



Food and Agriculture Organization
of the United Nations



INTERNATIONAL FORUM ON SOLAR TECHNOLOGIES FOR SMALL-SCALE AGRICULTURE & WATER MANAGEMENT



FAO HQ, ROME, ITALY
12-13 APRIL 2018

#SOLARTECH

PROGRAMME &
CONCEPT NOTE



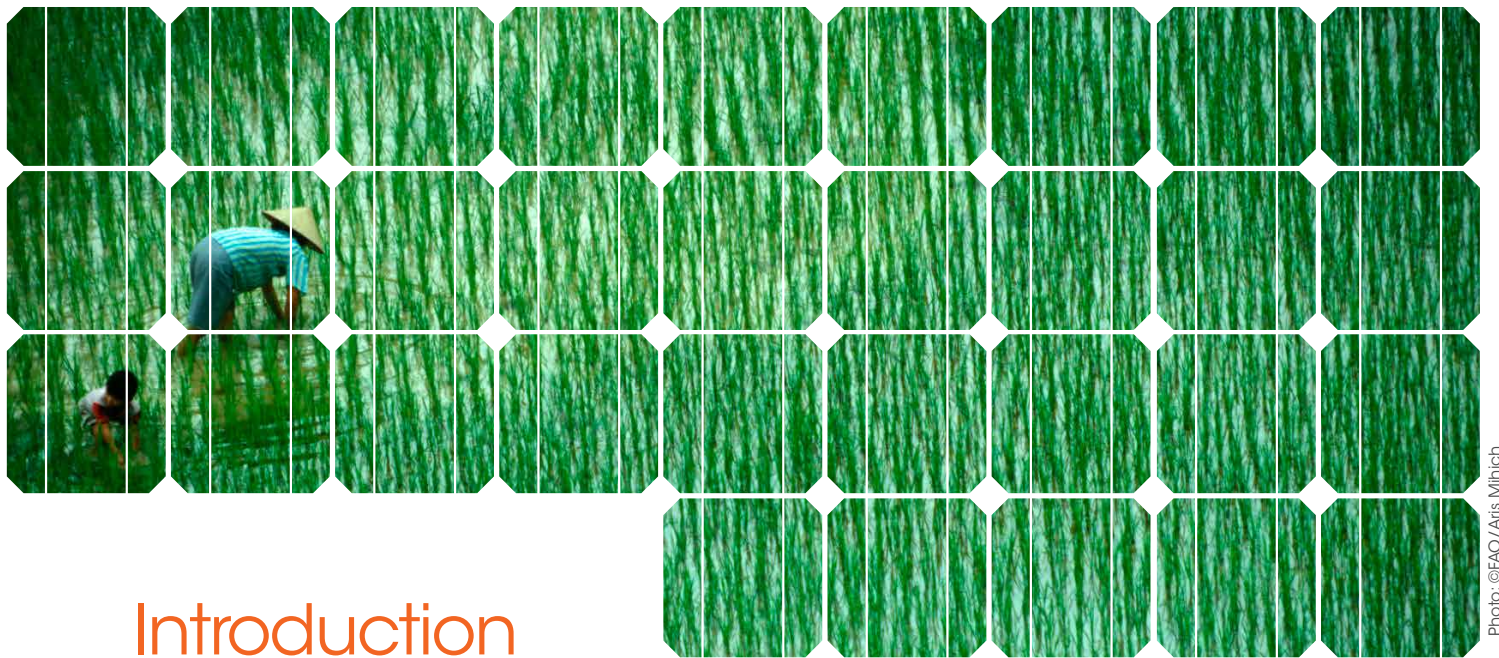
POWERING
AGRICULTURE:
AN ENERGY GRAND CHALLENGE
FOR DEVELOPMENT

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Introduction

Agriculture is the largest user of the world's freshwater resources, while the agri-food sector consumes around one third of the world's total energy. The energy demand for agriculture has been steadily rising, with fossil fuels still dominant. Meanwhile, a rising global population, rapid urbanization, changing diets and economic growth are projected to increase food demand by 50 percent by 2050.

The agriculture and food sectors will therefore require more water and energy for food production, processing, transportation, storage, distribution and marketing. This is a tremendous challenge given the huge competition for water, with climate change that will only increase.

Renewable energy technologies, and in particular solar photovoltaic power (PV), can play a key role in improving access to energy, water and food – in so doing boosting the livelihoods of small-scale farmers. Solar technologies offer a cost-effective and sustainable supply of energy.

