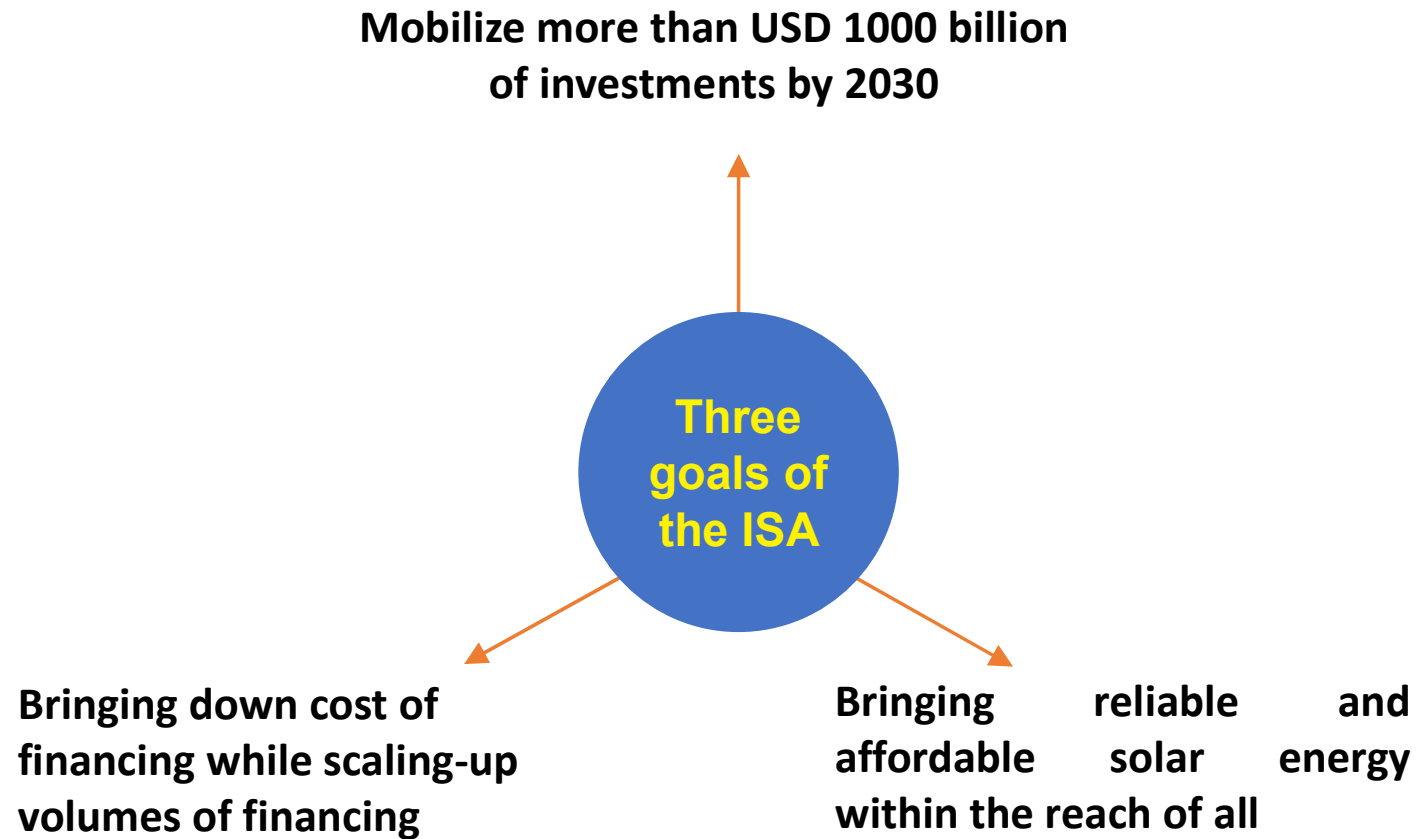




ISA - Progress so far

COP24
December 2018

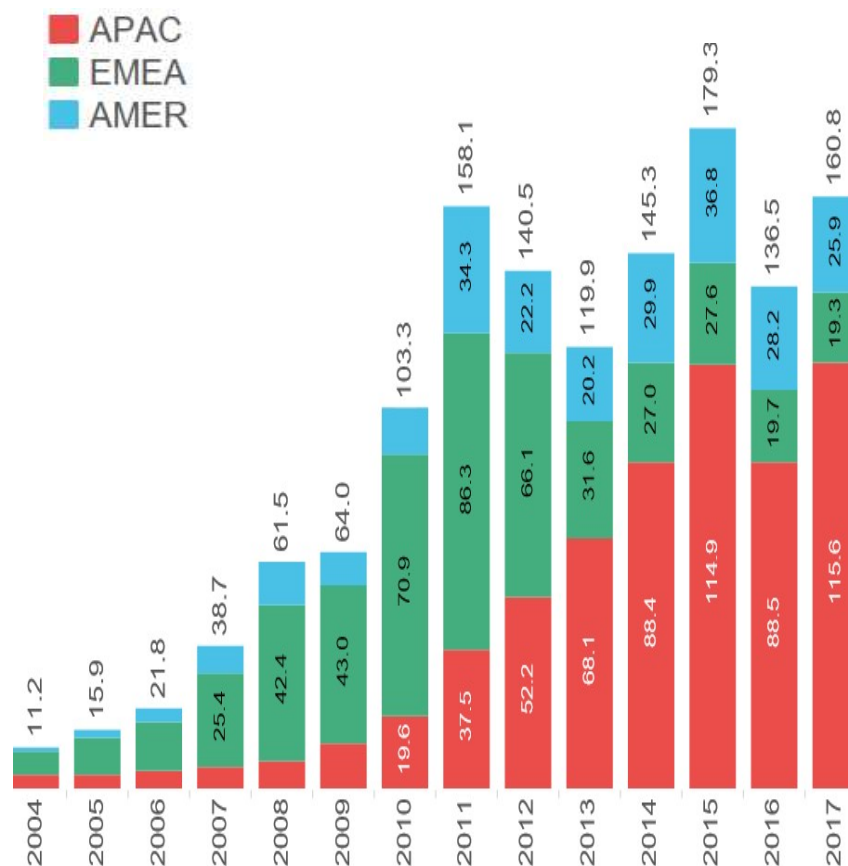
Key interests and objectives of the ISA



USD 1 trillion
target

Understanding
the BIG
PICTURE!

