

**INTERNATIONAL RENEWABLE ENERGY AGENCY**

Seventh meeting of the Council

Abu Dhabi, 2 – 3 June 2014

**Progress report for the 7<sup>th</sup> Council of IRENA**

**Report of the Director-General**

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## Introduction

1. This report provides an account of the progress the Agency has made over the past five months since the Assembly adopted IRENA's Work Programme and Budget for 2014-2015 and the activities that will take place in the coming months. Introduction of the biennial programmatic cycle marks an important change in the manner in which the Agency is implementing its mandate. It has allowed for a more strategic approach to the implementation, as well as a greater focus on the impact of the Agency's work.

2. The Work Programme is structured around a set of objectives and impacts responding to Members' needs, building upon the strengths and expertise of programmatic divisions. To support the priorities and needs of countries and regions, and to capture global trends and changes, IRENA is contributing towards the following objectives:

- Mainstreaming renewable energy options and strategies in energy plans;
- Making renewable energy knowledge accessible to all;
- Improving policy frameworks and enabling market conditions for accelerated deployment of renewable energy;
- Contributing to sustainable livelihoods through access to renewable energy;
- Transforming island energy systems through renewable energy; and
- Regional cooperation on increasing deployment of renewables, to meet growing energy demand.

3. IRENA's activities in support of these objectives are structured along six substantive thematic areas. The Work Programme for 2014-2015 sets out specific deliverables to be completed in the following areas:

- Planning for the global energy transition;
- Gateway to knowledge on renewable energy;
- Enabling investment and growth;
- Renewable energy access for sustainable livelihoods;
- Islands: lighthouses for renewable energy deployment; and
- Regional action agenda.

## Strategic Management and Executive Direction

4. IRENA's membership continues its steady growth, a testament to global recognition of the importance of the worldwide transformation to more sustainable energy systems. At the 4th session of the IRENA Assembly in January 2014, there were 125 Members of the Agency, with another 42 countries in the process of joining. Just five months later, as of 19 May 2014, six additional

countries have joined IRENA<sup>1</sup>, totaling in 131 Members and 37 countries in the different stages of the accession process.

5. This trend is also reflected in the increased number of accredited Permanent Representatives (PRs) to IRENA. In January 2014, there were two countries that had accredited PRs— the United Arab Emirates and Germany. Since, 10 additional countries have accredited PRs, bringing the total to 12. These include Egypt, Djibouti, Fiji, Sudan, Italy, Greece, Ethiopia, Cyprus, New Zealand and France<sup>2</sup>, with four additional to present their credentials early June 2014. The Permanent Representatives system facilitates Members’ engagement in the work of the Agency and is an important tool for the creation of a renewable energy community at the Agency’s headquarters in Abu Dhabi. In April 2014, the Director-General hosted an informal breakfast meeting for the PRs to discuss IRENA’s work and broader renewable energy issues of common interest. As the PR community grows, it is envisaged that these meetings will become important means to strengthening communication between the Agency and its Members, as well as among PRs in Abu Dhabi.

6. Beginning of the programmatic cycle has been marked with the heightened international focus on renewable energy. In January 2014, IRENA has been called upon to take the lead on catalyzing action on renewable energy in the context of the UN Secretary-General’s Climate Summit that will take place in September 2014. The Agency used this opportunity to advance some of its programmatic work, notably the Africa Clean Energy Corridor and deployment of renewables in the Small Island Developing States (SIDS). During the Abu Dhabi Ascent, a high-level meeting hosted by the United Arab Emirates in support of the Climate Summit, IRENA presented these initiatives and generated significant interest from a wide range of partners. In the coming months, IRENA will focus on maximizing the political momentum created by the Climate Summit to further this work and place renewables at the heart of the global agenda for action on climate change.

7. IRENA’s global role as a lead agency on renewable energy is also evident in the context of Sustainable Energy for All (SE4ALL) initiative. The Director-General, together with the Chief Executive Officer of Acciona, is co-chairing the Renewable Energy Committee of the SE4ALL Advisory Board to facilitate a focused action of this network of partners and amplify the impact of IRENA’s work. On 5 June 2014, IRENA will present to the Advisory Board the outcome of the Committee’s work in the past six months, and formally launch REmap 2030 at the SE4ALL Forum in New York. This Forum, envisaged to be an annual event in the course of the SE4All decade, will gather some 2000 participants, thus providing a unique opportunity to reach a wide-ranging audience and garner support for using REmap 2030 as a tool for doubling the global share of renewable energy.

8. IRENA is also playing a central role in the preparations for the Third International Conference on SIDS. Samoa, host of the Conference, identified renewable energy as one of the thematic priorities and has requested IRENA and New Zealand to assist in organising a one-day Renewables

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<sup>1</sup> The Bahamas, Ghana, Guyana, Trinidad and Tobago, Jamaica, and Kuwait

<sup>2</sup> In order of joining

Forum to take place immediately prior to the Conference on 30 August 2014. At present, preparations are underway to develop an action-oriented agenda that will lead to the creation of durable partnerships to accelerate the deployment of renewables in SIDS.

9. As part of its outreach, IRENA has been active in working with countries and organisations to maintain and expand the scope of the Agency's engagement. Select events include participation of the Director-General in the 15th Annual Symposium of the French Renewable Energy Association in Paris, France where he contributed to the panel on "Renewable energies: A cure to economic crisis". He used this opportunity to meet with the French Government officials to discuss cooperation with IRENA, including in the context of preparations for COP21 that will take place in Paris, France in 2015. Upon invitation of New Zealand, the Director-General participated in the New Zealand/EU High-Level Mission to the Pacific. During the visit to four Pacific Islands, including Samoa, Tuvalu, Kiribati and Cook Islands, he had an opportunity to discuss with government officials how to best meet their needs and to witness first-hand the impact of renewable energy projects on the ground. The Director-General also participated in the Clean Energy Ministerial meeting in Seoul, Korea where he moderated a Ministerial Roundtable on the socio-economic impact of RE, and launched the latest IRENA Annual Jobs Review, which generated great interest both in CEM and globally.

### *Media coverage "Renewable Energy and Jobs – Annual Review 2014"*

"Renewable Energy and Jobs – Annual Review 2014" provides a state of the art analysis of the status and trends of employment in the renewable energy sector. Within two weeks of its release on May 2014, it was widely reported on by more than 200 print and online media outlets. In addition, findings from the review went viral on social media raising public awareness of the benefits of the renewable energy sector while providing greater visibility to IRENA's work on employment.

*"With 6.5 million people directly or indirectly employed in renewable energy, the sector is proving that it is no longer a niche — it has become a significant employer worldwide."*

The Guardian, 12 May 2014

*"..en Europe, l'Agence estime que 7 000 emplois n'ont pas été pourvus en 2013 dans l'éolien et que ce chiffre « pourrait plus que doubler à 15 000 d'ici 2030 "*

Le Monde, 12 May 2014

*"The United States came in third with 625,000 renewable energy jobs. Solar, wind and biofuels accounted for most of those jobs. Wind jobs have risen as more manufacturers have moved factories to the U.S."*

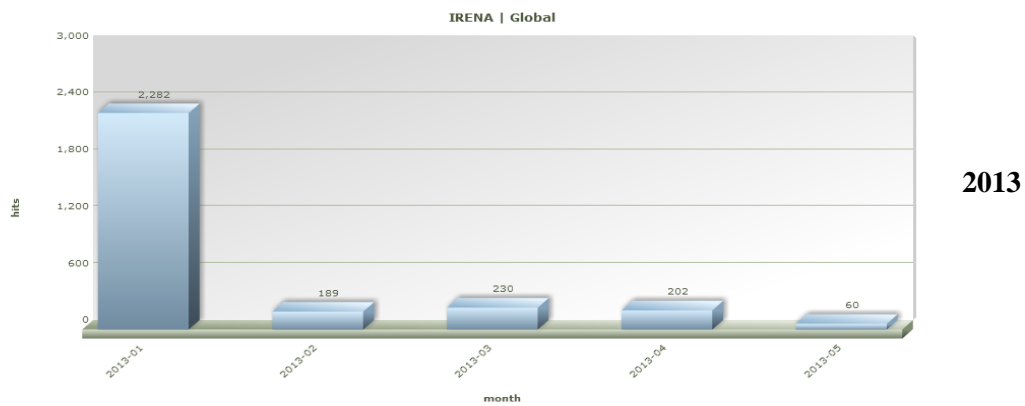
The Atlantic, 12 May 2014

*"Die Studie "Renewable Energy and Jobs – Annual Review 2014" belegt die starke Rolle der Erneuerbaren bei der Arbeitsplatzschaffung und dem wirtschaftlichen Wachstum".*

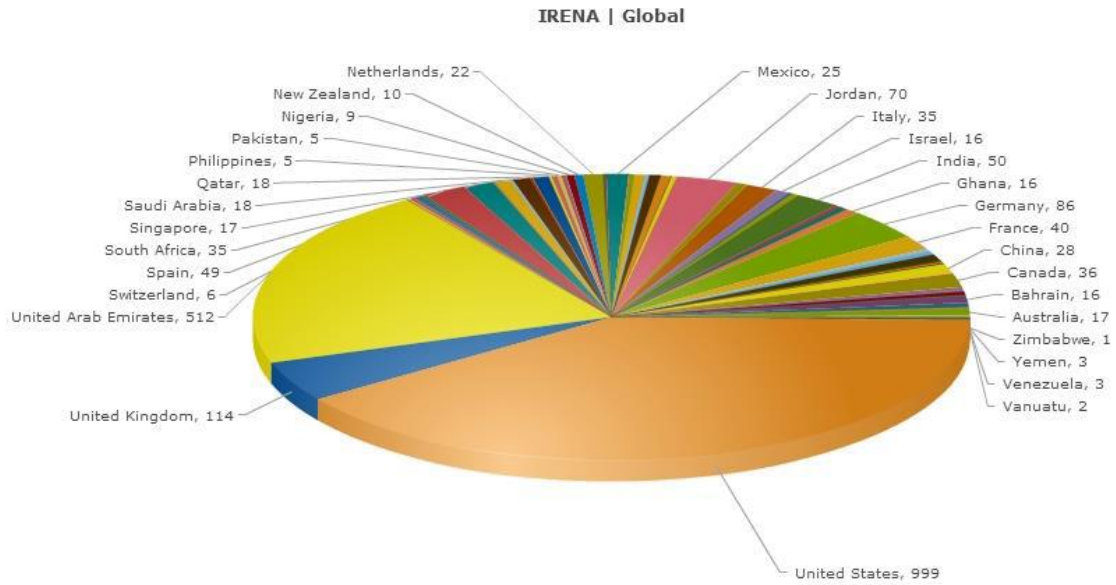
EE News Switzerland, 16 May 2014

10. In the fourth year of its existence, it is evident that IRENA’s substantive product are gaining global recognition and increased awareness. The recent IPCC report extensively used IRENA’s costing data and analyses which, together with the jobs studies, are most recognised and quoted IRENA products this year. IRENA’s global media coverage in five months only include some 2500 media news items in 92 countries, and has 175,000 followers on social media platforms. The graphs below reflect that, unlike in 2013 when a sharp decrease was seen after the Assembly and WFES period, media interest in IRENA is sustained and peaks at the time of programmatic events and release of IRENA’s substantive products.