It is no surprise, then, that there is growing interest in solar-powered irrigation solutions (SPIS), noticeable in the increasingly frequent requests from agricultural institutions in developing countries for installation, finance and training. In May 2015, the Food and Agriculture Organization of the United Nations (FAO) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) hosted an international workshop to explore the potential of SPIS for developing countries. Representatives from 19 countries shared their experiences – from large to small-scale, from tropical to arid climate zones, for vegetable gardens, orchards and livestock watering, using both surface and groundwater.

As a follow up, FAO – with the collaboration of Powering Agriculture: An Energy Grand Challenge for Development (PAEGC), the International Fund for Agricultural Development (IFAD), the International Water Management Institute (IWMI) and the Research Program on Water, Land and Ecosystems (WLE) – decided to organise the International Forum on Solar Technologies for Small-Scale Agriculture and Water Management.

The forum will be held in English and French.



Objectives of the forum

The objective of the International Forum is to analyse the opportunities and challenges of solar technologies in small-scale agriculture. The forum will bring together key stakeholders – all those interested in, or already working with, solar technologies for small-scale agriculture and water management – to explore some of the most pressing issues regarding solar technologies.

The forum seeks to answer the following key questions:

- What are the real costs and benefits of SPIS compared with other technologies?
- What rules, regulations and policies are needed to manage the risks and realize the potential of SPIS?
- What are the viable business models for SPIS?
- How can smallholders benefit from SPIS technology?
- How can the risk of groundwater depletion be addressed effectively?
- How can SPIS empower women and promote gender equity?
- What types of capacity development programmes are needed to support farmers, extension workers, the private sector and others?
- What are the opportunities for knowledge exchange and technology transfer?

The Forum is organised around four main themes: innovative finance, capacity development, opportunities for water management and creating enabling environments. A strong focus is placed on solar-powered irrigation technologies, though solar desalination and other agricultural applications of solar technologies will also be covered.

The forum will also showcase examples of best practices and transformational projects with solar technologies, sharing experience and knowledge across the global solar technology community.



Photo: ©FAO/A.K. Kimoto

Expected outcomes

After the Forum, participants will have:

- an overview of a range of approaches, tools and case studies focused on making solar technologies viable for small-scale farmers;
- an understanding of the links between water, energy and food supply and the role of solar technologies;
- an improved knowledge of the available technological options of solar technologies for small-scale agriculture;
- access to a network of researchers, manufacturers, suppliers, government representatives, NGOs and international organisations working on the application of solar technologies in agriculture;
- access to a training on the Toolbox on Solar-Powered Irrigation Systems.

A report will also be produced and disseminated after the Forum.

Key messages

Water is key to food security, while we need energy to produce, transport and distribute food. Yet water scarcity is threatening agricultural production, nearly one in five people lack access to modern electricity services and nearly 900 million people are food insecure. Renewable energy presents a great opportunity to address all three issues at once, through deploying clean technology such as solar-powered irrigation systems.

The water problem

Water scarcity already affects over 40 per cent of the planet's population. Along with population growth and related issues, climate change will further reduce availability. For every 1°C rise in global temperature, 500 million people will experience a 20 percent decrease in renewable water resources.

Agriculture is a major victim of this water scarcity: up to 84 percent of the economic impact of drought falls on the sector. Even so, agriculture must produce more food with less water: 50 percent more by 2050 to support a world population that will have grown by 2 billion.

The solar opportunity

Solar power presents a great opportunity for smallholder farmers to use clean and cost-effective technologies to irrigate their crops, produce the food the world needs and improve their livelihoods.

The Earth receives more solar energy in one hour than the global population consumes in a year. While major investment has been made in places with less sun, like Europe and China, the potential in higher resource regions such as Africa and the Middle East remains untapped.

Almost all developing countries have enormous solar power potential. Most of Africa, for example, has around 325 days of strong sunlight a year, delivering around 1990 kWh/m² in yearly irradiation energy – the energy equivalent to 200 liters of diesel per/m². Meanwhile, the falling price of solar photovoltaics means it is becoming ever cheaper to install solar power.

How solar power can improve income, food security and nutrition

Solar-powered irrigation helps to buffer the effects of drought and water stress during the dry season, when groundwater is the only available source or surface water has to be hauled over long distances.