Looking back



SOLAR energy investment 2004-17 (\$bn) By REGION

Looking ahead



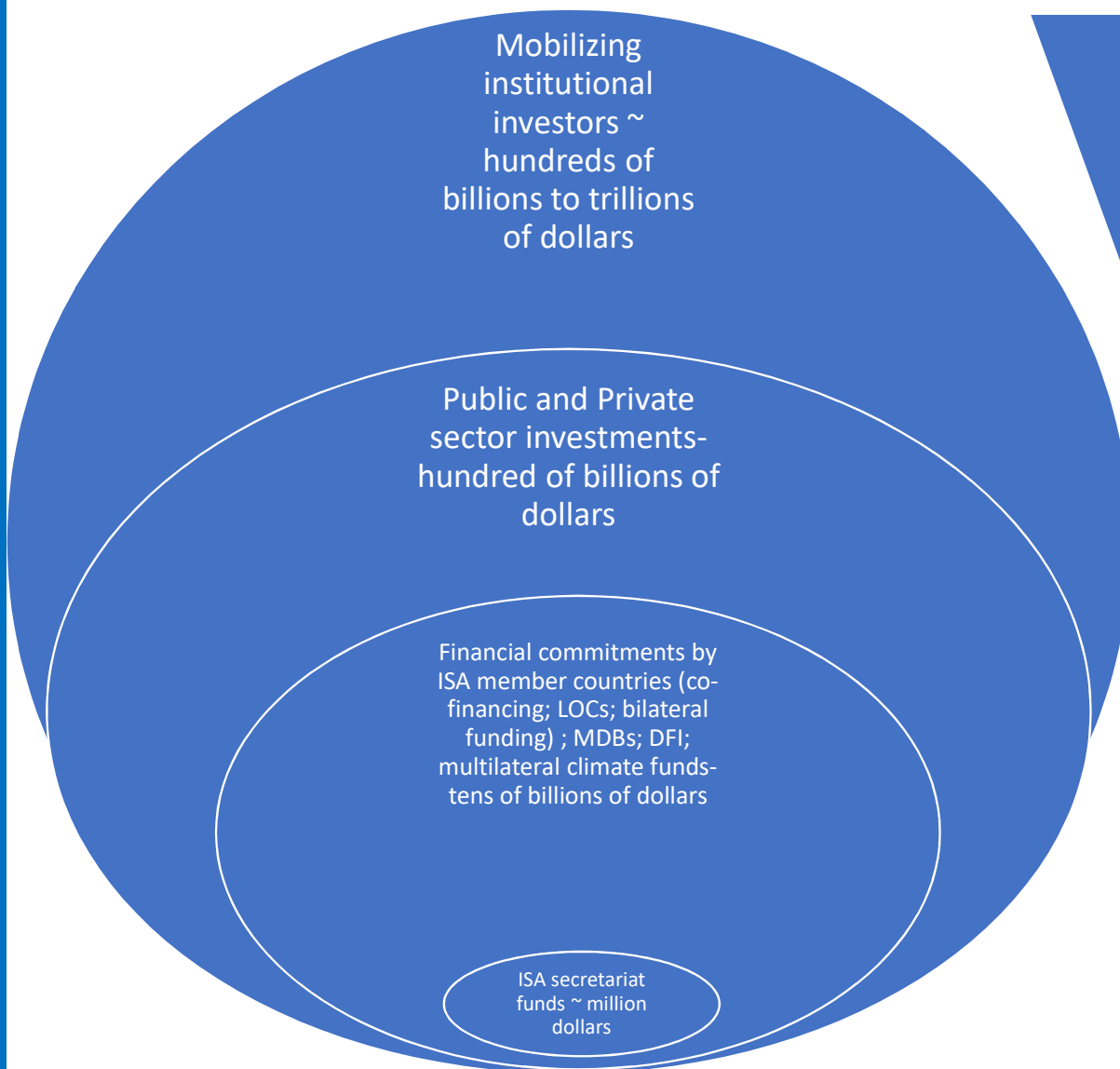
Cumulative new investments - 5 yrs blocks			
Five year investments (\$bn, 2016 real)			
	2017-20	2021-25	2026-30
Germany	10	16	14
France	5	4	5
United Kingdom	2	2	2
Italy	2	4	4
Iberia	2	6	11
Other Europe	8	16	21
Turkey	4	6	9
Middle East & North /	15	32	42
Sub-Saharan Africa	5	11	25
United States	54	43	32
Canada	2	3	5
Brazil	5	6	14
Chile	3	1	2
Mexico	9	4	13
Other Latin America	2	8	13
China	104	112	114
India	32	59	72
Japan	36	19	23
South Korea	5	7	12
Australia	9	7	10
Indonesia	1	2	5
Malaysia	1	2	5
Philippines	1	2	4
Thailand	2	5	7
Rest of the World	57	5	19
Total	375	385	483

