



Access to Energy Services and Millennium Development Goals

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Presentation Structure

- Understanding the Millennium Development Goals (MDGs):
- Understanding the linkages between access to **Energy Services and the MDGs**
- Afghanistan's progress towards the Afghan MDGs: can renewable energy help **meet** the targets?



What is meant by Millennium Development Goals

Heads of states from 147 countries around the world pledged in 2000 to address some of the main development challenges of the world through the defining the MDGs. The Millennium Development Goals (MDGs) are eight predefined targets to be achieved by individual countries by the year 2015.

The details are contained in the **Millennium Declaration** adopted by [UN Millennium Summit](#)

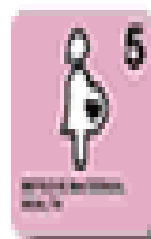


- ERADICATE EXTREME POVERTY AND HUNGER (Goal 1)
- ACHIEVE UNIVERSAL PRIMARY EDUCATION (Goal 2)
- PROMOTE GENDER EQUALITY AND EMPOWER WOMEN (Goal 3)
- REDUCE CHILD MORTALITY (Goal 4)
- IMPROVE MATERNAL HEALTH (Goal 5)
- COMBAT HIV/AIDS, MALARIA, TB AND OTHER DISEASES (Goal 6)
- ENSURE ENVIRONMENTAL SUSTAINABILITY (Goal 7)
- DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT (Goal 8)
- ENHANCE SECURITY (Goal 9)

There is no MDG on energy access. However none of the above MDG can be achieved in the absence of energy services.

Afghanistan MDGs (AMDGs)

- Afghanistan was not at the Millennium Summit in September 2000, where the Millennium Declaration was adopted.
- The Government of Afghanistan endorsed the Declaration as well as the MDGs in March 2004
- Afghans define the lack of security as their greatest problem. Hence Afghanistan has added a new goal "ENHANCE SECURITY" to the eight global MDGs recognizing the critical role of peace and security





Afghanistan, MDGs and Energy

- Having lost over two decades to war, Afghanistan modified the global timetable for meeting the MDG targets and benchmarks to fit local realities.
- International community defined the MDGs to be attained by 2015, against a baseline of 1990.
- Afghanistan has defined its MDG contribution as targets for 2020 from baselines of 2002 to 2005.
- In Afghanistan the MDGs were declared to be the basis for the Afghanistan National Development Strategy

Energy and the MDGs

“*Energy is a key driver of economic growth, with a significant bearing on education, environment, health and social welfare in developing nations. Energy and economic development need to be integrated and prioritized in national strategic development plans*” - Communiqué, Energy Ministers Meeting (April 2007) UN Commission on SD

Development is driven by ones ability to own, adopt, use and adapt to modern technologies.

- Technology transforms natural resources into goods and services useful for survival of human life
- **Energy (in one form or the other)** is the driver of Technology helping to live a better life → meeting several of the MDGs

Yet

Linkages between of MDGs and energy services are seldom reflected in Govt planning /budgeting