Irrigated agriculture provides 40 percent of global food production, so improving water-use efficiency with smart solar-powered irrigation systems can help ensure water availability.

Through improved access to water, solar-powered irrigation systems can help to stabilize, increase and diversify production. Excess produce can be sold, generating additional income.

The increased availability of more diverse and higher quality food can improve nutrition and food security, especially of small-scale farmers and their communities.

Solar-powered irrigation can spark rural development through improving access to electricity and water, and generate additional income and new jobs. Up to 500,000 jobs are being created by the solar industry in Morocco.

Using solar systems can also save money. In Kenya, for example, it can cost 10 dollars per day to run a diesel irrigation pump.

How solar can help energy access and fight climate change

Tapping into low-carbon options makes environmental, social and economic sense. An estimated 1.1 billion people in developing countries have no access to electricity, with more than 80 per cent of these living in sub-Saharan Africa or South Asia.

Solar photovoltaic constitutes a reliable source of energy for pumping of irrigation water in areas that are remote or not well connected to the electricity grid. Excess power can be used to light homes and run other appliances.

At the same time, the food production and supply chain consumes about 30 percent of total global energy. Solar technologies can minimize emissions from agriculture by phasing out grid-powered and diesel pumps, and by ensuring that new capacity is from renewable sources. From cradle to grave, solar pumps allow a potential reduction in GHG emissions by up to 97 percent for water pumping compared to electricity pumping, and by up to 98 percent compared to diesel pumps.

Solar pumps need to be carefully managed to avoid groundwater

Groundwater withdrawal has increased by more than 300 per cent over the past 50 years. Groundwater provides drinking water to at least 50 percent of the world's population and 43 percent of all the water used worldwide for irrigation.

Some areas of Mexico City are dropping by more than 2 centimetres per month due to groundwater depletion underneath the city. There is therefore a need to ensure low-carbon groundwater withdrawal that is efficient and carefully managed.

Solar pumps should be part of sound water management practices and be integrated into strong regulatory frameworks for water conservation and groundwater governance to ensure the sustainable use of solar energy.

Innovative finance and business models can ensure equitable access to solar technologies

Despite low operational costs, solar technologies require a high initial investment, particularly for smallholder farmers. Innovative finance and business models are needed to overcome this barrier to adoption. Capacity development is needed to make optimal use of solar technologies. For example, appropriate feed-in rates – with central funding – can also make it profitable for farmers to sell excess energy to the grid.

Programme: Day 1 - Thursday, 12 April 2018

Time	Title
8.00 - 9.00	REGISTRATION Entrance A
9.00 - 10.00	MEET'N'GREET BREAKFAST In front of David Lubin library
10.00 - 11.00	<p>OPENING SESSION Sheikh Zayed Centre (FR- ENG interpretation available)</p> <p>Facilitator: Lucie Pluschke, FAO</p> <ul style="list-style-type: none"> • Welcome by Maria Helena Semedo, Deputy Director-General Natural Resources Management & Environment Department, FAO • Representative from the International Fund for Agricultural Development (IFAD) • Live Skype with Stefan Schmitz, Division Head, Rural Development and Food Security, German Federal Ministry for Economic Cooperation and Development • Keynote Talk on "Renewable energy through the nexus Water Energy Food (WEF) for local communities: SDG compliance as catalytic of additionality" by Roberto Ridolfi, Special Advisor on Strategy and Financing Development at FAO and Director for Planet and Prosperity at DG Development and Cooperation of the European Commission • Video of farmer from West Kenya
11.00 - 11.30	<p>WHAT WE DO ON SOLAR TECHNOLOGIES IN AGRICULTURE: AN INTRODUCTION INTO THE WORK OF FAO, DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT (GIZ) AND INTERNATIONAL WATER MANAGEMENT INSTITUTE (IWMI) Sheikh Zayed Centre (FR- ENG interpretation available)</p> <p>Facilitator: Henk van der Steen, FAO</p> <ul style="list-style-type: none"> • Maria Weitz, Programme Leader of Powering Agriculture, GIZ, Germany • Jennie Baron, Flagship Leader 'Land and Water Solutions for Sustainable Intensification of CGIAR-WLE Research for Development', Sweden • Eduardo Mansur, Director of the Land & Water Division, FAO, Italy
11.30 - 12.00	<p>LAUNCH OF THE GLOBAL REPORT AND THE TOOLBOX ON SOLAR-POWERED IRRIGATION SYSTEMS Sheikh Zayed Centre (FR- ENG interpretation available)</p> <p>Facilitator: Henk van der Steen, FAO</p> <ul style="list-style-type: none"> • "The benefits and risks of solar-powered irrigation – a global overview" by Hans Hartung and Lucie Pluschke, FAO, Italy • The Toolbox on Solar-Powered Irrigation Systems by Robert Schultz and Kerstin Lohr, GIZ, Germany
12.00 - 12.15	<p>PRESENTATION OF THE PROGRAMME OF THE FORUM Sheikh Zayed Centre (FR- ENG interpretation available)</p> <p>Facilitator: Henk van der Steen, FAO</p>
12.15 - 13.30	LUNCH
BLOCK I: INNOVATIVE FINANCE, INVESTMENT AND BUSINESS MODELS TO MAKE SOLAR TECHNOLOGIES VIABLE FOR SMALL-SCALE FARMERS (PARALLEL SESSIONS)	
13.30 - 15.15	<p>WHAT FINANCIAL MODELS WORK FOR SOLAR TECHNOLOGIES IN AGRICULTURE? German Room C-269</p> <p>Facilitator: Gerd Fleischer, GIZ</p> <ul style="list-style-type: none"> • "Financing solutions for the Nexus": Evgenia Sokolova, Aktivera, USA • "Crowdfunding alternative power solutions for agriculture": Markus Schwaninger, Ecoligo, Germany • "How to get solar irrigation solutions to the farmer": Boniface Muhutsi, Juhudi Kilimo, Kenya • "Experiences with subsidy schemes for solar pumps in Southern Asia": Aditi Mukherji, International Centre for Integrated Mountain Development (ICIMOD), Nepal • "Small-scale solar irrigation is now affordable": John DeMarco, Independent Expert, Canada