Note: Flexible capacity not part of investments

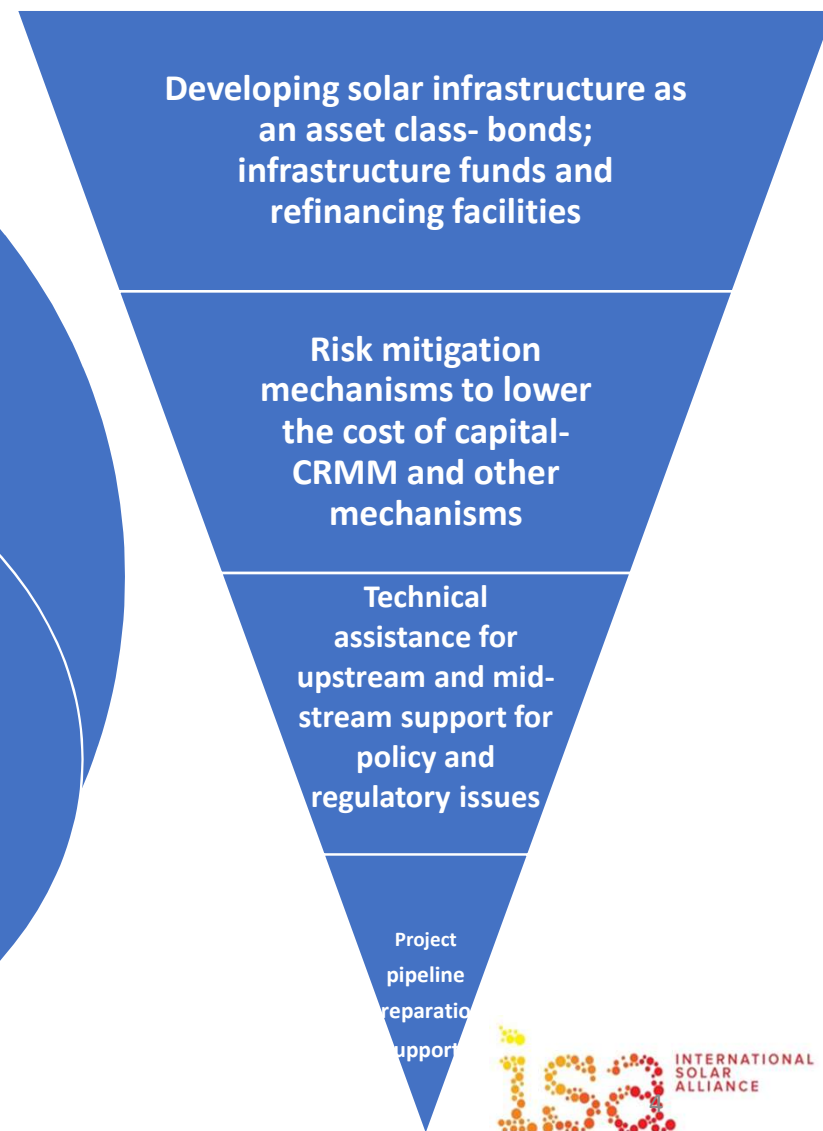
Source: BNEF 2017

**Leveraging
ISA funds to
mobilize
scaled-up
investments
from key
players**

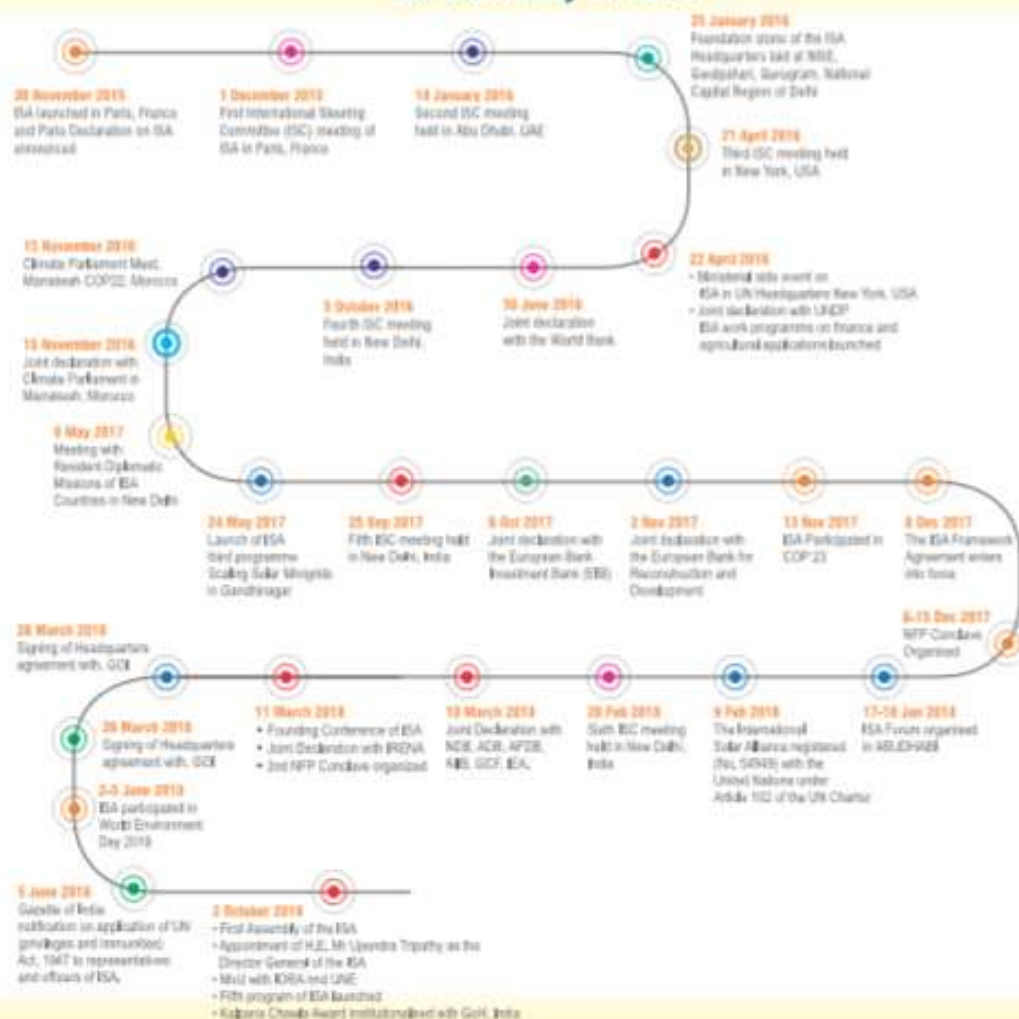
ISA's role as an investment mobilizing mechanism



Key tools and mechanisms



ISA's Journey so far...



Names of the countries that have signed the Framework Agreement

- | | | |
|---|--------------------------------------|--|
| 1. Commonwealth of Australia | 25. Republic of Kiribati | 49. Republic of Burundi |
| 2. Peoples Republic of Bangladesh | 26. Republic of Liberia | 50. Republic of Guyana |
| 3. Republic of Benin | 27. Republic of Madagascar | 51. Democratic Socialist Republic of Sri Lanka |
| 4. Federal Republic of Brazil | 28. Republic of Malawi | 52. Republic of Suriname |
| 5. Burkina Faso | 29. Republic of Mali | 53. Republic of Uganda |
| 6. Kingdom of Cambodia | 30. Republic of Mauritius | 54. Republic of Cape Verde |
| 7. Republic of Chile | 31. Republic of Nauru | 55. Republic of The Gambia |
| 8. Republic of Costa Rica | 32. Republic of Niger | 56. Republic of Mozambique |
| 9. Democratic Republic of Congo | 33. Republic of Nigeria | 57. Democratic Republic of Sao Tome and Principe |
| 10. Union of Comoros | 34. Republic of Peru | 58. Republic of Yemen |
| 11. Republic of Cote d'Ivoire | 35. Republic of Rwanda | 59. Independent State of Papua New Guinea |
| 12. Republic of Cuba | 36. Republic of Senegal | 60. People's Democratic Republic of Algeria |
| 13. Republic of Djibouti | 37. Republic of Seychelles | 61. Commonwealth of Dominica |
| 14. Dominican Republic | 38. Federal Republic of Somalia | 62. Arab Republic of Egypt |
| 15. Federal Democratic Republic of Ethiopia | 39. Republic of South Sudan | 63. Republic of Grenada |
| 16. Republic of Equatorial Guinea | 40. Republic of Sudan | 64. United Kingdom |
| 17. Republic of Fiji | 41. United Republic of Tanzania | 65. The Netherlands |
| 18. France | 42. Kingdom of Tonga | 66. Republic of Namibia |
| 19. Gabonese Republic | 43. Togolese Republic | 67. Republic of El Salvador |
| 20. Republic of Ghana | 44. Tuzile | 68. Republic of Myanmar |
| 21. Republic of Guinea | 45. United Arab Emirates | 69. Republic of Zimbabwe |
| 22. Republic of Guinea-Bissau | 46. Republic of Vanuatu | 70. Republic of Zambia |
| 23. Republic of India | 47. Bolivarian Republic of Venezuela | 71. Republic of Cameroon |
| 24. Japan | 48. Republic of Chad | |

Names of the Countries that have also ratified the Framework Agreement

- | | | |
|---|---|--|
| 1. Commonwealth of Australia | 17. Republic of Niger | 33. Burkina Faso |
| 2. Democratic Socialist Republic of Sri Lanka | 18. Republic of Peru | 34. Republic of Grenada |
| 3. Peoples Republic of Bangladesh | 19. Republic of Seychelles | 35. Republic of Suriname |
| 4. Union of Comoros | 20. Federal Republic of Somalia | 36. Republic of Namibia |
| 5. Republic of Cuba | 21. Republic of South Sudan | 37. Republic of Chad |
| 6. Republic of Fiji | 22. Tuzile | 38. Republic of Benin |
| 7. France | 23. Togolese Republic | 39. Republic of Djibouti |
| 8. Republic of Ghana | 24. Republic of Uganda | 40. Republic of Senegal |
| 9. Republic of Guinea | 25. Republic of Guyana | 41. Kingdom of Tonga |
| 10. Gabonese Republic | 26. Republic of Rwanda | 42. Republic of Vanuatu |
| 11. Republic of India | 27. Republic of Cote d'Ivoire | 43. Republic of Myanmar |
| 12. Republic of Malawi | 28. Commonwealth of Dominica | 44. Republic of Kiribati |
| 13. Republic of Mali | 29. Independent State of Papua New Guinea | 45. Republic of Cape Verde |
| 14. Republic of Mauritius | 30. Republic of Sudan | 46. Democratic Republic of Congo |
| 15. Republic of Madagascar | 31. United Arab Emirates | 47. Democratic Republic of Sao Tome and Principe |
| 16. Republic of Nauru | 32. Bolivarian Republic of Venezuela | |