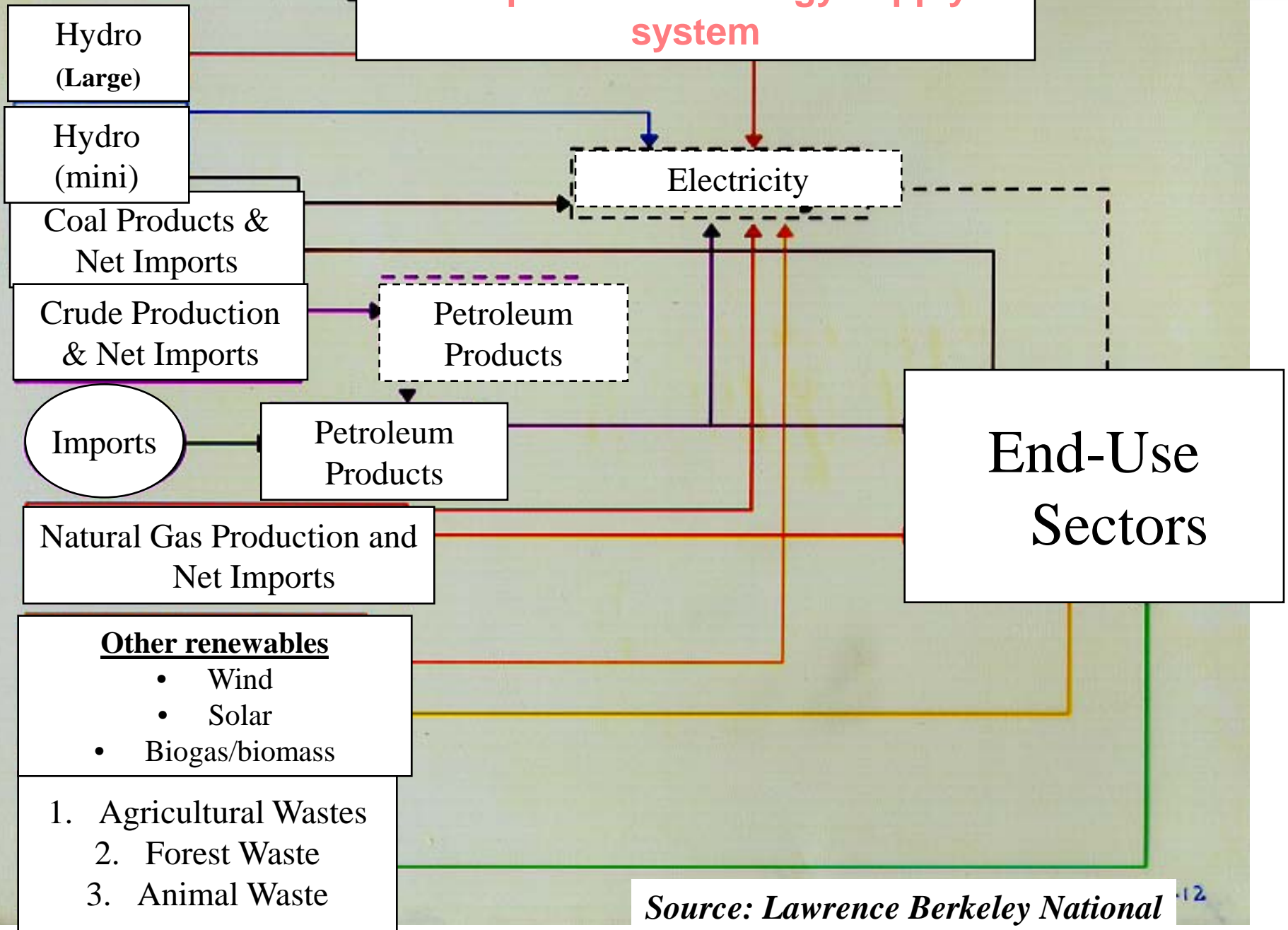


Energy and End-use Energy Services

- Interest is in energy services and not in energy per se .
- Energy end-use services are the outputs that are delivered to the users when energy and technology (devices) interacts to give a service.
- What matters most for poor people is: a) the energy service not the energy carrier mostly b) whether the energy services are reliable, affordable, accessible, adequate and of high quality.
- Usual planning practices link sectoral end use demand for energy to energy supply and NOT energy services.
- What if the end uses are not defined by sectors like agriculture or industry but by MDG 1 or MDG 2 and the energy needed to meet the same ?