BLOCK I (CONTINUED)

13.30 - 15.15

INNOVATIVE BUSINESS MODELS FOR SOLAR-POWERED IRRIGATION: FROM PAY-AS YOU GO TO FEED-IN TARIFFS | [Ethiopia Room C-285](#) | *(FR- ENG interpretation available)*

Facilitator: **Jennie Baron**, IWMI

- "The one-stop-shop for solar pumps - Supplier and Financier": **Samir Ibrahim**, SunCulture, Kenya
- "Pay as you go model in Tanzania": **Frode Öckermann**, Power Providers, Tanzania
- "Energy as remunerative crop": **Shilp Verma**, IWMI India
- "An overview of the different deployment models of solar pumps in India": **Nilanjan Ghose**, GIZ India
- "Solar business models for Ethiopia": **Miriam Otoo**, IWMI Sri Lanka

SOLAR COOLING: IS IT WORTH IT? | [Mexico Room D-211](#)

Facilitator: **Netra Chetri**, ASU

- "How value chain analysis can help identify opportunities for clean energy interventions with case studies from India and Kenya": **Katrin Harvey**, Renewable Energy and Energy Efficiency Partnership (REEEP), Austria
- "INVESTA - Investing in sustainable energy technologies in the agrifood sector": **Stefania Bracco**, Energy Team, FAO, Italy
- "Field experiences in implementing small-scale solar milk cooling systems in Tunisia, Kenya and Colombia": **Farah Mrabet**, University of Hohenheim, Germany
- "How small-holders benefit from solar cooling": **Ivan Yaholnitsky**, Bethel Business and Community Development Centre, Lesotho

15.15 - 15.30

COFFEE BREAK | [Outside meeting rooms](#)

BLOCK II: CAPACITY DEVELOPMENT TO CREATE THE KNOWLEDGE AND EXPERTISE FOR SOLAR TECHNOLOGIES (PARALLEL SESSIONS)

15.30 - 17.00

WORKSHOP: WHAT TOOLS, MANUALS AND GUIDELINES ALREADY EXIST FOR SOLAR PUMPS AND HOW CAN THEY BECOME MORE ACCESSIBLE? | [German Room C-269](#)

