partnerships, seeking media attention and alignments, creating public awareness, and placing the burning issue of youth unemployment on the global development agenda. For more information please visit www.yesweb.org/.

About the Project

Part of the Youth Employment Summit's activities is to implement "pilot projects" in a variety of fields in order to develop innovative programs and projects that could promote youth employment and livelihoods. The ultimate aim of these pilot projects is that they be used as models for replication elsewhere.

One of YES's pilot projects, is a GEF (with the World Bank as implementing agency) titled "*Global Promotion of Youth-Led Enterprises in Off-Grid Renewable Energy*". The overall aim of the Project is to raise global awareness of the issues and perils related to youth unemployment and how renewable energy can be used to not only reduce pollution and contribute to lower GHG emissions, but also as a means to foster youth employment and ultimately sustainable development and create new jobs.

The overall project has several outcomes, these include the following:

- ❖ Greater awareness and engagement of youth in climate change issues and the need to promote renewable energies.
- ❖ Greater awareness and understanding among youth and their communities about the UNFCCC, Agenda 21, Earth Charter and other global environmental programs and commitments as well as means in which they can be implemented at the local level to deal effectively with issues related to climate change.
- ❖ Youth from several countries develop business plans for renewable energy enterprises.
- ❖ The development of a strategy to raise capital for each business plan is prepared and presented to potential financiers/venture capitalists.
- ❖ A measurable increase in opportunities for sustainable livelihoods and employment for youth from selected groups around the world.
- ❖ Collection and dissemination of lessons drawn from the pilot project activities and from other global activities.
- ❖ Increased understanding about the need for replicating small renewable energy project model in other communities throughout the developing world. This model will showcase how diverse stakeholders can organize community based renewable energy projects that promote income-generating activities for youth.

The pilot project will feed into the overall activities of the Summit. Firstly, through the Global Knowledge Resource (GKR) and secondly, through dissemination to the Global Alliance.

The GKR includes building a knowledge base of effective practices, in promoting sustainable development through youth employment. The pilot project and study will contribute to the GKR and the lessons learnt will be disseminated through Global Alliance. The Global Alliance is a membership of institutions that support youth employment and includes GEF, UNIDO, OECD,

Earth Council and grassroots based organizations. All GA members are committed to linking sustainable development to youth employment. Lessons learned from this project will support them and others in developing projects that fulfil the twin goals of sustainable development and youth employment.

Moreover, many youth and youth based Organizations will benefit from the study and especially the Toolkit. These will be available online for use by anyone wanting to see what are effective and sustainable practices that promote youth employment or how to start an enterprise in the renewable energy field.

This GEF/WB project includes Seed Grant Program. Through this program we selected five young social entrepreneurs. This grant was challenge to young Fellows to develop business plans that enhance youth employment opportunities. We call this program as a “YES RE Fellowship Program”.

Scope of Work

I. The Study and Report

Deliverable:

A study will be compilation of lesson learned in applying promoting entrepreneurship strategies in training and supporting youth in developing and marketing business plans for renewable energy enterprises. These lessons will be covering how the barriers to provide renewable energy to the local communities were overcome and the role youth entrepreneurship played. It will also share how the appropriate renewable energy systems were identified and adopted, and how the youth groups managed these systems in partnership with other stakeholders (e.g., private investors, community leaders, government agencies, NGOs, etc). Assessment of what worked and what didn't work and what was learned.

Description:

The study report should be based on a critical analysis of at least 20 effective practices in creating environmentally sustainable employment opportunities for youth, a number of these

practices (six) should be on youth employment opportunities through renewable energy. Also will be included success stories in environmentally sustainable livelihoods generation.

Format for the Study:

Listed below is an initial framework, to be further developed by authors. Significant changes to the framework may be discussed with the Secretariat before being finalized.

Context and Statement of Facts:

The current environmental situation with a focus on the climate change and energy crisis and its impact on sustainable development. This could include, for example:

- The current state and the future of the world's environment;
- Consumption patterns (including energy consumption) of less, developing and developed countries and urban versus rural areas;
- The main causes of the energy crisis and the need for renewable energy solutions; and
- Illustration of the environmental and energy problem through community examples.
- How through using Renewable Energy can create new jobs.
- Trainings and education on renewable energy.

A General Outline of Promising Sustainable Employment Initiatives:

Strategies, policies, programs, and projects that have worked in creating environmentally sustainable employment opportunities.

