



Energy for sustainable development

Policy document



Federal Ministry for European and International Affairs
Directorate-General for Development Cooperation
Minoritenplatz 8, 1014 Vienna, Austria
Phone: +43 (0)501150-4454
Fax: +43 (0)501159-4454
abtvi4@bmeia.gv.at
www.entwicklung.at

This policy document was written by:

- Federal Ministry for European and International Affairs,
Directorate-General for Development Cooperation
- Austrian Development Agency

Editorial team:

Irene Freudenschuss-Reichl, Rudolf Hüpfl, Martin Lugmayr, Sandra Wibmer

Translation: Nicholas Somers

Vienna, May 2006. Reprint: July 2010.

Order information:

Austrian Development Agency –
The Operational Unit of the Austrian Development Cooperation
Information and Communication
Zelinkagasse 2, 1010 Vienna, Austria
oeza.info@ada.gv.at; www.entwicklung.at

Cover: © AEE INTEC



Contents

List of abbreviations	2
1. Summary.....	3
1.1 Energy as a challenge for ADC.....	3
1.2 Importance of energy for ADC	3
1.3 ADC objectives and measures.....	4
1.4 ADC quality control principles	4
2. Introduction	5
3. Definitions	5
3.1 Energy and human development	5
3.2 Energy as a subsector of the infrastructure	5
4. Energy as a challenge for ADC.....	6
4.1 Unequal access to energy services	6
4.2 Causes of problems and exacerbating factors.....	6
5. Significance of energy for ADC	7
5.1 Comparative advantages of ADC.....	7
5.2 Energy as a tool for achieving ADC goals.....	8
5.3 Contribution to economic and social development	8
5.4 Contribution to environmental sustainability	9
5.5 Contribution to conflict prevention.....	9
6. ADC quality control principles	9
Principle 1: Poverty-reducing	10
Principle 2: Demand-oriented.....	10
Principle 3: Equalisation of existing imbalances	10
Principle 4: Safeguarding and increasing energy efficiency	10
Principle 5: Individual and not technology driven solutions.....	11
Principle 6: Social and economic balance.....	11
Principle 7: Income-generating measures.....	11
Principle 8: Creation of an adequate framework.....	11
Principle 9: Ownership and good governance	12
Principle 10: Promoting regional cooperation	12
7. ADC goals and measures	12
7.1 Bilateral ADC activities.....	12
7.2 Strengthening of the EU energy policy.....	14
7.3 Cooperation with multilateral organisations	14
7.4 Vienna as centre of energy diplomacy.....	15
7.5 Global Forum on Sustainable Energy (GFSE).....	16
7.6 Co-determination of international energy architecture.....	17
7.7 Collaboration in international energy partnerships.....	17
7.8 Application of the flexible Kyoto mechanisms.....	17
8. Coherence.....	18
9. Sources	19



List of abbreviations

ADA	Austrian Development Agency
ADC	Austrian Development Cooperation and Cooperation with Eastern Europe
AFREC	African Energy Commission
AU	African Union
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CIS	Communications and Information System
CSD	United Nations Commission on Sustainable Development
DAC	OECD Development Assistance Committee
DANIDA	Danish International Development Agency
DCA	Austrian Development Cooperation Act
DFID	Department for International Development
EBRD	European Bank for Reconstruction and Development
ECOWAS	Economic Community of West African States
EEPCo	Ethiopian Electric Power Corporation
ECSEE	Energy Community of South East Europe
EU	European Union
EUEI	European Union Energy Initiative
EUWI	European Union Water Initiative
ESMAP	Energy Sector Management Assistance Programme
FEMA	Forum of Energy Ministers of Africa
GEF	Global Environment Facility
GFSE	Global Forum on Sustainable Energy
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
GVEP	Global Village Energy Partnership
IAEA	International Atomic Energy Agency
ICIMOD	International Centre for Integrated Mountain Development
ICT	Information and Communication Technology
IEA	International Energy Agency
IFIs	International Financial Institutions
IIASA	International Institute for Applied Systems Analysis
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
MDGs	Millennium Development Goals
MEDREP	Mediterranean Renewable Energy Programme
NBI	Nile Basin Initiative
NEPAD	New Partnership for Africa's Development
ODA	Official Development Assistance
OECD	Organization for Economic Co-Operation and Development
OPEC	Organization of Petrol Exporting Countries
PDF	Partnership and Dialogue Facility
PIDG	Private Infrastructure Development Group
REEEP	Renewable Energy & Energy Efficiency Partnership
SADC	South African Development Community
SIDA	Swedish International Development Cooperation Agency
SIDS	Small Island Developing States
SMEs	Small and Medium-Sized Enterprises
UN	United Nations
UNCC	United Nations Compensation Commission
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
UNU	United Nations University
WEC	World Energy Council

1. Summary

1.1 Energy as a challenge for ADC

Since the World Summit in Johannesburg (2002) there has been a formal global consensus that the existing worldwide energy system is not compatible with the criteria for sustainability because it excludes around one third of the world's population from modern energy services, reveals great imbalances in per capita consumption and pollutes the environment in an unacceptable fashion.

The worldwide energy system is not sustainable

Around 2.4 billion people in developing and transition countries are currently deprived of access to modern energy services (including electricity). Rural regions and disadvantaged groups such as women, children and minorities are particularly affected by this deficiency and its consequences. The poorest countries and regions in the world – particularly in Africa – cover their energy needs almost exclusively with firewood, charcoal, dung and agricultural waste.

2.4 billion people are excluded from energy services

The current energy situation is the cause and an exacerbating factor for a number of economic, social, ecological and political problems in developing and transition countries. There are close links between energy supply and practically all aspects of sustainable development such as access to water, agricultural and industrial productivity, health care, education, job creation, environmental pollution and climate change.

