

Global Agenda



 **SUSTAINABLE DEVELOPMENT GOALS**
17 GOALS TO TRANSFORM OUR WORLD

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	



Synecoculture 協生農法



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Ph.D in EcolePolytechnique

Physicis, Biology, Mathematical Sciences, Veterinarian

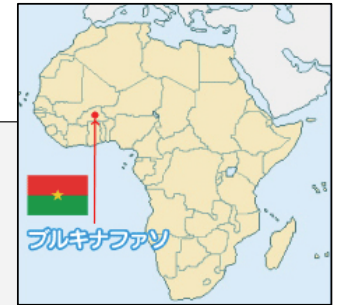


70% of food production
80% of farming area

Synecoculture in Burkina Faso

Challenge in Sub-Saharan Africa (from 2015~)

150 species in 500m² farming area



1st in Africa. Syneco culture Symposium in 2016.




20hrs/week @ 500m² → 1000 Euro/Month

x20 of Burkina Faso GNI per capita

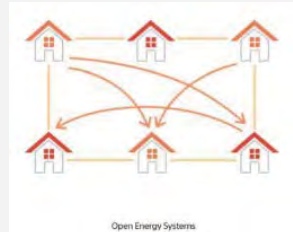
x50 of absolute monetary poverty threshold

Open Energy System



DC-energy distribution control technology
⇒ Energy Sharing Platform

P2P energy network development



Without relying on electric power company, each user can accommodate the energy with neighbors.



Sustainable Energy Platform

Off-Grid / Weak Grid: **Stable Power Supply**
On Grid: **Renewable Energy Supply**



2010
Ghana
Soccer Public Viewing



2011~2013
Ghana
Off-Grid System



2014~
Okinawa
DCOES Platform



2016~
KEIO SFC
DCOES & DC-House

Microgrid in Okinawa

■ Physical Peer to Peer Energy Exchange

- OIST and Sony CSL has built the following system:



One of the largest DC micro grids in the world with 19 faculties' houses



Operation & Maintenance activities for more than 5 years since 2014

シェラレオネ・プロジェクト: OES Project for Ebola Vaccine Development

(w/ Univ. of Wisconsin & Tokyo : Prof. Kawaoka)

シェラレオネにおいて、Ebola サバイバーの血液サンプルを採取するために、超遠心分離器を安定稼働させる電力が必要。
OESを展開し活動をサポートする。

河岡先生、西浦先生と Sony CSL Team



西浦先生

河岡先生

Sony CSL Team

