IOREC
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4TH INTERNATIONAL OFF-GRID RENEWABLE ENERGY CONFERENCE & EXHIBITION

Solar Irrigation Solutions: Opportunities and Challenges

Divyam Nagpal, IRENA

IRENA'S WORK ON THE WATER, ENERGY AND FOOD NEXUS

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WHY SOLAR IRRIGATION SOLUTIONS?

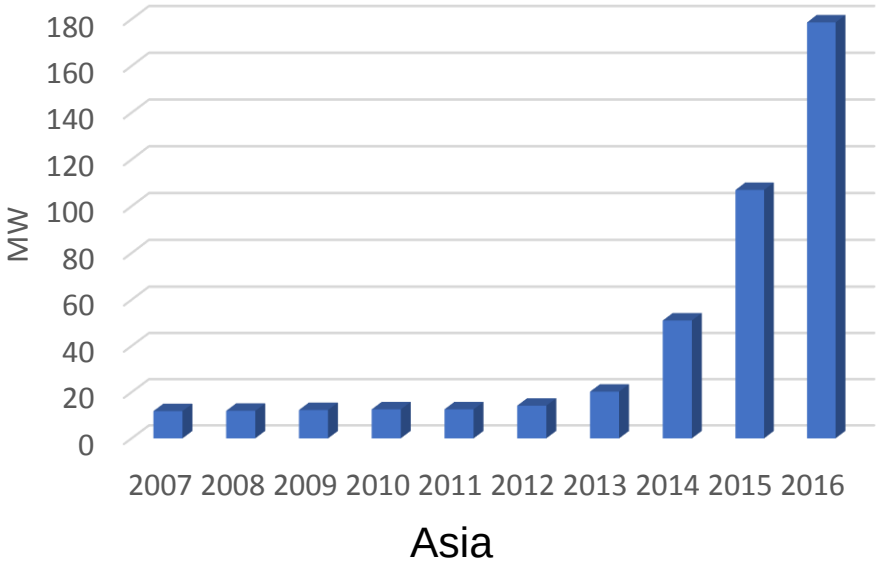
Farmers

- Reliable energy (and water) supply
- Improved yields and food security
- Increased incomes
- Climate resilience
- Additional benefits for health, education and poverty alleviation

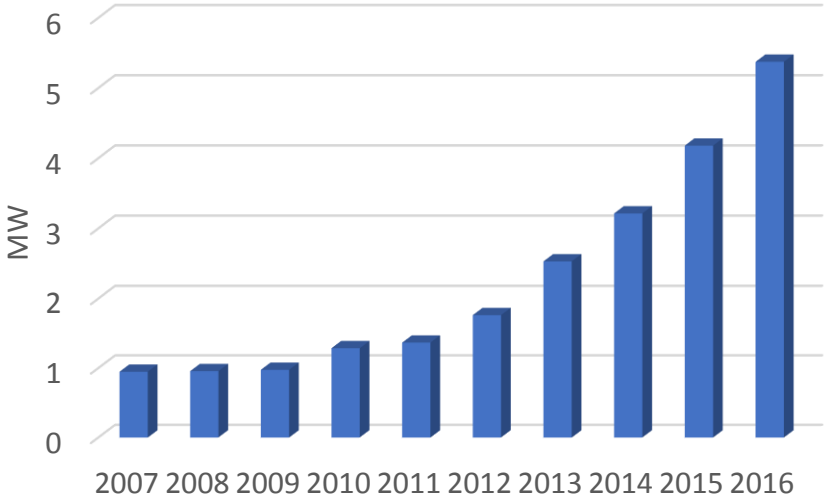
Local/national governments

- Reduction in electricity and fuel use
- Reduced fuel imports
- Potential subsidy savings
- Increased agricultural output and associated development outcomes
- Emissions reduction

RISING SOLAR IRRIGATION DEPLOYMENT



Asia



Africa

- Policy landscape for solar irrigation varies significantly between markets
  - Government influence on sector development (e.g., India, Nepal)
  - Government/DFI influence (e.g., Bangladesh)
  - Private sector-driven approaches (e.g., Kenya)
  - NGO/development organisations/humanitarian setttings

