



GOLDEN JUBILEE  
1957 • 2007



CANADA

# Spark of Knowledge

KNOWLEDGE DISCOVERY CHALLENGE  
ISSUE STATEMENTS





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## THE FOLLOWING AKDN PRIORITY AREAS HAVE BEEN IDENTIFIED FOR THE KNOWLEDGE DISCOVERY CHALLENGE:

1. CARING FOR THE AGED - AGING IN A SUPPORTIVE FAMILY ENVIRONMENT
2. ULTRA-POVERTY - TURNING THE TIDE OF POVERTY
3. THE ROLE OF MICROFINANCE IN UNLEASHING OPPORTUNITIES IN DEVELOPING COUNTRIES
4. CLIMATE CHANGE AND THE NEED FOR DEVELOPING SUSTAINABLE ENERGY
5. EMERGENCY PREPAREDNESS - LIMITING THE LOSS OF LIFE AND ASSETS
6. ACCESS TO HEALTH CARE
7. ALTERNATIVE AKDN PRIORITY AREA

## ISSUE CATEGORY #4:

# CLIMATE CHANGE AND THE NEED FOR DEVELOPING SUSTAINABLE ENERGY

### BACKGROUND

Meeting the energy needs of poor communities is a growing and pressing concern for the global community. This issue is often overlooked; however access to modern energy sources is a key requirement for escaping poverty in the developing world. It is the foundation for basic yet far-reaching improvements in the lives of the poor. Sustainable energy provides access to clean water by creating a source of steady power that drives filtration, it permits refrigeration of vaccinations and medicines at the village level and provides a light source so that children can continue reading past dark. Increasing access to electricity or portable energy is directly related to reducing poverty and improving lives.

Energy will be required to fuel the burgeoning economies of the developing world and to create vibrant industries. Access to renewable energy will provide a high return on investment, which will be an engine for growth. This engine will help turn the tide of poverty. However, conventional sources of energy in the developing world often utilize the burning of fossil fuels and other sources that are damaging to the environment and contribute to global warming. For example, 2.4 billion people rely daily on burning wood, charcoal, unrefined kerosene and other residues for cooking and heating. This makes up the largest consumption of energy in the developing world and is a significant source of carbon dioxide. The financial cost is also high for families, kerosene, for instance, costs about \$10 a month in areas where the daily income is less than \$2 a day.

The challenge is finding solutions to the energy needs of the poor that are sustainable and have low or limited negative impact on the environment.



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## PRACTICAL SOLUTIONS

In June 2005, the Ugandan government approved the development of the Bujagali Hydropower project near the town of Jinja on the Nile River. The Aga Khan Fund for Economic Development (AKFED) and a consortium of partners developed this project to meet the pressing energy needs of Uganda's largely rural population. Currently, only five percent of the total population of Uganda - and only one percent of the rural population - have access to the grid supply of electric power. The hydropower project will cut electricity tariffs significantly, which have doubled in the last four years. The lack of stable access to energy and the high cost of electricity work to reinforce the cycle of poverty for millions in Uganda. The Bujagali Hydropower project is a clean energy solution - advancing sustainable development while minimizing environmental impacts.

Elizabeth Leshom no longer has to make the three-hour journey every day to collect firewood to be used as fuel for cooking. The 25-year old Kenyan from Kajjado, a village 80 kilometres south of Nairobi, now uses a solar oven for her cooking needs. Solar cooking involves the use of a small, portable device that collects energy from the sun to generate heat. Firewood is used only at night and on cloudy days. Elizabeth now saves money on fuel-wood costs and the health of her young family has improved since the cooking is done outside and the smoke and residue no longer collect in the home. Elizabeth was part of a trial project by Solar Cookers International, a U.S.-based non-profit organization, that helped introduce solar cookers into remote villages across Kenya to provide an alternative to burning fossil fuels. Since there is no access to electricity in Kajjado, alternative energy sources like solar power can make a difference to the lives of the poor, while having a limited impact on the local environment.

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## ISSUE STATEMENT

The examples above include a relatively large project, the Bujagali Hydropower project in Uganda, as well as a small project, the solar cookers in Kenya, to illustrate the potential ways the energy needs of the poor can be met in an environmentally sustainable fashion.



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Identify a region or particular population that has a pressing energy need. Most people who have no or limited access to electricity have a need. Identify a potential energy solution for the population/region. The solution must be a clean energy source addressing some of the current issues/barriers within the region.

Also explain why your solution is viable (be specific, i.e., in the above-noted programs, solar cookers may be purchased as part of a microcredit project; the Bujugali Hydropower project generates income for local investors and creates jobs for locals). Is the solution appropriate for the community you have identified? Is it sustainable?





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