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**INTERNATIONAL RENEWABLE ENERGY AGENCY** Fourth Meeting of the Council Abu Dhabi, 12 – 13 November 2012

# **Report of the Director-General on the Implementation of the**

# Work Programme and Budget for 2012

- 1. The Annual Report of the Director-General for 2012 on the activities of the Agency has been prepared in accordance with Article XI.E.3 of the IRENA Statute.
- 2. It provides an account of the progress made to date in the implementation of the Programme of Work and Budget for 2012 and outlines the plans for the rest of 2012. It also provides information on the human and financial resources of the Agency.

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### Introduction

- 1. This report is being submitted pursuant to Article XI/E.3 of the IRENA Statute. It provides an account of the progress made in the implementation of the Programme of Work and Budget for 2012 and information on the human and financial resources of the Agency.
- 2. The 2012 Programme of Work marked the first full cycle of IRENA's work dedicated to implementation, with most of the foundational work, management and administrative support already in place. It was also a year of reflection on the achievements to date and the areas for future improvement. Visible progress has been made in positioning the Agency globally as a key player in the world of renewables and in the broader context of sustainable development. IRENA has become a constant and vocal contributor in many fora, and 2012 as the International Year for Sustainable Energy for All provided ample opportunities to promote the role of renewables and raise the profile of the Agency and its work globally. Landmark gatherings, such as the Rio+20 Conference, or special initiatives, such as the United Nations Secretary-General's Sustainable Energy for All (SE4ALL), have been used as platforms for outreach. SE4ALL has been an important avenue to highlight the role renewables can play in the context of energy access and sustainable development. IRENA has played an active and prominent role both in shaping the SE4ALL action agenda and in making substantive contributions to priority areas, such as islands and cities,
- 3. In consonance with IRENA's growth as an institution and the diversity of its membership, the Agency's engagement has been expanding functionally and globally. Each country has specific requirements for the role that IRENA can play in accelerating the deployment of renewables. This has shaped the nature of the Agency's engagement.
- 4. IRENA's involvement with an expanding number of developed countries has evolved from building IRENA's institutions to invitations for IRENA's substantive contributions, such as at the recent European Union (EU) Informal Meeting of Energy Ministers in Cyprus, and during official visits to France, Germany and the United Kingdom.
- 5. A multi-faceted approach to IRENA's work includes action at both global and local levels, with a variety of stakeholders and a range of settings, especially in developing countries. Some of the activities have already become trademarks of the Agency and are increasingly being sought after by stakeholders. For example, Renewables Readiness Assessments (RRAs), a country-led process that is supported by IRENA, are becoming an important tool to set the stage for concerted country action, resulting in tangible outcomes. In Senegal, two

decrees to strengthen the implementation of the renewable energy law adopted in 2010 have been passed since an RRA was undertaken. In Mozambique, a strategy for more efficient use of its hydro potential has been put in place, while in Grenada the utility has started taking concrete steps to integrate MW-scale solar power into the grid.

- 6. The Global Renewable Energy Atlas initiative, coordinated by IRENA, is becoming the point of reference on wind and solar potential and gradually expanding to other renewable sources. The transparent and inclusive manner of gathering data and other relevant information has attracted the participation of governments, regional, national and international organisations and is on the way to becoming an indispensable knowledge tool for a variety of users.
- IRENA's work on examining issues, such as renewables and employment, and renewable energy cost analyses, is also creating significant interest. Records show that these publications have been downloaded from IRENA's website more than 250,000 times since having been published in June 2012.
- 8. Internally, a number of documents of strategic value has been developed in the course of the year 2012, with the Medium-term Strategy as the key strategic vision. The sharpened focus and closer examination of substantive and organisational issues have established the way forward and highlighted certain areas where improvement is needed. This close examination, guided by feedback from IRENA Members, has helped to create a framework for the Agency's work in the coming years, in addition to making the necessary substantive and structural adjustments to ensure greater focus, efficiency and effectiveness.

## **Strategic Management**

- 9. Building on the foundational work of 2011, Strategic Management's focus in 2012 was on the creation of a global, inclusive, dynamic and accountable Secretariat, delivering high-level results within its means and in support of its mandate and membership.
- 10. As of 30 September 2012, a total of 101 States, as well as the EU, has ratified the IRENA Statute and deposited an instrument of ratification or accession. Over 50 additional States remain actively engaged, and many are also exploring the possibility of joining the Agency as the awareness of its work grows. Regular interaction with Members is maintained, and a number of high-level talks and participation in Members' conferences, summits and other global meetings has taken place.

- 11. At Headquarters, the Director-General held meetings with the representatives of Member States and regional groups present in Abu Dhabi to ensure a regular exchange of information and timely feedback on issues of mutual interest. Upon invitation, the Director-General has visited a number of Member countries, including France, Germany, Iceland, Japan, Kenya, Montenegro and the United Kingdom, promoting the Agency's mandate and gaining firsthand understanding of how IRENA can benefit from, and contribute to, national efforts to accelerate the deployment of renewable energy.
- 12. As part of its outreach, IRENA has been active in working with countries which have yet to deposit their instruments of ratification or apply for membership. The Director-General delivered a keynote address at the 6th Annual New Energy Forum in Beijing, China and discussed the possibilities for cooperation with both policy makers and the industry. Similar discussions were held with officials from Brazil and Russia. IRENA also participated in regional and group meetings, such as the Informal Meeting of the EU Energy Ministers in Nicosia, Cyprus, the 5th Middle East and North Africa Renewable Energy Conference (MENAREC) in Marrakech, Morocco, the 3rd Clean Energy Ministerial (CEM) in London, United Kingdom, the meeting of the Group of Twenty Finance Ministers and Central Bank Governors (G20) in Mexico, the Small Island Developing States (SIDS) Rio+20 preparatory meeting in Barbados, the Caribbean Community (CARICOM) annual meeting in St Kitts and Nevis, the Renewable Energy Conference of the Caribbean Electric Utility Service Corporation (CARILEC) in Bermuda, the Pacific Power Association (PPA) in Vanuatu and the Pacific Islands Leaders Meeting (PALM) in Okinawa, Japan. IRENA has also taken part in important regional and global events, such as the World Future Energy Summit 2012, the annual Bloomberg New Energy Finance (BNEF) meeting the Handelsblatt Annual Conference on Renewable Energy in Berlin, Germany, and the Financial Times' Global Energy Leaders' Summit in London, United Kingdom and the 3GF meeting in Copenhagen, Denmark where the Director-General facilitated the Morocco country session.
- 13. These meetings helped identify complementarities in activities and promote a spirit of cooperation with different countries, institutions and constituencies. As a result, IRENA has been called upon to assist in specific issues, such as supporting the next host of MENAREC with preparations for the meeting and increasing engagement with SIDS. In addition, IRENA has been asked to work with relevant institutions to synthesise analyses of renewable energy development and deployment policies in G8 countries.