Programmes of the ISA

ISA Programme	Participating Countries (total)	Countries that have Ratified Framework Agreement
Scaling Solar Applications For Agricultural Use	28	Bangladesh; Benin; Djibouti; Fiji; France; Gabon; Ghana; Guyana; India; Madagascar; Malawi; Mali; Mauritius; Niger; Rwanda; Senegal; Seychelles; Somalia; Sudan; Togolese; Tuvalu; Uganda; Kiribati; Tonga; Vanuatu. (25)
Affordable Finance at Scale	31	Bangladesh; Benin; Burkina-Faso; Chad; France; Ghana; Guyana; India; Madagascar; Malawi; Mali; Namibia; Nauru; Niger; Senegal; Seychelles; Somalia; Sri Lanka; Togolese; Tuvalu; Uganda; Kiribati; Tonga; Vanuatu. (24)
Scaling Solar Mini-grids	28	Bangladesh; Benin; Burkina-Faso; Chad; Djibouti; Ghana; Guinea; Guyana; India; Madagascar; Malawi; Mali; Nauru; Niger; Senegal; Somalia; Sudan; Togolese; Tuvalu; Kiribati; Tonga; Vanuatu. (22)
Scaling Solar Rooftop	18	Benin; Djibouti; Ghana; Guyana; Madagascar; Malawi; Mali; Nauru; Niger; Senegal; Seychelles; Togolese; Kiribati; Tonga; Vanuatu. (15)
Scaling Solar E-Mobility and Storage	13	Djibouti; Guyana; Mali; Nauru; Senegal; Seychelles; Togolese; Tuvalu; Kiribati; Tonga; Vanuatu. (11)

- ❑ Circulation of need assessment questionnaires to all participating and Signatory countries.
- ❑ With a view of demand aggregation target by 2025 and 2030 in terms of Capacity and MW; the Secretariat had circulated first Call for Expression of Interest on Jan, 2018.
- ❑ M/S Energy Efficiency Services Limited, a Central Public Sector Enterprise of Government of India, was selected to conduct *Price Exploratory Global Tender* for solar water pumping systems.
- ❑ Development of online awareness certificate program for farmers in collaboration with Indira Gandhi National Open University
- ❑ Two National Focal Point (NFP) Conclaves were held at ISA Secretariat in Dec, 2017 and Mar 2018; and Solar Roadmaps of 33 ISA countries were prepared.

Demand aggregation would reduce the cost of supply, installation and operation & Maintenance of Solar Water Pumping Systems

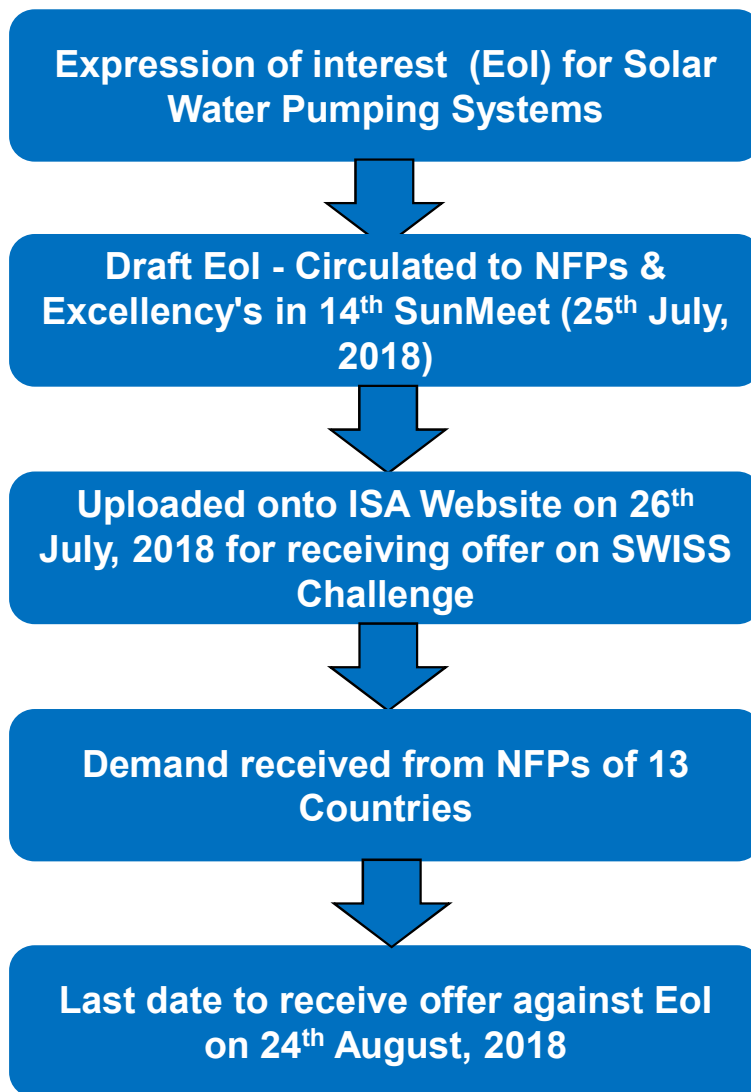
Demand Aggregation of Water Pumps from Member Countries



S.No.	ISA member countries	# of Pumps
1	India	300000*
2	Bangladesh	50000
3	Benin	50000
4	Sudan	50000
5	Uganda	30000
6	Mali	15000
7	Niger	15000
8	South Sudan	6800
9	Senegal	4000
10	Democratic Republic of Congo	1000
11	Somalia	500
12	Djibouti	100
13	Mauritius	27
TOTAL		522427

- ***To be confirmed.**
- **A total of 65 Master Trainers will be trained from these 13 Member Countries by March 2019 (with five participants from each country); Invitation is also extended to other member countries to join.**

Price Exploratory Global Tender



- ❑ Eol issued to select organization, which can process International Competitive Bidding and provide services as Project Management Consultancy on behalf of ISA

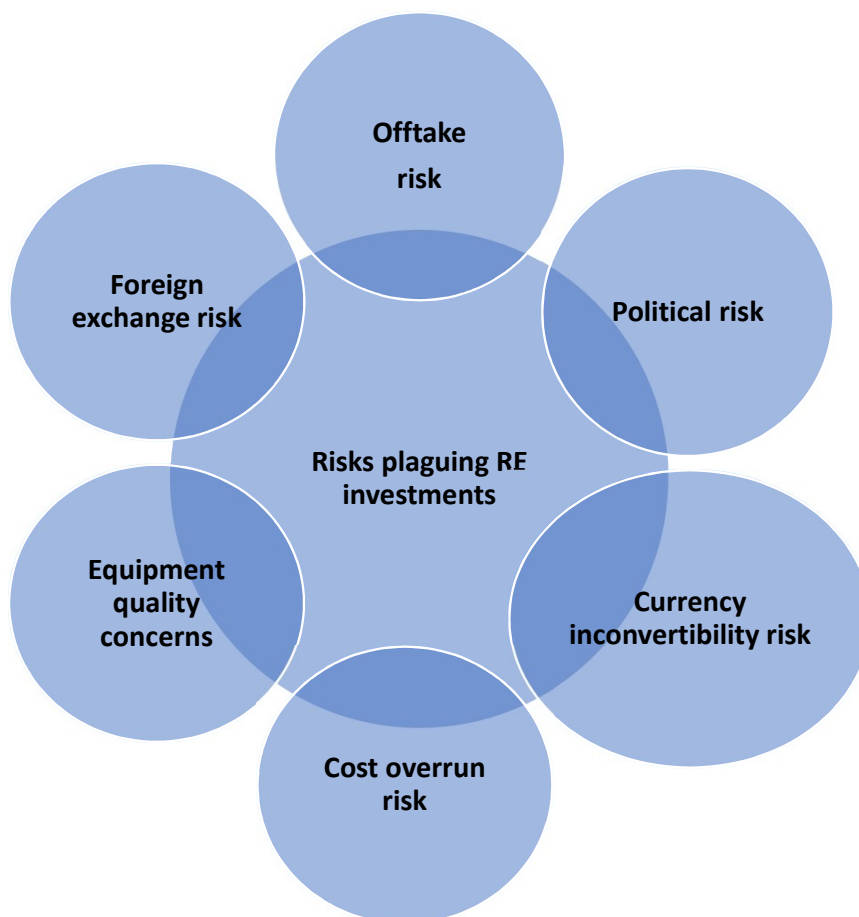
Components involved in Price Exploratory Global Tender for Solar Water Pumping Systems:

- ❑ Five years of warranty on operation & maintenance by developer
- ❑ Mandate on capacity building by training local manpower/farmers

Letter of Intent has been issued on 11th September, 2018 to M/S EESL, India

- ❑ **Strong buy-in from (28) countries participating in this Programme**
 - Model need assessment questionnaire developed for Affordable Finance at Scale for ISA countries
 - Several rounds of virtual meetings organized with National Focal Points of participating countries
- ❑ **Innovative financial instruments for mobilizing solar investments**
 - Credit Enhancement Mechanism' and a 'First Loss Facility' developed by IREDA for India
 - Common Risk Mitigation Mechanism is currently being designed
- ❑ **Mobilization of Lines of credits:**
 - India: 15-20% of the US\$ 10 Billion line of credit operated by India in Africa earmarked for undertaking solar projects of ISA's request.
 - In principle approval of 27 projects in 15 countries amounting to USD 1392.48 million
 - France: AfD has committed Euro 1000 million for solar projects in ISA Member Countries
- ❑ **Strategic partnerships with International Financial Institutions**
 - Joint financial partnership agreements with AfDB, ADB, AIIB, EBRD, EIB, GCF, NDB and WB; potential partnerships agreement with CAF; IDB and CDB.
- ❑ **Strategic partnerships with private sector entities**
 - A Public-Private Corporate Global Task Force on innovation; and an International Committee of Chambers of Industry and Business (ICCIB)
 - Funds provided by private sector players for ISA's Corpus Fund enhancement
 - Two million USD by Soft Bank; one million USD by CLP

Common Risk Mitigation Mechanism



- ❑ There are no off-take risk mitigation instruments dedicated to RE
- ❑ The existing instruments burden both issuers and users with high transaction costs and complex application processes causing prohibitive delays
- ❑ Existing risk-mitigation instruments do not cater to specific roadblocks faced by private investors
- ❑ World Bank, along with AfD, is now leading the design and operationalization of the CRMM

Note: Lome Initiative has been proposed by Benin, Burkina Faso, Gabon, Mali, Niger and Togo to accelerate the implementation of optimal collective regulatory provisions that facilitate the aggregation and processing of funding requirements

- ☐ Several rounds of video conferences between National Focal Points organised.
- ☐ Questionnaires shall be circulated to all participating and ISA signatory countries.
- ☐ Call for Expression of Interest (CEI) for Solar Mini Grids has been issued to all NFPs-five projects concepts to be submitted by countries.
- ☐ The basic objective of aggregating demand from ISA Member Countries is to reduce the cost of installation and operation and maintenance.
- ☐ Industry has given expression of interest for mini-grids of a total of 409 MW from countries in Africa region.

Scaling Rooftop Solar – Progress so far



- ☐ Member countries have been requested to submit at least five project concepts for demand aggregation by ISA on as Power Purchase Agreement (PPA) basis.
- ☐ Assess rooftop potential, harmonize demand, pool resources and promote rapid deployment of Solar Rooftop at scale in ISA member countries.
- ☐ Model PPAS for Rooftop RESCO projects is in advanced stage of finalization
- ☐ Rooftop Scheme of ISA under finalisation as a Model Guide to be circulated to Member Countries.
- ☐ Twin-City MoU between Chandigarh, India and Accra, Ghana for scaling rooftop solar and developing Solar City Program.
- ☐ Master Trainers programme

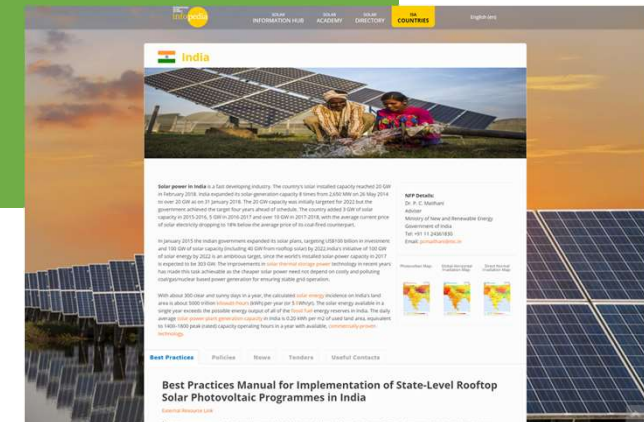


INFOPEDIA : An online platform dedicated to the dissemination of information, best-practices and knowledge on Solar Energy:

- To be completed by January 2019
- Supported by the European Union



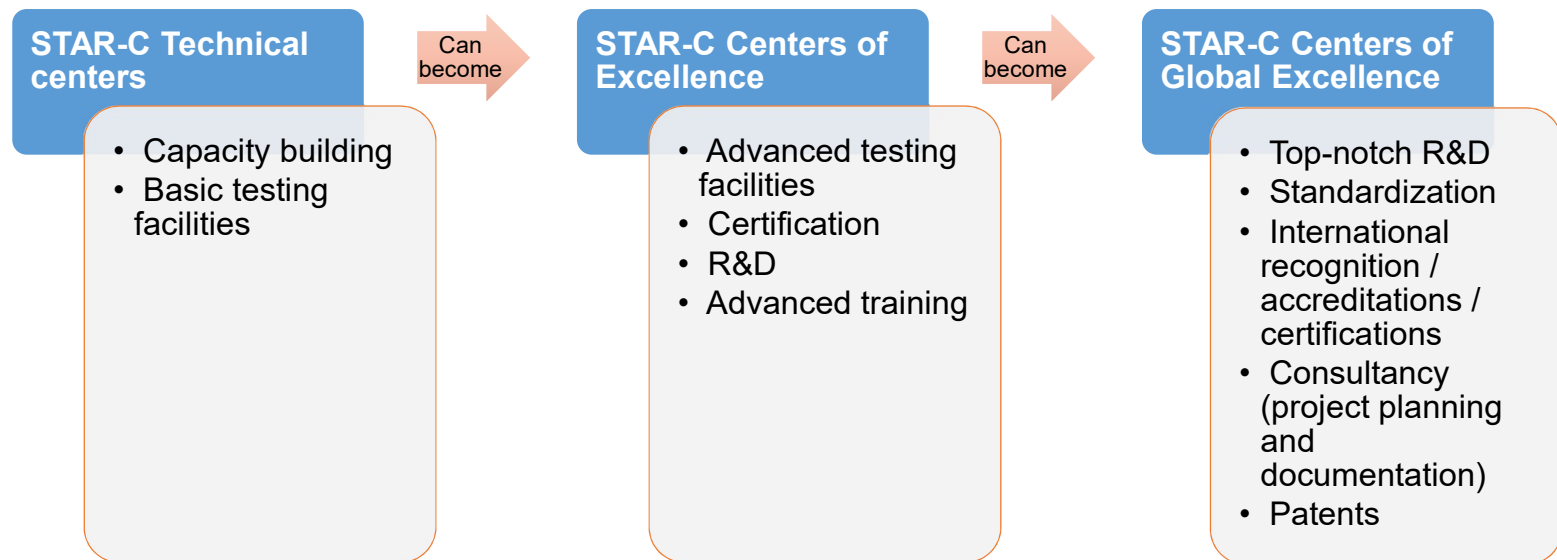
- **Country counters : A dedicated space on the Online Platform for each Member Country to present the most complete solar energy profile**
- **Solar Information Hub on solar energy aggregating information on:**
 - Best practices, policies and investments and financing information from around the globe
 - Current technologies and innovative solutions on solar energy coming from R&D and corporate sector
 - Tools and databases on Solar Energy
- **Solar Academy:** A full-fledged Learning Management System allowing ISA and its partners to create and host courses on solar technology
- **ISA Communication Tools providing for:**
 - Holding online video conferences among ISA, Member Countries and other stakeholders
 - Presentation of Live Webcasts
 - Setting up of e-Learning Live Webinars
- **Solar Directory:** An self-registration directory for the Solar Industry, NGOs, Research Centers and Financing institutions