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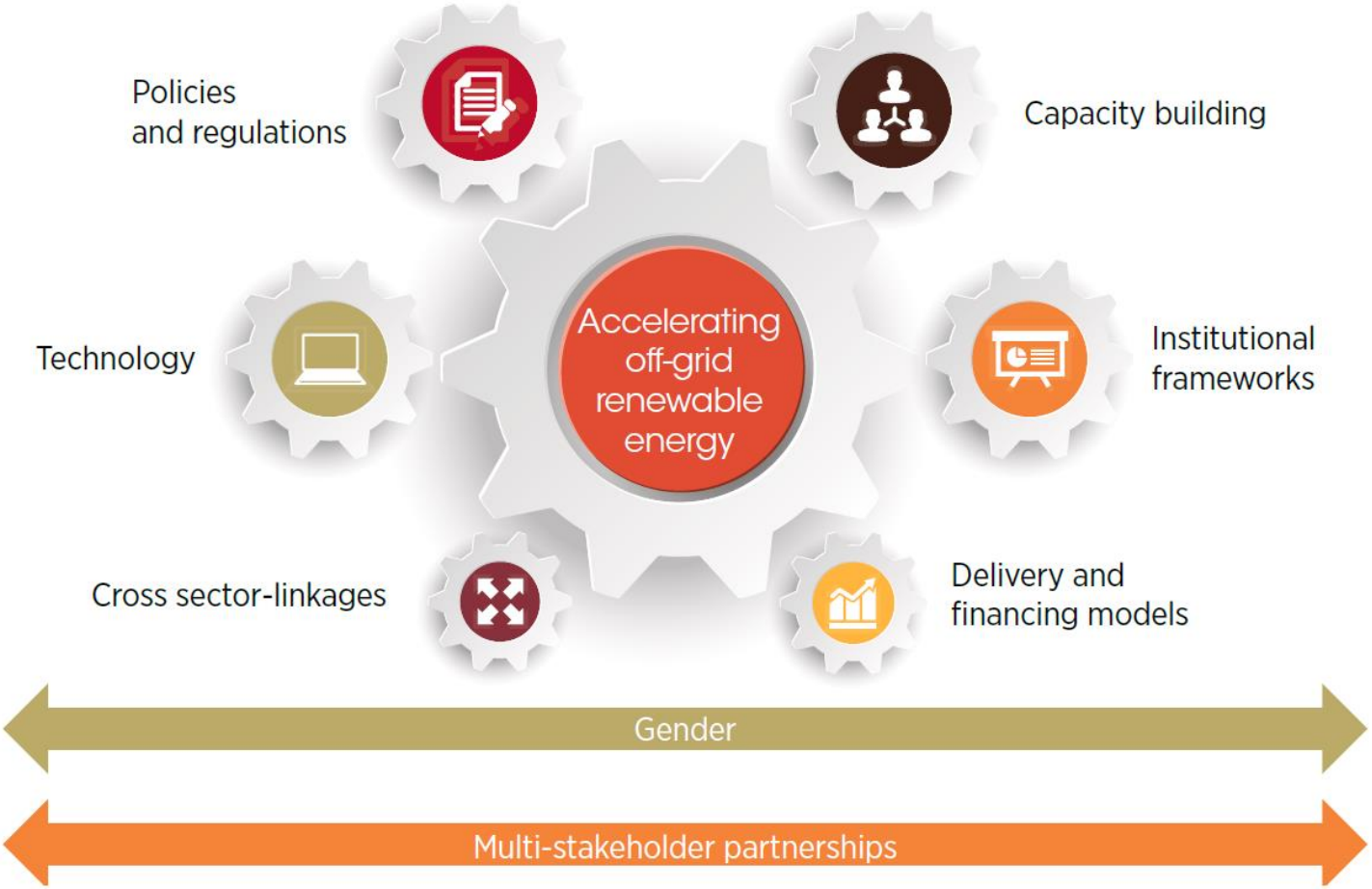
ENABLING ECOSYSTEM

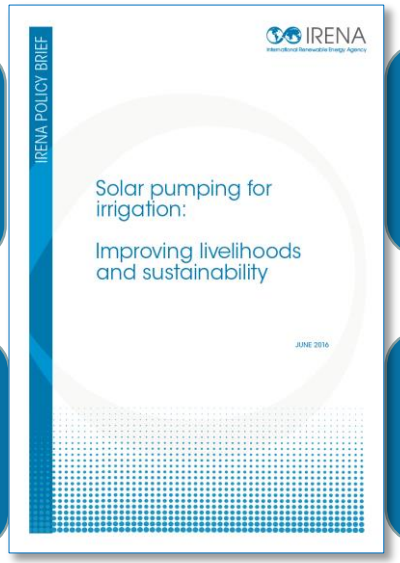


POLICY/PROGRAMME DESIGN CONSIDERATIONS

Foster innovation and flexibility in the delivery of solar irrigation solutions

When designing financial instruments account for target groups and sustainability

Focus on after-sales support and (cross-sector) capacity building



Package energy and water-efficient solutions

Assess the direct and indirect impacts on water resources

Monitor performance and gather data

Consider the influence of availability and cost of energy on farmer behaviour

Adopt an integrated approach to programme design

Thank you!