- 14. In pursuing its mandate, the Agency realises the significance of creating, maintaining and developing strategic partnerships and relationships with national governments, regional bodies, international organisations, civil society, academia, the private sector and other stakeholders. Therefore, the Agency dedicates significant resources to this valuable work. The Agency has signed Memoranda of Understanding (MoUs) with entities, including the International Energy Agency (IEA), the Masdar Institute of Science and Technology, the New Energy and Industrial Technology Development Organisation (NEDO), the Renewable Energy Policy Network for the 21st Century (REN21), the KTH Royal Institute of Technology, the Secretariat of the Pacific Community (SPC), the Latin American Energy Organization (OLADE) and the East African Community (EAC). These MoUs formalise strategic relationships and lay the foundations for closer collaborative frameworks and working partnerships. To expand the sphere of IRENA's partnerships, the Agency is actively working to establish stronger links with the private sector. In 2012, initial consultations and interactions with private sector representatives were undertaken to assist IRENA with the development of terms of reference and the Programme of Work for the Business Advisory Council.
- 15. IRENA's contribution to the discussion on renewable energy and other related subjects is expanding through the Agency's presence and participation at events globally. The United Nations Secretary-General formed a High-Level Group to spearhead his Sustainable Energy for All (SE4ALL) initiative. IRENA's Director-General, as a member of this High-Level Group, participated in various SE4ALL events during the year, including facilitating a high-level session entitled "Sustainable Energy is Powering People and Innovation" on the margins of the United Nations General Assembly in September 2012.
- 16. On the margins of the Rio+20 Conference, IRENA held two side events, and hosted a booth for the duration of the Conference. On 19 June 2012, close to 100 people participated in the Global Atlas for Wind and Solar Energy high-level side event where several speakers hailed this initiative. On 20 June, IRENA co-hosted an event entitled "Renewing Africa's Energy Future" with the Government of Mozambique. This brought together more than 370 policy makers, including ministerial level representatives from countries across Africa, the United Arab Emirates, Brazil and international and regional organisations. A high-level panel discussion was moderated by the Director-General and included participation by Ministers from Brazil, Mozambique, South Africa, Morocco and Cape Verde. Also during the Rio+20 Conference, IRENA contributed to a number of events hosted by various countries, including Brazil, Germany, South Africa and Morocco.

- 17. In order to capture IRENA's work on Africa to date, a publication identifying key issues and trends facing renewable energy uptake in Africa will be completed by the end of 2012, with policy makers identified as the primary target audience. The Africa report will provide a comprehensive overview of relevant issues, drawing on the work of all IRENA's programmatic divisions to date. Based on the findings of several projects and studies, the report will articulate critical aspects of renewable energy deployment in Africa, including the potential for job creation and local manufacturing, renewable energy technology options and costs, the importance of resource assessments and the potential role of renewables in different sectors by 2030.
- 18. IRENA, in cooperation with the Maltese Ministry of Resources and Rural Affairs, organised a Global Islands and Renewables high-level meeting on 6-7 September in Malta. The meeting was attended by over 130 participants from 48 counties, including 15 ministers. The two-day meeting covered a wide range of issues that recognised the shared challenges and opportunities of islands globally, regardless of their geographical location or level of development. The meeting provided an opportunity for peer-to-peer exchange and networking. A number of action points from the meeting are outlined in the Malta Communiqué, including a decision to form a Global Renewables Islands Network (GREIN) to facilitate further global cooperation among islands.
- 19. Plans are in place to host an event back-to-back with the ECOWAS High-Level Forum in Accra, Ghana and to take part in the Global South-South Cooperation Meeting in Vienna, Austria and COP18 in Doha, Qatar. The Director-General gave several interviews to UAE-based and international media in 2012, including *Gulf News, Les Echos*, and *Malta Business Weekly*, the Chinese news agency Xinhua and Bloomberg TV, as well as the *European Energy Review, Utilities Middle East* and other journals and technical publications. In addition, he gave an interview to Climate Change TV at the Rio+20 Conference.
- 20. The Agency has embarked on a number of important internal initiatives, which build on experiences and progress to date. Recruitment of staff was given priority and the filling of certain key positions has made a positive impact on the ability of the Agency to implement its programmatic activities. The Deputy Director-General took up his post in September 2012, and immediately focused on improving the coordination of programmatic activities.
- 21. Measures continue to be taken to improve internal management systems and to ensure compliance with legislative requirements. The Policy on Ethics and Conflict of Interest,

adopted by the Assembly in its decision A/2/DC/7, was promulgated on 14 February 2012 by directive ST/Directive/2012/4. The Code of Conduct was revised to ensure consistency with the Policy, and subsequent amendments to the Staff Regulations adopted by the Assembly in its decision A/2/DC/8 have been promulgated by directive ST/Directive/2012/10. As a result, all staff members at the P-5 level and above are now required to submit Disclosure of Interest forms; this procedure applies as well as to other individuals who have been so advised by the Director-General. Pursuant to decision A/2/DC/7, the Director-General has also appointed an Ethics Officer and the Council appointed France, Senegal and the United States as members of the Ethics Advisory Board. Consequently, all elements of the Ethics Policy are now in place.

- 22. Pursuant to Staff Regulation 9.2, IRENA staff has initiated the establishment of a staff representative body so that staff/management relationships and interactions can be formalised. At present, a draft Constitution and draft electoral regulations are being developed by a group of volunteers. The establishment of the staff representative body is critical for the full implementation of the Staff Regulations, in particular the internal justice system. As a temporary measure, the Director-General formed an Interim Appeals Board to prevent undue delays in dealing with any appeals that may have been filed meanwhile. The Board is comprised of three members, one of whom has been nominated by the staff.
- 23. The Headquarters Agreement between the Agency and the United Arab Emirates has been finalised and was signed in a ceremony on 3 June 2012. The Agreement recognises the preparedness of the Government of the United Arab Emirates to host IRENA's Headquarters in Abu Dhabi and provides the basis for regulating relations between the Government and IRENA and facilitating the functioning of the IRENA Headquarters. The Agreement is in the process of being ratified through the country's internal processes. In parallel, IRENA is making the necessary preparations for implementation of the Agreement, once ratified, including the development of the permanent mission/representative regime. In addition, the implementation mechanisms for the Host Country Agreement between the Agency and the Federal Republic of Germany, signed on 5 April 2011, were finalised in September 2012.
- 24. With a view to enhancing the communications and cooperation between the Secretariat and the membership, especially on programmatic matters, periodic IRENA Bulletins are being disseminated. Based on the positive feedback received from countries, IRENA continues to provide these concise updates on a regular basis. The Secretariat has also initiated the creation of the e-platform, REmember (Renewable Energy Member), which will replace the current

Delegates' Area on the IRENA website, as a further avenue to facilitate communication. It is envisaged that this web-based, interactive communications and cooperation tool will increase Members' involvement in the activities of IRENA, *inter alia*, through: the creation of online workspaces for thematic discussions and collaboration; an IRENA documents and publications library; alert functions for the latest news and announcements; country-specific information; a global renewable energy events calendar; and information on membership and IRENA's governing bodies. The portal is expected to be launched in early 2013 with its features being introduced incrementally to ensure maximum user-friendliness.