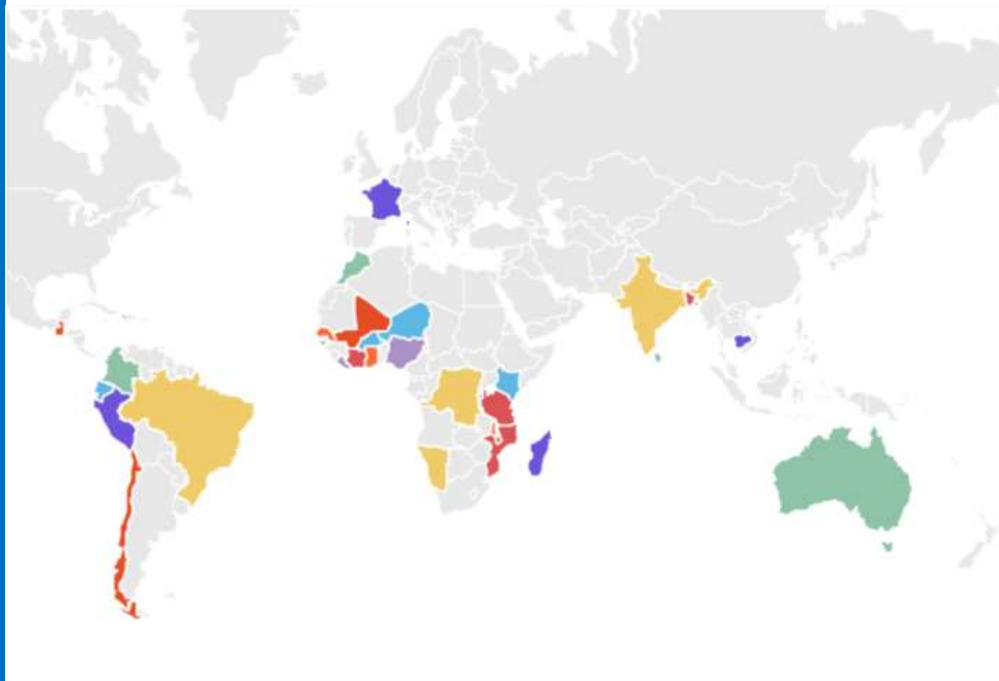
Capacity Building Activities-STAR-C Programme

The goals of STAR-C include the following:

- To build a network of training and technical STAR-centers in ISA member countries
- To develop and disseminate training programs for all solar energy stakeholders (technicians, trainers, project developers, engineers, policy makers, etc).
- To provide testing and technical certification capabilities to key STAR-centers.



iSTAR- Centers on solar energy



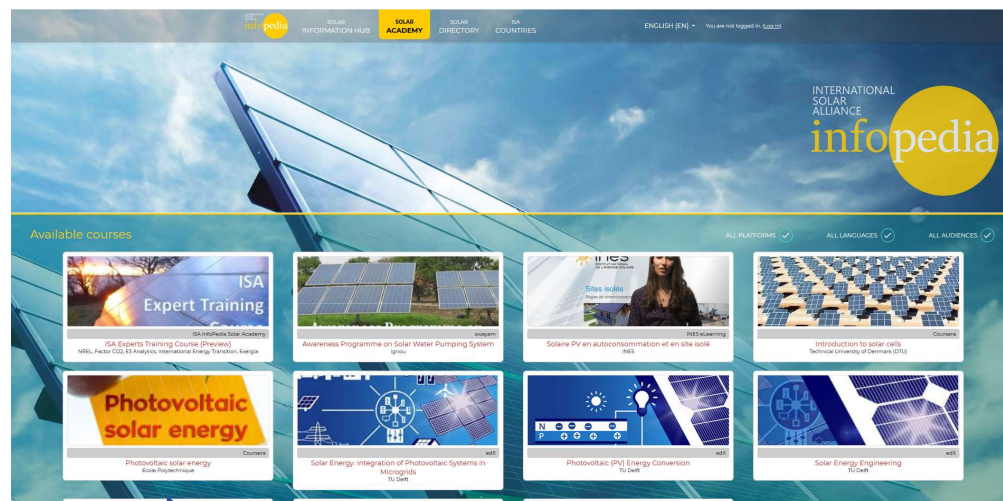
Support of Foundations to upgrade or create iSTAR-Centers in each Member countries providing training, R&D, standardization, quality control on solar energy

Objective: Schneider Electric Foundation, Tata and Philips Foundation have committed to open 50 iSTAR-C by March 2019 (One Planet Summit in Kenya) and 121 by 2022.

Schneider Electric Foundation committed as well to train at least **10,000 young technicians in ISA countries between 2018 and 2022** through training centers (**vocational training / solar technicians**)

Capacity Building Activities-STAR-C Programme

Training material available by January 2019 on Infopedia



<https://solaracademy.isainfopedia.org>



INES - French National Institute of Solar Energy : 6 modules / 16 e-learning training sessions on solar energy

NISE – Indian National Institute of Solar Energy and Ministry of External Affairs, GoI : ITEC programme in Solar Energy for **Master Trainers from ISA Member Countries**: A training course of 21 days for Engineers/Technicians working in Solar Energy area already started. 165 professional / graduate engineers in ISA countries to be trained by March 2019 (5 per country). After training, a Master Trainer would train others and build up a network of trained manpower within the country. More information : www.itecgoi.in

Clean Energy Solutions Center : 8 Modules / 45 e-learning raining sessions on solar energy and finance for policymakers developed by NREL

Indira Gandhi National Open University : Developed an e-learning training module on solar water pumping for the ISA Member Countries. More information : <https://swayam.gov.in/courses/public?keyword=Awareness%20Programme%20on%20Solar%20Water%20Pumping%20System>

More to come

Capacity Building Activities-STAR-C Programme

On-going projects

- **EACREEE** (<https://www.eacreee.org/>):  **EACREEE**
EAST AFRICAN CENTRE FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY
 - Conduct a 5-year project in cooperation with ISA and UNIDO on Standalone Solar PV capacity-building in East Africa in order to create an “East African Solar Energy Academy” delivering trainings in EAC Partner States
 - Review of the existing solar PV training curriculum in the East African region and beyond
- **AFD** (<https://www.afd.fr/en>):  **AFD**
AGENCE FRANÇAISE DE DÉVELOPPEMENT
 - The AFD will support the organization of a conference of solar training and research centers in June 2019 in Africa
 - AFD support is also being explored in order to fund trainings of trainers in African countries