**IRENA global media coverage January to May 2013 and 2014**



### Global media coverage January to May 2014<sup>3</sup>



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<sup>3</sup> A total of 92 countries covered IRENA in the media from January to May 2014.

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## Thematic Programme Areas

### I. Planning for the global energy transition

#### Sustainable Energy for All renewables hub

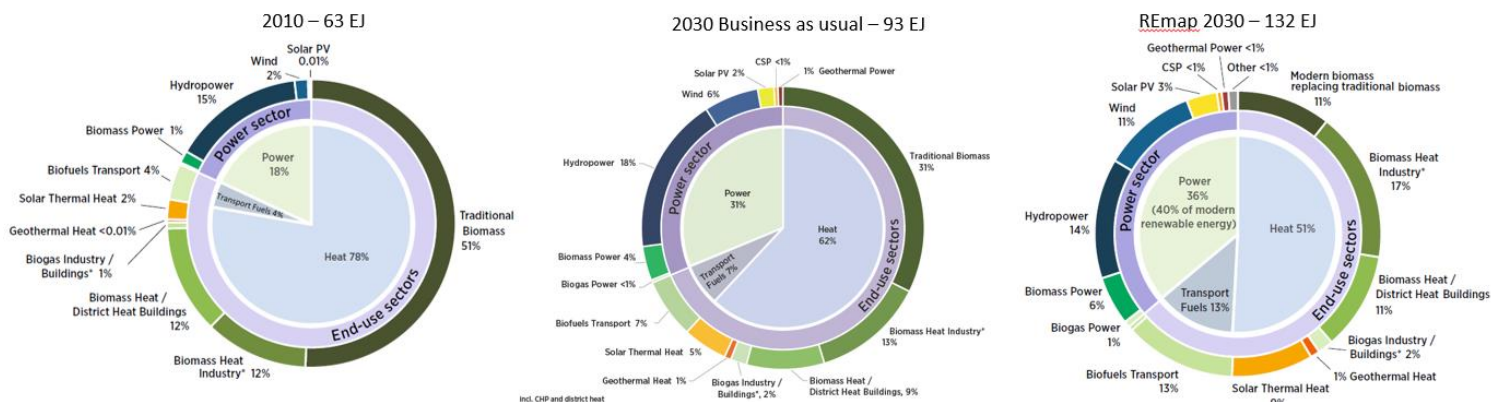
11. In recognition of the need for concerted international action to ensure a sustainable energy future, the United Nations General Assembly declared 2014 as the beginning of the International Decade for Sustainable Energy for All. IRENA is the Renewable Energy hub within the SE4ALL Initiative - a global energy partnership and campaign aimed at achieving three aspirational goals: ensuring universal access to modern energy services, to double the global rate of improvement in energy efficiency; and to double the share of renewable energy in the global energy mix by 2030.

12. In the course of the past five months, IRENA focused on refining its role as the Hub. In this context, IRENA and Acciona cohosted the SE4ALL Renewable Energy Committee meeting in Madrid, Spain, to develop a set of recommendations to the SE4ALL initiative to advance the objective of doubling the share of renewable energy in the global mix by 2030 and to initiate a set of game-changing initiatives/instruments in support of the renewables objective, which will be led/backed by the SE4ALL Advisory Board members and other partners. In recognition of the role renewable energy is playing in the work of all SE4ALL hubs, namely access, efficiency and finance, IRENA is actively engaged in their work both through the SE4ALL Global Facilitation Team and directly with hubs. In this context, IRENA participated in the development of country action plans of the Access hub, and is exploring possibilities for linking selected IRENA programmatic activities with the Finance Hub. Furthermore, IRENA continues to contribute to the Global Tracking Report aimed at mapping the progress in advancing the SE4ALL goals.

#### REmap 2030

13. IRENA continued to develop its work on the roadmap for doubling the share of renewable energy in the global energy mix by 2030. *REmap 2030 – A Renewable Energy Roadmap* report to be launched on 5 June 2014 expands on the *REmap 2030 Summary Report* released in January 2014. REmap 2030 conclusions found that not only is the doubling of the share of renewable energy by 2030 technically feasible and affordable, when accounting for externalities (climate change and human health) doubling can be achieved with cost neutrality or even cost savings in some situations. With the right energy efficiency policies and modern energy access, REmap 2030 analysis shows it is possible to reach a global renewable energy share of 36% by 2030.

14. Furthermore, REmap 2030 analysis identified the large potential for biomass, accounting for 60% of the total renewable energy use in 2030 when the potentials of all technologies identified are implemented, and demonstrates that further potential for growth in renewables shares also exists in both the power and end-use sectors. Finally, REmap 2030 analysis maintains that all countries and regions have a role to play in doubling the share of renewables in the global energy mix noting the central importance of international co-operation which encourages innovation, which can propel the global community beyond a doubling of the global renewable share by 2030.



15. REmap 2030 is expanding analysis beyond the initial 26 countries, and the work has been initiated with Egypt, Ethiopia, Kenya, Kazakhstan, Sweden and Ukraine, as well as the on-going regional analysis for South-East and South Asia, and the Latin America and the Caribbean (LAC) regions. Follow-up country reporting is ongoing with four major economies, China, Germany, India and the United States of America.

16. To facilitate the REmap 2030 process, IRENA continues to develop technology briefs to inform policy makers about markets, costs and performance and barriers. Technology briefs to be launched during IRENA’s 7<sup>th</sup> Council include a package on ocean energy, consisting of four technology briefs of tidal, wave, salinity gradient and ocean thermal energy, as well as a comprehensive report on ocean energy technology readiness level, deployment status, patents in ocean energy technologies and their market status and outlook.

*REmap 2030 and Bioenergy*

REmap 2030 analysis has shown that bioenergy is critical to a doubling of the world’s share of renewable energy by 2030. Of the 5400 terawatt hours (19EJ) of extra renewable power envisaged by 2030, 23% would yield from biomass.

In response to this need, and supported by a VC from Japan, IRENA has developed a cross-programmatic approach to bioenergy which links work on resource assessment, statistics and technology applications for different conversion pathways and capacity building.

A working paper on global resource potentials and cost supply curve is ready to be launched at IRENA’s seventh council. Furthermore, pilot field surveys have been launched in seven countries on the development of a data framework for the valorisation of biomass residues as an energy source. This work is being carried out in collaboration with the United Nations Food and Agriculture Organisation (FAO) and the Japan International Research Centre for Agricultural Science (JIRCAS) and involves the development of a tool for rapid resource assessment, techno-economic conversion pathways and technology selection. Further collaboration with the IEA and ESMAP on technology applications for bioenergy is being explored. Survey findings will be release late 2014 and the tool in 2015.



REpowering cities

17. A significant part of increasing energy demand derives from growing cities. Cities today account for 67% of the world's primary energy demand and 70% of CO<sub>2</sub> emissions. To address growing energy demand, and in response to requests from national and local policy-makers, IRENA is undertaking assessments to identify renewable energy deployment options to complement energy efficiency measures and promote a transition towards more resilient cities.

18. Building on the IRENA Roadmap for *Deployment of Renewables for Resilient Cities*, a workshop on business models for accelerating deployment of renewables in cities was held during the WFES in January 2014, bringing together 100 delegates from the private and public sector. Key local government decision makers and private sector actors discussed cost effective business models, with minimum state or public investment, for increased deployment of waste to energy (biogas and biofuels), solar thermal applications and outdoor lighting, among others.

19. Some cities expressed their interest in sharing experiences and best practices through capacity building initiatives facilitated by IRENA. In addition to capacity building initiatives, IRENA is also exploring the possibility to facilitate peer-to-peer learning and twinning between experienced and interested cities. In support of municipality's ability to continue to promote the deployment of renewables, two practitioners' guides are being developed. A *Practitioners' Guide to Wind Energy* helps municipalities understand the various approaches to the deployment of wind energy and is in the final stages of review. The *Practitioners Guide to Procuring Outdoor Lighting*, to be released later this year, is being prepared in partnership with the Global Lighting Association and the Global Off-grid Lighting Association.

Transforming Power Grid Infrastructure

20. Alongside growing energy demand is the increasing ability for renewable energy technologies to provide cost effective, viable solutions. In the last few years a number of utilities have shown that, with existing technologies, it is possible to integrate substantial amount of variable renewables. At the same time, this experience has shown that a transition to electricity systems dominated by variable renewables will require a paradigm shift in the operation, management and flexibility requirements of the grid.

21. In response to heightened demand, IRENA is developing roadmaps on renewable energy grid integration and electricity storage and in March 2014 organized two stakeholder workshops. The Workshops, organized in Abu Dhabi and Dusseldorf, brought together stakeholders from around the world to gain insights on experiences in renewable energy grid integration as well as issues affecting electricity storage. Based on input from workshop stakeholders, the roadmaps on renewable grid integration and electricity storage will identify the key areas and applications where

solutions can support the integration of variable renewables today, or provide opportunities to encourage the transition.