- 25. The IRENA Fund for Developing Country Representatives (FDCR) was established at the second session of the Assembly for the purpose of facilitating the participation of representatives of Least Developed Countries (LDCs) and SIDS in the decision-making processes of the governing bodies of IRENA. Following the Secretariat's call for contributions, a total of US\$ 179,416, representing contributions from the United Arab Emirates (US\$ 150,000), Finland (US\$ 25,000), Madagascar (US\$ 2,616) and Iraq (US\$ 1,800), has been received to date. To enable 13 delegates representing ten countries to participate in the third meeting of the Council and the preceding committee meetings, US\$ 75,000 have already been spent. It is expected that some US\$ 100,000 could be necessary to assist the participation of eligible developing country representatives at the fourth Council meeting, and additional funds will be needed for the upcoming meeting of the Assembly.
- 26. The Secretariat has provided appropriate logistical and substantive support to the Agency's intergovernmental meetings, starting with the second session of the Assembly in January 2012, which was attended by delegations from 136 States and the European Union, including 74 Members and 63 Observer States, and representatives from 70 other entities, civil society, academia and the private sector. The Secretariat also supported two meetings of the Council and four committee meetings, as well as three meetings on Council composition, election and rotation.
- 27. IRENA's website has continued to evolve, reflecting the organisation's shift from institution building to a more systematised phase of work. While various design options continue to be tested, the existing website is being improved in response to actual search requests and to maximise IRENA's pick-up by global internet search engines.

- 28. Following the adoption of an IRENA publications policy, efforts are being made to ensure consistency in the style, messages and content of all published materials. The IRENA Newsletter, which forms part of IRENA's communications efforts, provides an accessible account of Agency activities for a wide audience. In its specialised reports, IRENA is increasingly adhering to the common standards of the publications policy.
- 29. In keeping with the growing catalogue of valuable publications, global awareness of IRENA's work needs to be raised, particularly among energy and environmental professionals. While a broad communications strategy was developed to support the implementation of the 2012 Programme of Work, actual communications output fell short of expectations because of gaps in staff capacity for much of the year. Communication activities increased in late 2012 with a view to intensive brand-building and awareness-raising within the coming year. Preparations have begun for a one-year concentrated communications project, "Voice of Renewables", expected to start in late 2012, to strengthen global awareness-raising activities in the Headquarters' host country, the United Arab Emirates.
- 30. Measures have been taken to further strengthen internal management systems. A Senior Management Group (SMG) conducts regular meetings to ensure systematic interaction among the senior managers of the Agency. Chaired by the Director-General, it includes the Deputy Director-General, divisional Directors and a small group of key senior officials. SMG meetings help ensure that information is shared and that strategic decisions affecting programmatic, managerial and administrative areas are reached in an inclusive and transparent manner.
- 31. As part of the vision of setting up a transparent, accountable, efficient and responsible functioning of the organisation, the administrative services have been streamlined and clear policies and procedures for all support functions are in place. The Director-General has promulgated a directive on delegation of authority, so as to strengthen the accountability and transparency of the processing of official tasks and financial commitments. Automation of the procedures in an Enterprise Resource Planning (ERP) application is in progress. This will change the operations of the organisation and simplify analytical reporting to support management decision making.
- 32. It is estimated that 85.98% of the total approved budget for 2012 will be utilised in 2012, with utilisation rates of 90.25% for Core Budget and 80.48% for Voluntary Contributions,

respectively US\$ 14.44 million and US\$ 9.98 million. This represents some 5% increase in the total utilisation compared to 2011, reflecting the acceleration in both the implementation of activities undertaken by IRENA in 2012 and the number of filled positions within the Agency. Overall, over 80 per cent of the assessed contributions were received to date. In stark contrast with 2011 when most of the contributions were received during the third quarter of the year, 59% of assessed contributions were received in the first four months of 2012, enabling the Secretariat to launch many activities early in the year.

## **Programme of Work**

#### a) Knowledge Management and Technology Cooperation

- 33. As part of the vision of creating a credible, authoritative and easily accessible knowledge framework that would facilitate the decision-making process of IRENA Members, the Knowledge Management and Technology Cooperation (KMTC) sub-programme continued its work of systematising global knowledge on renewable energy. As one of the initial steps, IRENA worked with a wide range of stakeholders on the development of the Knowledge Management (KM) Strategy. These discussions provided useful insights about the expectations for KM activities, as well as how to best organise, analyse and disseminate the information gathered. This feedback was taken into account during the planning for the 2013 Programme of Work and related structural issues.
- 34. Work on the assessment of renewable energy potentials continued. The Global Atlas was further developed and significant effort was made in the areas of outreach and partnerships. Twelve countries signed a Declaration of Interest to support the Atlas, and the number of countries, organisations and institutions wishing to be part of the Global Atlas effort is continually increasing. An advanced demonstration platform was put in place, together with comprehensive information on the architecture, methodology and use of the Atlas to ensure the transparency of the process. IRENA is also ensuring that the necessary legal mechanisms are in place for issues, such as intellectual property rights. Furthermore, Egypt and Morocco are being used as case studies to assess the impact of resource mapping on policy development. It is envisaged that these case studies, to be completed by the end of 2012, will provide an additional incentive for others to join the Global Atlas effort.
- 35. Based on the feedback received from countries and other stakeholders, it is evident that the Atlas is becoming an inclusive and authoritative tool, filling a gap in the assessment of

resource potentials. This platform can potentially be used for a wide range of quantitative and qualitative information. It should also include mapping of the potential for all sources of renewable energy. An initial review of possible partnerships on bioenergy, geothermal energy and hydropower data sources has been undertaken in preparation for their inclusion in the Atlas.