Current situation as cause of problems and exacerbating factor

1.2 Importance of energy for ADC

Austrian Development Cooperation and Cooperation with Eastern Europe (ADC) accords high priority to interventions in the energy sector to promote sustainable development in developing and transition countries:

Tools for achieving ADC goals

- Energy services are important ADC tools that – if designed appropriately – can make an important contribution to the achievement of development and sustainability goals (DCA¹, Millennium Development Goals [MDGs], World Summit in Johannesburg).
- Without access to modern and affordable energy services social and economic development is impossible for the people in developing and transition countries.
- By focusing its interventions on renewable energy sources and energy efficiency ADC fosters environmentally compatible development in developing and transition countries.
- ADC regards its interventions as a contribution to the shaping of an equitable global energy system and hence to the prevention of conflicts between and within states.
- ADC has comparative advantages within the framework of international development cooperation and can make use of the specialised expertise of Austrian industry.

¹ ADC is based on the 2002 Development Cooperation Act (DCA) as amended in 2003. The main objectives are poverty reduction, peacebuilding, and environmental protection and conservation of natural resources.



1.3 ADC objectives and measures

Comprehensive energy approach of the ADC at bilateral and multilateral levels

The comprehensive ADC energy approach aims at specific and mutually supportive measures at the bilateral programme and project level and at the multilateral level, taking into account the need for coordination and coherence with other national and international actors. The Austrian commitment in the energy sector will be intensified and defined in greater detail in the coming years:

- At the bilateral programme and project level ADC implements energy interventions in the form both of stand-alone sectoral projects and of cross-cutting components of projects in other sectors. The classic sectoral approach will be limited in future to a few partner countries. At the same time ADC will increase the mainstreaming of energy as a cross-cutting component of other sectors.
- ADC will endeavour to work more closely in the energy sector with the regional organisations of its partner countries (ECOWAS, SADC etc.).
- Apart from energy efficiency considerations, ADC follows a technological neutral approach in its projects. It concentrates for preference, however, on hydro-power, modern biomass, solarthermal and geothermal energy for water heating. In this area Austrian industry has comparative advantages and specialised know-how.
- ADC seeks greater involvement of the private sector and other funding sources, for example through increased orientation to the flexible Kyoto mechanisms (CDM and JI), making use of established instruments employed by the Austrian Development Agency (ADA) in its “private sector and development” activities.
- Capacity-building and knowledge transfer in the partner countries is particularly important for implementation of the ADC energy approach.
- To provide the necessary expertise, the ADA avails itself of existing know-how in Austrian industry (for implementation agreements and also for advice to internal ADA structures and processing) and local energy expertise in foreign representations (coordination offices) implementing energy programmes.
- At the multilateral level ADC supports measures within the European Union (EU), United Nations (UN) and International Financial Institutions (IFIs) and on its own account that aim at an equitable and sustainable global energy system.

1.4 ADC quality control principles

Guiding principles for quality control of ADC interventions

In its practical work ADC observes quality principles that ensure that its energy interventions are in line with the development goals of the partner country. According to these principles, energy interventions should be based on need and designed to reduce poverty and should be affordable and sustainable, generate income, support particularly disadvantaged regions and groups and use existing potential to improve energy efficiency. The needs and cultural traditions in the partner countries should be taken into account in the selection of technology, regional cooperation promoted and the ownership by the partners in shaping their energy policy framework strengthened. These principles are in line with the provisions of the Austrian Development Cooperation Act (DCA) – ownership by partner countries for their development, respect for cultural diversity, gender equality and allowance for the needs of children and persons with disabilities.

2. Introduction

This policy document on energy for sustainable development is an internal guideline for the strategic planning and practical implementation of interventions in the energy sector. The interventions are situated at the bilateral programme and project level and also as part of the multilateral and foreign policy dimension of international cooperation. The document also serves to establish the position of ADC in the dialogue between the international donor community and developing and transition countries and with other actors concerned with development policy in Austria.

Guideline for strategic planning

3. Definitions

3.1 Energy and human development

Access to energy – primarily for light, heat, cooling and power – has always been a prerequisite for human development. As far as development policy is concerned, it is not a question of energy in itself but of creating access to energy as a service for cooking, lighting, heating, cooling and drive mechanisms. These services are an important condition for the reduction of poverty and for sustainable environmental, economic and social development.

Energy as prerequisite for human development

ADC defines as “modern” those forms of energy that are higher up on the “energy ladder”, a symbolic representation on the basis of efficiency, convenience and cleanliness of the relevant forms of energy. It must be borne in mind that energy sources are interchangeable only to a limited extent. Electricity can replace biomass, for example, only for certain applications. The “energy ladder” is therefore a set of subsystems existing in parallel. The energy ladder for cooking energy is markedly different from the ladder for drive mechanisms or lighting.

Modern energy forms are clean and efficient

3.2 Energy as a subsector of the infrastructure

Within ADC energy is a subsector of economic infrastructure, which also includes water supply and sanitation, mobility and communications technologies (ICT) (see policy document on infrastructure development).

Subsector of economic infrastructure

ADC activities in the energy sector take place at two different levels. At the bilateral programme and project level, ADC energy interventions are in the form of independent sectoral projects and cross-cutting components of other sectors. At the multilateral level, energy is an important component in the shaping of a sustainable future for the world. In that respect the decisions and declarations agreed by Agenda 21 (1992), the Ninth Session of the United Nations Commission on Sustainable Development (CSD-9 2001), the World Summit on Sustainable Development (2002), the International Conference for Renewable Energies in Bonn (2004), the World Conference on Energy for Development in the Netherlands (2004), the Beijing International Renewable Energy Conference (2005), and the Fourteenth and Fifteenth Sessions of the United Nations Commission on Sustainable Development (CSD-14/15 2006/2007) are important reference documents. In the framework of EU development cooperation, active participation in the shaping of the energy agendas including the issue of climate change is a further important component.

Interventions at bilateral and multilateral levels



4. Energy as a challenge for ADC

ADC accords high priority to the energy challenges faced by developing and transition countries. Since the decisions of CSD-9 and the World Summit in Johannesburg, there has been a formal global consensus that the existing global energy system is incompatible with sustainability criteria because around one third of the world population is deprived of modern energy services, there are major discrepancies in per capita consumption and the environment (local, regional and global) is being polluting in an unacceptable manner. If developing and transition countries follow the same non-sustainable energy path as industrial countries, serious environmental problems will ensue for all sides.

