IRENA
International Renewable Energy Agency

3 May 2014

INTERNATIONAL RENEWABLE ENERGY AGENCY
Seventh meeting of the Council
Abu Dhabi, 2 – 3 June 2014

Note of the Director-General

Financing of the Agency - strategy for the future

Background

1. In the course of the preparation of the biennial work programme and budget, a number of discussions were held on the appropriate future of the programmatic ambition of the Agency in the context of growing recognition and demand for its services, and its growing membership within the context of resource constraints faced by several members. It was agreed that this was a matter of strategic nature that should be addressed on its own merit, rather than in a context of the preparation of the work programme. As a result, the Assembly at its 4th session requested that the Director-General, " *... work with the Council to seek innovative options for future funding opportunities for the Agency, in accordance with the provisions of Article XII/A.3 of the Statute, and to report on the progress made at the fifth session of the Assembly*".

2. This discussion note is submitted to facilitate Members' initial discussion on the subject and will be elaborated based on the outcome of consultations in the coming months. Several milestones should be considered, including upcoming Council meetings in the lead up to the sixth session of the Assembly which will consider the programmatic and budgetary cycle for 2016-2017, and review of the 2013-2017 Medium-term Strategy (MTS) in 2016. This review may also provide an opportune moment for a more strategic discussion on the future role of the Agency based on the experience gained and the right approach to funding in that context. Furthermore, consideration could be given to how to best draw on internal and external expertise and views to enrich the discussion, and ensure an inclusive and participatory process.

Introduction

3. While the focus of the Assembly's request is on financing aspects, this discussion is inseparable from the Members' long-term vision for the Agency. At present, strategic and programmatic direction of the Agency is derived from the provisions of the Statute and the 2013-2017 MTS.

4. According to Article II of the Statute, "The Agency shall promote the widespread and increased adoption and the sustainable use of all forms of renewable energy, taking into account:
    a) national and domestic priorities and benefits derived from a combined approach of renewable energy and energy efficiency measures, and

b) the contribution of renewable energy to environmental preservation, through limiting pressure on natural resources and reducing deforestation, particularly tropical deforestation, desertification and biodiversity loss; to climate protection; to economic growth and social cohesion including poverty alleviation and sustainable development; to access to and security of energy supply; to regional development and to inter-generational responsibility."

5. MTS calls for IRENA to be "the global voice for renewable energy" by serving as a
   a) Centre of excellence for renewable energy;
   b) Renewable energy advisory resource for countries; and
   c) Network hub of country, regional and global programs.

6. The overarching vision of IRENA as the global voice for renewable energy has longevity, but the means by which this vision is achieved should respond to evolving needs in a dynamic environment. Even in the short period of time since IRENA's establishment, economic and geopolitical significance of renewables has evolved dramatically. It will, therefore, be necessary to review the strategic objectives as well as the means to achieving these.

Renewable energy today

7. Renewable energy is increasingly seen as a central element to finding solutions to the chief global challenges of growing energy needs, demographic shifts, sustainable development and concerns about climate change. There are compelling reasons for this trend:

   - **Renewable energy is cost competitive.** Renewables are increasingly the most economic choice for new grid supply, and are cheaper than alternatives in virtually any power system reliant on liquid fuels (e.g. off-grid, on islands and in some countries). A virtuous cycle of high learning rates and increased deployment are driving down the costs of solar and wind technologies, while biomass for power generation, geothermal and hydropower are mature technologies that offer the lowest cost electricity of any source where good resources are available.

     Solar PV module prices have declined by 70% between 2009 and 2013. PV module price stabilized in 2013 as manufacturers tried to improve margins, but installed costs continue to fall as reductions in balance of system costs continue. Wind at the best sites can now deliver electricity at just USD 0.04 to 0.05/kWh onshore, a cost lower than gas, despite the so-called "golden age of gas". Hydropower, currently the world's largest source of renewable energy, often provides the lowest cost electricity of any generation source. Biomass power generation has become competitive wherever low-cost agricultural or forestry waste is available, with the most competitive projects producing electricity for as little as USD 0.06/kWh.