- 36. As part of the effort to provide reliable global renewable energy statistics, a series of renewable energy country profiles has been developed and 140 profiles will be completed by the end of 2012. These profiles are the first step in IRENA's efforts to provide comprehensive, reliable and current data on renewables globally, and have been downloaded more than 100,000 times from the IRENA website. KMTC has also developed, in cooperation with REN21, a qualitative and quantitative framework for data collection to enable tracking of renewable energy trends and efforts at the national level. This project is being piloted in a number of countries, starting with Morocco in May 2012.
- 37. IRENA is in the process of developing a framework of objective indicators to assess the progress on renewable energy deployment. A concept note, based on the consultations and discussions with experts and institutions active in the fields of statistics, energy planning, macroeconomics and renewable energy policy, is in the process of being finalised.
- 38. KMTC is also coordinating the development of the IRENA's report on Africa. It is envisaged that this publication will provide a useful reference for policy makers in Africa and also raise awareness of experiences and best practices by illustrating specific cases and examples. This publication will also assist in the dissemination of IRENA's programmatic outputs completed to date.
- 39. IRENA continues to work on the improvement and deployment of the RRA methodology. Based on the feedback received, the methodology has been further developed to ensure that the assessment captures the facts necessary to inform decision making. This refined methodology was applied in assessments in Peru (July 2012), Grenada (July 2012), Kiribati (October 2012) and Oman (October 2012). The roll-out of the RRA process at the regional level will take place before the end of 2012 in ECOWAS (i.e. Gambia, Ghana and Niger) and in SADC (i.e. Angola, Swaziland and Zambia). Furthermore, IRENA is following up on post-RRA actions in the pilot countries, Mozambique and Senegal.
- 40. The RRA is gaining momentum with many countries expressing interest in implementing the assessment process with IRENA's support. While RRAs are undertaken in countries

individually, the experience gained has a much broader impact. It has been used to refine the methodology and to ascertain commonly faced challenges, including those that may be addressed through IRENA's programmatic work. Hence, RRA outcomes were used both to improve the methodology for future implementation and to provide focus for the Agency's future programmatic priorities.

- 41. In partnership with the Global Wind Energy Council (GWEC), a thorough assessment of the policy environment required to successfully promote the development of wind power has been undertaken. A workshop on the wind sector was held in Copenhagen with the aim of developing a common understanding of the political, regulatory and economic parameters across key markets and to engage in dialogue with selected countries. A draft report assessing the policy developments in 12 major wind markets over the last two decades resulted from the workshop, which was presented at the Brazil Wind Power Conference in August 2012. The final report is under review and expected to be finalised by January 2013.
- 42. To catalyse multilateral cooperation in renewable energy technology, including in the South-South context, IRENA launched, together with the International Geothermal Association (IGA), OLADE and countries that have significant geothermal experience, an initiative to promote the development of geothermal energy in the Andean Region. Local consultants are currently undertaking a detailed assessment of the main barriers for the development of geothermal energy, which will serve as a basis for the work in 2013.
- 43. Over the past year the exact kind of practical support that IRENA can offer countries has become more evident. In the context of KMTC, the RRA process and the Global Atlas have emerged as flagship activities that are of assistance to countries and serve as catalysts for cooperation. Furthermore, the RRA process has helped crystallise priorities for IRENA's programmatic activities, including the need to provide post-RRA advisory support to assist countries to meet the needs identified during the process. Similarly, it has highlighted that the RRA process is closely related to capacity-building issues and that there is great potential for cooperation between countries and regions, and for peer-to-peer exchange. IRENA has reflected these insights in its programmatic plans for 2013.

## b) Policy Advisory and Capacity Building

44. As part of its policy analysis and development work, the PACB sub-programme has assessed critical policy issues and monitored best practices in renewable energy policy design. The aim of this work was to strengthen the ability of countries to create policy frameworks capable of

promoting the sustainable development of renewable energy with a special focus on developing countries. The results of these activities were disseminated to national and local policy makers, civil society and private sector actors through various means, including conferences, workshops and publications.

- 45. IRENA has published a policy brief, "Evaluating Policies Supporting the Deployment of Renewable Power", which summarises the common criteria and indicators for renewable energy policy evaluation. This will help policy makers and regulators to identify potential policy adjustments capable of leading to the efficient allocation of valuable economic resources. Among existing renewable energy deployment policies, tariff-based support schemes have proved to be very effective and efficient at stimulating growth. The report "Assessment of Renewable Energy Tariff-based Support Mechanisms", carried out by IRENA, looks at the evolution and current trends related to these mechanisms, while providing critical analysis of the strengths and weaknesses of each mechanism. Given the increasing adoption of auctioning schemes, the analysis specifically focuses on the experience of selected countries in implementing such policies and provides guidelines for policy makers.
- 46. Carbon financing can play a critical role in enabling the financial feasibility of renewable energy projects, and Nationally Appropriate Mitigation Actions (NAMAs) can serve as a means to channel carbon finance into developing countries. However, implementing a renewable energy NAMA can be challenging due to issues ranging from basic conceptual understanding to actual execution. In order to assist countries to deal with these challenges, IRENA is in the process of finalising a "Handbook on NAMAs for Renewable Energy" that will elaborate the key considerations in developing NAMAs, supported by accompanying country case studies.
- 47. In order to address the increasing need for renewable energy policy advice in sustainable urban planning, IRENA is cooperating with the International Council for Local Environmental Initiatives (ICLEI) to publish a report and best practice case studies that analyse the role of cities, towns and local governments in enacting renewable energy promotion policies.
- 48. IRENA has partnered with various organisations to conduct a study providing critical insight into the linkages between energy, economic planning and labour policies at national and regional levels. This study aims to analyse the socio-economic impact of renewable energy

deployment and the effect of cross-cutting policies beyond pure deployment support policies on the renewable energy sector, such as labour market policy and industrial policy. The study showcases best practices and provides concrete policy recommendations and guidelines facilitating the development of a domestic renewable energy sector. In addition, IRENA's working paper "Renewable Energy Jobs: Status, Prospects and Policies" analyses renewable energy jobs in biofuels and grid-connected electricity generation and highlights the policy frameworks that enhance employment benefits. The report, "Renewable Energy Jobs and Access", extends this analysis to cover off-grid applications. Drawing its conclusions from 12 first-hand case studies, it is among the first efforts to delve into the topic of job creation in the context of rural energy access, and has been downloaded more than 120,000 times from the IRENA website since its launch in June.