Facilitator: **Hans Hartung**, FAO

With interventions from

- "Considering farmer needs in technology design": **Fred Obudho**, Kickstart International, Kenya
- "People-centered approaches for investment planning": **Patricia Mejias Moreno**, Land & Water Division, FAO, Italy
- "The Toolbox on solar-powered irrigation for technical advisors and practitioners": **Maria Weitz**, GIZ Powering Agriculture, Germany
- "Tools and guidelines for users in humanitarian contexts": **Alberto Ilario**, International Organization for Migration (IOM), Kenya
- "Challenges in training users of SPIS in Uganda": **Abdul Saboor Jawad**, FAO Uganda
- "Training materials for mechanization service providers": **Santiago Santos Valle**, Plant Production and Protection Division, FAO, Italy

SOLAR TECHNOLOGIES IN AGRICULTURE AS MOTOR FOR JOB CREATION AND EMPLOYMENT | [Ethiopia Room C-285](#) | *(FR- ENG interpretation available)*

Facilitator: **Miriam Otoo**, IWMI

- "FAO approach to decent rural employment": **Maya Takagi**, Strategic Programme on Rural Poverty Reduction, FAO, Italy
- "Mechanization technologies as driver for smart jobs": **Josef Kienzle**, Agricultural Engineer, FAO, Italy
- "Job creation in renewable energy sector in agriculture in Tunisia": **Karim Nefzi**, Agence Nationale pour la Maîtrise de l'Énergie of Tunisia (ANME), Tunisia
- "Institutionalising capacity development efforts: the solar water pumping course at Strathmore University": **Geoffrey Ronoh**, Strathmore University, Kenya
- "The Micro Grid Academy": **Marco Aresti**, Res4Africa, Italy

TRAINING: TOOLBOX ON SOLAR-POWERED IRRIGATION SYSTEMS: A PRACTICAL INTRODUCTION (25 PEOPLE ONLY PER SESSION) | [Mexico Room D-211](#)

Facilitators: **Robert Schultz** and **Kerstin Lohr**, GIZ

17.00 - 19.00

ART EXHIBITION "SOLART" AND COCKTAIL | [In front of David Lubin library](#)

Programme: Day 2 - Friday, 13 April 2018

Time	Title
08.45 - 09.40	<p>WELCOME TO DAY 2 AND RECAP OF DAY 1 <i>Sheikh Zayed Centre</i> <i>(FR- ENG interpretation available)</i></p> <p>Facilitator: Henk van der Steen, FAO</p> <ul style="list-style-type: none"> “Innovation in international development”: David Guston via Skype, Founding Director and Professor, School for the Future of Innovation in Society, Arizona State University, USA “Shifting the focus back on smart investments for small-scale agriculture”: Steven Schonberger, World Bank, USA
<p>BLOCK III: OPPORTUNITIES FOR WATER MANAGEMENT (PARALLEL SESSIONS)</p>	
09.45 - 11.15	<p>THE PROMISE OF SOLAR DESALINISATION <i>German Room C-269</i></p> <p>Facilitator: Florent Eveille, FAO</p> <ul style="list-style-type: none"> “Solar seawater desalination in the MENA Region”: Elisabeth Gager, GIZ Tunisia “Seawater greenhouse - A restorative approach to agriculture” Charlie Paton, Seawater Greenhouse, Australia “Desalination by batch reverse osmosis: technology and cooperation for transboundary groundwater resources”: Philip Davies, Aston University, UK “Solar-powered capacitive de-ionization (CDI) of brackish groundwater for irrigated agricultural purposes”: Peter Kovalsky, Mincarb Australia
	<p>SOLAR TECHNOLOGIES AS AN OPPORTUNITY, NOT A LIABILITY, FOR WATER RESOURCES <i>Ethiopia Room C-285</i> <i>(FR- ENG interpretation available)</i></p> <p>Facilitator: Alvar Closas, IWMI</p> <ul style="list-style-type: none"> “Solar technology as an alternative in irrigation modernization in Spain”: Raquel Bravo- Rubio, Irrigation Expert, Ministry of Agriculture, Food and Environment of Spain “Solar irrigation and groundwater management”: Karen Villholth, IWMI South Africa “Challenges and opportunities for building groundwater economy across Indo-Gangetic Basin (IGB) of South Asia”: Netra Chetri, Arizona State University, USA “Bringing solar energy into solution for lifting surface irrigation water in Egypt and Jordan”: Ahmed Abdelfattah, Solar Energy Expert of FAO, Egypt “Extending solar water pump subsidies: Impact on water use, energy use and cropping patterns in Rajasthan”: Eshita Gupta, KPMG India “Real-scale demonstration of PV irrigation systems 100% renewable and reducing water consumption”: Rita Almeida, Universidad Politécnica de Madrid, Spain
	<p>DISCUSSION WITH PRIVATE SECTOR & RESEARCH ON THE FUTURE OF ON-FARM SOLAR TECHNOLOGIES <i>Mexico Room D-211</i></p> <p>Facilitators: Henk van der Steen and Manas Puri, FAO</p> <ul style="list-style-type: none"> What are the opportunities for improving energy access on-farm through solar pumps? Are multiple uses of energy technically feasible and economically viable? Why or why not?
11.15 - 11.30	<p>COFFEE BREAK <i>In front of David Lubin library</i></p>
11.30 - 12.30	<p>DEMONSTRATION OF SOLAR TECHNOLOGIES AND POSTER EXHIBITION <i>Atrium</i></p> <ul style="list-style-type: none"> “Business models of solar-powered irrigation in Ethiopia” by M. Otoo, N. Lefore, P. Schmitter, J. Barron, G. Gebregziabher, IWMI “Solar suitability mapping for irrigation development in Africa” by P. Schmitter, M. Mul, K. Kibret, A. G. Owusu, B. Ghansah, IWMI “Small-scale solar powered milk cooling” by V. Torres-Toledo, A. Salvatierra-Rojas, F. Mrabet, A. Hack, J. Müller, University of Hohenheim “More effective and sustainable investments in water for poverty reduction” by P. Mejias Moreno, L. de la Rua, M. Piraux, Land & Water Division, FAO “Economic results of five MASLOWATEN demonstrators” by I. Carrêlo, Universidad Politécnica de Madrid “Economics of stand-alone large PV irrigation systems in the ECOWAS region” by C. Lorenzo, Universidad Politécnica de Madrid “The Water-Energy-Food Nexus in practice: solar-powered irrigation” by L. Pluschke, Land & Water Division, FAO