4.1 Unequal access to energy services

2.4 billion people without access to modern energy services

The differences in development, modernisation and welfare in industrial countries, developing and transition countries can also be seen in the unequal access to energy services. Around 2.4 billion people currently have no access to modern energy services. Over 1.6 billion people have no access to electricity, for lighting, cooling, powering machines and equipment and modern forms of telecommunications. According to forecasts, with “business-as-usual” scenarios and without investments 1.4 billion people (around 17 per cent of the world’s population) will still have no access to electricity in 2030 – most of them, as before, in sub-Saharan Africa and South Asia. Because of their geographical situation, small island developing states (SIDS) are particularly affected by these deficiencies.

Discrepancy between urban and rural regions

Within developing and transition countries access to modern energy services differs from region to region and from group to group. Rural regions and disadvantaged groups such as women, children and minorities are particularly hard hit by these deficiencies and their consequences. While 51 per cent of the urban population of sub-Saharan Africa have access to electricity, in rural areas it is only 8 per cent. In South Asia access is available to 68 per cent of the urban population but to only 30 per cent of the rural population.

Biomass as main energy source for developing countries

Poor population groups are dependent on completely different energy sources than rich ones. In urban and rural regions the former are mainly reliant on biomass fuels and less on electricity, oil and gas. The poorest countries and regions in the world – particularly in Africa – cover 90 per cent of their energy needs with firewood, charcoal, dung and agricultural waste. According to forecasts, in 2030 80 per cent of energy in Africa and 70 per cent in South Asia will still be provided by biomass.

4.2 Causes of problems and exacerbating factors

Inadequate and unequal access to energy services, inefficient applied technologies, mismanagement in the energy sector and non-sustainable energy trends are the cause and exacerbate a variety of economic, social, environmental and political problems in developing and transition countries.

4.2.1 Obstacle to economic and social development

Obstacle to economic and social development

ADC and the international community as a whole regard the lack of access to affordable and sustainable energy services as an obstacle to economic and social development for the populations of developing and transition countries. Because of the absence of dependable, efficient and affordable energy services, for example, access to education is made more difficult and small and medium-sized enterprises (SMEs) cannot develop. Air pollution inside buildings and in urban areas in developing countries causes health problems for millions of people every year with devastating consequences for society and economy. Every year around 1.6 million women and children die as a result of smoke and fumes from open fires. In fact,

respiratory diseases pose an even greater danger than malaria and AIDS. Poor air quality represents a serious threat to health in 85 per cent of the large cities in developing countries. The absence of lighting makes it impossible to study or work at home in the evening and the lack of street lighting in public places is a safety hazard. The import of energy sources such as oil is forcing many countries to use scarce foreign exchange that could be devoted to other important activities.

4.2.2 Environmental destruction and climate change

The lack of energy and the use of inefficient technologies have calamitous effects on the environment, in the form of degradation of natural resources and pollution through emissions. The growing use of fuel wood, tree clearing for charcoal and the burning of dung and agricultural waste put increasing pressure on natural resources and lead to deforestation linked with soil degradation and increased soil erosion. Entire sections of land are no longer available for agricultural production – a trend that is aggravated by the effects of climate change. The Millennium Ecosystem Assessment 2005 shows that many of the two billion people living in arid areas (41 per cent of the surface of the globe) are affected by desertification. Soil degradation causes problems on a regional (migration, dust, flooding) and global (climate change) scale.

Degradation of natural resources, pollution through emissions and climate change

Today's global energy system is not sustainable – in industrial and developing countries alike. According to estimates by the International Energy Agency (IEA) the global primary energy requirement and carbon dioxide emissions will both increase by 60 per cent between 2002 and 2030. Two thirds of these increases will come from developing countries. Fossil fuels will continue to dominate in the world. If it is not possible to satisfy the growing energy demand with sustainable energy services, developing countries will remain reliant on fossil fuels, which will have serious effects on the global environment and will place a disproportionate burden on the scant foreign exchange available to developing countries. In addition, because of their lower potential for adaptation, poor countries (and particularly SIDS) will be more affected by the consequences of climate change than others.

Two thirds of new emissions from developing countries

4.2.3 Source of conflicts and tensions

The paucity of energy and the absence of energy security can lead to political tensions both within and between states. Energy security is an increasingly important geostrategic issue. Efforts to obtain control over oil fields and important sea routes or the instrumentalisation of raw materials to foster particular interests have led in the past to armed conflicts. Even within states, unstable energy prices can exacerbate social and economic crises, ending in violence and revolt. Poorer and disadvantaged groups in urban slums or rural regions in particular are greatly affected by rising energy prices because of their restricted income.

Cause of conflicts between and within states

5. Significance of energy for ADC

5.1 Comparative advantages of ADC

In view of the complex challenges in partner countries and the expertise that Austria can offer in this field, ADC attaches considerable importance to the energy sector. Within the field of international and European development cooperation ADC has comparative advantages in this sector and can avail itself of the specialised know-how of Austrian industry.

Specialised know-how of Austrian industry



5.2 Energy as a tool for achieving ADC goals

Energy as a tool for achieving ADC goals

Creating access to energy is not an ADC objective in itself. ADC is more interested in the services that energy provides for people. Energy services, provided that they are designed in accordance with defined principles, contribute significantly to the achievement of development and sustainability goals. Interventions at the bilateral and multilateral levels in the energy sector are important prerequisites for the achievement of the prime objectives of the ADC, namely poverty reduction through promotion of economic and social development, the safeguarding of peace and human security through the organisation of a fair energy system, and preservation of the environment and protection of natural resources through the promotion of sustainable energy solutions.

Connections with all aspects of sustainable development

ADC is committed to the aim of sustainability and emphasises the strong links between energy supply and practically all aspects of sustainable development such as access to water, rural and industrial productivity, health care, education, employment creation and climate change.

