



Food and Agriculture  
Organization of the  
United Nations



IRENA  
International Renewable Energy Agency

## SDG7 Energy Compact of FAO and IRENA

A next Decade Action Agenda to advance SDG7 on sustainable energy for all, in line with the goals of the Paris Agreement on Climate Change

### SECTION 1: AMBITION

#### 1.1. Ambitions to achieve SDG7 by 2030. [ Please select all that apply, and make sure to state the baseline of each target]

(Member States targets could be based on their NDCs, energy policies, national five-year plans etc. targets for companies/organizations could be based on their corporate strategy)

<input type="checkbox"/> <b>7.1.</b> By 2030, ensure universal access to affordable, reliable and modern energy services.	<p><b>Target(s):</b> At least 5 agrifood system assessments aimed at facilitating renewable energy interventions to improve access to affordable, reliable and modern energy services. This will be achieved through the following specific objectives:</p> <ul style="list-style-type: none"> <li>• Undertake assessments of renewable energy options for agri-food systems in regions where these are mainly produced.</li> <li>• Depending on national circumstances, contexts and availability of resources, leverage partnerships to support pilot projects deploying renewable energy solutions for agri-food systems in at least five selected countries.</li> <li>• Showcase the assessments and pilots globally as leading examples for scaling-up renewable energy applications in the agri-food sector in diverse contexts.</li> </ul> <p><b>Proposed Time frame:</b> Five years, including phase 1 (2 years; 2022-2023 ) for assessment, and phase 2 for possible piloting, policy improvement and mainstreaming (3 years; 2023-2026)</p> <p><b>Context for the ambition(s):</b> The ambition aims to contribute to enhancing access to sustainable energy in agri-food systems, resulting in improved livelihoods, strengthened resilience and reduced greenhouse gas emissions from five major agri-food systems. It would offer a blueprint for similar efforts to provide affordable, reliable and sustainable energy supply in the food sector more broadly, and deliver significant socio-economic benefits, particularly for smallholder farmers and small and medium agricultural enterprises. This work would contribute to SDG 7 (Affordable and Clean Energy, in particular its targets 7.1/access to energy. and 7.2./renewable energy subject to available funding) as well as several other SDGs, including SDG 13 (Climate Action), SDG 2 (Zero Hunger), , SDG 1 (No Poverty), and SDG 12 (Sustainable Production and Consumption).</p>
<input type="checkbox"/> <b>7.2.</b> By 2030, increase substantially the share of renewable energy in the global energy mix.	<p><b>Target(s):</b> <b>Time frame:</b> <b>Context for the ambition(s):</b></p>
<input type="checkbox"/> <b>7.3.</b> By 2030, double the global rate of improvement in energy efficiency.	<p><b>Target(s):</b> <b>Time frame:</b> <b>Context for the ambition(s):</b></p>
<input type="checkbox"/> <b>7.a.</b> By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in	<p><b>Target(s):</b> This target would be about establishing partnerships that would facilitate the achievement of actions related to target 7.1. At international level, this initiative will be co-led by FAO and IRENA. Enhancing international cooperation would involve collaboration, including with financial institutions such as GCF, multilateral development banks, private sector, and other entities such as GIZ and Power for All. Other interested organisations might include Rockefeller Foundation and Rabobank. Depending on the selected agrifood systems, national governments would also be engaged, along with relevant energy and agribusiness enterprises.</p> <p><b>Time frame:</b> 5 years (2022-2026)</p>

energy infrastructure and clean energy technology.	Context for the ambition(s): Over recent years, there has been increased interest among different stakeholders (agri-food system actors, energy companies, governments and international organisations) on the topic of energy-food linkages in the context of low emission climate resilient pathways and inclusive development. This is due to the realization of the importance of sustainable energy access in food system transformation, and the need to decarbonize this transformation, partly through increased use of renewable energy. Achieving Net zero in major agrifood systems is key in that respect.
<input type="checkbox"/> <b>7.b.</b> By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programs of support.	Target(s): Time frame: Context for the ambition(s):

### 1.2. Other ambitions in support of SDG7 by 2030 and net-zero emissions by 2050. [Please describe below e.g., coal phase out or reforming fossil fuel subsidies etc.]