POSTER SESSION (CONTINUED)

- "Solar energy for irrigation: mitigation and adaptation option for the Mediterranean?" by **M. Fader, W. von Bloh, S. Shi, A. Bondeau and W. Cramer**, International Centre for Water Resources and Global Change (UNESCO)
- "Adapting small-scale irrigation to climate change in West and Central Africa - AICCA" by **P. Mejias Moreno, L. Peiser, M. Hernández, M. Piraux**, Land & Water Division, FAO
- "Innovation in solar-powered irrigation: lifting smallholder farmers out of poverty" by **N. Chhetri**, Arizona State University
- "The future is already here - Transferring global sustainability solutions to transform the local food economy in Tempe, AZ, USA" by **L. Keeler**, Arizona State University
- "Bringing solar energy into solution for lifting irrigation water thus reducing vulnerability to energy supply shocks and water scarcity - Showcases from Egypt and Jordan" by the Land and Water Division, FAO

12.30 - 13.30

LUNCH

BLOCK IV: ENABLING ENVIRONMENT – POLICIES, INCENTIVES, RULES AND REGULATIONS (PARALLEL SESSIONS)

13.30 - 15.30

STRATEGIC POLICY INSTRUMENTS TO PROMOTE AND REGULATE SOLAR IRRIGATION TECHNOLOGIES |

German Room C-269 | (FR- ENG interpretation available)

Facilitator: **Patricia Mejias Moreno**, FAO

- "Towards a clean energy value chain in Sub-Saharan Africa": **Roberto Vigotti**, Res4Africa, Italy
- "Contribution des technologies solaires à la résilience de systèmes de production agricole": **Moustapha Sissoko**, Agronomist, Ministry of Agriculture, Mali
- "SPIS rewards and risks – a fine balancing act": **Adrian Honey**, Lorentz, Germany
- "India's subsidy scheme for promoting solar technologies": **B.G. Mukhopadhyay**, (Retd.) NABARD, India
- "An overview of policies on solar pumping from around the world": **Divyam Nagpal**, IRENA, United Arab Emirates
- "Suitability mapping as a new tool to support sustainable groundwater for solar irrigation": **Petra Schmitter**, IWMI Myanmar

WORKSHOP: A VISION FOR THE SUSTAINABLE USE OF SOLAR-POWERED TECHNOLOGIES - ROLE PLAY: |

Ethiopia Room C-285

Facilitators: **Henk van der Steen** and **Domitille Vallée**, FAO

- Farmers • Manufacturers/ business representatives • Investors and financiers • Researchers
- Government • Multilateral/ bilateral organisations