<i>Workshop on “Transition towards Renewable Power”</i>	<i>Workshop on “International Energy Storage Policy and Regulation”</i>
<p>On 21 January, 100 participants convened in Abu Dhabi at a World Future Energy Summit side-event to discuss regional perspectives on the role of electricity storage and other solutions for integrating renewables into existing grids and mini-grids.</p> <p>Workshop discussions provided invaluable input into IRENA’s roadmaps on grid integration and electricity storage. Issues addressed included how renewable energy grid integration studies in the United States and Germany could be applied to the Middle East, the role of interconnectors and power plant cycling for renewable energy grid integration, and the role of policy makers and the need for strategies developed at an early stage to accommodate the increasing shares of variable renewables where variable power generation shares have reached levels of over 20%.</p>	<p>On 27 March, IRENA convened a second workshop on energy storage and grid integration this time in Dusseldorf. 40 policy makers and regulators from around the world attended this international energy storage policy and regulation workshop held alongside the Energy Storage Conference – the largest conference on energy storage technologies in the world.</p> <p>Workshop output provided critical information for the development of IRENA’s electricity storage roadmap. Reflective of the wide range of technical experts present at the meeting, recommendations focused on the necessity to balance long term and short term storage systems, the need for smart grid integration storage, the commercial feasibility of technologies in the innovation pipeline and key areas for international cooperation.</p>

22. As a supporting partner for the ASEAN roadmap development, IRENA attended a workshop on variable renewable energy grid integration in Jakarta in April 2014 organized by Heads of ASEAN Utilities Association and supported by the ASEAN- Renewable Energy Support Programme. IRENA presented its grid stability assessment methodology and the Agency’s work on renewable energy grid integration was the theme of the roundtable on ASEAN’s roadmap for smart grid solutions.

### Planning with renewables

23. Renewable energy’s economic potential must be assessed in conjunction with renewable and non-renewable technology options, transmission and distribution, employment effects, carbon emissions and international trade. In its upcoming report, *Estimation of Renewable Energy Potential in Africa*, IRENA assesses Africa’s renewable energy potential based on available resources and geographical constraints. Using Global Atlas data, the analysis identifies suitable areas for different renewable energy technologies within a country, indicates the sustainability of a country’s energy source and seeks to provide a sound basis for renewable energy policy formulation.

### ASEAN Workshop

IRENA organised a regional workshop on 24 April 2014 in Kuala Lumpur, Malaysia, during the 2<sup>nd</sup> ASEAN (Association of Southeast Nations) Renewable Energy Week to explore potential collaboration among ASEAN Member States in deploying renewables. Participants included representatives from IRENA Member countries including Malaysia, Brunei, the Philippines, and Singapore, as well as those yet to become Members such as Laos, Bhutan, Myanmar, Thailand and Indonesia.

The workshop provided the opportunity to present IRENA's programmatic activities, with a special focus on those with greater relevance to the ASEAN region such as REmap 2030, off-grid rural electrification through renewable energy options and renewable energy investment. Those countries interested in further knowledge-sharing with IRENA and its partners were encouraged to deepen their ongoing engagement with the Agency.

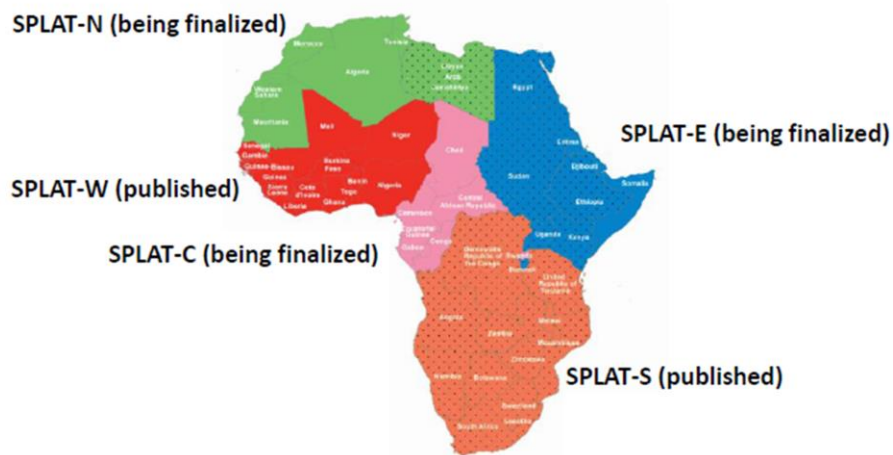
24. Analysis shows that renewable energy source potential in the five African regions (Northern, Western, Southern, Eastern, and Central Africa) is markedly different. This indicates the need for different strategies to develop resources. The analysis also highlights benefits regions can gain from improved interconnectivity and increased information exchange between the five regional power pools. The *Estimation of Renewable Energy Potential in Africa* report is currently in the final stages of review and will be released in June 2014. This work will contribute to the ongoing efforts on the Africa Clean Energy Corridor.

25. Energy planning support within the African region has also expanded through an analysis of power generation potentials for solar and wind energy resources in Africa and through the development of system planning test models (SPLAT) for Africa's five power pools: Northern, Western, Southern, Eastern, and Central Africa.

*System planning test models (SPLAT)*

SPLAT models are generation expansion planning models, which IRENA developed as long-term power sector planning tools to be made available for interested Member States in Africa. It is part of IRENA’s capacity building effort in the region to help masterplan development with the latest RE data and RE assessment methodologies. SPLAT models may be used by individual countries (continental countries only) for their own energy planning needs, and may also be used regionally to assess regional interconnections and trade within each power pool. To date, a SPLAT model has been completed for West Africa and Southern Africa. SPLAT models are in final stages of development for Central Africa, Northern Africa and East Africa.

IRENA’s SPLAT models are built on IRENA’s generation potential assessment database from the Global Atlas project and RE technology costing database, in addition to regional power infrastructures databases. The models calculate the least-cost generation expansion plans for the next 20-40 years, taking into account various operational constraints. IRENA’s SPLAT models also allow policy-makers to assess least-cost investment options in light of a specific policy goal, for example a renewable energy penetration target, import dependency, affordability, CO2 targets, or assess investment in international transmission lines on RE deployment.

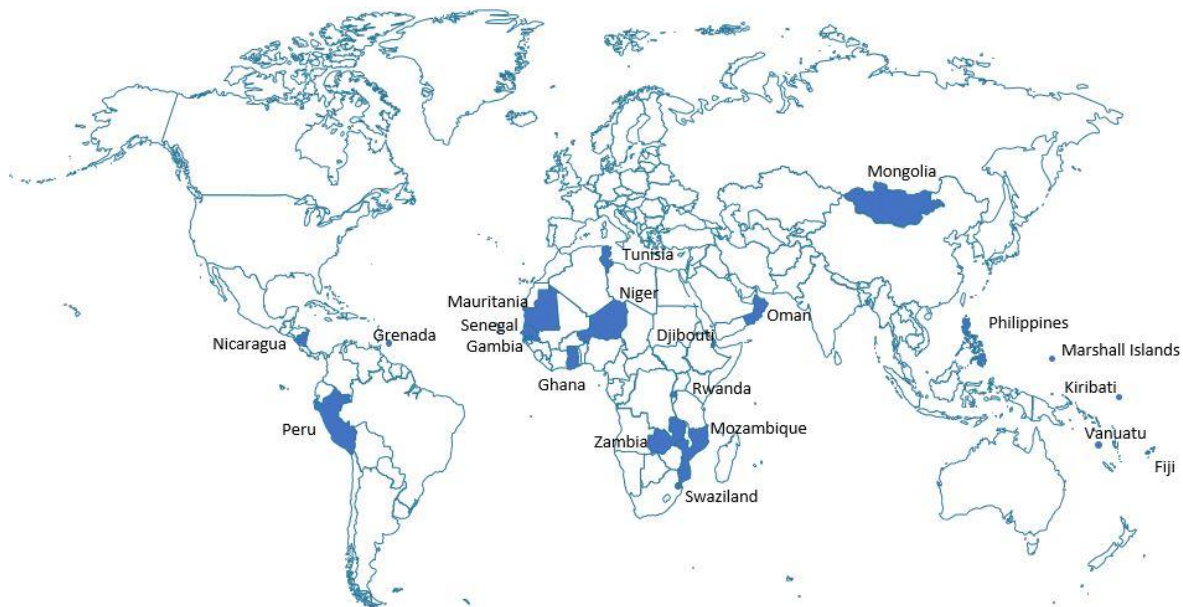


Renewables Readiness Assessment (RRA) and Advisory Services

26. Renewables Readiness Assessment (RRA) is a country-led process that evaluates key policies, potentials and technologies for renewable energy deployment and identifies the actions needed to overcome barriers to renewable energy deployment. IRENA provides technical support and expertise in the RRA process to facilitate consultations among different national stakeholders in shaping appropriate policy, technology and regulatory choices, consistent with national priorities.

27. Since 2011, IRENA has supported the RRA process in 21 countries, 19 of which are completed or progressing<sup>4</sup> and two of which are in discussion. IRENA's RRA engagement has strengthened national level cooperation and enabled the Agency to engage with the relevant entities to contextualize initiatives at a national and regional level. RRA experience has highlighted the benefit of regional market integration, a lesson embraced by many nations as they seek to further define benefits from regional initiatives and the role that they can play in them.

### IRENA RRA Activities



28. In 2014, the RRA process was completed in Fiji, Vanuatu, Djibouti and Republic of Marshall Islands. Philippines and Mauritania are at an advanced stage in the process and reports for Ghana, Mauritania, Oman, Peru, and Swaziland have been completed. In the coming months, IRENA will analyse the outcomes of RRAs undertaken to date to identify any emerging trends or replicable experiences that could be shared with a wider membership. Given the growing demand for RRAs in developing countries around the world, IRENA will also undertake an assessment of optimal approaches to expanding its RRA work, as well as the follow-up strategies.

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<sup>4</sup> Djibouti, Fiji, Gambia, Ghana, Grenada, Kiribati, Mauritania, Mongolia, Mozambique, Nicaragua, Niger, Oman, Peru, Philippines, Republic of Marshall Islands, Senegal, Swaziland, Vanuatu, Zambia.

