Concept Note

C4SA: "Agrivoltaics for Africa Platform" Initiative

"The transformation of food systems through agrivoltaics is not just a possibility, it is a necessity. We envision a future where agrivoltaic systems are integral to global agricultural practices, providing dual benefits of solar energy generation and agricultural production." (C4SA Manifesto)

"Finally, we will work towards specific G7-Africa partnerships for agrivoltaics investments that combine agriculture with solar photovoltaic energy production, so as to enhance land use efficiency, generate renewable energy, increase crop yields, and add value for farmers through increased productivity and profitability, while conserving and sustainably managing water resources, protecting soils and livestock, as well as conserving and sustainably using biodiversity." (Italy, G7 Development Ministers, Pescara Communiqué, Oct 2024, Para.25)

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AGRIVOLTAICS FOR AFRICA PLATFORM

1

The Challenge: Strengthening Africa's Food–Energy–Water Security

African nations are experiencing a convergence of food, energy, and climate stresses that are reversing development gains and undermining stability across the continent. More than 230 million Africans currently face chronic hunger due to rising temperatures, degraded soils, and erratic rainfall patterns, in addition to vulnerabilities from conflicts and trade dependencies. At the same time, nearly one half of Africa's population lacks access to reliable electricity, limiting expansion of irrigation, cooling systems, agro-processing, and Value High-Fend Addition.

Climate change is intensifying heat stress, soil degradation, and rainfall variability, reducing agricultural yields and weakening farmer resilience. African governments are therefore seeking solutions that strengthen food systems, expand clean energy access, and build climate resilience while creating jobs, especially for women and youth. Agrivoltaics offers a unique nexus solution to address food, energy, and water insecurity simultaneously, where enabling policies and market structures function effectively.

How Agrivoltaic Solutions Work

2

Agrivoltaics combines solar energy production with agricultural activity on the same land, placing solar panels above crops, horticulture, livestock and/or aquaculture, achieving:

- Affordable, clean energy for irrigation, cooling, and/or agro-processing.
- Enhanced agricultural productivity and resilience by mitigating heat stress and improving microclimatic conditions.
- More efficient use of water resources and increased farmer incomes.
- Higher land productivity where climate pressures constrain agricultural outputs.

By optimizing land use and creating synergies between energy and agriculture, agrivoltaics supports climate adaptation, mitigation objectives and water/biodiversity conservation.

3

Strategic Relevance for African Development and Global Climate Goals

Agrivoltaics align closely with global priorities related to food systems transformation, climate adaptation and mitigation, renewable energy access, and inclusive rural development. It offers a scalable, evidence-based solution that supports national development strategies while contributing to international climate commitments, including resilience-building and emissions reduction goals. The approach also facilitates deeper collaboration between governments, research institutions, and private sector actors, enabling the transfer of knowledge, technology, and investment into emerging markets. By strengthening agricultural productivity and energy access simultaneously, agrivoltaics can help stabilize rural livelihoods, reduce vulnerability to climate shocks, and support long-term economic growth.

4

Opportunity for Coordinated International Action

A coordinated, multi-year effort to scale agrivoltaics in Africa would accelerate deployment, build local technical capacity, and mobilize private investment. It would support applied research, enabling policies, pilot projects, and market development. Fundamentally, Agrivoltaics is a practical, politically non-sensitive solution that delivers clear benefits for food security, energy access, and climate resilience.

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5 Initiative, Part 1 — Technical Workshop on Agrivoltaics for Africa (APR 2026)

C4SA, together with OECD, Akademiya2063, the UN Joint SDG Fund and other partners, will convene a technical workshop in April 2026 at OECD Headquarters to shape and launch the initiative. The workshop will bring together international agencies, multilateral financiers, and African partners to define funding mechanisms, a clear roadmap, and engage potential partner countries. Discussions will cover agrivoltaics in Africa, policy and regulatory frameworks, and financing models, with African embassies invited for feedback and advice. The media will be invited to participate.

6 Initiative, Part 2 — Launch of a €50 Million Agrivoltaics for Africa Facility

To operationalise the Platform initiative, a €50 million multilateral facility is proposed to support the development and deployment of investable agrivoltaic projects in selected African markets where partner governments demonstrate commitment to the initiative.

A. €5-10 Million Technical Assistance Facility

This component would support the development of policy and regulatory frameworks, feasibility studies, agronomic and technical assessments, research, capacity building, and early-stage project preparation. Expected results include 20 to 30 technical assistance projects across 5-7 (Phase One) countries, training for 500 to 1,000 farmers and electricity professionals, and development of 10 to 20 viable AgriPV projects.

B. €40-45 Million Catalytic Investment Window

This window would provide grants or reimbursable grants, early CAPEX support, and co-investment with DFIs to stimulate early commercial deployment. It is expected to generate a portfolio of 30-50 investable project proposals (roughly 1MW, each).

Possible Host Institution

The facility could be hosted by a recognised multilateral institution with a strong rural development mandate and experience managing grants and reimbursable instruments. In this regard, a technical working group of development, research, and private sector partners would support the design and implementation of projects alongside C4SA.

7 Next Steps for the 'Agrivoltaics for Africa Platform' Initiative

- Organize a technical workshop and launch event at OECD HQ during 2026.
- Design a €50M Agrivoltaics Facility, with a host institution to be confirmed.
- Engage African governments to join phase 1 of the initiative.

8 Conclusion

Agrivoltaics represents a timely and scalable opportunity to advance food security, climate adaptation, and clean energy access in Africa. By combining scientific evidence, policy reform, and catalytic finance, the initiative can deliver durable development and climate benefits. C4SA, together with its scientific, institutional, and development partners, stands ready to support the design, promotion, and implementation of this initiative in close collaboration with African governments and international stakeholders.