- 49. IRENA is committed to contributing to the objective of ensuring universal access to modern energy services. To achieve this important and urgent goal, it is necessary to create conditions that allow effective contributions from the private sector. In 2011, IRENA organised a workshop in Bangalore, India on access to energy to address the main challenges of rural electrification. Taking into consideration the issues raised during the Bangalore workshop, as well as the fundamental role of off-grid technologies in providing access to electricity in rural areas, IRENA is organising the first International Off-grid Renewable Energy Conference (Accra, Ghana, 1-2 November 2012). The Conference focuses on the scaling-up of rural electrification in developing countries through the substantial deployment of mini-grid and stand-alone applications based on renewable energy. The event aims to stimulate the dialogue among stakeholders involved in the field of rural electrification, in particular between the public and the private sector. The Conference is organised in cooperation with the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) and the Alliance for Rural Electrification (ARE) and is an official contribution to the International Year of Sustainable Energy for All.
- 50. IRENA has undertaken an in-depth analysis of financial flows and mechanisms for renewable energy in developing countries. The report, "Financial Mechanisms and Investment Frameworks for Renewable Energy in Developing Countries", provides up-to-date analysis and insights into the size, source and recent trends in investments and highlights best practices for larger- and small-scale financing of renewable energy projects in developing countries. The report draws on data and analyses of the local renewable energy finance context in different countries, including Brazil, Mexico, India, Thailand, Egypt and South Africa.

- 51. In order to provide accurate and up-to-date information on national renewable energy policies to governments, private investors, academia, international organisations and civil society, IRENA and the IEA have been working on a joint policy database. This effort will extend the geographical scope of the existing IEA Global Energy Policies and Measures Database to include data from all IRENA Members and Signatories. This database will be updated twice per year through the national focal points. It will allow the Members to share ideas on policy schemes and provide a comprehensive policy data source to feed analytical work. Moreover, it will facilitate renewable energy project investors, businesses and financiers in making their investment decisions.
- 52. During 2012, IRENA has consulted with Members and other stakeholders to define a strategic framework for capacity building for the medium term. During these consultations, as well as through the RRA process, IRENA has identified priority areas for intervention and modes of implementation, which can assist Members in building their institutional capacities for renewable energy deployment. Three critical gaps were identified: a single source for capacity-building information, a tailored methodology for capacity needs assessments and the need to facilitate and increase access to renewable energy education and training.
- 53. Implementation of renewable energy promotion policies and technologies lags behind in many countries, as a variety of technical and non-technical barriers hamper deployment. To support governments and practitioners in addressing some of the issues related to capacity in the context of renewable energy, IRENA has developed an assessment methodology to help determine capacity assets and needs of a country or organisation. The Capacity Diagnostics for the Renewable Energy Sector (CaDRE) methodology provides modular guidelines and tools, allowing countries to choose and apply the method best suited to their conditions and the assessment they wish to undertake.
- 54. In 2011, IRENA started a comprehensive consultative process with Africa and the Pacific Region. These consultations were followed by a technical exchange with various stakeholders in the Economic Community of West African States (ECOWAS) and the Pacific Region. Both regions are targeting the increased deployment of renewable energy to achieve their respective development goals but are facing specific skills and capacity challenges. In the course of 2012, IRENA and its regional partners developed two proposals for implementation of regional capacity-building initiatives. The "Promoting a Sustainable Market for Photovoltaic Systems in the ECOWAS Region" (ProSPER) initiative aims to support the development of a self-sustaining solar photovoltaic (PV) market in the ECOWAS Region

through training for government officials, regulators, utilities, financing institutions, entrepreneurs, training institutions and universities, as well as the development of tools. The Pacific Small Island Developing States (PSIDS) initiative aims to strengthen policy design and implementation capacities among policy makers, regulators and utilities. In addition, a market-oriented survey that includes the private sector and higher educational institutions is being carried out to identify actions that will lead to improved skills delivery to the private sector and strengthen the hub and advisory functions of the University of the South Pacific in renewable energy education and research. Both initiatives are multi-year in nature and will be implemented over the course of two years (i.e. until 2014).

- 55. The IRENA Renewable Energy Partnership (IRELP) was developed as on online educational resource to meet the growing worldwide demand for skilled renewable energy personnel and to raise the awareness of, and accessibility to, readily available renewable energy education and training. At present, IRELP's database contains a total of 688 up-to-date global renewable energy courses and workshops, four training manuals and 146 webinars. IRELP is being updated on a regular basis in cooperation with a number of partners. IRELP is accessible at www.irelp.org.
- 56. In an effort to promote human capital development, especially within developing countries, 20 highly accomplished applicants were awarded IRENA scholarships at the Abu Dhabibased Masdar Institute of Science and Technology (MIST) with the generous support of the Government of the United Arab Emirates. The ongoing activities within this programme include maintaining contacts and working relationships with MIST, communications related to the programme and continued implementation of the IRENA Lecture Programme.
- 57. IRENA is also preparing the modalities for the handling of project proposals from the Abu Dhabi Fund for Development (ADFD) for renewable energy projects in developing countries. IRENA is providing the required assistance during the project submission and selection process.

#### c) IRENA Innovation and Technology Centre

58. In order to assist governments in their efforts to develop efficient and effective renewable energy technologies and innovation strategies, IRENA developed scenarios and strategies with the aim of transforming technical and economic data on energy systems into policy-relevant information for decision makers. Comprehensive energy scenarios have been developed to help countries prioritize their actions, raising considerable public interest. With

over 21,000 downloads, the "Prospects for the African Power Sector" was the most downloaded publication on the IRENA website in August 2012.

- 59. Efforts so far have been focused on eastern, southern and western Africa and the work has resulted in the creation of strategic partnerships. As a result, ECREEE has requested a roll-out of power pool study and tools. Together with the EU Energy Initiative Partnership Dialogue Facility (EUEI PDF), IRENA is looking into additional dissemination opportunities in Africa. In addition, other multilateral organisations, such as the World Bank, have requested use of IRENA's modelling methodology.
- 60. Significant efforts have been made to advance IRENA's island-related work. As part of the scenario and strategy activities in the Pacific, a regional database of diesel generators has been established and the technical potential to operate these generators under partial and variable load has been assessed. A software package for power system simulation has been acquired and pilot assessments of the feasibility of operating Pacific Island power systems with high shares of variable renewables are underway. Experience gained in these pilot projects will be used to expand the work on dynamic modelling of grids to other locations and regions.
- 61. A report focusing on the role of electricity storage for island power was released during the SIDS meeting in Barbados in May 2012. The report, developed at the request of Island States, analyses the role that electricity storage can play in meeting the challenges of variable electricity demand and supply associated with renewable energy. It also assesses smaller systems suitable for use with remote electricity systems and islands with a special focus on developing countries. Furthermore, a workshop on Renewable Energy for Pacific Islands was held in cooperation with the Government of Japan in Okinawa in May 2012. The workshop discussed technology solutions aimed at addressing specific challenges facing the Pacific Islands with the focus on grid stability and renewable energy use in transportation. These discussions resulted in recommendations and action plans for possible technology solutions to accelerate renewable energy deployment in Pacific Islands. Three countries have already asked for assistance with their dynamic grid assessments and one country is considering applying IRENA methodology in undertaking its assessment.
- 62. As part of efforts to strengthen technology and innovation strategies, IRENA has undertaken considerable work in the development of technology roadmaps. In the context of the SE4ALL initiative, IRENA has begun the development of a Global Renewable Energy Roadmap

(REMAP 2030). The aim of REMAP 2030 is to operationalise a number of different pathways through which renewable energy and enabling technologies can contribute to the achievement of the SE4ALL objectives of universal access to modern energy services by 2030, increasing the rate of energy efficiency and doubling the share of renewables in the global energy mix. A draft roadmap will be presented to the IRENA Assembly and is being discussed with stakeholders to provide a basis for refinement in the coming year.