### *Lessons from Fiji's RRA - Solar PV Hybrid mini-grid*

In support of Fiji's energy policy review aimed at scaling up the deployment of renewables, IRENA and Fiji's Department of Energy organised an RRA expert workshop in March 2014. The workshop convened around 80 stakeholders and hosted a series of interviews with representatives from relevant Government departments, the Fiji Electricity Authority and private stakeholders.

Fiji's RRA identified key opportunities to accelerate the deployment of renewables, one of which was the hybridisation of diesel mini-grids with Solar PV. Solar-diesel hybrid mini-grids in Fiji have a significant potential for rural electrification, given high fuel costs and that about two thirds of diesel mini-grids in remote areas are not operational. Fiji's RRA discovered contractual, institutional and capacity-based obstacles preventing the hybridisation of mini-grids and provided recommendations to address identified issues. The RRA process is already yielding concrete results; following the RRA workshop, adjustments to tariffs were made to incentivize a greater use of renewables.

The hybridisation of solar PV hybrid mini-grids is not unique to Fiji. Lessons from Fiji's RRA process and subsequent engagement can provide valuable insights for other countries.

## **II. Gateway to knowledge on renewable energy**

### Knowledge Gateway Platform

29. IRENA's Knowledge Gateway platform, REsource, is in the final stages of development. Once launched, the REsource platform will enable public access to all IRENA renewable energy information and data. REsource users will be granted access to query IRENA content through an intelligent search engine. Of particular note is the ability for REsource users to query statistics and costing data. This functionality will allow users to directly access global statistics and cost and performance data on any number of countries, regions, and technologies in the world today, affording the ability to deepen analysis, view and analyse trends, and make informed decisions about renewables today. In the second project phase, IRENA intends to expand REsource to become the global hub for renewable energy information and data, complementing existing renewable energy information providers. The project will enter testing phase in summer 2014.

### Renewable Statistics

30. A key component of the Knowledge Gateway are IRENA's renewables statistics. Verified, global statistics not only promote the deployment of renewables but end myths and misperceptions around costs and feasibility of integrating renewables into our energy systems. IRENA is in the

process of building the consolidated renewable energy database in the world to contain statistics on energy, capacity, and jobs. In April 2014, IRENA launched its second voluntary yearly data collection cycle with the dissemination of a revised IRENA questionnaire. The network of data focal points has been expanded to include regional entities and industry associations in an effort to provide the most up to date, current statistics. The Agency also continues to closely build on international partnerships to avoid duplication and unnecessary reporting burdens on Members.

31. IRENA is engaging with key regional partners to strengthen capacity for renewable energy statistics. The Agency initiated collaboration with the IEA and UNECA to convene key stakeholders in Africa to build institutional and technical capacities for renewable energy data collection and dissemination. The Agency is also developing a renewable energy statistics manual that will provide methodological guidance to member countries in improving their renewable energy statistics.

### Global Atlas for Renewable Energy

32. IRENA's Global Atlas is today the world's largest global database on renewable energy potentials. The Global Atlas uses a Geographic Information System (GIS) linked to a number of data centers and renewable energy resource datasets worldwide. Since January 2014, international engagement in the Global Atlas initiative has risen to 67 countries and some 50 technical institutes and data providers. A number of datasets have been included and maps created in the system referencing solar, wind, geothermal and bioenergy. Furthermore, in order to maximize the potential impact of the Atlas initiative, IRENA is evaluating the status of resource assessment in islands within the Global Renewable Energy Islands Network (GREIN) to develop business cases for funding opportunities for resource mapping in islands.

#### *Global Atlas facts*

- Over 50, 000 users of the Global Atlas website around the world, 1000 active accounts on the GIS Client, 800 maps saved, and 58 maps published
- 39 countries and over 50 international institutes were engaged in the Global Atlas initiative by December 2013
- 29 new members since January 2014
- Comprehensive solar and wind components
- Developing bioenergy and geothermal components
- Improving usability of the GIS interface
- Developing a mobile application

33. Upcoming Global Atlas developments include the development of a Global Atlas mobile application, the integration of new features in the existing GIS interface and website and the development of a capacity building module on the use of resource maps to further inform policy-making.

### True costs

34. With a world-class database of costs for over 9000 utility-scale projects and over 150,000 small-scale solar PV systems, IRENA's costing analysis is attracting increasing interest. This recognition of IRENA's work has meant that, despite the issue of data confidentiality and the legal issues involved, IRENA's Renewable Costing Alliance has already grown to 18 members since its launch in January 2014. Discussions with an additional 150 private and public organisations who have expressed interest in joining the initiative are underway.

35. This unique database and cutting-edge analysis has led to growing interest in utilising IRENA's data. As a result, IRENA is now working closely with a wide variety of government and private sector organisations, providing data and analysis to support their research, policy and decision-making. Examples include the use of IRENA costing data in the development of the IPCC Working Group III Mitigation of Climate Change. IRENA cost data and analysis input has also been provided to organisations such as the World Bank (RISE indicators); REN21 (Global Status Report); European Climate Foundation; the Political Economy Research Institute (PERI); the Australian Bureau of Resources and Energy Economics; the Climate Council of Australia; The Cadmus Group Inc.; IKEA Group; and CleanTechnica to name a few.

#### Costing facts

*"I'm thrilled to share with you the news that IRENA has launched a global renewable energy cost analysis program ...there are some great fast facts on the site that I'm sure I will reference. I certainly learned something already from browsing around the site, and I'm sure I will utilize it regularly"*

CleanTechnica, 12.12.2013

- Extensively quoted in the latest IPCC Working Group III Mitigation of Climate Change report, World Bank RISE Indicators, REN21 Global Status Report, etc.
- 372,314 website users visited IRENA costing documents from January 1, 2014 to April 30, 2014.

36. To expand IRENA's cost analysis and make it more policy relevant, IRENA is developing solar PV competitiveness indicators in order to provide an ongoing, quarterly overview of information that will prove vital to decision makers and policy makers in this rapidly growing and changing market. Through the development of a set of cost and price metrics, the IRENA PV Parity Indicators will track solar PV installed costs and the levelised cost of electricity from solar PV systems. These will be compared to the cost of electricity to track the competitiveness of solar PV. Reported quarterly, this analysis will provide information on trends and also help inform future research and policy priorities. Data has been collected for North America and the development of the methodology and report are well advanced. The PV Parity Indicators methodology will be presented in the margins of the 7<sup>th</sup> Council in June 2014.



IRENA Renewable Energy Learning Partnership (IRELP)

37. The IRENA Renewable Energy Learning Partnership, IRELP, was formed in May 2012 to increase awareness of, and broaden access to, educational opportunities and resources. In 2014, a new feature, IRELP *Community*, was launched in May 2014. IRELP *Community* offers online discussion forums on renewable energy topics such as finance, policy, economics, education, careers, technology, and sustainability, which can be publically accessed and searched. Adapting to new communication needs, the IRELP *Community* offers an interactive way for the public to engage with IRENA, ask questions and share ideas. The Community will also serve as a social media tool to showcase IRENA projects and activities.

**IRELP facts**

- 89,016 unique users to date
- 42% returning users
- 7,000 average unique monthly visitors
- 24,000 average page views per month
- 2,700 renewable energy courses, degree programmes, webinars, training guides and internship opportunities.
- Top users by country: India, United States, Germany, Pakistan, United Kingdom
- Top demographic groups: 25-34 (33.5%), 18-24 (27.5%)

**III. Enabling investment and growth**Policy assessment

38. The study “*Adapting Renewable Energy Policies to Dynamic Market Conditions*” analyses best practices and lessons learned from diverse country experiences in adopting measures to adapt to evolving market conditions. The outcomes of the analysis will be presented during the Policy Day on 1 June 2014. Building on this body of work, IRENA is currently conducting an in-depth analysis on the evolving ownership structure within the sector.

***Adapting Renewable Energy Policies to Dynamic Market Conditions***

IRENA’s report “*Adapting Renewable Energy Policies to Dynamic Market Conditions*” analysed best practices and lessons learned from diverse country experiences in adopting measures to adapt to evolving market conditions. Policy makers need to put in place adequate policy adaptation mechanisms to address challenges and to ensure that support measures are able to meet the sector needs in an effective and efficient way. Challenges include:

- Keeping pace with rapidly falling renewable generation costs and calibrating public support policies accordingly;
- Preparing for approaching grid parity for renewable energy technologies and accounting for their impact on the traditional energy sector;
- Integrating increasing renewable generation into power markets while ensuring long term electricity system reliability.

### *REvalue*

39. *Growing* renewable deployment comes with broader socio-economic benefits. These benefits are increasingly gaining prominence in the global renewable energy debate, but specific analytical work and empirical evidence remain relatively limited. IRENA's work on the socio-economic benefit of renewable energy deployment sets out to bridge the existing knowledge gap on the actual socio-economic impacts and opportunities that the development of a domestic renewable energy industry can bring. IRENA continues leading and coordinating the econValue project that started in 2013 as a key project of the Multilateral Solar and Wind Working Group, one of the initiatives of the Clean Energy Ministerial (CEM).