   - **Renewable energy is central to stabilising the climate system.** A recent IPCC report expressed very clearly the need to act quickly and reduce carbon emissions to avert the catastrophic effects of climate change. Currently, the energy sector accounts for around 60 percent of total GHG emissions. The IPCC reiterates the major options for emissions reduction: energy efficiency improvements; fossil fuel switching; and low carbon technologies such as renewable energy, nuclear power, and carbon dioxide capture and storage (CCS). A key message from the IPCC is that energy efficiency improvements and the switch from coal to gas

would not be sufficient to deliver the scale of changes required. The report stressed that tripling or even quadrupling the share of renewable energy in the global energy mix by 2050 is a central part of the solution.

- **Renewable energy development generates jobs and enhances local value creation.** Employment remains one of the critical objectives for countries' growth strategies. Around the world, policy makers are pursuing renewable energy technologies not only for greater energy security or environmental considerations, but principally for the socio-economic benefits they generate. The renewable energy sector has become a significant employer, with 6.5 million direct and indirect jobs in the renewable energy industry today and the potential for millions of jobs worldwide in the coming years.

- **Renewable energy is key to addressing energy poverty.** Energy poverty, faced by 1.3 billion people, is catalysing action to provide access to modern energy services to improve lives and stimulate economic growth. Renewable energy can have an immediate and transformative impact, and a growing number of examples from developing countries illustrate how renewable energy solutions can provide the energy poor with access to clean energy at an affordable price. The recent IPCC report has recognised that for developing countries, there are often co-benefits from deploying renewable energy, both at centralized and distributed levels. These include creating new jobs and income, improving energy access helping alleviate poverty, and empowering local rural communities.

- **Renewable energy can help meet growing energy needs.** By 2050, the world's population is expected to rise to 9.6 billion people, from around 7 billion today. This comes with an increase in affluence and growing energy consumption and demand in fast developing and populous countries. To meet these needs, renewable energy technologies are offering economically viable alternatives to traditional sources, with the added benefit of enhancing energy security and resilience, and ensuring environmental sustainability.

8. These are compelling facts that are driving the deployment of renewables worldwide. Some 140 countries have set renewable energy targets, and almost 130 have policies in place to facilitate deployment. In 2013, 21% of all power generated was renewable. Total installed renewable power generation capacity at the end of 2013 included 1116 GW hydro; 318 GW wind; 137 GW solar PV; 4 GW Solar CSP; 88 GW biomass; 12 GW geothermal and 0.5 GW Ocean. New forms of financing are emerging, for example, BNEF projects total global investment in renewable energy bonds growing to USD 4 billion in 2014 and USD 9 billion in 2015.

9. The growing interest in renewable energy is also reflected in IRENA's membership. Today, IRENA has 131 Members, from 68 at the time of its establishment in 2011, with additional 37 at various stages of accession to membership. The fast growing engagement of countries and organizations demonstrates the importance of IRENA's mission, as well as recognition of IRENA as the right vehicle to advance this mission. It is therefore imperative to strike the right balance between the expectations and demands placed on the Agency and its limited resources.

IRENA's comparative advantage

10. IRENA plays a unique role as the only international organisation dedicated solely to renewable energy. In delivering its programmatic activities, IRENA relies on its key strengths, including:

    - Focused and unambiguous mandate;
    - Broad membership base and strong Members' engagement in the work of the Agency;
    - Access to key government partners;
    - Direct and continuous engagement with countries at all levels;
    - Increasing intellectual capital accumulated through programmatic work and interaction with countries;
    - Growing credibility and authority based on substantive products;
    - Engagement in partnerships and alliances for greater effectiveness and sustainability of effort; and
    - Promotion of consultative, inclusive and participatory processes.

11. IRENA's current programmatic work spans from knowledge and advice products, through convening to enabling action. At present, IRENA concentrates its work programme on six thematic areas:

    - **Planning for the global energy transition**. This includes work at the local level with cities, nationally with countries through RRA and post RRA action, and globally through REMAP and SE4ALL Hub function, accompanied by focused work on pertinent issues such as grid infrastructure, accelerated inclusion of renewable energy (RE) in energy planning, and in finding integrated solutions to resource management.
    - **Gateway to knowledge on renewable energy**. This includes knowledge products such as the Global Atlas, costing studies and IRELP, as well as statistics, databases of policies and best practice, and tools designed to support countries and other stakeholders.
    - **Enabling investment and growth**. The work focuses on policy assessments; market conditions analysis; and social, economic and environmental impacts. It also includes issues related to financing and innovative approaches to facilitate RE investments.
    - **Renewable energy access for sustainable livelihoods**. IOREC platform is central to this thematic area, as is the work on specific issues that have been identified by IOREC and IRENA Members such as technologies for rural and productive applications, mini-grids and support for SMEs.
    - **Islands: lighthouses for renewable energy deployment**: GREIN is a trademark of IRENA's work with islands, currently including clusters on roadmaps, grids, resource assessment, tourism, waste-to-energy and desalination. IRENA is also playing a central role in promoting renewables at the upcoming SIDS conference in Samoa and beyond.
    - **Regional action agenda**. At present, regional work includes the Africa Clean Energy Corridor (CEC), and exploring possibilities for CECs in other regions, accompanied by a broader focus on building capacity.

12. With its rising visibility and growing membership, requests for IRENA's involvement is growing both in size and scope. In keeping with the imperative to remain flexible and adaptable, IRENA is responding to new and emerging priorities.

13. Of note is IRENA's increasing engagement in promoting renewables in the climate context, which includes active engagement in the United Nations Secretary General's (UNSG) preparations for the

Climate Summit and cooperation with UNFCCC mechanisms such as the Technical Executive Committee (TEC) and the Climate Technology Centre and Network (CTNC).

14. Increasingly, IRENA is receiving requests from individual Members to provide in depth advice on technology and policy matters. This work strengthens IRENA's knowledge and competence, but also puts strain on resources. With the increasing number of Members, discussion on how to address requests for advice from individual members will be necessary. Furthermore, IRENA is increasingly called upon to take part in the implementation of projects and to provide technical assistance. These aspects are outside of IRENA's immediate scope of work at present, and IRENA has limited its involvement to either pilot stages of projects or facilitation.

15. While still relatively new organization, IRENA has reached a level of maturity where its long-term programmatic strategy should be discussed. In discussing the strategic and programmatic direction, the following questions could be addressed:

- Considering developments in recent years, as well as drivers for the future deployment of renewable energy, what are the programmatic areas of IRENA's work where additional emphasis is needed or in which strategic adjustments should be made?
- Considering growing and diverse needs of Members, some of which are beyond the capacity of the Agency to meet, how can Agency ensure the most balanced and objective approach to selection of priorities?
- Given the substantial engagement and traction that some of the IRENA's programmatic activities are attracting, such as the Clean Energy Corridors or REmap as pathways to large scale deployment of renewable energy, is the current capacity of the Agency adequate to support these initiatives?
- Is it necessary to have a greater level of on-the-ground engagement? Does IRENA need to have regional presence? If so, in what form?
- How can we ensure that the knowledge, analytical and advisory work done by IRENA is applied and makes a real impact?
- What is the extent to which IRENA should be involved in technical assistance and project implementation?
- In light of the fast pace of technology innovation, does the ability of IRENA to translate innovation into specific advice to countries need strengthening?

Financing of the Agency

16. Stable, predictable financing is fundamental to IRENA's ability to deliver on an increasing number of programmatic requests. From the outset, it was evident that countries did not wish to create another large international organisation, but a focused Agency with the necessary flexibility to adapt and adjust within a relatively short period of time. Countries also recognised the need for a critical mass of staff which, according to the IRENA Statute, are to be funded by the core budget. The Statute also provides for financing by voluntary contributions and 'other possible sources'.

17. Currently, IRENA derives an increasingly large percentage of total budget from voluntary contributions. Voluntary contributions have increased from 44% in 2012 to 61% in 2013 of total budget despite the fact that IRENA's budget remains comparatively unchanged ($28.4 million in 2012 to $29.7 million in 2013).

18. As background to this discussion and to provide context a brief analysis below shows financing trends of the International Energy Agency (IEA), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organisation (UNIDO) and the International Atomic Energy Agency (IAEA). A detailed overview is provided in Annex I to this note, and general conclusions drawn are:

    - At least 40% annual budget is derived from voluntary contributions for all organisations reviewed;
    - For UN organisations, extrabudgetary resources represent a very large proportion of the annual budget, ranging from 40% to 90% of total budget;
    - Although the IEA has been able to generate 20% revenue from publications, this trend is rare. Other organisations looked at state that, despite similar activities, minimal revenue is generated from publications and electronic services.