<p>Target(s) : Aligned with the ongoing IRENA and FAO partnership, joint efforts by the two organisations to support the deployment of renewables in the agri-food sector are anticipated to continue beyond the timeframe of the Compact focusing on, but not limited to, the following targets:</p> <ul style="list-style-type: none"> <li>• Assessments covering additional agri-food systems and supporting country/regional-level actions in at least two contexts through partnerships and projects.</li> <li>• Support for the implementation of objectives regarding renewables-oriented sustainable food system transformation in NDCs in around five additional countries.</li> </ul> <p>Time frame: Within five years after the end of the project.</p> <p>Context for the ambition(s): Activities proposed under this Compact will provide a strong basis for scaling-up renewable energy applications in sustainable food system transformation in support of multiple SDGs by 2030 and net-zero by 2050. By demonstrating the suitability of renewable energy solutions in agri-food systems, this work will guide national and regional-level policy-making to mobilise climate investments at scale, backed by an enabling mix of policies, including fiscal incentives and dedicated credit facilities, simplified access to climate finance or tailor made access especially to SIDS and LDCs. The assessments will also enable governments to integrate renewables-based mitigation and adaptation objectives within the agricultural component of their NDCs and long-term low greenhouse gas (GHG) emission development strategies (LEDS), and net-zero strategies.</p>
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## SECTION 2: ACTIONS TO ACHIEVE THE AMBITION

### 2.1. Please add at least one key action for each of the elaborated ambition(s) from section 1. [Please add rows as needed].

Description of action (please specify for which ambition from Section 1)	Start and end date
Action 1: Assess energy gaps and renewable energy opportunities within at least <b>five selected agri-food systems through mapping, cost-benefit analysis and review of national policies and regulations in relevant countries/regions - link to first ambition</b>	2022-2023
Action 2: <b>Leverage partnerships to support pilot programmes/projects in at least five selected countries</b> focused on deploying renewable energy solutions in selected agri-food systems. Such pilots could concern specific renewable energy applications (e.g., irrigation, cold storage, processing) with success measured as systems deployed, people/agri-enterprises impacted and, given sufficient time, potential changes in food production, food loss reduction and food quality - related to food loss reduction thanks to sufficient access to energy) - link to all ambitions	2023-2026
Action 3: <b>Strengthen the enabling environment</b> (policies, regulations and institutions) related to investments in renewable energy for agri-food systems, including support through project facilitation <b>in at least five selected countries</b> – link to first ambition	2023-2026

Description of action (please specify for which ambition from Section 1)	Start and end date
Action 4: Utilize IRENA and FAO platforms to <b>increase awareness on renewable energy opportunities within agri-food systems</b> and support joint advocacy across national, regional and global forums – link to all ambitions	2022-2026

### SECTION 3: OUTCOMES

3.1. Please add at least one measurable and time-based outcome for **each** of the actions from section 2. *[Please add rows as needed].*

*Outcome 1/Action 1: Energy gaps assessment carried out for at least 5 agri-food systems; Date: end of 2023*

*Outcome 2/Action 2: Technical and/or project facilitation-related support extended to regional/national entities for pilot programmes/projects to deploy renewable energy solutions across selected agri-food systems; Date: end of 2026*

*Outcome 3/Action 3: Improve enabling environment for investments in renewable energy for relevant agri-food systems through capacity building, project facilitation, etc.; Date: end of 2026*

*Outcome 4/Action 4: Integration of food-energy nexus perspective across key global and institutional processes, including High Level Political Forum, and IRENA's International Off-grid Renewable Energy Conference; Date latest end of 2026.*

### SECTION 4: REQUIRED RESOURCES AND SUPPORT

4.1. Please specify required finance and investments for **each** of the actions in section 2.

Indicative financial resources needed to implement this project amount to around USD 1.25 million for phase 1 (assessment), with an additional USD 2.9 million for phase 2 (piloting, enabling environment and mainstreaming). The total budget for this work would amount to USD 4.15 million, broken down as follows:

- Phase 1: Action 1 (assessment) - USD 1 250 000 (USD 250 000 per country)
- Phase 2:
  - Action 2 (piloting) - USD 2 500 000 (additional approximately USD 500 000 for pilots per country)
  - Action 3 (improving the enabling environment) - USD 250 000
  - Action 4 (mainstreaming) - USD 150 000

4.2. [For countries only] In case support is required for the actions in section 2, please select from below and describe the required support and specify for which action.