#### *The Socio-economic Benefits of Solar and Wind Energy*

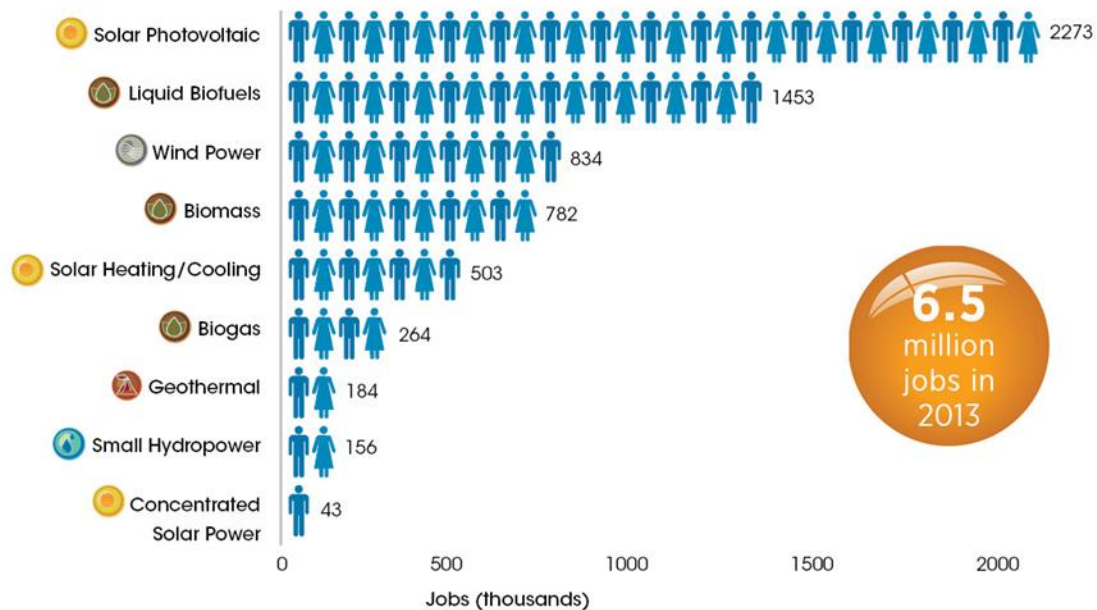
The first report entitled "The Socio-economic Benefits of Solar and Wind Energy: an econValue report" identified the potential for value creation along the different segments of the value chain for solar and wind technologies and the opportunities for value creation that can arise from supporting activities. It also discussed the need for the right mix of cross-sectoral policies, covering deployment and industrial policies that is needed to benefit fully from the socio-economic impacts of renewable energy.

IRENA is now expanding this analysis with the support of country case studies to cover additional technologies, socio-economic variables, an investigation of policy design options to optimize economic value creation and a wider geographic scope.

40. It is in this context that IRENA has developed an authoritative knowledge base on renewable energy employment. In the face of slow global economic recovery from the world financial crisis, creation of renewable energy jobs, both direct and indirect, is a welcome development. Launched in May 2014, "*The Renewable Energy and Jobs – Annual Review 2014*" is the latest edition to this knowledge base, which has become the acknowledged international benchmark on all discussions on renewable energy jobs. The review highlights that the renewable energy sector has already become a major employer, supporting around 6.5 million<sup>5</sup> direct and indirect jobs in 2013, up 14% from 2012.

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<sup>5</sup> Excluding large hydropower due to data limitations.



## RENEWABLE ENERGY EMPLOYMENT BY TECHNOLOGY



### Cooperation with the Abu Dhabi Fund for Development

41. The IRENA/Abu Dhabi Fund for Development Project Facility provides concessionary loans for renewable projects in developing economies. Set up around seven funding cycles, with concessional loans of up to USD 350 million, the facility allows select countries to implement renewable energy innovative projects that enhance learning and which may be easily replicated.

42. The first cycle, beginning in 2012, resulted in the selection of six potentially replicable, innovative and sustainable medium-sized (3 to 15MW) renewable energy projects to be implemented in Africa, Asia, Latin America and the Pacific. The projects will have a direct positive impact on the livelihoods of 300,000 people including coastal fishermen, schools, tourism, health centers and small village businesses.

#### *IRENA/ADFD 1st cycle impact*

IRENA/ADFD's first project cycle will:

- Bring 35MW of renewable energy capacity online;  
Produce 4 million litres of biodiesel per year and 62 million litres of drinking water per year;
- Disburse over 40 million dollars in loans;
- Leverage over 80 million dollars in loans through additional financing; and
- Directly impact on the livelihoods of 300,000 people.

43. The second cycle began in early 2014 and over 70 project summary applications were received from various regions. Technical experts reviewed the received applications for shortlisting. The Advisory Committee has selected 22 project summaries and called upon them to make Full Project Proposals by early July 2014.

### *Quality Assurance and Standardisation*

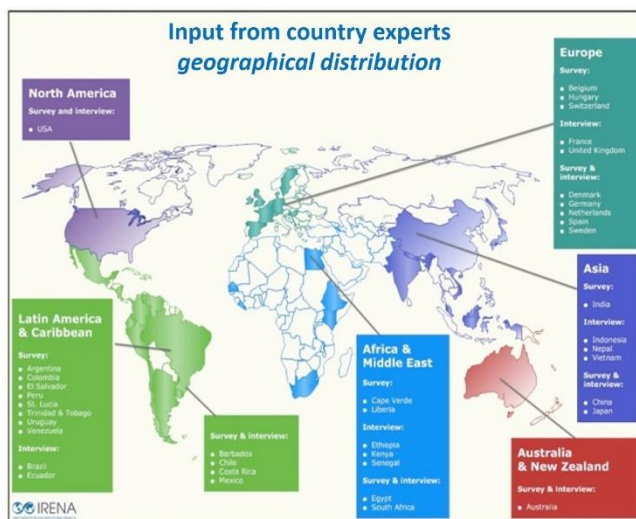
44. Quality assurance and standardisation are key enablers for healthy and robust renewable energy markets. However, developing and implementing sound quality assurance mechanisms requires concerted effort and resources from different market actors. IRENA has analysed experiences in quality assurance for small wind turbines and solar water heaters from 39 countries. Conclusions present structured guidance for countries to develop quality infrastructure.

45. Following this study, the German Metrology Institute (PTB) requested IRENA to support the development of quality infrastructure for solar water heaters in Latin America and the Caribbean. IRENA is now a member of the Project Steering Committee (PSC) for the initiative, along with the Organization of American States (OAS), the Pan American Standards Commission (COPANT), the Inter-American Accreditation Cooperation (IAAC), OLADE, and the Inter-American Metrology System (SIM). Furthermore, in April 2014, the Chinese Wind Energy Association, the World Wind Energy Association and IRENA agreed to create a Strategic Advisory Group (SAG) for the Small Wind Testing and Training Centre in China to provide operational and strategic advice to the Chinese Wind Energy Association.

## Developing Quality Infrastructure for Solar Water Heaters and Small Wind Turbines

IRENA's analysis "Quality Infrastructure for Small Wind and Solar Heating" is based on cases from 39 countries, collected from interviews with 34 experts from all around the world and data from more than 80 survey respondents.

During the study on quality infrastructure for solar water heating, most of survey respondents consider that poor quality related to installation –practitioner's competence- is the factor which impacts more negatively their countries' SWH markets.



Policy-makers need to consider policies to promote not only quality for equipment, but quality for the complete renewable energy system, including services and human skills as well.

46. Additional requests for advisory services in the field of quality and standardisation has been received from other regions as well. IRENA's Certification of Solar PV Installers initiative aims to assist countries from the ECOWAS region in implementing a harmonized certification scheme for PV installers. Leveraging IRENA's work on "Promoting a Sustainable Market for PV Systems in the ECOWAS Region" (ProSPER), this initiative builds capacities for entrepreneurs, promotes the expansion of the off-grid and on-grid market and encourages demand for installers and technicians for maintenance. To date, technical meetings were held with the West African Economic and Monetary Union (UEMOA), and an MOU and Project Agreement are being developed. Further collaboration will facilitate the regional harmonisation of certification standards, enabling increased regional mobility for certified installers and strengthening employment opportunities.

### IV. Renewable energy access for sustainable livelihoods

#### IOREC platform

47. Off-grid renewable energy systems are now the most cost-effective solution for electrification in most rural areas. Tapping into this vast potential requires enabling effective policy and regulatory frameworks, tailored business and financing models and technologies adapted to the rural context.

48. The International Off-grid Renewable Energy Conference (IOREC) convenes off-grid sector stakeholders to collectively identify pathways to scale-up off-grid renewable energy deployment. The second IOREC conference, IOREC 2014, will take place in the Philippines in June in cooperation with the Asian Development Bank and the Alliance for Rural Electrification.



49. Regional engagement, central to the success of IOREC, leads to the identification of key deployment barriers. In order to capitalise on this opportunity for information, IRENA is conducting an online stakeholder survey to capture the perspectives of different stakeholders involved in the off-grid renewable energy sector in South- and South-East Asia. Survey results will feed future IRENA activities deepening the understanding of field practitioners.

#### Mini Grids

50. Numerous countries had undergone an RRA process to identify actions needed to overcome barriers to renewable energy deployment. Results from the RRA's found that slow progress in grid extension had led to a growing number of isolated mini-grids deployed in order to meet rural electricity supply deficit and access needs. Consequently, there exist today a number of diesel mini-grids operated by utilities or private operators that provide electricity to rural populations. Due to technology improvements, replacement of part or the entire diesel generator with renewable solutions is now cost competitive. The deployment of renewable based or hybrid mini-grids may therefore now complement or replace grid expansion, reduce operation costs and contribute to the achievement of universal access.

51. To achieve universal access including through a greater deployment of renewables based on stand alone or hybrid mini-grids, national rural electrification strategies need to be developed, assigning a clear role to these technologies and making available concrete business and financing

models which in turn will trigger policy change and draw sector investment. In support of this transition, IRENA is collaborating with the United Nation Environment Programme (UNEP) and Siemens to investigate the economic and financial viability of hybridising isolated diesel mini-grids. A study, based on real loads and cost data from eight sites will be released in the late summer of 2014 with recommendations on viable business models, policy and financial mechanisms, and key steps required for the implementation of projects on the ground.

### Capacity Building for Entrepreneurs

52. IRENA has engaged with entrepreneurs within the African region in an effort to build capacity and improve project bankability. In cooperation with the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), IRENA organised training workshops for 25 entrepreneurs from West Africa and five regional financial institutions. The training workshops helped small and medium entrepreneurs to assess the business potentials of renewable energy projects, develop business plans and loan requests, and increase financial institutions confidence in renewable energy technologies thereby improving the sustainability of renewable energy projects and their investments. The training also contributed to ensuring sustainability of capacity building in entrepreneurship within the ECOWAS region by facilitating the participation of trainers from the ECOWAS-based incubation centre, 2iE Technopole.

53. So as to further empower entrepreneurs, IRENA is in the process of setting up an Entrepreneur Technical Support Facility within ECOWAS. The entrepreneur facility will support and encourage innovative ideas, provide expert and technical consultation and advisory services, and provide a basis for project review increasing project bankability. Considering the success of this model, IRENA will seek to identify opportunities for replicating it in other regions.