To do so, we need to undertake an exercise on MDG Needs assessment

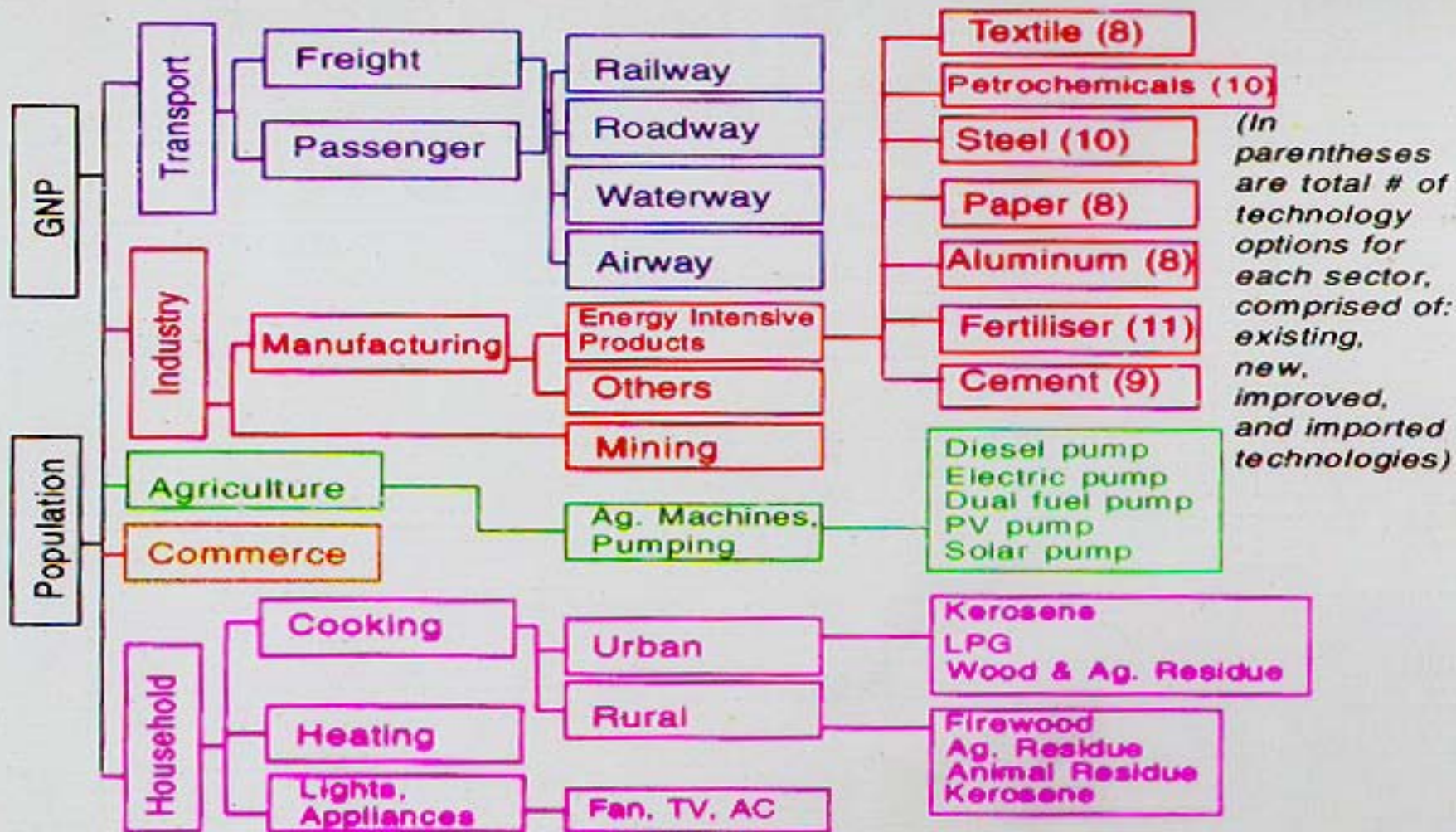
Components of Energy supply system



Source: Lawrence Berkeley National

Mongia N. et al.