*[Examples of support for Member States could include: Access to low-cost affordable debt through strategic de-risking instruments, capacity building in data collection; development of integrated energy plans and energy transition pathways; technical assistance, etc.]*

<input checked="" type="checkbox"/> Financing	<i>Description:</i> Financing required to undertake all the actions mentioned under Section 2
<input checked="" type="checkbox"/> In-Kind contribution	<i>Description:</i> FAO and IRENA staff would provide in-kind support regarding the overall technical supervision and management of the project
<input checked="" type="checkbox"/> Technical Support	<i>Description:</i> Technical support required to: <ul style="list-style-type: none"> <li>● Apply the tools and approaches that would be used to assess the sustainability of renewable energy solutions for the selected agrifood systems and, as appropriate, for the deployment of pilots in that respect; and</li> <li>● Carry out on-the-job training of national staff in the use of the assessment tools and, as appropriate, the deployment of pilots in the selected countries</li> </ul>

<input type="checkbox"/> Other/Please specify	Description

## SECTION 5: IMPACT

5.1. Countries planned for implementation including number of people potentially impacted.

Countries/regions would be selected based on the five selected agrifood systems. Number of impacted people would be about 2 000 per country so **10 000 in total**

5.2. Alignment with the 2030 Agenda for Sustainable Development – Please describe how **each** of the actions from section 2 impact advancing the SDGs by 2030.

*[up to 500 words, please upload supporting strategy documents as needed]*

The actions regarding this project would concern the promotion of renewable energy in agri-food systems. As such, they would collectively contribute to the following SDGs

- SDG 2: Zero Hunger because ensuring sufficient access to sustainable energy in agrifood systems contributes to ending hunger, and more particularly target 2.3. - 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, and target 2.A. 2.A Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development ;
- SDG 7: Clean and Affordable Energy because it would address the three main targets of this SDG, i.e. access to energy, use of renewable energy and, to a lesser extent, energy efficiency
- SDG 12 – Sustainable Production and Consumption; and
- SDG 13- Climate Action, through its contribution to the decarbonization and Net Zero ambition of agrifood systems.

5.3. Alignment with Paris Agreement and net-zero by 2050 - Please describe how **each** of the actions from section 2 align with the Paris Agreement and national NDCs (if applicable) and support the net-zero emissions by 2050.

*[up to 500 words, please upload supporting strategy documents as needed]*

The project would contribute both to:

- climate change mitigation through the greater use of renewable energy in the food sector substituting fossil fuels;
- climate change adaptation by improving access to reliable and affordable energy, which contributes to strengthening the adaptive capacity of agri-enterprises, including smallholder farmers, through reduced reliance on changing weather patterns, diversification of farm and non-farm products and services, improved market access, among other aspects.

## SECTION 6: MONITORING AND REPORTING

6.1. Please describe how you intend to track the progress of the proposed outcomes in section 3. Please also describe if you intend to use other existing reporting frameworks to track progress on the proposed outcomes.

The project would be regularly reviewed according to IRENA and FAO project cycle procedures, in particular FAO's Environmental and Social Safeguards related to the FAO project cycle. Tracking progress of activities under this Compact will be aligned with those under the IRENA-FAO MoU signed in 2021 given synergies between the areas of focus. Particular attention would be paid in leaving no one behind and in supporting women and youth. The project monitoring system would furthermore be based on the use of SMART (specific, measurable, achievable, resource-based and time based) indicators.

## SECTION 7: GUIDING PRINCIPLES CHECK LIST

Please use the checklist below to validate that the proposed Energy Compact is aligned with the guiding principles.

### I. Stepping up ambition and accelerating action - Increase contribution of and accelerate the implementation of the SDG7 targets in support of the 2030 Agenda for Sustainable Development for Paris Agreement

I.1. Does the Energy Compact strengthen and/or add a target, commitment, policy, action related to SDG7 and its linkages to the other SDGs that results in a higher cumulative impact compared to existing frameworks?