### *IRENA / ECREEE Capacity Training Worksho*

Mr Emmanuel Kabore, the founder of PPS SARL in Burkina Faso and a participant at the IRENA/ECREEE workshop, reported that the training workshop helped him make transformational organisational improvements.

*“The training workshops organised by IRENA and ECREEE have helped me to take three major positive decision for my company: Firstly, I have optimised the performance and management through a new organogram [...]. Secondly, I have taken a strong marketing approach for the development and promotion of Solar PV throughout the country (Burkina Faso) by creating working relationships with a financial institution in Burkina Faso and extending my activities in the neighbouring countries. Thirdly, I have increased advertising activities through media and enhanced communication with public and private institutions.”*

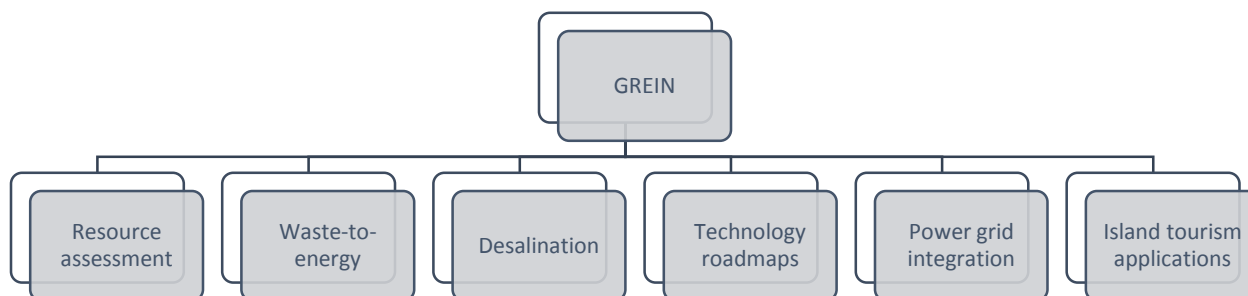


Emmanuel Kabore, PPS SARL, Burkina Faso [Translated from French]

## V. Islands: lighthouses for renewable energy deployment

### GREIN

54. GREIN is a demand-driven initiative and, with IRENA's help, islands are shaping the Network to serve its intended purpose. Exchanges and information-sharing are spurring collaboration and a greater understanding of common problems and possible solutions. One of the early GREIN activities has been the focus on grid stability, as the replacement of traditional generation plants with new renewable resources, if not correctly assessed, may threaten the continuous operation of networks and lead to the non-economical utilisation of available resources.



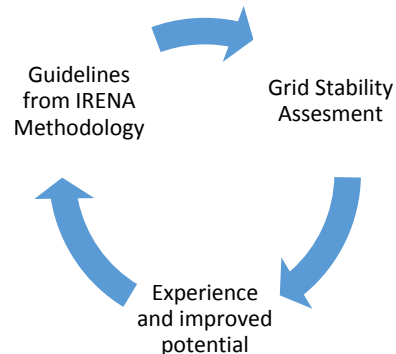
55. Through the coordination and execution of grid stability assessments, IRENA is supporting SIDS in the secure transition to higher shares of renewable energy. The task, successfully started with the pilot study for the island of Palau in 2013, is moving forward. Preparations are underway to undertake the study in Kiribati, Samoa and the Maldives, and the Cook Islands, Niue and the Solomon Islands have also expressed interest in being supported. As the sustainable transition to a secure high share of renewable energy requires the building of capacities within the involved stakeholders, the stability assessments in the Pacific islands are done in close collaboration with the Pacific Power Association (PPA), which gathers the Pacific island power utilities and supports them with engineering expertise. Since January 2014 IRENA has also accelerated the work on GREIN roadmaps work, with the completion of the Nauru roadmap, and commencement of road-mapping for Maldives and Cyprus.

56. Under the GREIN initiative, IRENA is organising a workshop on 'Renewable energy for island tourism' in Cyprus to take place on 29-30 May. As a leader in deploying solar hot water heating systems for hotels and residential buildings and with the highest solar heating capacity installed per capita in the world, Cyprus is uniquely equipped to act as a host for this event. The event brings together private sector and tourism participants and will help create awareness and encourage the exchange of best practices to accelerate renewable energy deployment in the tourism sector of islands worldwide.



*The IRENA Methodology to Assess Grid Stability*

In conjunction with the Technical University of Darmstadt, IRENA is in the process of developing a technical methodology to facilitate the transfer of highly specialized grid-stability knowledge to less experienced audiences. The methodology will include guidelines for each of the steps required to perform a network stability assessment.



This methodology will be applied to stability assessments also being developed by IRENA. The process to assess stability of an island grid involves several stages, as outlined in the attached table and requires the involvement of experts, local utilities, and political leaders.

Steps	Experts and Science Community	IRENA	Regional entity/utility (e.g. PPA)	Islands (e.g. Palau)	Technical provider (e.g. DIGSILENT)
Data collection				Data collection	
Build a model in the <i>PowerFactory</i>			Build the model or support (based on the capacity of an island)	Build the model (based on the capacity of an island)	Software Support
Dynamic model simulation/results		Support	Run the model or support (based on the capacity of an island)	Run the model (based on the capacity of an island)	Software Support
Validation of the model/results	Support	Support	Support	Validate the model/results	Software Support
Recommendations on strategies and technology solutions		Support	Assessment	Assessment	
Quality assurance of recommendation	Confirmation	Support			

### Partnerships for Action in SIDS

57. Samoa is hosting the Third International Conference on Small Island Developing States in September 2014. In preparation for the Conference, the General Assembly of the United Nations called for the “strengthening of collaborative partnerships between SIDS and the international community” as one of the important ways and means to address new and emerging challenges and opportunities for the sustainable development of SIDS. In support of this call, IRENA launched the SIDS - Lighthouses Initiative at the Abu Dhabi Ascent meeting in May 2014.

58. The SIDS-Lighthouses Initiative defines programmatic steps for accelerated deployment of renewables in SIDS, and highlights opportunities for partnerships. The Lighthouses initiative draws upon the GREIN work, which helped identify critical gaps and areas of interest, and serves as the bridge to catalyzing partnerships and action around these areas of focus. In the coming months, IRENA will work with SIDS and development partners to strengthen the initiative in preparation for the Conference. Based on the interest expressed to date, it is envisaged that the Lighthouse Initiative will forge strong partnerships that will be furthered in Samoa and presented at the Climate Summit in September 2014.

### *Lighthouses of the Abu Dhabi ASCENT*

In the session dedicated to the Lighthouses initiative, Ministers from Barbados, Grenada, Republic of Marshall Islands, Samoa and Seychelles presented their ambition for deployment of renewables, as well as barriers impeding deployment. In the course of discussion, Ministers from Germany and Japan underlined their strong support for accelerating the deployment of renewables in SIDS and the Advisor to the French President noted the willingness to share experiences that France possesses. In addition, the President of the World Business Council for Sustainable Development shared the Council’s business solution initiative aimed at providing off-grid communities access to reliable low-carbon electricity as a lean alternative to diesel generation.

In the margins of the Ascent, the UN Secretary-General met with the Chair of AOSIS, the Minister from Samoa and IRENA Director-General to discuss the preparations for the upcoming Samoa Conference and deployment of renewables in the SIDS.



## VI. Regional action agenda

59. IRENA is supporting countries and regions to implement a comprehensive set of actions towards enabling higher shares of renewables and further development of regional grids. Key components are an assessment of the long-term plans in place, identification of the opportunities to incorporate a greater share of renewables in light of technology advancements, declining cost trends, and the capacity to operate transmission grids with a greater share of renewable power. IRENA is using its convening power to catalyse action by regional stakeholders to accelerate the introduction of renewable power options at the regional level, drawing upon the knowledge and experience of electric utilities, transmission companies, independent power producers, regulators, power pools, regional political and economic bodies, multilateral financial institutions and development partners.

### *Africa Clean Energy Corridor*

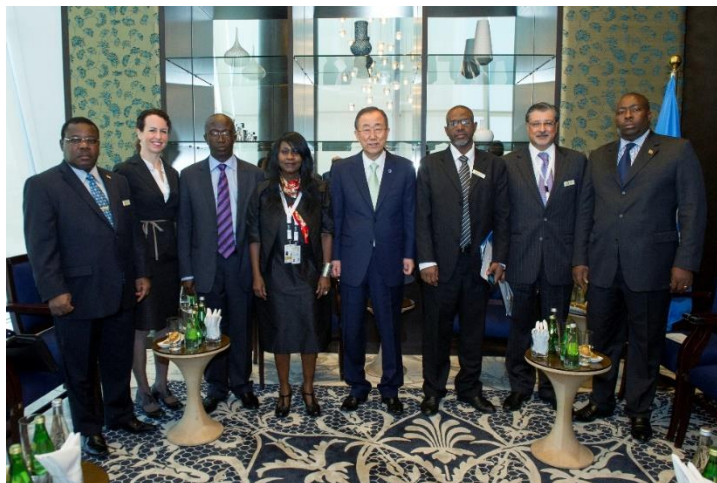
60. The Africa Clean Energy Corridor (ACEC) is an initiative that seeks to promote a regional approach to development and enable deployment of renewable energy on the countries of Eastern and Southern Africa power pools. The action agenda, endorsed at the Fourth IRENA Assembly in January 2014, calls for a set of actions focused around zoning and resource assessment, country and regional planning, enabling frameworks for investment, capacity building and public information.

61. Under this initiative, a zoning methodology, led by IRENA and the Lawrence Berkeley National Laboratory (LBNL), was developed and validated by stakeholders from utilities, government, regulatory bodies, power pools and academia from within the region. The methodology is being used to identify developable, high resource potential zones for solar and wind technologies. In support of the ACEC, IRENA also developed and published a study on the “*Analysis of Infrastructure for Renewable Power in Southern Africa*”. This study outlines the state of the electricity sector in the Southern Africa Power Pool and highlights institutional, infrastructure, and data gaps to be addressed for the development of renewables. A similar study for the Eastern Africa Power Pool is currently being finalised.