- 63. In addition, two sectoral roadmaps are being finalised, which will be used to inform REMAP 2030. Based on stakeholder discussions and workshops, a technology roadmap for manufacturing has been created with the aim of identifying potential opportunities and barriers to renewables in the manufacturing industry. Also, a technology roadmap on renewables deployment in cities explores opportunities and barriers for renewables in urban settings.
- 64. In cooperation with IEA/RETD, IRENA held an annual expert workshop to assess how changing factors and trends in the global energy industry affect the prospects for renewables. This expert gathering helped formulate new challenges and opportunities and assisted policy makers in devising strategies to accelerate the deployment of renewables.
- 65. A report on technology dissemination between Asia, Brazil and Africa is being finalised to help translate renewable energy potential and strategies into a framework for technology funding. It is envisaged that this work will help formulate strategic advice and recommendations to address key barriers and driving forces for the deployment of technology applications and diffusion.
- 66. In cooperation with IEA/ETSAP, IRENA has made the first contribution to its technology repository with a set of technology briefs that contain concise, policy-relevant and objective information on best practices and renewable energy technology solutions. The topics covered by the briefs include electricity storage, thermal storage, renewables for desalination, liquid biofuels, bio-ethylene, bio-methanol, biomass for co-firing and heat pumps. These briefs assist policy makers in the development of renewable energy strategies and in the evaluation of related project proposals.
- 67. Renewable energy costs are critical to investment decisions and the accelerated deployment of renewables. In order to facilitate a better understanding of costs and the potential for cost reductions through technology development and market deployment, IRENA has published five studies that analyse the cost and performance of key renewable power generation

technologies: wind power, solar photovoltaic (PV), concentrating solar power (CSP), hydropower and biomass for power generation. The database now has over 5,000 separate projects from a variety of sources, but collecting verified, real ex-post project cost data remains extremely challenging and will be the focus of cost data collected from countries in the future. Since the official launch of the five cost analysis studies in June, more than 120,000 viewers have downloaded them from the IRENA website.

- 68. Existing information on best practices for project development and project financing has been analysed and consolidated in the course of 2012, with a view to developing a set of guidelines that would assist in project development. The initial findings were discussed with a range of stakeholders, including project developers and financing institutions. IRENA has received positive feedback on its efforts to assist in the development of a bankable renewable energy project and to highlight the existing financing opportunities. The work on project development guidelines and related tools will continue in the coming year.
- 69. A number of activities has been undertaken to support countries in their strategies for stimulating innovation and increasing renewable energy technologies deployment. As a first step, an assessment of renewable energy innovation policies was conducted and discussed in a workshop with policy makers and other stakeholders. The outcome of this work will form the basis for IRENA's future activities in this area. A similar process has taken place in the context of technical standards.
- 70. In 2012, IRENA carried out an initial study on the potential for local renewable energy equipment manufacturing in Africa. The study was discussed with a wide range of stakeholders, including the private sector, the United Nations Economic Commission for Africa (ECA), the African Development Bank (AfDB) and the Africa-EU Renewable Energy Cooperation Programme (RECP). This consultation process underlined the urgent need to address the issue of low-level capacity in Africa for local content in the renewable energy technologies deployment chain. In this regard, IRENA, in collaboration with RECP and the South African Wind Energy Association (SAWEA), will contribute to the local content discussions at the SAWEA WINDABA conference. These discussions and the IRENA study will provide a framework for continued partnerships on the local content issue in 2013 and will help IRENA and its partners to identify and develop strategies to boost local content in various renewable technologies in Africa.

- 71. Furthermore, IRENA is in the process of finalising an assessment of the existing work on the environmental impact of renewable energy solutions. The data are being analysed to provide an overview of environmental impacts, recommended data sources and gaps in knowledge.
- 72. IRENA has engaged in an analysis of the key needs and gaps in the field of standardisation. This analysis has triggered considerable interest from a variety of stakeholders, resulting in the establishment of a collaborative network that includes relevant international standards development organisations, such as the International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC), as well as standards users, including industrial associations and manufacturers. In October 2012, IRENA hosted the network meeting for the first time in Bonn, Germany defining concrete actions to address the priority needs concerning renewable energy standards, testing and certification.
- 73. Within the framework of the Pacific Renewable Energy Roadmap, IRENA is facilitating a series of expert meetings in the Pacific Islands with the aim of overcoming the issue of non-harmonised standards for PV systems by deploying harmonised technical guidelines across the region. They will also be used to obtain feedback from island countries on specific opportunities and barriers to be considered in the development of a regional roadmap.
- 74. Progress has been made in the development of a patent platform to make patent information easily accessible to Members. A concept on the patent platform is being developed in collaboration with the World Intellectual Property Organization (WIPO) and the European Patent Office (EPO). This tool helps policy makers assess technology trends and potential investment options for renewable energy technologies. In order to disseminate this information and gather feedback, IRENA organised two workshops, with an additional one to be held before the end of 2012. Following the workshop in May, the United Nations Framework Convention on Climate Change (UNFCCC) Technology Committee requested IRENA's assistance in the assessment of intellectual property rights (IPR) issues and policies related to the renewable energy technology.
- 75. IRENA, in cooperation with the Government of Malta, convened a global gathering to discuss the deployment of renewables on islands. The participants resolved to build on the outcome of the Rio+20 Conference on Sustainable Development through increased use of renewable sources and technologies to strengthen energy security, generate employment and boost social and economic well-being. The communiqué adopted at the meeting reiterated islands'

"commitment to accelerated deployment of renewables" and outlined the way forward for cooperation among islands globally and with IRENA.