Sectoral Composition of Final Energy Demand



Population & GNP

MDG1_{t1-2015}

Extreme hunger & poverty

Local enterprises, cooking, lighting, machinery, frees up government funds for social welfare, irrigation

MDG2_{t1-2015}

Universal primary education

Lighting in schools, homes, increases access to water & sanitation, efficient buildings

MDG3_{t1-2015}

Gender equality & empower women

Frees time - activities, reduced indoor air pollution, safety, education, enterprises

MDG4_{t1-2015}

Child mortality

Respiratory infections, time spent to collect fuel, health, clean water

MDG5_{t1-2015}

Maternal health

Medical care, manual work, health

MDG6_{t1-2015}

HIV/AIDS, Malaria & other diseases

Health centers, equipment, drugs, health media

MDG7_{t1-2015}

Environmental sustainability

Agric. Productivity, soil fertility, GHGs, purify water,

Examples of energy services that directly support the attainment of MDGs

- Access to **cooking** using modern fuels
- Access to **lighting** using electricity
- Access to cooling/refrigeration using electricity
- Access to **heating/drying** using modern fuels
- Access to **mechanical power** using electricity or renewables
- Access to **motive power** using liquid fuels
- Access to **ICT** using Electricity or solar power
- Access to enhanced security systems using several forms of energy

Energy Services and MDGs

■ Access to cooking using modern fuels:

- Access to properly cooked food, clean indoor environment, improved health, reduced burden on women and girls, sustainable energy technologies :
- **Goal 1: Eradicate extreme poverty and hunger:** healthy individual, time available for productive livelihood
- **Goal 2 : Achieve universal primary education:** access to education for girl children, improved attendance due to better health
- **Goal 3: Promote gender equality and empower women:** healthy mother, reduced drudgery of manual labor, safety
- **Goals 4 and 5: Reduce child mortality & Improve maternal health):** healthy mother, reduced workload, access to boiled water
- **Goal 7: Ensure environmental sustainability:** renewable energy, energy efficiency



Energy Services and MDGs

■ Access to lighting using electricity:

- Extended hours for productive work, learning and reading, illuminated schools and health centers, safety, sustainable energy technologies
- **Goal 1: Eradicate extreme poverty and hunger:** extended hours for productive livelihood
- **Goal 2: Achieve universal primary education:** evening schools, extra hours for reading
- **Goal 3: Promote gender equality and empower women:** illuminated kitchens, extended working hours
- **Goals 4,5&6: Reduce child mortality, Improve maternal health & Combat HIV/AIDS, and other major diseases:** access to health care during nights, well illuminated health centers/hospitals, safety and security
- **Goal 7: Ensure environmental sustainability:** renewable energy, energy efficiency

Energy Services and MDGs

- **Access to cooling/refrigeration using electricity:**
 - Preservation of food and medicines, comfortable conditions for patients, sustainable energy technologies,
 - **Goal 1: Eradicate extreme poverty and hunger):** access to preserved food, reduced wastage of food
 - **Goal 3: Promote gender equality and empower women):** reduced wastage of food
 - **Goals 4,5&6: Reduce child mortality, Improve maternal health & Combat HIV/AIDS, and other major diseases):** preserving medicines, patient comforts
 - **Goal 7: Ensure environmental sustainability:** renewable energy, energy efficiency

Energy Services and MDGs

- **Access to heating/drying using modern fuels:**
 - Access to hot water, preserving agricultural produce and value addition, sustainable energy technologies
 - **Goal 1: Eradicate extreme poverty and hunger:** value added agricultural products through drying
 - **Goals 4,5&6: Reduce child mortality, Improve maternal health & Combat HIV/AIDS, and other major diseases** access to hot water for patients, sterilization of medical instruments
 - **Goal 7: Ensure environmental sustainability:** renewable energy, energy efficiency

Energy Services and MDGs

- **Access to mechanical power using electricity**
 - Pumping water for irrigation, micro-industries, reduced manual labor, increase productivity, processing of agro-products
 - **Goal 1: Eradicate extreme poverty and hunger:** irrigation, micro-industries, agro-processing, higher productivity
 - **Goal 3: Promote gender equality and empower women:** Women enterprise, reduced human labor
 - **Goal 7: Ensure environmental sustainability:** renewable energy, energy efficiency
 - **Goal 9:** Enhances security

Energy Services and MDGs:

■ Access to motive power using liquid fuel

- Mobility, speedy access to markets, schools and health centers/hospitals,
- **Goal 1 Eradicate extreme poverty and hunger:** Good value for the outputs, expanded access to markets, employment opportunities
- **Goal 2 Achieve universal primary education:** increased access to better schools
- **Goal 3 Promote gender equality and empower women:** Easy and convenient mobility, access to more facilities
- **Goals 4,5&6 Reduce child mortality, Improve maternal health & Combat HIV/AIDS, and other major diseases:** access to better quality health centre's/hospitals
- **Goal 7 Ensure environmental sustainability** renewable energy, energy efficiency **Goal : 9 Enhances Security**








Energy Services and MDGs

■ Access to ICT using Electricity

- Access to information resulting in awareness and empowerment, informed decisions
- **Goal 1: (Eradicate extreme poverty and hunger):** empowerment and informed decisions resulting in better bargaining power
- **Goal 2: (Achieve universal primary education):** e-learning, access to internet
- **Goal 3: (Promote gender equality and empower women):** awareness bringing empowerment
- **Goals 4,5&6: (Reduce child mortality, Improve maternal health & Combat HIV/AIDS, and other major diseases):** telemedicine, online medical advises
- **Goal 7: (Ensure environmental sustainability):** renewable energy, energy efficiency
- Goal 9:

Risks to MDGs in the absence of clean energy services

Millennium Development Goals	RISKS
 <p>1 ERADICATE EXTREME POVERTY AND HUNGER</p> <p>Eradicate extreme poverty and hunger</p>	<p>Depleted livelihood assets, reduced economic growth, and undermined food security.</p>
 <p>2 ACHIEVE UNIVERSAL PRIMARY EDUCATION</p> <p>Achieve universal primary education</p>	<p>Reduced ability of children to participate in full-time education by loss of infrastructure, livelihoods (forcing children to work), and displaced families.</p>
 <p>3 PROMOTE GENDER EQUALITY AND EMPOWER WOMEN</p> <p>Promote gender equality and empower women</p>	<p>Additional burdens on women's health and no time to participate in decision-making and income-generating activities.</p>
 <p>4 5 6 COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES</p> <p>Reduce child mortality; Improve maternal health; Combat HIV/AIDS, malaria and other diseases</p>	<p>Greater prevalence of vector- and water-borne diseases, heat-related mortality. Declining food security, maternal health and availability of potable water.</p>
 <p>7 ENSURE ENVIRONMENTAL SUSTAINABILITY</p> <p>Ensure environmental sustainability</p>	<p>Negatively impacted natural resources and productive ecosystems.</p>



Progress towards the Afghan

MDGs

- Intense process of national consultations, identified priority policies and programs for implementation starting 2004 over the next years, in 17 sectors, including security, to achieve the MDGs.

Off Track

- Two Goals, have registered insufficient progress and will require increased attention in order to ensure that Afghanistan meets its targets: **In Goal 1**, poverty reduction target is several years behind its required level
- Gender equality (Goal 3) faces a major challenge in improving gender bias, be in education, employment or political participation.

Progress towards the Afghan MDGs

- three out of the nine Afghan MDGs are assessed to be broadly “on track” in 2008, → the indicators used to monitor them have, progressed at a rate sufficient to ensure achieving the target set for 2015 or 2020.
- child mortality & spread of disease (goal 4);mixed for goal 2 ,especially for the girl child, goal 7 marginal improvement for water but desperate shortage of fuel.
- A further four Goals are deemed “achievable” within the time horizon of Vision 2020.
- **Income generating activities have almost always favoured MDG Goal 1 .Energy services played a positive role.**



Achieve development goals by safeguarding the MDG targets

Development partnerships need to assist in developing national capacity in partner countries to:

- ❖ modify existing policies and practices,
- ❖ adopt new policies and practices,
- ❖ adopt new technologies
- ❖ adapt technology choices
- ❖ adopt and adapt financing modules

to secure the MDGs



In the face of widespread poverty, energy insecurity, climate change & its associated impacts, partnership of the type offered through WISER and SARI/E is a positive way forward

Thank you !

<http://www.undp.org.af/MDGs/AfghanMDGs-ProgressataGlance.pdf>

http://www.mdgmonitor.org/factsheets_00.cfm