TRAINING: TOOLBOX ON SOLAR-POWERED IRRIGATION SYSTEMS: A PRACTICAL INTRODUCTION

(25 PEOPLE ONLY PER REGISTRATION) | Mexico Room D-211

Facilitators: **Robert Schultz** and **Kerstin Lohr**, GIZ

15.30 - 15.45

COFFEE BREAK | In front of David Lubin library

15.45 - 16.00

SHORT REPORTS BY RAPORTEURS ABOUT THE HAPPENINGS OF DAY 2 | Sheikh Zayed Centre |

(FR- ENG interpretation available)

Facilitator: **Henk van der Steen**, FAO

16.00 - 17.00

TAKE AWAY MESSAGES: PLENARY DISCUSSION TOWARDS A VISION FOR SOLAR TECHNOLOGIES FOR SMALL-SCALE AGRICULTURE AND WATER MANAGEMENT | Sheikh Zayed Centre | (FR- ENG interpretation available)

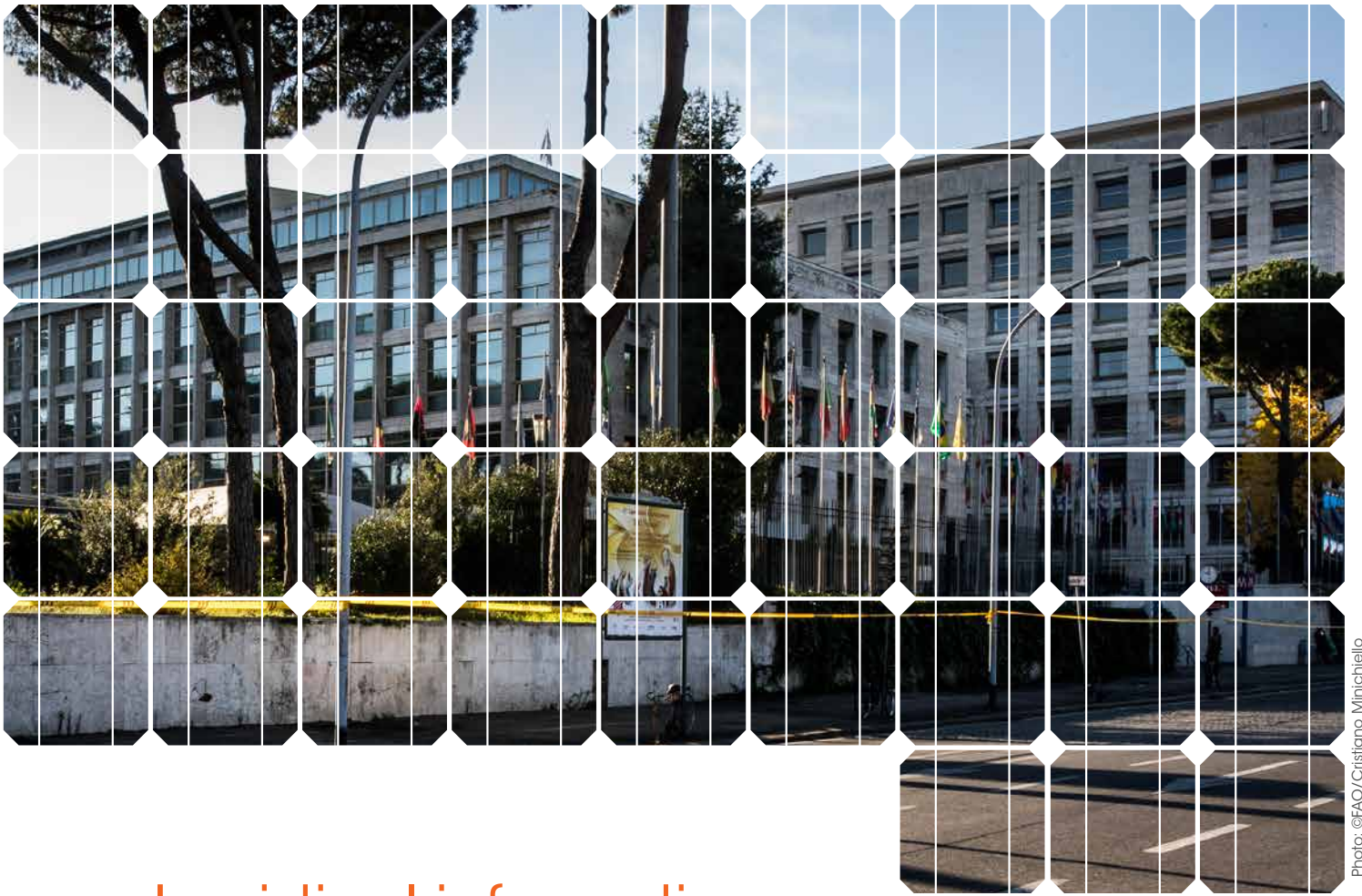
Facilitator: **Henk van der Steen**, FAO