- Several effective practice case studies of a few country-specific examples of promising, innovative and effective policies, and practices drawing from the work of organizations focussed on sustainable development (for example: YES RE Fellowship Programs; M. S. Swaminathan Research Foundation).

Renewable Energy:

An introduction to renewable energy and how it can be used as a strategy for sustainable development, this could include for example:

- Description of what renewable energy is and the different forms of renewable energy;
- The role of renewable energy in overcoming the energy crisis and achieving sustainable development;

- The various resources needed (skills and capacities) for the implementation of these technologies;
- The benefits of renewable energy enterprises ;
- Descriptions of the role of business and government sectors in promoting these strategies, and how they can be motivated to undertake them;
- Identify potential partners for technical support and funding agencies in renewable energy sector;
- A description of the necessary infrastructure needed to create, distribute and expand energy supplies; and
- The energy problems in off-grid areas and the potential of renewable energy to meet the energy requirements of these communities.

Promising Sustainable Employment Initiatives in Renewable Energy:

Strategies, policies, programs, and projects that have worked in creating environmentally sustainable employment opportunities in renewable energy (in particularly in developing countries and in rural areas). This could include:

- ❖ Several effective practice case studies of (different) country-specific examples of promising, innovative and effective policies, and practices drawing from the work of organizations like AREED, Energy House, SELF, IREDA, CREST, ASES, ISES and others in the field of Renewable Energy;
- ❖ Descriptions of successful business ventures that create employment, income, and sustainable development; and
- ❖ *Opportunities for Income Generating Activities in a Sustainable Manner and in Renewable Energy:*
- ❖ Examples of project possibilities in renewable energy that can be used to promote employment and entrepreneurship in youth;
- ❖ Examples of actual income-generating opportunities in renewable energy, and
- ❖ The role of business and government sectors in promoting these strategies, and how they can be motivated to undertake them.

The Case of Solar, wind and other RE energy Energy:

for example: Benefits of solar energy, various uses of solar energy and various solar energy technologies. The implementation of these technologies with a special reference to less

developed countries. Describe the entrepreneurial opportunities in solar energy and the effective practices in this sub sector.

A Detailed Success Story (that embodies the above elements):

Detail the efforts of an income-generating, youth-focused renewable energy project. Select a project that exemplifies the effective and efficient use of available resources, overcomes the challenges of a community in development, and achieves sustainable development.

Proposed size and format of the Study:

- Minimum 55 page report (excluding annexes and citations), that is easy to read for a wide range of stakeholders.
- A minimum of 20 case examples with summaries, illustrations, figures and tables (if needed).
- Final copies must be available in print ready electronic and hard copy versions.

Please note that in total there must be a minimum of 20 case examples of effective initiatives in promoting sustainable livelihoods and employment opportunities for youth. These should include a minimum of 6 in the renewable energy sector. In total a minimum of 20 effective practice cases are required.

The report will need to be presented at the Mexico Youth Employment Summit in October 2004.

Key Dates:

First draft of the paper submitted to YES by July 31, 2004.

Final version to be ready for printing in Mexico by August 15, 2004.

II. Toolkit:

Deliverable:

An upload toolkit for youth on starting renewable energy enterprises.

Please note that the Toolkit was prepared by AREED Energy House.

Description:

The toolkit is a handbook (explanation based) which includes tools for developing a Business Plan to start a renewable energy enterprise. The Toolkit including all tools and was prepared by AREED Energy House.

The tool kit you can found at our web page: www.yesweb.org

Objectives:

The main objective is to impart the knowledge and skills required to compile a business plan for starting a small business in the renewable energy sector. The outcome of the Toolkit is that a youth from developing countries will have written business plan and be able to present them to potential investors/donors/funders.

Key Dates:

First draft of the paper submitted to YES by May 31, 2004.

Final version to be ready for printing in Mexico by August 15, 2004.

Format for submission:

Electronic and hardcopy in full layout and ready to print.

Terms and Conditions

As this subcontract falls under the overall scope of the GEF / World bank Pilot Project, certain conditions need to be adhered to:

Acknowledgements:

The finally selected service provider agrees that all Delivered Materials will include an acknowledgment of the World Bank's, Global Environment Facility's, Education Development Center's and Youth Employment Summit's (YES) contributions and participation, as appropriate.

Rights in Work Product:

All material produced fall under the proprietary rights and are copyright to EDC.