Yes No

I.2. Does the Energy Compact increase the geographical and/or sectoral coverage of SDG7 related efforts? Yes No

I.3. Does the Energy Compact consider inclusion of key priority issues towards achieving SDG7 by 2030 and the net-zero emission goal of the Paris Agreement by 2050 - as defined by latest global analysis and data including the outcome of the Technical Working Groups? Yes No

### II. Alignment with the 2030 agenda on Sustainable Development Goals – Ensure coherence and alignment with SDG implementation plans and strategies by 2030 as well as national development plans and priorities.

II.1. Has the Energy Compact considered enabling actions of SDG7 to reach the other sustainable development goals by 2030? Yes No

II.2. Does the Energy Compact align with national, sectoral, and/or sub-national sustainable development strategies/plans, including SDG implementation plans/roadmaps? Yes No

II.3. Has the Energy Compact considered a timeframe in line with the Decade of Action? Yes No

### III. Alignment with Paris Agreement and net-zero by 2050 - Ensure coherence and alignment with the Nationally Determined Contributions, long term net zero emission strategies.

III.1. Has the Energy Compact considered a timeframe in line with the net-zero goal of the Paris Agreement by 2050? Yes No

III.2. Has the Energy Compact considered energy-related targets and information in the updated/enhanced NDCs? Yes No

III.3. Has the Energy Compact considered alignment with reaching the net-zero emissions goal set by many countries by 2050? Yes No

### IV. Leaving no one behind, strengthening inclusion, interlinkages, and synergies - Enabling the achievement of SDGs and just transition by reflecting interlinkages with other SDGs.

IV.1. Does the Energy Compact include socio-economic impacts of measures being considered? Yes No

IV.2. Does the Energy Compact identify steps towards an inclusive, just energy transition? Yes No

IV.3. Does the Energy Compact consider measures that address the needs of the most vulnerable groups (e.g. those impacted the most by energy transitions, lack of energy access)? Yes No

### V. Feasibility and Robustness - Commitments and measures are technically sound, feasible, and verifiable based a set of objectives with specific performance indicators, baselines, targets and data sources as needed.

V.1. Is the information included in the Energy Compact based on updated quality data and sectoral assessments, with clear and transparent methodologies related to the proposed measures? Yes No

V.2. Has the Energy Compact considered inclusion of a set of SMART (specific, measurable, achievable, resource-based and time based) objectives? Yes No

V.3. Has the Energy Compact considered issues related to means of implementation to ensure feasibility of measures proposed (e.g. cost and financing strategy, technical assistant needs and partnerships, policy and regulatory gaps, data and technology)? Yes No

## SECTION 8: ENERGY COMPACT GENERAL INFORMATION

8.1. Title/name of the Energy Compact

Energising Agri-food Systems with Renewable Energy

8.2. Lead entity name (for joint Energy Compacts please list all parties and include, in parenthesis, its entity type, using entity type from below)

FAO (Multilateral body /Intergovernmental Organization) and IRENA (Multilateral body /Intergovernmental Organization)

8.3. Lead entity type

Government Local/Regional Government Multilateral body /Intergovernmental Organization Non-Governmental Organization (NGO) Civil Society organization/Youth Academic Institution /Scientific Community Private Sector Philanthropic Organization Other relevant actor**8.4. Contact Information**

\*From FAO: Olivier Dubois, Senior Natural Resources Officer & Lead Energy Programme;  
 \* From IRENA: Amjad Abdulla, Head Partnerships, IRENA

**8.5. Please select the geographical coverage of the Energy Compact**

Africa Asia and Pacific Europe Latin America and Caribbean North America West Asia Global

**8.6. Please select the Energy Compact thematic focus area(s)**

Energy Access  Energy Transition  Enabling SDGs through inclusive just Energy Transitions  Innovation, Technology and Data  Finance and Investment.

**SECTION 9: ADDITIONAL INFORMATION (IF REQUIRED)**

Please provide additional website link(s) on your Energy Compact, which may contain relevant key documents, photos, short video clips etc.

For FAO: <http://www.fao.org/energy/agrifood-chains/investa/en/>

For IRENA: <https://www.irena.org/offgrid/Cross-Sector-Linkages>