Capacity Building Activities-STAR-C Programme

On-going projects

- **ISA Kalpana Chawla Solar Award:** Government of Haryana, a province of India has sanctioned an amount INR 10 crore (1 358 250 USD) for instituting an award to researchers working in the solar energy specialization
- **ISA Equinox circle:** the CESC is providing access to its “Ask-an-Expert” service in order to deliver technical support and expertise on the drafting and design of solar projects for the benefit of governments and affiliated agencies.
 - More information : <https://cleanenergysolutions.org/expert/profiles/renewable-energy>
- **ISA Solar Fellowship for Midcareer Professionals**
 - 20 professionals working in the field of Solar Energy technology will be selected to pursue 2 year Master’s Programme in the field of solar technology, management and economics at one premier institute in India
 - These professionals will go back and would further contribute to enhancement of solar energy expertise and policy formulation in their home countries
 - Fellowship is designed to meet requirement of policy makers, planners, administrators and managers from government, public and private institutions, who have displayed public commitment and demonstrated leadership for their country’s development



Financial Resources for the Corpus Fund:

Article VI (1) of the Framework Agreement provides for the following:

- ☐ Voluntary contributions by its members, Partner Countries, UN and its agencies and other countries;
 - ☐ Voluntary contributions from the private sector. In case of a possible conflict of interest, the Secretariat refers the matter to the Assembly for approval of the acceptance of the contribution; and
 - ☐ Revenue to be generated from specific activities approved by the Assembly.
- Government of India has committed to contribute US \$ 27 million (out of which US\$ 16 million and five tranches of 2.0 million each for recurring expenses) to the ISA for creating a corpus, building infrastructure and recurring expenditure over a five-year duration from 2016-17 to 2020-21.

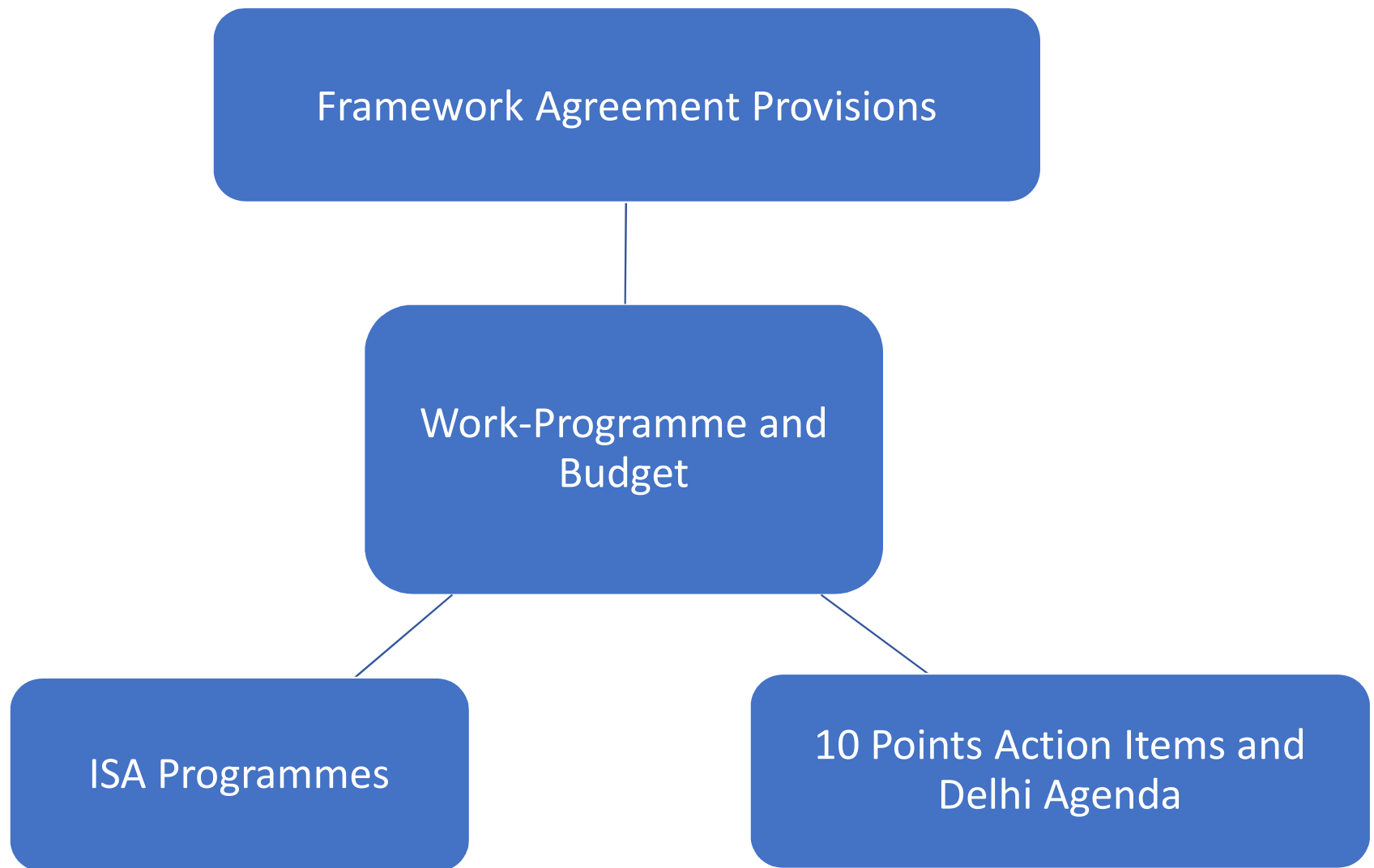
Following public sector undertakings of Government of India, have made a contribution of US \$ 1 million each for creating a corpus:

- ☐ Solar Energy Corporation of India;
- ☐ Indian Renewable Energy Development Agency;
- ☐ Rural Electrification Corporation of India Ltd;
- ☐ National Thermal Power Corporation Limited; and
- ☐ Power Grid Corporation of India Limited.
- ☐ **Coal India Ltd (announced during the first Assembly)**
- ☐ **Power Finance Corporation (announced during the first Assembly)**
- ☐ **India Trade Promotion Organization (announced during the first Assembly)**