19. In discussing the future financing of the Agency, and in view of the discussion on strategic and programmatic priorities, the following questions could be addressed:

    - What would be the optimal size of core component staff in the medium term?
    - What are the international financing initiatives that may be strategically used for funding of IRENA's work?
    - Is there preparedness to make multi-year commitment on voluntary funding for specific programmatic aspects?
    - Given the vast amount of knowledge and experience in national administrations, what are the avenues to systematically contribute Members' knowledge, expertise and skills to IRENA's programmatic work?
    - In addition to countries, are there other sources of voluntary funding that may be considered? What would be the mechanisms to ensure IRENA retains its credibility and perception of unbiased, objective international organisation?
    - Are there examples of innovative financing that can be used?
    - What best practice in other international organisations could be applied to IRENA?

ANNEX I

Overview of organisations (comparison based on 2012):

	Total annual budget *(million USD)*	**Membership**	**Sources of revenue**
IEA	36.7	28	20% Publications 43% VCs 37% Assessed contributions
UNIDO	314	172	60% Extrabudgetary 40% Assessed contributions
UNEP	239	193	90% Environment & Trust funds 10% Assessed contributions
IAEA	804.5	159	40% Extrabudgetary & funds/programmes outside regular budget 60% Assessed contributions
IRENA	28.4	131 + 37 in process	40% VCs 60% Assessed contributions

Note: Rate used: 1 EUR = 1.38 USD

IEA

The International Energy Agency (IEA) is closest to IRENA in annual budget and is perhaps the best example of diversified funding sources, although its membership stands at 28, some 20 percent of IRENA's membership today. Approximately 20 percent of IEA revenue is generated from publications, more than half of which comes from the sales of the Oil & Market report (including the Monthly oil data services). Research shows that publications generate approximately €5 million per year in revenue. IEA publications rely strongly on the statistics and electronic services[1] offered by IEA. Although IEA currently charges for statistics and publications they are moving towards making certain information more readily accessible online.

UNEP

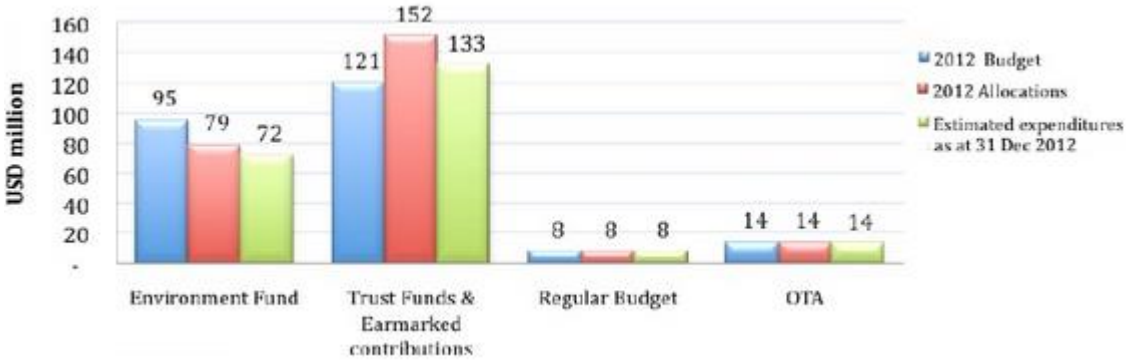
UNEP, as 'the voice for the environment within the United Nations system'[2] is perhaps the most similar organisation to IRENA in terms of mandate. UNEP's annual budget is $239 million. UNEP's has the smallest core budget of those analysed, representing nine percent of total budget (including UN Regular Budget and Programme Support Costs – 'OTA'). The majority of UNEP funding (approximately 90%) actually derives from UNEP's Environment and Trust funds which leverages Member States' voluntary investments into pooled resources. Although the Environment and Trust funds are voluntary, they are based on multi-year commitments and thus provide a certain level of programmatic security.