### *Africa Clean Energy Corridor at the Abu Dhabi Ascent*

In preparation for the Climate Summit, IRENA presented the ACEC as one of the key initiatives for action on climate change, in view of its potential to reduce carbon dioxide emissions in Africa, which are likely to triple in the next quarter century if current patterns of reliance on fossil fuels for electricity generation are not radically altered. In addition, ACEC offers a model that could be replicated in other regions to displace carbon emissions further. This was confirmed by H.E. Mr John Kufour, UN Secretary-General's Special Envoy on Climate Change, who noted the need to explore such opportunities in other parts of Africa. The Initiative garnered significant attention and a number of partners indicated their interest in exploring potentials for cooperation. In this context, Iceland proposed to create a Global Geothermal Alliance to advance the deployment of geothermal in ACEC and globally.

The Director-General and Ministers and high level officials from Kenya, Lesotho, Mozambique, Sudan and Zimbabwe also met with the UN Secretary-General to discuss how the ACEC could be advanced in preparation for the Climate Summit.



### *Emerging clean energy corridors*

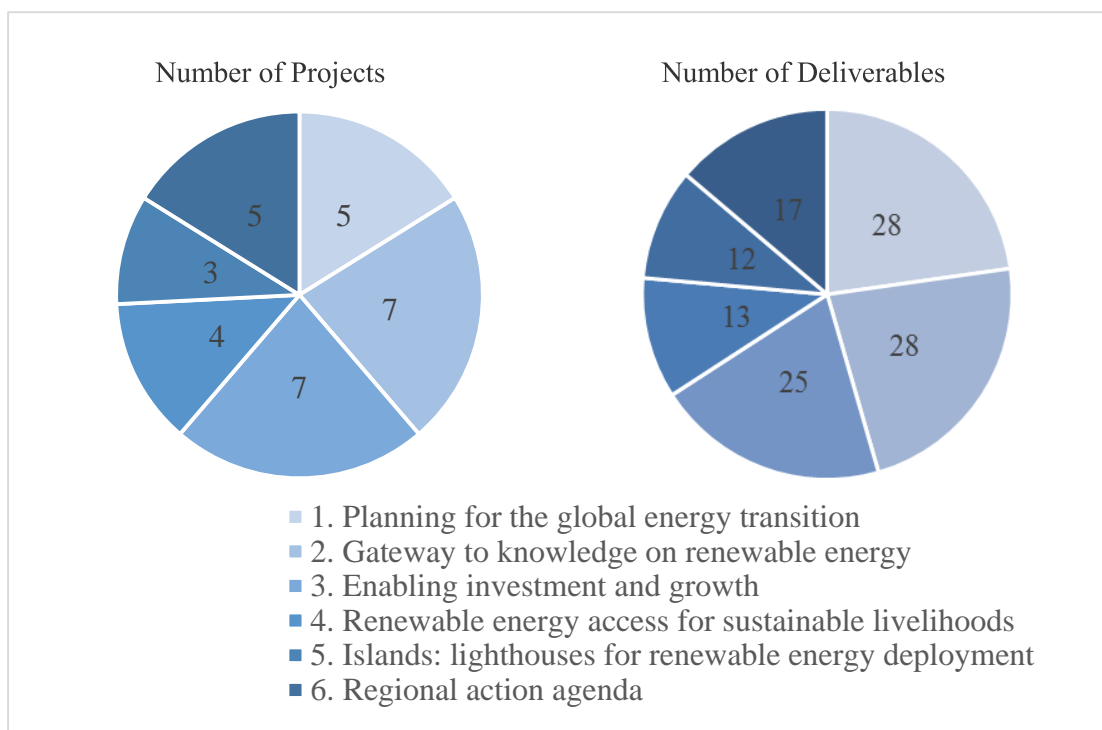
62. IRENA is continuing its work on clean energy corridors in other regions. In January 2014, IRENA also organised an informal consultation with stakeholders from Central America, on the transmission and market integration already ongoing in the energy sector and possibilities for additional action. The participants requested IRENA to analyse how the ongoing integration could benefit from greater integration of renewables in the grid. Subsequently, bilateral meetings with national and regional authorities, as well as multilateral organisations were held to identify specific areas of intervention and collaboration. One such area identified was the development of the operational procedures to secure adequate intake of variable power in the grid and a regional workshop is being planned to advance this work.

63. IRENA is in consultation with the “Comité Maghrébin de l’Electricité”, COMELEC power pool in northwest Africa, with the focus on five Maghreb countries to develop the concept of a clean energy corridor. Similar discussions are underway in the ASEAN region, to build upon already existing effort on regional integration.

## VII. Administration and Management

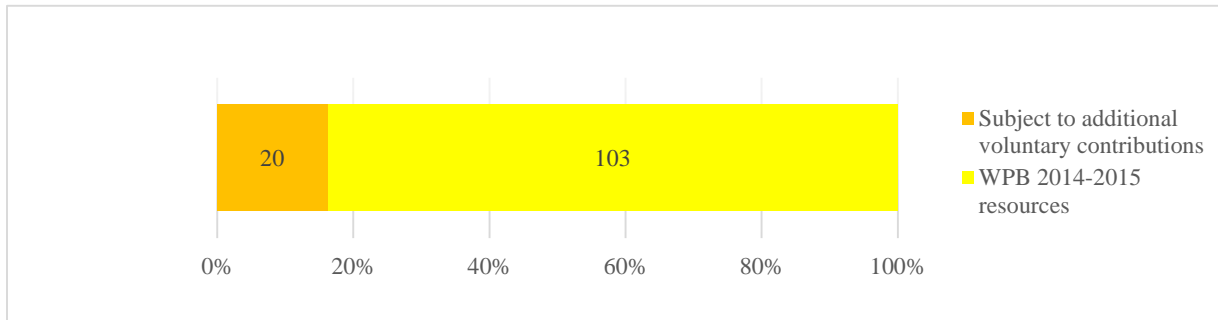
64. To ensure effective management and administration of the programmatic activities, the Work Programme has been structured along 31 projects, covering the 123 deliverables laid down in the Work Programme. Through the Project Management Office (PMO), projects have been standardised across divisions, so as to promote consistency and coordinated delivery of Agency's products, ensure the most efficient use of resources, and introduce economies of repetition in the execution of projects. The PMO is also serving as a tool for internal monitoring of and reporting on individual projects, as well as on the overall progress in the implementation of the Work Programme. An integral part of the project development process was the allocation of resources for translation and interpretation, as driven by programmatic needs.

### Number of Projects and Deliverables by Thematic Area

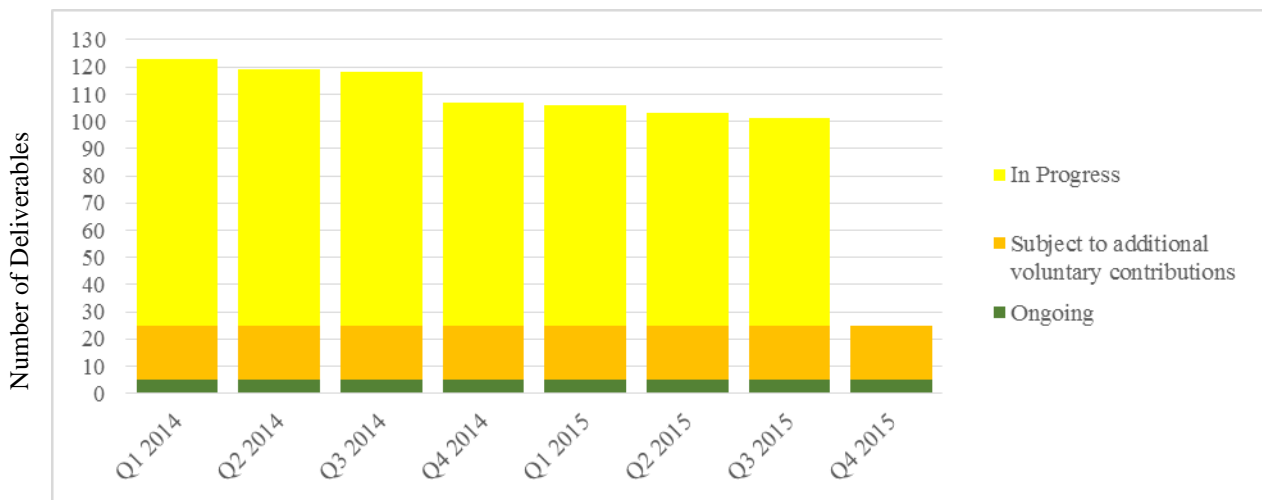


65. The Work Programme and Budget 2014-2015 includes a range of programmatic activities that would strengthen the impact of IRENA's work, but would require additional voluntary contributions to be mobilised. A number of Members have already provided or pledged generous voluntary contributions and, as the funding becomes available, these deliverables will be gradually either integrated into existing, or consolidated in the additional projects.