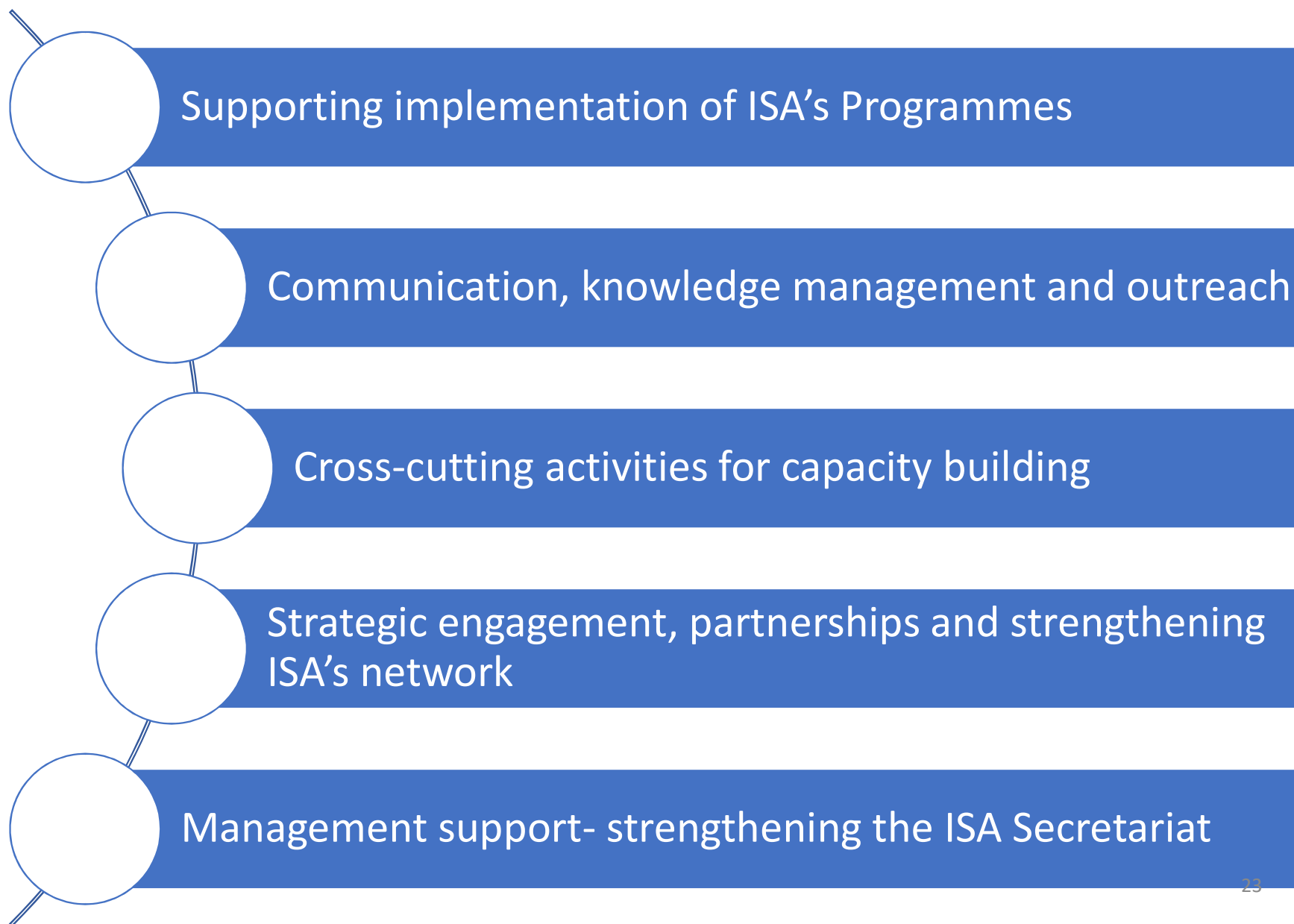
Plus two corporations have provided 3 million USD for the Corpus Fund.

- ❑ **On the request of ISA, India has set up a project preparation facility to provide consultancy support to design bankable projects under Gol LoC.**
- ❑ **ISA-ISRO software application tool for calculating solar generation covering India and whole of Africa launched on 4th June 2018.**
- ❑ **Cooperation with Strategic and Other Partners established**
 - Joint Declarations have been signed with R20, Global Solar Council, IEA, IRENA, Climate Parliament, UNDP, UNIDO and UNCCD on enhancing cooperation on solar energy deployment and assisting in development of bankable Projects in ISA member Countries
- ❑ **Collaborative institutional and knowledge partnerships established with TERI, C-Step, CEEW, CII, CSE, ECREEE, EU, FICCI, INES, NISE, PHDCC, Schneider Electric /Schneider Electric Foundation etc.**
- ❑ **ISA Experts without Borders – Equinox Circle**
 - ISA Secretariat proposes to enlist/empanel experts from 121 prospective Member countries (both North-South and South-South cooperation envisaged) to support its various programs, which have been launched or are in the process of being launched, with an objective to achieve rapid and mass deployment of solar energy
- ❑ **A Global Task Force of Foundations has been constituted to support the ISA members countries in formulating the projects.**

**ISA's Work-
programme
and
budget-
guiding
elements**



Key components of the Work-Programme



Detailed Budget

Thematic Areas	Proposed budget for 2019 (in US\$)	Prospective budget for 2020 (in US\$)	Proposed budget for 2019 and 2020 (in US\$)	Proportion of the total budget (%)
Affordable Finance at Scale Programme	264,000	264,000	528,000	5.62%
Scaling Solar Applications for Agriculture Use Programme	409,962	409,961	819,923	8.73%
Scaling Solar Mini Grids Programme	223,413	223,412	446,825	4.76%
Scaling Rooftop Solar Programme	365,961	365,962	731,923	7.79%
Scaling E-mobility and Storage Programme	151,038	151,039	302, 077	3.22%
Capacity Building	455,909	455,909	911,818	9.71%
Sub total (A)- Programme Cost	1,870,283	1,870,283	3,740,566	39.84%
Communication, Knowledge Management and Outreach	165,846	165,846	331,692	3.53%
Strategic Engagement and Partnerships	302,257	302,257	604,514	6.44%
Sub total (B) – Communications, Outreach and Strategic Engagement	468,103	468,103	936,206	9.97%
Management Support	2,218,489	2,495,508	4,713,997	50.19%
Sub total (C) – Management Support Cost	2,218,489	2,495,508	4,713,997	*50.19%
Total [(A) + (B) + (C)]	4,556,875	4,833,894	9,390,769	100.00%

* Management support cost is 8.28% per year of total funds available.

Proposed budget

ISA Secretariat's Administrative Budget (*Amount in USD Millions*)

✓ Management Support:	4.7
✓ Communication and Knowledge Management:	0.33
✓ Strategic Engagement :	0.6
Total	5.65

Budget to be mobilized by ISA Member Countries (*Amount in USD Millions*)

✓ Programmes 1 to 5:	2.83
✓ Capacity Building:	0.91
Total	3.74



Decisions taken by the
First Assembly of the ISA
3rd October 2018

Key decisions taken by the first Assembly of the ISA

1. Adopted the decisions taken in the meetings of the ISC
2. Provisionally approved the Provisional Rules of Procedure
3. **Appointed the IDG, as the Director General (DG)**
4. Mandated the regional groups to submit their respective nominations for the Vice-President to the Secretariat
5. Provisionally approved the Work-programme for the Calendar Years 2019 and 2020, and Budget for the Calendar Year 2019 and Prospective Budget for the Calendar Year 2020
6. **Adopted the proposal made by India for an amendment to the Framework Agreement to expand the scope of membership of the ISA to all countries that are members of United Nations; mandated the Depositary to notify the Members and Partner Countries on the next steps to bring the amendment into force**
7. Approved the establishment of the following Committees:
 - a) Standing Committee
 - b) Four Regional Committees;
 - c) General and Legal Committee;
 - d) Finance Committee; and
 - e) Programme Committee.
8. Noted the report presented by the Depositary
9. Noted the registration of the ISA under Article 102 of the Charter of the United Nation; mandated the Secretariat to establish institutional linkages of the ISA with the United Nations; and Also mandated the Secretariat to apply for UN General Assembly's Observer Status for the ISA
10. Approved the Headquarters Agreement signed between the Government of India and the IDG
11. Mandated the Secretariat to prepare an investment policy of the Corpus Fund
12. Provisionally approved the Manual of Regulations, including Financial and Staff regulations
13. Mandated the Secretariat to make a proposal for the dates for the second Assembly

A portrait of Nelson Mandela, an elderly man with grey hair, wearing a dark suit, light blue shirt, and a patterned tie. He is seated in a wooden chair with ornate carvings. The background is a solid green wall above a yellow wall.

NELSON MANDELA

1918-2013

*"It always seems
impossible until it's done."*

Upendra Tripathy
Director general
International Solar Alliance
utripathy@isolaralliance.org

More information:
www.isolaralliance.org