#### d) Administration and Management Services

- 76. In 2012, Administration and Management Services (AMS) continued its work in ensuring the delivery of concerted support services for the Agency's substantive activities. The Design and Documentation of Business Policies and Procedures project was completed to ensure efficient, transparent and accountable functioning of Human Resources, Finance, Procurement and Travel. All policies, procedures and related forms have been made available to all staff on IRENA's intranet, REsource, and relevant staff was provided with training to ensure proper application and accountability.
- 77. As part of a comprehensive review and rationalisation of administrative processes in the Agency, the Director-General promulgated the Delegation of Authority Manual. The Manual defines the principles under which authority is delegated to Secretariat officials and ensures accountability at all levels. This effort will be systematised by the deployment of the ERP system, which will automate the policies and processes of Human Resources, Finance, Procurement and Travel. At present, the ERP is being implemented with the design of applications and training of staff.
- 78. Recruitment of staff remains a priority, and a number of positions have already been filled. Out of the total of 72 approved posts, 67 are currently either filled or under active recruitment. In addition, there are four seconded staff and staff on loan in IRENA, three seconded from the United Arab Emirates and one on loan from Japan. The number of applications received in response to the advertisement of positions within the Agency indicated continuing interest in employment. In 2012, the average number of applicants per vacancy announcement increased by over 60% compared to 2011. To ensure a transparent process and selection of the best candidates for the vacant positions, candidates are being assessed through a standardised process involving a panel of staff members at appropriate levels. All recommendations are reviewed and approved by the Director-General before the final selection and appointments are made. The Agency is also in the process of establishing an internship and young professionals programme to enable young and upcoming professionals to gain experience in IRENA.
- 79. Work is ongoing in preparation for IRENA's permanent Headquarters offices at the new complex in Masdar City. Office space and ICT requirements have been appraised and the

schematic design process has been completed, reflecting the needs of IRENA as an international organisation. It is envisaged that the construction of the complex will commence in the coming months, with the move to take place at the end of 2013. Meanwhile, conference facilities have been created on the fifth floor of the current IRENA premises. These facilities can accommodate up to 80 participants, ensuring cost-effective and simplified arrangements for larger meetings.

- 80. Pursuant to decision A/1/DC/2 of 4 April 2011 on the Transfer of Assets and Liabilities from the Preparatory Commission to the International Renewable Energy Agency, the liquidation of the Preparatory Commission was formally completed in March 2012. The audited closing balances of the Preparatory Commission served as a basis for establishing the opening balances of all assets and liabilities of the Agency, effective 6 April 2011. IRENA's financial statements for the year 2011 were also audited in May 2012. The findings of both audit reports were positive and, together with the respective financial statements, will be made available to Members for their consideration at the third Assembly.
- 81. Pursuant to Staff Regulation 2.9, the Staff Performance Appraisal System has been successfully implemented with timely delivery of 2011 performance appraisals and establishment of 2012 performance indicators. Furthermore, procurement of insurance services for compensation in the event of death, injury or illness attributable to the performance of official duties for the staff has been completed and will be contracted shortly. In addition, the Agency concluded a MoU with UNDP's regional office to take advantage of the medical services already in place for UN staff in the United Arab Emirates. Cooperative arrangements have been made with the UNFCCC for IRENA staff based in Bonn.
- 82. In compliance with IRENA's financial regulations, the Contracts Review Committee (CRC) reviewed the request for contracts increasing to the value of US\$ 150,000 and provided its recommendations to the Director-General. The Procurement Office has developed a procurement plan for the Agency to ensure the coordination and cost-effectiveness of its activities across all divisions. It has also developed, and continues to maintain, a database of national and international vendors. In order to ensure transparency and competitiveness, procurement opportunities were posted on IRENA's website and the United Nations Global Market (UNGM) to procure services and equipment and to enter into Long-Term Agreements where appropriate.

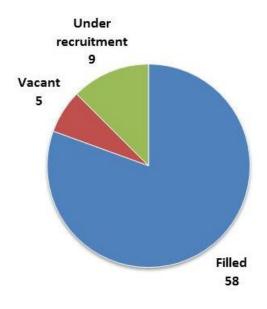
- 83. The selection of a travel agency to meet IRENA's travel needs efficiently and cost-effectively was carried out, and an in-house travel agent was engaged in April 2012. In addition, a set of travel-related procedures for official travel, such as DSAs and travel routes, was established to ensure consistency and best value for money. Monthly reports on travel are issued to ensure that programme managers are informed of the expenditures in this respect.
- 84. Strategic enhancement in Network and Security Infrastructure was made in order to improve the reliability of IT services, secure the connectivity to IRENA's remote offices and increase the capability to achieve the work programme targets and objectives. Additionally, progress was made in the creation of the REmember portal, which is being established as an interactive web platform for IRENA Members.
- 85. In an effort to ensure compliance with the International Public Sector Accounting Standards (IPSAS), IRENA joined the UN System-wide Task Force on Accounting Standards as an observer to stay abreast of developments in this context. Furthermore, an investment policy was prepared for submission to the Assembly in compliance with Financial Regulation 9.9. The Policy established a framework for the prudent investment and management of funds.
- 86. The total approved budget of IRENA for 2012 was US\$ 28.4 million, of which US\$ 16 million was assessed through contributions from all Members; US\$ 7.9 million from the Government of the United Arab Emirates; and US\$ 4.5 million from the Government of Germany. As of 30 September 2012, US\$ 12.9 million have been received under the core budget from 57 Members, representing about 80.5% of the anticipated income through assessed contributions (including surplus from previous contributions carried over). Contributions totalling US\$ 179,416 were received from Finland, Iraq, Madagascar and the UAE towards the Fund for Developing Country Representatives.

# C/4/2

Level	Approved	Filled and Under Recruitment
ASG	1	1
D-2	1	1
D-1	4	4
P-5	17	15
P-4	7	7
P-3	20	19
P-2/1	2	2
Sub-total Professional and above	52	49
General Services	20	18
Total	72	67

Table 1: Approved and Filled / Under Recruitment Posts by Level as of 30 September 2012

Figure 1: Staffing Status as of 30 September 2012



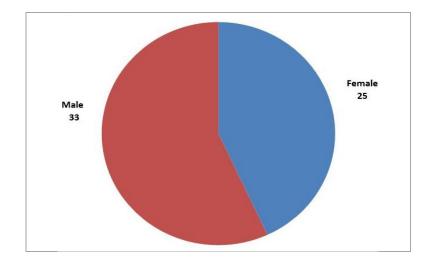
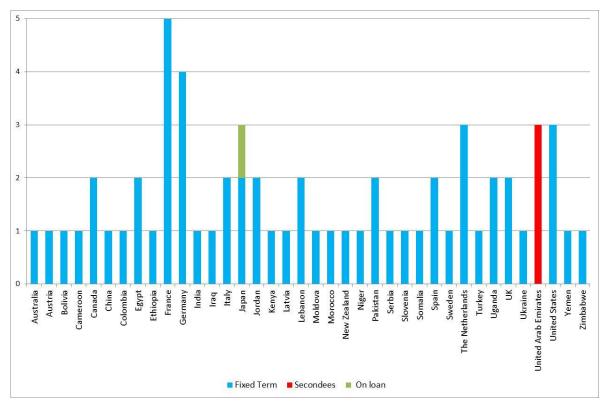


Figure 2: Gender Balance (based on filled posts) as of 30 September 2012

Figure 3: IRENA Staff Nationalities, (based on filled posts) as of 30 September 2012



IRENA Staff Members (Fixed Term, Secondees, On loan) come from 38 different nationalities.