**Deliverables funding status (deliverables as per matrix in A/4/3)**

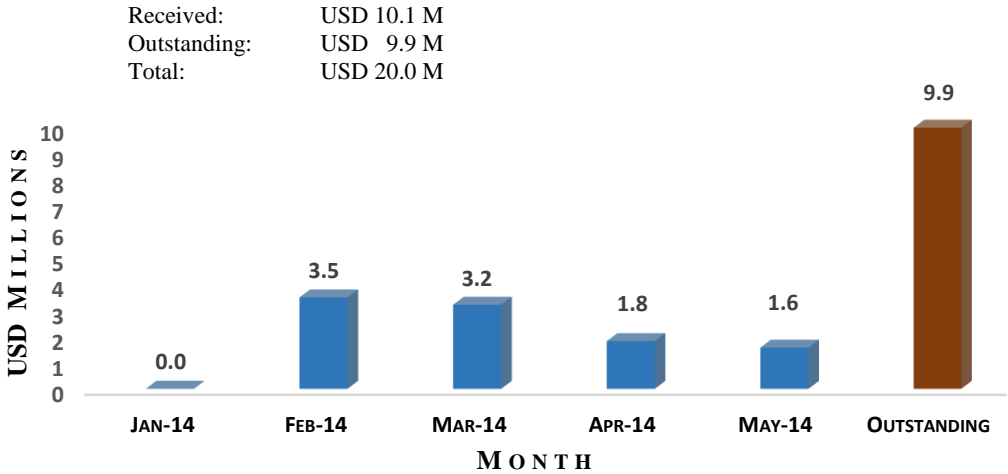


**Implementation Forecast (timelines as per matrix in A/4/3)**

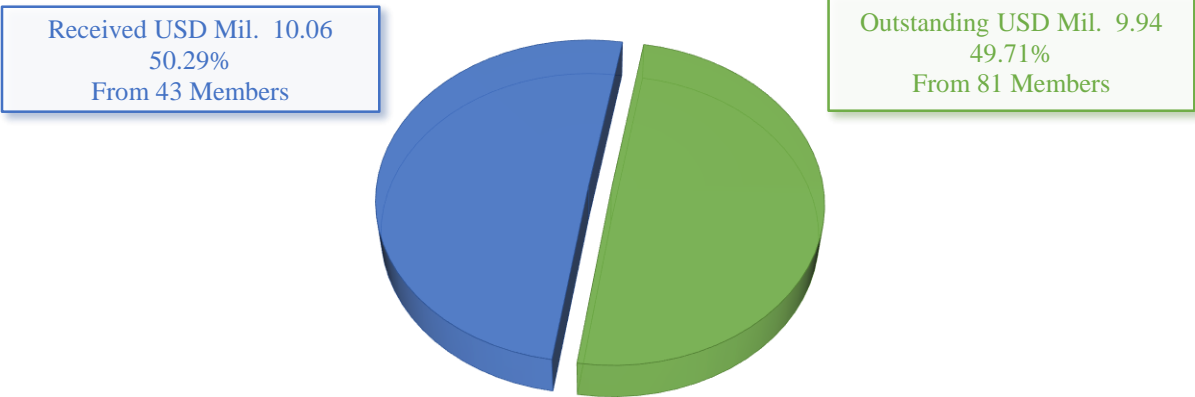


Note: “Ongoing” refers to deliverables that do not have a defined end-date in the Work Programme 2014-2015.

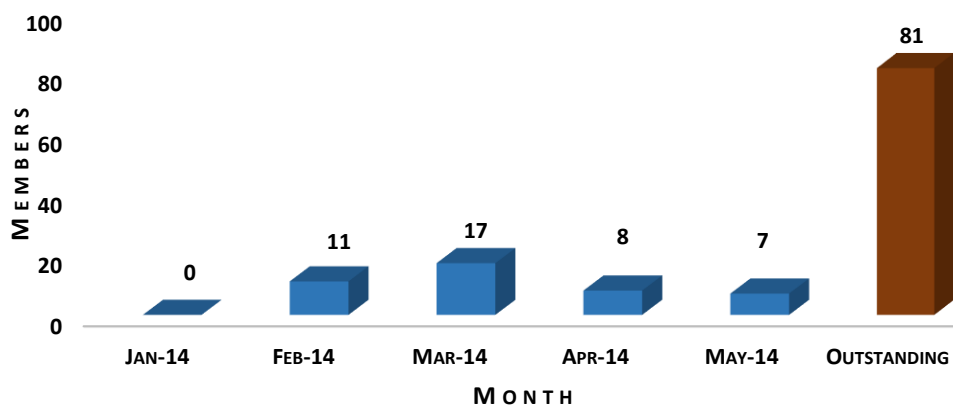
**Received and outstanding assessed contributions for 2014 core budget  
(as of 21 May 2014)**



**Status of contributions to the 2014 core budget as of 21 May 2014**



**Number of Members contributing to the 2014 core budget  
(as of 21 May 2014)**



**Voluntary Contributions Budgeted, Received and Pledged to date (as of 21 May 2014)**

<i>Budgeted Voluntary Contributions in 2014 (USD)</i>		
	Voluntary Contributions Commitments	Received Contributions
<b>GERMANY</b>		
IRENA Innovation and Technology Centre	4,500,000.00	2,250,000.00
<b>UAE</b>		
Operations	2,900,000.00	1,450,000.00
Research	2,900,000.00	1,450,000.00
Governing Body Meetings	1,600,000.00	1,600,000.00
<b>Subtotal UAE Contributions</b>	<b>7,400,000.00</b>	<b>4,500,000.00</b>
<b>Total Budgeted Voluntary Contributions</b>	<b>11,900,000.00</b>	<b>6,750,000.00</b>

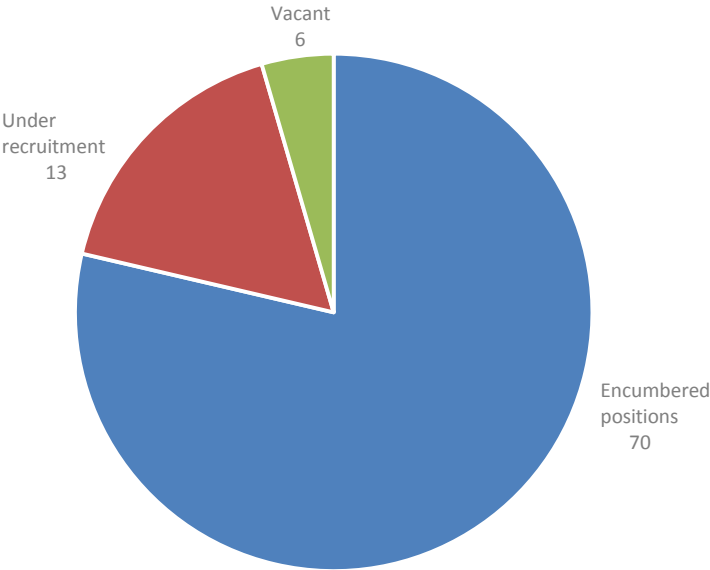
<i>Additional Voluntary Contributions in 2014 (USD)</i>		
	Voluntary Contributions Commitments	Received Contributions
<b>CONTRIBUTIONS TO PROJECTS</b>		
Japan	615,300.58	615,300.58
New Zealand	415,200.00	415,200.00
Belgium	103,448.28	103,448.28
Iceland	100,000.00	100,000.00
<b>Total Additional Voluntary Contributions</b>	<b>1,233,948.86</b>	<b>1,233,948.86</b>

<i>Pledged Voluntary Contributions (USD)</i>	
	Amount of Pledge
Norway	2,000,000.00
Germany	847,856.15
<b>Total Pledges</b>	<b>2,847,856.15</b>

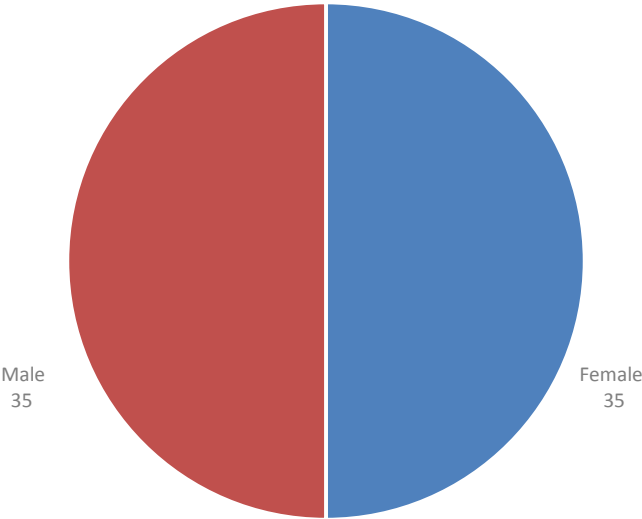


The following figures reflect updates in the staffing of core posts of the Agency.

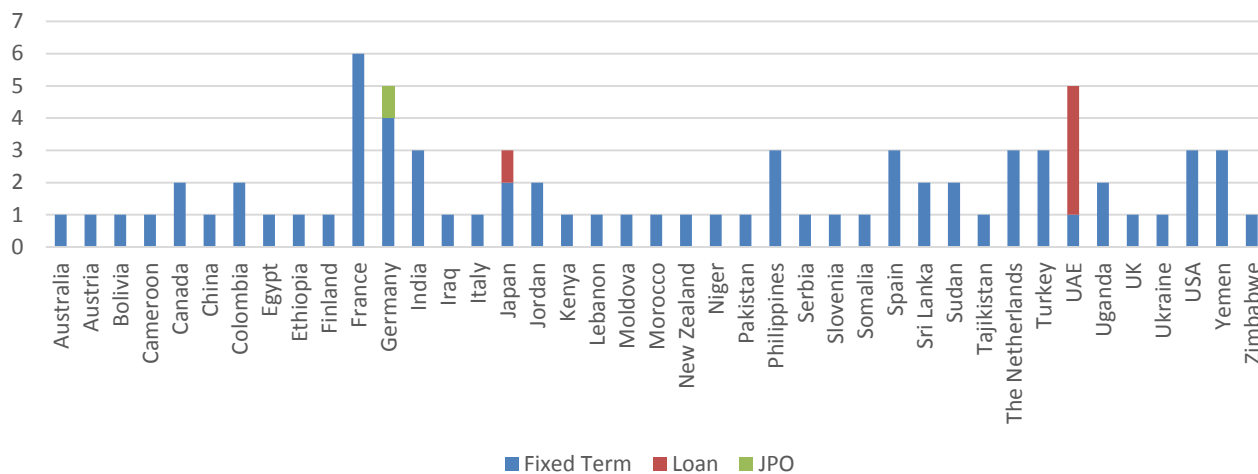
**Staffing Status as of 21 May 2014**



**Gender Balance (based on filled posts) as of 21 May 2014**



**IRENA Staff Nationalities (based on filled posts) as of 21 May 2014**



\*\*IRENA Staff Members (Fixed Term, On-loan and Junior Professional Officers) come from 41 different nationalities.

**Junior Professional Officers (JPO) and Loaned Staff as of 21 May 2014**

Division	Title	Loaned by	JPO
SMED	Liaison and Protocol Officer	UAE	
IITC	Bioenergy Analyst	Japan	
AMS	Human Resources Officer	UAE	
CSP	Programme Officer	UAE	
KPFC	Programme Officer	UAE	
KPFC	Associate Programme Officer, Data and Information (JPO)		Germany