Economic growth, which makes no allowance for the conservation of natural resources, destroys the development chances for the next generation. Environmental protection requires poverty reduction and vice versa. This connection was recognised at the World Summit on Sustainable Development in Johannesburg (2002) and emphasised at the Fourteenth and Fifteenth Sessions of the UN Commission on Sustainable Development in 2006/2007.

5.3 Contribution to economic and social development

MDGs cannot be achieved without energy

There is a close connection between the attainment of the MDGs, social and economic development of people in developing and transition countries and the availability of affordable and reliable energy services. The energy sector plays a key role in development cooperation because of the various cross-links and interdependencies with food security, the creation of revenue, security, environmental protection, health and education. The MDGs cannot be attained in developing countries and transition countries without substantial improvements in the energy sector.

Important factor in an enabling environment

In addition, the provision of energy (and the economic infrastructure in general) is a central factor in an enabling environment, which is a vital condition for the development of an efficient private sector and for the creation of employment (see policy document on private sector and development).

Energy services and the achievement of the MDGs

MDG 1: Eradicating extreme poverty and hunger: Access to energy services, modern energy sources and forms is an important condition for job creation, industrial and commercial activities, mobility and agricultural production.

MDG 2: Universal primary education: Electricity is indispensable in modern educational establishments and for learning after dark. Moreover, many children, especially girls, cannot attend primary school because they have to obtain water and firewood for the family.

MDG 3: Gender equality and empowerment of women: The lack of access to modern energy forms and to electricity increases gender inequality. Women are responsible for most household work such as preparing food and hot water.

MDG 4: Reducing child mortality: Respiratory diseases as a result of smoke and fumes from open fires are a cause of child mortality.

MDG 5: Improving maternal health: Women are more likely to become ill as a result of air and water pollution and food impurities. In rural areas the absence of access to electricity, poor lighting during births at night and the daily stress of collecting firewood and its transport affect the health of pregnant women.

MDG 6: Combating HIV/AIDS, malaria and other diseases: Access to electricity gives access to radio and TV, improving communication of campaigns to explain and combat fatal diseases. The entire health sector also needs electricity (for lighting, cooling, sterilisation, etc.) to provide services efficiently.

MDG 7: Ensuring environmental sustainability: Traditional energy production, distribution and consumption have a number of adverse effects on the local, regional and global environment (deforestation, air pollution in buildings, soil degradation, water and soil salination, climate change). Modern energy services are required to prevent these environmental impacts and to provide sustainable protection of natural resources.

5.4 Contribution to environmental sustainability

ADC makes an important contribution to environmental sustainability by supporting energy projects and programmes at the bilateral level and by participating in multilateral dialogue on energy issues in developing and transition countries. By concentrating on improving energy efficiency and sustainable energy sources the conflict between growth and environmental targets in developing and transition countries can be reduced.

Reduce conflict between growth and environmental goals

5.5 Contribution to conflict prevention

By providing fair access to affordable and sustainable energy sources ADC can contribute to conflict prevention and peacebuilding and thus to reducing social tensions in developing and transition countries as well as geostrategic conflicts over energy resources.

A fair energy system as contribution to peacebuilding

6. ADC quality control principles

ADC takes account of principles that ensure that energy interventions at the bilateral and multilateral level contribute to the achievement of development and sustainability goals. The ADC principles were further elaborated at the Senior Official Seminar held in Vienna on 23 January 2006 during the Austrian EU Presidency. The EU adopted these principles at the General Affairs and External Relations Council in April 2006 and agreed to take them into account in its efforts to integrate energy in its development cooperation.²

Guiding principles for quality control interventions coordinated with the EU

According to the principles, ADC interventions in the energy sector should be poverty- and demand-oriented, affordable and sustainable, income-generating, providing support for disadvantaged regions and groups and exploiting existing potential to improve energy efficiency. The needs and cultural traditions of partner countries should be taken into account in the selection of technology, regional cooperation should be encouraged and ownership by partners for the structuring of their energy policy framework should be strengthened. These principles are in line with the basic principles of the DCA – ownership by partner countries for their development, respect for cultural diversity, gender equality and consideration of the needs of children and persons with disabilities.

² Council conclusions on Energy and Development, General Affairs and External Relations Council meeting – Luxembourg, 10 April 2006



Principle 1: Poverty-reducing

ADC ensures that its interventions provide access to energy services that contribute to poverty reduction.

The supply of energy and services is not an objective in itself but an important tool for achieving other development goals.

Principle 2: Demand-oriented

ADC energy services are demand- and not supply-oriented.

Energy projects should be demand-oriented and meet the energy needs of consumers (e.g. for production and supply of household goods, communication and public requirements) with account taken of the entire supply chain.

Principle 3: Equalisation of existing imbalances

ADC programmes and projects should be designed to equalise existing imbalances between different income groups, between men and women, and between rural and urban populations.

Structural improvement of the rural economy through enhanced productivity and the development of new agricultural or forestry activities is contingent on better energy supply. Population growth and urbanisation increase the demand for biomass and fertile land in peri-urban areas. Poor population groups in cities use a higher proportion of their income for energy services than rich inhabitants. Market-oriented supply models are based mainly on conurbations. Modern technology-oriented projects and programmes are directed almost exclusively at men (jobs, administration, financial management, etc.) although the main users are women. ADC therefore participates in programmes that help to reduce these imbalances.

Principle 4: Safeguarding and increasing energy efficiency

ADC endeavours to safeguard and increase energy efficiency.

The rapid increase in oil prices together with the adverse effects of climate change have stimulated interest in cleaner energy sources. An important result of this trend is also the improvement in energy efficiency (lighting, household appliances, transport, heating and cooling of buildings, etc.). These efficiency programmes have already been implemented in most OECD states and, more recently, in transition countries. Efforts to improve energy efficiency should also be anchored in programmes and projects with developing countries. Increasing energy efficiency potential is of benefit not only to consumers but also to the economy.

Principle 5: Individual and not technology driven solutions

ADC utilises a technologically neutral approach so as to adapt as well as possible to the needs of the partners (population concerned).

