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## 10<sup>th</sup> International Forum on Energy for Sustainable Development

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### Workshop on Present and Future of Sustainable Renewable Energy



## Sustainable and Nexus-Aligned Deployment of Renewables

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# STATE OF PLAY 2019

“ ...a mainstream source of electricity generation ... ”

“ renewable power capacity additions to hit double-digit growth in 2019 ” (IEA 2019)

“ ...the world is not on track to meet international goals... ” (REN21 2019)



# RES IN THE NEXUS

## Renewable energy contribution in energy/water nexus

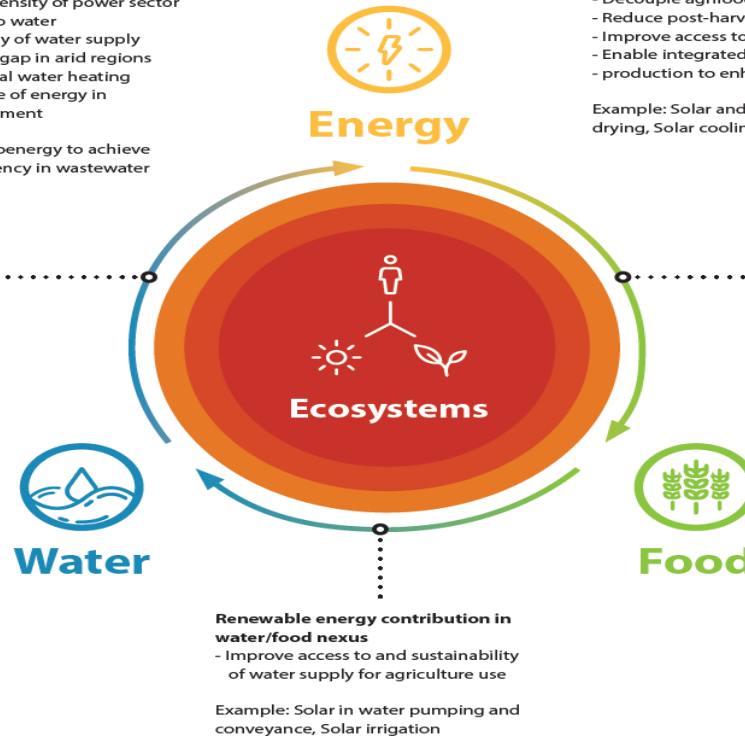
- Reduce water-intensity of power sector
- Improve access to water
- Enhance reliability of water supply
- Bridge the water gap in arid regions
- Replace traditional water heating
- More efficient use of energy in wastewater treatment

Example: Using bioenergy to achieve energy self-sufficiency in wastewater treatment plants

## Renewable energy contribution in energy/food nexus

- Decouple agrifood chain from fossil fuels
- Reduce post-harvest losses
- Improve access to modern cooking fuels
- Enable integrated food and energy production to enhance security

Example: Solar and geothermal food drying, Solar cooling and refrigeration



# STAKEHOLDERS

- **Energy Policy Makers** are main owners of RES process
- **Nexus Policy Makers** are key partners and potential co-owners
- **Civil Society** is instrumental in voicing concerns and increasing acceptance
- **RES Industry** can provide self-regulation and promote social responsibility
- **Financiers & Investors** should prioritise impact

## Cross-sectoral stakeholders

should actively share sectoral priorities to the energy decision-makers and become co-owners of the process themselves

# TRANSBOUNDARY COOPERATION

## The Case of River Basins

- Transboundary Basin Nexus Assessment (TBNA) Methodology
- Nexus – Focused Renewable Energy Hard Talks

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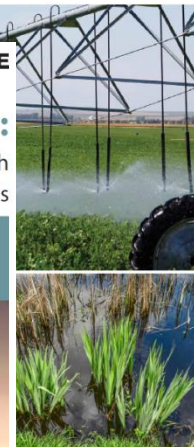
Methodology for assessing the water-food-energy-ecosystems nexus in transboundary basins and experiences from its application: **synthesis**

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## Deployment of Renewable Energy:

The Water-Energy-Food-Ecosystem Nexus Approach to Support the Sustainable Development Goals

Good practices and policies for intersectoral synergies to deploy renewable energy



# INTEGRATED APPROACH

## **Multi-sectoral**

- Water
- Food
- Ecosystems

## **Multi-stakeholder**

- Public & Private
- Domestic & Transboundary

## **Multi-step**

- Planning
- Policies
- Projects

# PLANNING, POLICIES, PROJECTS

## Strategic Planning

- RES Potential mapping
- Optimisation of siting
- Targets and technologies
- Stakeholder involvement

→ Prioritisation of win / win objectives and scenarios

## Policies and Measures

- Identification and assessment of synergies and trade-offs
- Cross-sectoral view to promote synergies / address trade-offs

→ Renewable Energy Sustainability Assessment Matrix

## Project Development

- Policy initiatives for nexus-aligned projects
- Industry self-regulation and best practices
- Impact financing

→ Involve private sector as partners in the process

# CONCLUSIONS

As renewables increase, their **linkages** with nexus sectors will become more pronounced.

An **integrated approach** linking RES and the Nexus is needed throughout the RES deployment decision-making process

This approach should take involve all **stakeholders** from all nexus-relevant sectors and also must have a **trans-boundary** dimension

Adoption of such an integrated approach should lead to integrated planning, cohesive policies and synergistic projects.



# THANK YOU

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