Confidential Information:

Any information disclosed to the service provider are considered confidential and are to be used only for the purpose of performing services under this terms of reference and cannot be disclosed.

Contact Details

All information required to submit the deliverables are contained in this document. Any further information or clarity on this document can be obtained from:

Dr. Nugzar Meladze

Renewable Energy Coordinator

nugzar@yesweb.org

Annex 4

Lessons Learned through the GEF RE Fellows

Introduction

In evaluating the five fellows in their respective business plan implementation, there are several lessons that can be learned, not only from their shortcomings, but also from their accomplishments. In promoting renewable energy entrepreneurship, it is essential that the global project managers build the local institutional capacity to offer the training and development support. This is essential for sustainability. For example, part of the problem in Peru was that there were not many community members interested in the project. Secondly, the trainee should find a reliable, knowledgeable mentor. This mentor is essential in guiding the fellow during difficult business start-up times. This was especially the case in India, where much of the project's success can be attributed to the mentorship that Mr. Kaustubh Shah, director and founder of Energie Solar, provided to Michelle Chawla. Finally, the emphasis should be made to train the entrepreneur in essential project management skills, technical knowledge about renewable energy, information and access to new and relevant renewable energy technologies, and access to marketing and distribution networks. Fortunately, all the fellows received some level of project management, renewable energy technology information and marketing and business development training prior to the implementation of their projects.

Lessons Learnt

1) Educating the Community on RE enterprises and technology:

To overcome barriers that prevent the emergence of renewable energy businesses in rural communities, the young trainees or potential entrepreneur should be supporting in finding creative and innovative ways to disseminate information to their local communities about the

benefits of renewable energy. This in turn will not only increase awareness, but also allow the community members to better understand the benefits of renewable energy, such as its efficiency and cost effectiveness. Furthermore, it will also help secure the enterprises sustainability. For example, in Georgia, Mr. Khobakhidze organized an advertising campaign via booklets and pamphlets to spread the benefits of solar energy.

2) Innovation Marketplace for promoting RE entrepreneurship

It is also important that an innovation marketplace for renewable energy enterprises be developed as a clearinghouse for young entrepreneurs to find project ideas, understand markets, find investors, obtain successful replicable models, and the support of businesses that promote renewable energy technologies such as Shell Solar etc. No better example of this was seen than in Ghana, where the RE fellow's initial plans were to develop a small hydroelectric business; however, under the advisement of the Energy Foundation, the fellow changed his enterprise to installing a wind-powered water pump for a farming community. The wind turbine was erected.

3) Setting realistic and achievable goals and objectives:

When identifying and adopting appropriate renewable energy systems the most important element is to have reasonable objectives that are not overly ambitious. A simple wind-powered water pump for a community, or a 200 kW photovoltaic system in a church, is a respectable project for a beginning entrepreneur. This was the other problem in the case of Peru, where no achievable business objectives were established at the onset of the enterprise; therefore, objectives such as creating job opportunities for young people were not met.

4) Understanding the RE Marketplace:

It is essential that the entrepreneur understands that every community is different; location is everything. For example, neighboring towns could have varying appropriate technologies such as wind, biogas or solar. One fellow understood this aspect, for a lack of irrigation is a serious developmental problem for Malawi. For this reason, Jane Tawina Kopa, the grantee fellow, envisioned harnessing the benefits of wind energy to pump water for communities. It is also necessary to look beyond one's scope of reason. Though the program called for a renewable energy enterprise, Ms. Tawina Kopa took sustainable development one-step further. She developed a vegetable garden nearby that generated additional income by selling produce to the general public.

5) Building partnerships:

The significance of partnership cannot be overstated. Partnering with other stakeholders (e.g., private investors, community leaders, NGOs) is surely the nexus of success for any entrepreneur. For example, in Ghana, Emmanuel Edudzie worked closely with the Ghana Energy Foundation. Mr. Edudzie organized a one-day renewable energy workshop for 20 representatives of various youth organizations. Community involvement is imperative. Also, building institutional capacity for promoting renewable energy is a healthy step.

The five fellows did a fine job given their circumstances. Surely, more collaboration could have been made with various stakeholders, and more defined, conservative objectives could have been outlined in the beginning. Overall, however, the RE Fellows Program was successful in giving young people the opportunity to address serious developmental concerns by way of plausible, sustainable solutions