ADC programmes and projects take advantage of the complete range of organisational and technical possibilities so as to be able to adapt ideally to a given situation. In keeping with the Government position on nuclear technology, ADC does not work with this energy form which, in Austria's view, is not sustainable. To guarantee the environmental sustainability of programmes and projects, the technologies under consideration are optimised using indicators such as the ecological footprint or the life cycle analysis from a cradle to grave perspective. This often makes renewable energy more attractive than other technological solutions.

Principle 6: Social and economic balance

ADC concentrates on socially and economically balanced energy projects.

The world market prices for modern energy sources rarely correspond to the economic situation of consumers and governments in developing countries. Programmes and projects must incorporate financing mechanisms and tariffs that combine financial sustainability with affordability of the energy services for poor population groups.

Principle 7: Income-generating measures

Access to modern energy forms should be combined where possible with income-generating measures.

Access to modern energy services imposes a heavy financial burden on poor or marginalised population groups. To ensure economic sustainability for consumers and governments, access to modern energy forms should be combined with the stimulation of income-generating measures and job creation. Cooperation with the private sector in the provision of energy services should be sought so as to multiply the effect of public investments. For this reason a strategy to promote the private sector and an income-generating strategy for poor population groups must be devised.

Principle 8: Creation of an adequate framework

ADC supports the creation of adequate frameworks for sustainable energy solutions.

The restructuring of energy markets offers the opportunity to mainstream sustainable development concerns, including social concerns. Donors should support governments that create the necessary framework for sustainable energy solutions. This includes the fixing of emission thresholds, minimum standards for buildings, factories, machinery and vehicles, measures to promote clean technologies or allowing private power producers to access public power grids under defined conditions. Institutions (government, civil society and the private sector) should be strengthened through training and capacity-building. Training should aim at overcoming obstacles and establishing a favourable framework.



Principle 9: Ownership and good governance

ADC supports countries that incorporate energy projects in national strategies and development plans on the basis of political ownership, good governance and poverty reduction.

Priority is given to countries and regions that have clear energy policies in place or are in the process of establishing such policies. Poverty Reduction Strategy Papers and bilateral donor programmes should include energy as an integrated activity in the relevant sectors. These programmes should be drawn up with the involvement of end users, population groups and communities in the decision-making process.

Principle 10: Promoting regional cooperation

Regional and transborder cooperation is required to overcome local difficulties and disadvantages.

The development of regional energy systems produces new options for advanced, dependable and cheaper technologies (e.g. hydropower), better resource balance and adaptation to the optimum economic scale. Expensive rural electrification for remote, marginalised areas along international borders can in many cases be avoided by organising supply from the neighbouring country. Governments are expected to coordinate their national development plans and strategies with regional initiatives.

7. ADC goals and measures

Bilateral and multilateral measures are mutually supportive

The comprehensive approach to energy by ADC includes specific and mutually supportive measures at the bilateral programme and project level and at the multilateral and foreign policy level. At the bilateral level the aim is to give partner countries access to energy and the required technology so as to improve their development prospects without destroying the environmental, social and economic basis for future generations. At the multilateral level ADC seeks a fairer and more sustainable world energy system.

In bilateral ADC energy cooperation used to be present in individual country programmes as a sectoral focus and was also treated as a cross-cutting component of other programmes. At the multilateral level (EU, UN, IFIs) Austria has become a leader in this sector as a result of its efforts since the 1990s to increase international cooperation in the field of energy for sustainable development. The Austrian involvement will be strengthened and intensified at both the bilateral and multilateral levels in the next few years.

7.1 Bilateral ADC activities

- ADC will focus its future bilateral activities in the energy sector on the following measures and principles:
- ADC projects and programmes will be selected and implemented on the basis of the principles set forth in this policy document.
- ADC will intensify the mainstreaming of energy as a cross-cutting component in other sectors (e.g. rural development and health through improved stoves, SMEs through energy-generating products, water through energy-optimised drive systems).
- The classic sectoral approach as applied in Bhutan, Ethiopia and Albania will be restricted in future to a few partner countries.

Mainstreaming as cross-cutting sector

Limitation of the sectoral approach

- | | |
|--|--|
| <ul style="list-style-type: none"> ■ Additionally, ADC intends to work more with regional organisations (AU/NEPAD, ECOWAS, SADC, FEMA, AFREC etc.). The regional approach will concentrate on regions in which an ADC partner country has its own energy approach or where regional access to energy is likely to have a positive impact on ADC bilateral activities (in the form of alignment with other donors). ADC will help ECOWAS in the implementation of its energy policy in cooperation with UNDP, the European Commission (EC), France and Germany. ■ Apart from energy efficiency considerations, ADC follows a technological neutral approach in its projects. Austrian cooperation will concentrate where possible, however, on hydropower, modern biomass, solarthermal and geothermal energy for water heating. In this area Austrian industry has comparative advantages and specialised know-how. ■ As investments in the energy sector cannot be covered by public development cooperation alone, ADC will seek to mobilise greater involvement by the private sector and other sources of financing, such as projects based on the flexible Kyoto mechanisms (Clean Development Mechanisms and Joint Implementation). ■ Special attention will be paid to the use of instruments in the cross-cutting sector “private sector and development” (see policy document on private sector and development). Particular potential exists with regard to hydropower and modern biomass, where Austrian enterprises are very successful internationally. ADC, in cooperation with the institutions of the Austrian industry, will support Austrian enterprises in projects with focus on development aspects and will help finance business-to-business partnerships and development partnerships (public-private cooperation). The targeted involvement of Austrian enterprises in suitable energy partnerships will be actively encouraged in this new ADC segment. ■ Capacity-building and knowledge transfer in the partner countries is particularly important for implementation of the ADC energy approach. Co-financing of individual investments will also be required. ■ To provide the necessary specialised expertise, the ADA will avail itself of the existing industrial know-how in Austria (for implementation agreements and advice to internal ADA structures and procedures) and local energy expertise in representations abroad (coordination offices) in which energy programmes are implemented. | <p>Cooperation with regional organisations</p> <p>Harmonisation and alignment</p> <p>Energy efficiency and renewable energies as focuses</p> <p>Flexible Kyoto mechanisms</p> <p>ADC exploits the potential of Austrian industry</p> <p>ADC supports enterprises in development projects</p> <p>Capacity-building</p> <p>Exploiting industrial specialised knowledge</p> |
|--|--|

Practical examples

Measures to date

Energy and energy services are to be found in many ADC project approaches, such as programmes using photovoltaic powered pumps in water supply systems in southern Uganda or solar drying systems for fruit and vegetables in West Africa and Central America in the agriculture/food security sector. Included in these activities are the support offered since 2005 for SMEs in Albania and Macedonia in the production of solar hot water systems.