Of note, UNEP is shifting from 'earmarked funding' towards funds for the Environment Fund, and states a funding gap of US $15 million in 2014 and US $40 million in 2015 as compared to the

[1] 'Electronic services' apply to monthly statistic reviews and other online applications developed by IEA.
[2] http://www.unep.org/About/

Environment Fund budget for 2013. UNEP is encouraging Members to consider their current level of support.

UNEP Funding 2012 (USD million)



UNIDO

UNIDO budget in 2012-2013 stood at €455 million (approximately $628 million or $314 million annually). UNIDO's regular budget is funded primarily from assessed contributions, with a limited amount provided from other sources such as interest income, sales publications and government contributions to the UNIDO regional and country offices. UNIDO's operational budget is financed largely from, "support cost income earned from the implementation of technical cooperation activities financed from voluntary contributions. This support cost income is a reimbursement by donors to partially compensate UNIDO for the support services rendered by it"[3]. Extrabudgetary funds represent about 60% of UNIDO's overall budget.

UNIDO Summary of budget estimates by programme for 2012-2013

Table 1

Summary of budget estimates by major programme for 2012-2013

for total operations

(In euros, at 2012-2013 costs)

Major Programme	Regular budget (net)	Operational budget (net)	Technical cooperation (extrabudgetary)	Total net estimates	Percent of total estimates
A. Policymaking Organs	5,047,940	85,500		5,133,440	1.1%
B. Executive Direction and Strategic Management	12,024,160	274,000		12,298,160	2.7%
C. Thematic Priorities	75,917,826	23,116,000	273,091,700	372,125,526	81.3%
D. Strategic Research, Quality Assurance and Outreach	13,911,600	1,212,000		15,123,600	3.3%
E. Programme Support Services	26,879,307	4,223,900		31,103,207	6.8%
F. Buildings Management					0.0%
G. Indirect Costs	21,663,003			21,663,003	4.7%
Miscellaneous Income	(2,211,900)	(73,700)		(2,285,600)	
Total net requirements	153,231,936	28,837,700	273,091,700	455,161,336	100.0%

[3] http://www.unido.org/fileadmin/user_media/PMO/PBC/PBC29/pbc29_5e_new.pdf

IAEA

IAEA follows a similar trend to other organisations analysed. Approximately 40% of IAEA's budget is found in extrabudgetary funds (including Nuclear Security Fund and Technical cooperation programme).

IAEA Operational, Capital and Extrabudgetary funding 2012

	Operational regular budget by major programme	2012 at 2012 prices	2013 prelim. estimates at 2012 prices	Total for biennium
Major Programmes	1. Nuclear Power, Fuel Cycle and Nuclear Science	33 724 547	33 763 134	67 487 681
	2. Nuclear Techniques for Development and Environmental Protection	38 664 074	38 668 640	77 332 714
	3. Nuclear Safety and Security	33 998 536	33 998 152	67 996 688
	4. Nuclear Verification	128 780 549	128 784 718	257 565 267
	5. Policy, Management and Administration Services	75 354 949	75 314 486	150 669 435
	6. Management of Technical Cooperation for Development	20 389 905	20 389 113	40 779 018
Operational regular budget		330 912 560	330 918 243	661 830 803
Capital regular budget		8 153 455	8 178 556	16 332 011
Total Agency programmes		**339 066 015**	**339 096 799**	**678 162 814**
Extrabudgetary operational [2]		108 449 745	109 315 945	217 765 690
Extrabudgetary capital [3]		7 497 598	243 535	7 741 133
Nuclear Security Fund		18 688 345	18 678 345	37 366 690
Technical cooperation programme		108 610 000	108 610 000	217 220 000
Total resources [5]		**582 311 703**	**575 944 624**	**1 158 256 327**

International Organisations – Select Budget Overview

International Energy Agency (IEA)	
Annual Budget (2012)	EUR 26.6 million (USD 36.8 million)
Number of Members	28
Areas of focus	oil, gas, coal, transport, climate change, renewable energy, energy efficiency, nuclear energy

In its own words:

The International Energy Agency (IEA) is an autonomous organisation that works to ensure reliable, affordable and clean energy for its 28 member countries and beyond. Founded in response to the 1973-74 oil crisis, the IEA's initial role was to help countries co-ordinate a collective response to major disruptions in oil supply through the release of emergency oil stocks to the markets. While this continues to be a key aspect of the Agency's work, the IEA has evolved and expanded to encompass the full mix of energy resources. It is at the heart of global dialogue on energy, providing authoritative and unbiased research, statistics, analysis and recommendations.