Table 2: Seconded and Loaned Staff

Division	Title	Seconded by	Loaned by
SMED	Liaison Officer	UAE	
	Project Officer, Governing Body Support	UAE	
IITC	Project Officer		Japan
AMS	Human Resources Officer	UAE	

Table 3 (a): Components and 2012 Approved Appropriations, in thousand US\$

Component	2012 Approved Appropriation	Expenditures and Obligations	Estimated Unobligated Requirements	Total	Utilisation Rate
1. Strategic Management	5,602	3,342	645	3,987	71.16%
2. Programme of Work					
КМТС	6,157	5,523	114	5,637	91.56%
РАСВ	5,219	3,288	925	4,213	80.72%
IITC	4,000	3,716	271	3,988	99.70%
3. AMS	4,822	3,767	568	4,335	89.90%
4. Additional Voluntary Contributions					
Policy-Making Organs provided by UAE	1,600	1,259	-	1,259	78.67%
Capacity building provided by Germany and UAE <sup>1</sup>	1,000	-	1,000	1,000	100.00%
Total Voluntary	12,400	8,004	1,975	9,979	80.48%
Contributions					
Total Core Budget	16,000	12,890	1,549	14,439	90.25%
GRAND TOTAL	28,400	20,894	3,524	24,419	85.98%

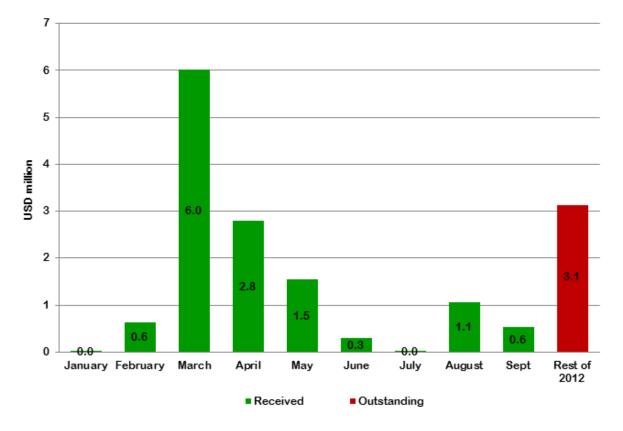
2) IRENA Initiative for Promoting the Enabling Environment for Renewable Energy Deployment in the Pacific SIDS

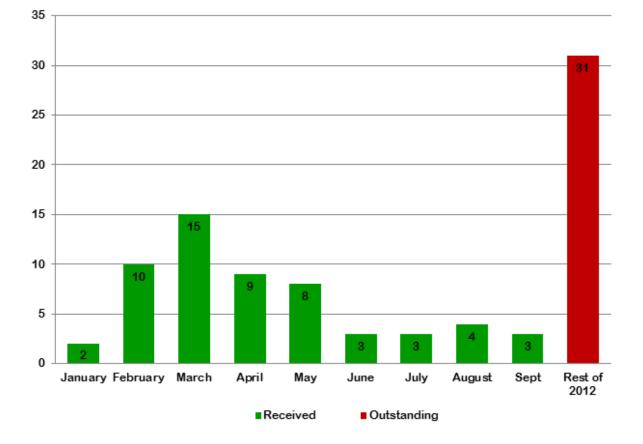
<sup>&</sup>lt;sup>1</sup> This contribution is to be applied to two multiyear projects:
1) Promoting a Sustainable Market for PV Systems in the ECOWAS Region (ProSPER)

Object of expenditure	2012 Approved	Expenditure and	Expenditure and
	Budget	Estimated	Estimated
		Obligations	<b>Obligations %</b>
Posts	9,880	8,941	90%
Other staff costs	34	30	89%
Consultants	1,417	1,895	134%
Seconded personnel	903	355	39%
Adhoc Expert Groups	1,239	1,064	86%
Travel of staff	485	465	96%
Contractual services	951	854	90%
General operating expenses	527	553	105%
Hospitality	8	8	100%
Supplies and materials	281	102	36%
Furniture and Equipment	275	171	62%
Total	16,000	14,439	90%

Table 3(b): Resource requirements by Object of expenditure, in thousand US\$

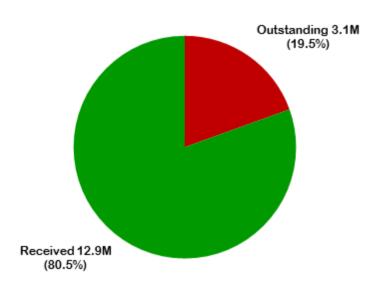
Figure 4: Value of Contributions to the 2012 Core Budget, (Amounts received and outstanding)





*Figure 5: Number of Countries Contributing to the 2012 Core Budget, (Contributions received and outstanding)* 

Figure 6: Contributions to the 2012 Core Budget by Status:



	Voluntary	Received	Received
	Contributions	<b>Contribution 2012</b>	Contribution 2012
	Commitments	(USD)	(%)
	2012 (USD)		
Germany			
Innovation and Technology	4,000,000	$4,000,000^2$	100.0%
Capacity Building	500,000	0	0.0%
Subtotal Germany	4,500,000	4,000,000	88.9%
Contributions			
UAE			
Operations	2,900,000	1,000,000	34.5%
Research	2,900,000	1,000,000	34.5%
Workshops and conferences	1,600,000	1,000,000	62.5%
Capacity Building	500,000	500,000	100.0%
Bid E-Learning	412,088	412,088	100.0%
Subtotal UAE Contributions	8,312,088	3,912,088	47.1%
Total Voluntary	12,812,088	7,912,088	47.2%
Contributions			

## Table 4: Budgeted Voluntary Contributions 2012

<sup>&</sup>lt;sup>2</sup> Out of Germany's voluntary contribution of USD 4,000,000, USD 1,866,677 is currently being processed.