Planned measures and prospects

Funding for capacity-building to implement commercially financed CDM projects in Bhutan is planned. Training measures for the successful autonomous operation and maintenance of hydropower plants in Bhutan and Albania are also planned.

At the request of the Ethiopian Government, the Austrian power industry will pass on its experience in the liberalisation and restructuring of state power utilities and will control the process on its own responsibility. Support for pilot local participation models and the operation of small communal hydropower plants in Ethiopia is also planned.



Energy efficiency as part of cooperation with Eastern Europe focuses on cleaner production. Measures in this respect are to be seen in connection with employment stimulation and the aims of the cross-cutting “private sector and development” activities in general. Cooperation with UNIDO cleaner production centres, which are partly supported by Austria, will be intensified.

As ADC has assumed the role of facilitator in the implementation of the EU Energy Initiative (EUEI) in Bhutan and Ethiopia, there are numerous opportunities and obligations that do not become apparent until the implementation stage. The first specific contribution to the EUEI is the GTZ-ADA-EPECO study on a wind park to be connected to the grid in Ethiopia. In line with the Paris Declaration on Aid Effectiveness signed in March 2005, activities by other Member States (by way of donor coordination through the respective facilitators) will be directly supported where these activities enhance or complement ADC programmes.

Apart from the existing cooperation at the project level with other Member States, regionalisation is also being planned with partners such as the Nile Basin Initiative (NBI) in East Africa, ICIMOD for the Himalayas/Hindu Kush and Sistema de la Integración Centroamericana for Central America.

7.2 Strengthening of the EU energy policy

Common energy EU
paradigm as goal

ADC aims at the establishment of a common energy paradigm in EU development cooperation. In that context it organised a Senior Officials Seminar in Vienna on 23 January 2006 during the EU Presidency on the subject of Energy in the Context of Development Cooperation. During the seminar common principles for the implementation of EU energy projects were drafted on the basis of preliminary work by ADC (see chapter 6). The EU adopted these principles at the General Affairs and External Relations Council in April 2006 and agreed to take them into account in the course of its efforts to integrate energy in its development cooperation.³

Exploitation of EUEI
potential

The Energy Initiative for Poverty Reduction and Sustainable Development (EUEI) gained in stature through the establishment of an EU Energy Facility with a budget of 220 million euros. The specific use of the funds must now be coordinated with other Member States. A Partnership and Dialogue Facility (PDF), in which Austria is involved with five other donors, will help developing countries to establish an energy policy framework so that programmes and projects can be financed by the EU energy facility. This will involve coordination and elaboration of joint programmes and projects with Member States under the auspices of the EUEI. The exchange of information with bilateral Austrian energy programmes will be continued so as to identify project ideas that could be financed by the energy facility.

Partnership with Africa
for infrastructure and
networks

ADC supports the establishment of a European-African Partnership for Infrastructure and Networks as an important component of the EU Africa strategy. Transnational energy projects (particularly hydropower) play an important role in this respect. The global energy initiative (EUEI) and water initiative (EUWI) will align their activities related to Africa to the activities of the partnership.

7.3 Cooperation with multilateral organisations

In the last few years Austria has supported efforts by UNIDO to adapt its (former) industrial energy mandate to the new circumstances. It regularly supports the work of the UNIDO cleaner production centres, which play an important role in increasing energy efficiency. Austria has worked with UNDP since the start of international negotiating processes on energy and sustainable development, amongst other

³ Council conclusions on Energy and Development, General Affairs and External Relations Council meeting – Luxembourg, 10 April 2006

things through support in the publication of the World Energy Assessment. It has contributed to the UNDP Energy Trust Fund since 2004.

ADC has decided to contribute 10 million US dollars over a four-year period to the Private Infrastructure Development Group (PIDG), an infrastructure initiative financed by the World Bank and bilateral donors (UK, S, CH, NL). The initiative also implements energy projects in ADC partner countries.

Participation in the Private Infrastructure Development Group

The Federal Ministry of Finance in close cooperation with the Federal Ministry of Agriculture, Forestry, Environment and Water Management was provided with support in the drafting of a strategic guideline for IFIs, in which the energy sector also plays an important role. The strategy provides for the following measures related to energy:

Co-development of Federal Ministry of Finance IFI strategy

- The commitments made by IFIs at the Conference for Renewable Energies in Bonn (2004) and the World Conference on Energy for Development in the Netherlands (2004) regarding greater sustainability in the energy sector and greater focus on the importance of energy in the context of the MDGs should be implemented.
- An Austrian trust fund in the African Development Bank that could offer Austrian industry start-up benefits, particularly in North Africa, should be set up.
- Optimum use should be made of the Cotonou Investment Facility under the European Investment Bank, including procurement.
- Synergies between bilateral and multilateral Austrian activities (including EUEI, GFSE, REEEP) and IFIs activities should be exploited to a maximum.
- A systematic, forward-looking personnel policy in policy areas of particular interest to Austria should be pursued.

The Federal Ministry of Finance also intends to participate in the World Bank Energy Sector Management Assistance Programme (ESMAP). It will also continue to take part in the Global Environment Facility (GEF) on the principle of fair burden sharing provided that the necessary conditions are met. Cooperation with the EBRD will also be stepped up, among other things in coordination with the current ADC strategy for Eastern Europe.