The IEA is funded by its 28 member countries and the revenue it generates from its publications. The 2012 annual budget is EUR 26,612,600. Assessed contributions for member countries are based on a formula that takes account of the size of each member's economy. The IEA also receives voluntary contributions from member governments and others for a wide range of activities included in its Programme of Work and budget.

Source: **http://www.iea.org/aboutus/faqs/organisationandstructure/**

Headquarters: Paris, France, no regional offices

United Nations Environment Programme (UNEP)	
Annual Budget (2012-2013 biennium)	USD 474 million for biennium (USD 237 million per year)
Number of Members	193
Areas of focus	Climate change, disasters & conflicts, ecosystem management, environmental governance, harmful substances, resource efficiency

In its own words:

UNEP, established in 1972, is the voice for the environment within the United Nations system. UNEP acts as a catalyst, advocate, educator and facilitator to promote the wise use and sustainable development of the global environment.

UNEP work encompasses:

- Assessing global, regional and national environmental conditions and trends
- Developing international and national environmental instruments
- Strengthening institutions for the wise management of the environment

Mandate: "to be the leading global environmental authority that sets the global environmental agenda, that promotes the coherent implementation of the environmental dimensions of sustainable development within the United Nations system and that serves as an authoritative advocate for the global environment"

Source: http://www.unep.org/About/; http://www.unep.org/annualreport/2012/#

Headquarters: Nairobi, Kenya, with 6 regional offices, and additional field presence

United Nations Industrial Development Organization (UNIDO)	
Annual Budget (2012-2013 Biennium)	EUR 189.5 million (USD 255.6 million); of which EUR 160.7 million (USD 217.3 million) regular budget and EUR 28.8 million (USD 38.9 million) operational budget
Number of Members	172
Areas of focus	Poverty reduction through productive activities, trade capacity development, environment and energy, cross-cutting issues

In its own words:
UNIDO is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability

The mandate of the United Nations Industrial Development Organization (UNIDO) is to promote and accelerate sustainable industrial development in developing countries and economies in transition.

In recent years, UNIDO has assumed an enhanced role in the global development agenda by focusing its activities on poverty reduction, inclusive globalization and environmental sustainability. The Organization draws on four mutually reinforcing categories of services: technical cooperation, analytical and policy advisory services, standard setting and compliance, and a convening function for knowledge transfer and networking.

On environment and energy:
Energy is a prerequisite for poverty reduction. Still, fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development. UNIDO therefore promotes sustainable patterns of industrial consumption and production.

As a leading provider of services for improved industrial energy efficiency and sustainability, UNIDO assists developing countries and transition economies in implementing multilateral environmental agreements and in simultaneously reaching their economic and environmental goals. Through this thematic priority, UNIDO mainly addresses MDG1, MDG7 and MDG8.

Source: http://www.unido.org/what-we-do.html;
http://www.unido.org/fileadmin/user_media/PMO/IDB/IDB39/idb39_13rev1enewfinal.pdf

Headquarters: Vienna, Austria (offices in New York, Geneva, Brussels) and field presence

International Atomic Energy Agency (IAEA)	
Annual Budget (2014)	EUR 344 million (USD 476.5 million); of which EUR 76.9 million (USD 106.5 million) is dedicated to policy and management and 38.5 million (USD 53.3 million) for 'Nuclear Techniques for Development and Environmental Protection'
Number of Members	159
Areas of focus	Nuclear applications, efficient and safe use of nuclear power, innovation and building capacity, safety & security, safeguards (inspections and stopping the spread of nuclear weapons); technical cooperation
In its own words: The IAEA works for the safe, secure and peaceful uses of nuclear science and technology. Its key roles contribute to international peace and security, and to the world's Millennium Goals for social, economic and environmental development. Source: http://www.iaea.org/About/budget.html; http://www.iaea.org/OurWork/ http://www.iaea.org/Publications/Reports/Anrep2012/anrep2012_full.pdf (page 98)	
Headquarters: Vienna, Austria	