- **Gerd Fleischer**, Head of Section of Agricultural Innovation, Sustainability Standards, GIZ, Germany
- **Steven Schonberger**, Practice Manager for the Africa Region and Global Lead for Water in Agriculture, World Bank, USA
- **Amadou Moussa**, Director General for Rural Development, Ministry of Agriculture and Livestock, Niger
- **Roberto Lenton**, Robert B. Daugherty Water for Food Institute at the University of Nebraska, USA
- **Olcay Unver**, Deputy Director of Land & Water Division, FAO, Italy

16.50 - 17.00

CONCLUDING REMARKS | Sheikh Zayed Centre | (FR- ENG interpretation available)

- **René Castro Salazar**, Climate, Biodiversity, Land and Water Department (CB), Assistant Director-General, FAO



Logistical information

Building Pass pickup

Make your way to the FAO Security Access Pavilion near the Circo Massimo Metro station. Present an ID to a FAO Security Officer.

Security

The FAO Security Office operates from 07.30-17.30 hours from Room B062 (extension 55159). Participants are requested to wear their Building Passes at all times. Briefcases and valuables should not be left unattended.

Meeting rooms

Please see the map on page 12

Services at FAO

Banking and Currency Exchange Facilities

The building has two ATM's for cash withdrawal:

- Banca Intesa San Paolo: Ground floor, Building B. 08.35 to 16.35 hrs, Mon-Fri.
- Banca Popolare di Sondrio: Ground floor, Building D. 08.35 to 16.35 hrs, Mon-Fri.

Medical Services

The Medical Service provides emergency medical assistance in the FAO premises. Dial 30 from all in-house telephones.

WiFi Coverage

FAO offers free WiFi coverage in the main Meeting Rooms. To connect, please follow the below steps:

Step 1: Turn on device in WiFi areas

Step 2: Allow device to detect the network "guest_internet"

Step 3: Open a browser to connect to the internet. The password is wifi2internet

No technical support can be provided if problems arise when connecting to, or using, the wireless internet service.

Catering Facilities

The FAO Cafeteria is on the eighth floor, Building B, it is open from 12.00-14.30 hours for lunch. There are several snack bars on the premises:

Polish Bar (Ground Floor, Building A)

Blue Bar 'C' (Eighth Floor, Building C)

Eighth Floor Bar (Eighth Floor, Building B)

Bar D (Ground Floor, Building D)

Other important information during your stay in Rome

Emergency Telephone Numbers in Rome

The following numbers may be useful in case of emergency:

- Medical Emergencies 118
- General Emergencies 112
- Fire 115
- Ambulance (Red Cross) 06-5510
- City Physician on Call 06-58201030

Currency / credit cards

The official currency is the Euro (€).

Most restaurants and shops accept credit cards (but please check to be sure).

Exchange rates

Current exchange rates are approximately US\$1.23 = 1 Euro. The most up-to-date exchange rate can be obtained from the following site: www.xe.com/ucc

Weather

Average weather and updated information can be seen at:

www.eurometeo.com/english/forecast/city_LIRA

Time zones

Rome is GMT + 1 for details on time zones see: www.timeanddate.com/worldclock/

Electricity supply

Italy has a 220 volts electricity supply, the sockets are 3 round pins in a row.

INTERNATIONAL FORUM ON SOLAR TECHNOLOGIES

FOR SMALL-SCALE AGRICULTURE & WATER MANAGEMENT

- Solar Technology Forum Meeting Rooms
- WC with Grab bars
- Bar / Cafeteria
- Lifts
- Facilities
- Lifts for people with disabilities
- WC
- Water Fountains
- WC for people with disabilities
- Drink Dispenser
- Corridors

www.fao.org/land-water/events/solaritech/en

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