7.4 Vienna as centre of energy diplomacy

There are at least four international organisations with headquarters in Vienna that have energy mandates: the IAEA (International Atomic Energy Agency), UNIDO (United Nations Industrial Development Organization), OPEC (Organization of Petrol Exporting Countries) und IIASA (International Institute for Applied Systems Analysis). Thanks to the Austrian leadership in international energy cooperation described early it has also been possible to establish one of the largest energy partnerships (created after the World Summit on Sustainable Development in Johannesburg) in Vienna, namely REEEP (Renewable Energy and Energy Efficiency Partnership).

IAEA, UNIDO, OPEC, IIASA, REEEP

In accordance with the agreement signed on 25 October 2005 in Athens by the European Commission for the European Community and South Eastern European states establishing the Energy Community of South East Europe (ECSEE), Vienna became the headquarters of this Community. The agreement is based on an initiative in the Stability Pact and is designed to create a common European electricity and gas market.

Energy Community of South East Europe

In the interests of strengthening the position of Vienna as a headquarters location, the potential created through the concentration of organisations with energy mandates should also be used as a foreign policy tool. In this context a meeting of the Vienna-based organisations with energy mandates and partnerships was initiated in 2004 and will be continued. Various ideas such as the contribution by

Linking of organisations and partnerships



Vienna to the Global Studies Programme of the United Nations University (UNU) in the field of energy for sustainable development and the elaboration of a basic module for sustainable national energy policy design will be followed up. They will be consolidated in a joint work programme leading to joint initiatives at the international level.

7.5 Global Forum on Sustainable Energy (GFSE)

GFSE as stimulus for international dialogue

The operation of the GFSE (www.gfse.at) has made Austria into a leader in international negotiations on energy and sustainable development and strengthened Vienna's position as a centre of energy diplomacy. Through its first two meetings (2000 and 2001) it made a concrete contribution to the first global energy negotiations by the UN (CSD-9 2001) and to the World Summit on Sustainable Development (2002).

7.5.1 Global GFSE

The fifth meeting of the GFSE took place from 11 to 13 May 2005 in Vienna and made proposals for improving the dissemination of modern biomass applications in developing countries. GFSE-5 was also combined with a meeting of the major energy partnerships. The GFSE-6 on "Africa is energising itself" was held from 29 November to 1 December 2006 and was used, amongst other things, to find an informal consensus for the CSD-15 in spring 2007. Representatives of the various regional and thematic programme approaches discussed with financial engineers on options and strategies in general and especially with regard to hydropower, biofuels and CDM opportunities. Annual meetings of the GFSE are also planned in the coming years.

7.5.2 Regional GFSE (Asia, Himalayas/Hindu Kush)

The adequate provision of energy services is a particular challenge for the national governments of countries in the high mountain regions of the Himalayas/Hindu Kush. ADC has undertaken to help find optimum solutions through the exchange of experience, networking and basic studies with special allowance for the local culture and sensitive mountain ecology. The approach will make use of the GFSE as a neutral platform for meeting (the first meeting took place in November 2004 in Paro, Bhutan) and of the International Centre for Integrated Mountain Development (ICIMOD) representing a regional partnership for sustainable development of the mountain region and of specific bilateral studies. ADC believes that through direct cooperation with the countries of the Himalayas/Hindu Kush with the involvement of specific know-how from other mountain nations (e.g. Austria) synergies can be achieved and solutions found to the special energy problems of remote mountain settlements. This regional approach calls for cooperation with other EU Member States (within the EUEI) and also in particular for contact with the donor nations represented in ICIMOD.

7.5.3 Regional GFSE (Europe, Stability Pact states)

Austria has sought for several years to play an active role in political dialogue on sustainable energy development in South Eastern Europe. The main focuses are improving energy efficiency, stimulating sectoral improvements and changes in policy, capacity-building, improving sustainable energy solutions, implementing existing regional and national standards, improving communication between stakeholders and transition from the political to the practical level. GFSE and the ECSEE are important political actors in this process and the Austrian Energy Agency is also a strong partner in the field.

7.6 Co-determination of international energy architecture

At the Conference on Renewable Energies in Bonn (2004) it was decided that the follow-up would take place as part of the global policy network REN-21. The World Bank has carried out a feasibility study on a sub-network devoted to specific questions regarding the financing of renewable energy. Austria would like to be represented in the network and offers through the GFSE to mediate between the efforts to promote renewable energies in the narrower sense and the wider energy for sustainable development agenda. ADC is participating in close cooperation with the Federal Ministry for Agriculture, Forestry, Environment and Water Management in the preparation of a joint EU position for the CSD-14/15 in 2006/2007.

Active participation in major international conferences

To help clarify the increasingly complicated international energy scene, ADC is planning to develop and operate a comprehensive user-friendly communications and information system (CIS). Briefings on this CIS with energy partnerships, UN-Energy and the UN Department of Economic and Social Affairs have received a positive response.

7.7 Collaboration in international energy partnerships

Energy partnerships that started to implement the energy agenda agreed internationally at the World Summit in Johannesburg, in some cases with considerable resources, also overlap with "private sector and development" activities. There is a need to determine whether Austrian actors already involved in international energy partnerships such as the Global Village Energy Partnership (GVEP, <http://www.gvep.org>), Renewable Energy and Energy Efficiency Partnership (REEEP, <http://www.reeep.org>), Mediterranean Renewable Energy Programme (MEDREP <http://www.medrep.info>) are in a position and/or want to implement this approach. It must also be established how synergies with other ADC development goals can be most effectively achieved.

Utilisation of synergies with energy partnerships

7.8 Application of the flexible Kyoto mechanisms

The flexible mechanisms under the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC) – Joint Implementation (JI) and Clean Development Mechanism (CDM) – make an important contribution to the spread of alternative energy forms, increasing energy efficiency and developing general energy capacities.

Utilisation of JI and CDM potential in Bhutan and Ethiopia

CDM permits industrialised countries committed to reduce greenhouse gases to fulfil some of their commitments by financing emission reduction projects in developing countries and receiving Certified Emission Reduction (CER) certificates in this way. The flexible mechanisms are based on the principle that it is cheaper for industrialised countries to implement global emission reduction measures in developing and transition countries so as to achieve their emission goals.

In Austria the Ministry of Agriculture, Forestry, Environment and Water Management is responsible for implementing the Framework Convention on Climate Change and the Kyoto Protocol. As CDM is also intended to contribute to sustainable development in the host country, the Federal Ministry for Foreign Affairs ensures in negotiations that CDM and JI projects comply with development policy quality criteria.

According to the UNFCCC Marrakech Accords and the respective OECD DAC decisions, there are several points that need to be strictly observed when ODA funds are used for the financing of CDM projects:



- ADC is entitled to participate in CDM investments as the net investments can be credited as ODA. However, the value of the certificates generated through the projects is deducted again, which can under certain circumstances result in negative ODA..
- CDM investments must be “new and additional” and are inadmissible under the CDM if the projects are financed from existing budget lines without special earmarking for CDM purposes (which would result in a diversion of ODA funds).
- CDM projects must also comply with the principle of additionality. A project is only eligible as CDM project if for cost reasons it could not have been implemented without the gains from the CER certificates.

There are only a few ADC projects at present with CDM potential. ADC projects are usually relatively small or else the energy component is often only one aspect of a larger integrated project. Because of the regional focus of ADC it is also difficult to combine several projects. Hence, there are only a small number of certificates potentially obtainable. The high costs for the validation as CDM project could exceed the total revenue of the certificates.

Capacity-building and advice to partner countries

ADC scope for intervention thus applies less to the implementation of CDM projects than to helping to improve the basis in partner countries for implementing CDM projects. This includes support for partner countries in the development of institutions and regulations required for the management of CDM projects and capacity-building and training of partners to identify and implement such projects.

8. Coherence

Increased cooperation with actors within Austria

The Federal Ministry of Economics and Labour, the Federal Ministry of Agriculture, Forestry, Environment and Water Management, the Federal Ministry of Finance and the Federal Ministry of Transport, Innovation and Technology have responsibility for energy matters at the federal level in Austria. The subject of energy is included increasingly in discussion on sustainability and international cooperation by the provinces and communities. ADC therefore cultivates the exchange of information with all other Austrian actors and processes (such as the Austrian Sustainability Strategy and the Austrian JI/CDM programme) and seeks possibilities for cooperation.

Harmonisation and alignment

The implementation of the Paris Declaration on Aid Effectiveness in cooperation with partner countries and other donors in the energy sector will be an important task in the future. To this end ADC supports appropriate initiatives (EUEI, infrastructure partnership – see chapter 7) at the international level (EU, UN, etc.) and at the specific project level.

9. Sources

- Beijing Declaration, Beijing International Renewable Energy Conference, 2005, <http://www.birec2005.cn/>
- Commission for Africa, Our common interest. The Report of the Commission for Africa, 2005
- Commission for Sustainable Development, CSD-14, Chairman's Summary, 2006
- Conference on Energy for Development, Conclusions of the Chair, Netherlands 2004, <http://www.energyfordevelopment.org/>
- DAC Task Team on Infrastructure for Poverty Reduction (InfraPoor), Christopher Willoughby, Background Paper for the DAC InfraPoor task team, 2004
- DAC Task Team on Infrastructure for Poverty Reduction (InfraPoor), Guiding Principles on infrastructure for Poverty Reduction, draft report, December 2005
- DAC Task Team on Infrastructure for Poverty Reduction (InfraPoor), Draft – Energy Report for DAC Network on Poverty Reduction, 2nd Workshop, 2004
- DANIDA, Energy. DANIDA Sector Policies, 2004
- DFID – Department for International Development, Energy for the Poor. Underpinning the Millennium Development Goals, 2002
- EU Council Conclusion on Energy and Development, Luxembourg, 10 April 2006
- European Commission, Communication from the Commission to the Council and the European Parliament. Communication on the future development of the EU Energy Initiative and the modalities for the establishment of an Energy Facility for ACP countries, 2005
- G8-Summit, The Gleneagles Communiqué. Climate Change, Energy and Sustainable Development, 2005
- GTZ, Schlüsselfaktor Energy. Deutsche technische Zusammenarbeit: Partner auf dem Weg zu einer nachhaltigen Energieversorgung, 2002
- Intergovernmental Panel on Climate Change (IPCC), 3rd Assessment Report, 2001
- International Conference on Renewable Energies in Bonn, Political Statement, 2004
- International Conference on Renewable Energies in Bonn in Bonn, Conference Issue Paper, 2004, <http://www.renewables2004.de/>
- International Energy Agency (IEA), World Energy Outlook 2004, 2004
- International Energy Agency (IEA), World Energy Outlook 2002, 2002
- Millennium Ecosystem Assessment, 2005
- Paris Declaration on Aid Effectiveness, High Level Forum, 28 February to 2 March 2005
- Sachs, Jeffrey D., UN Millennium Project. Report to the United Nations Secretary-General. A Practical Plan to Achieve the Millennium Development Goals, 2005
- SIDA, Developing a new SIDA Energy Policy. Consultations with our Partners – Workshop Report, 2005
- SIDA, SIDA's Assistance to a Sustainable Energy Sector, April 1996
- UNDP, Reducing Rural Poverty through Increased Access to Energy Services: A Review of the Multifunctional Platform Project in Mali, 2005
- UNDP, WEC, World Energy Assessment. Energy and the challenge of sustainability, 2000



UNDP, WEC, World Energy Assessment. Energy and the challenge of sustainability, overview 2004 update

UN-Energy, The Energy Challenge for Achieving the Millennium Development Goals, 2005

WHO, The World Health Report 2002: Reducing Risks, Promoting Healthy Life, 2002

World Bank, Energy and Poverty: Myths, Links, and Policy Issues. Energy Working Notes, May 2004

World Bank, The World Bank Group's Energy Programme. Poverty Reduction, Sustainability and Selectivity, 2001