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**GREENING THE ECONOMY
WITH AGRICULTURE**

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Greening the Economy with Agriculture (GEA)



SUSTAINABILITY

**Environmental
Integrity**

**Social
Wellbeing**

**Economic
Resilience**

**Good
Governance**





RESPONDING TO CRISIS

Climate

Food

Financial

... Diet-related diseases





DEFINITIONS

Green economy

Although UN member countries have not agreed on a definition of the green economy, they recognize that an efficient, functioning economy is a precondition for addressing the environmental and social pillars of sustainability. Therefore, the green economy is an implementation tool for sustainable development.



DEFINITIONS

Food security

Food security is achieved when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life (WFS, 1996).

Sustainable food and agriculture systems achieve food and nutrition security through an appropriate balance between self-sufficiency and self-reliance, while ensuring decent rural livelihoods, in harmony with nature.



DEFINITIONS

Greening the Economy with Agriculture (GEA)

GEA refers to increasing food and nutrition security – in terms of food availability, access, stability and utilization – while efficiently using natural resources and improving resilience and equity throughout the food supply chain, taking into account countries' individual circumstances.



DEFINITIONS

GEA in practice

GEA can be achieved by applying an ecosystem approach to agriculture, forestry and fisheries management in a manner that addresses the multiplicity of societal needs and desires, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by terrestrial and marine ecosystems.

Therefore, GEA strives to balance diverse societal objectives, by taking account of the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to productive activities within ecologically meaningful boundaries.

FOOD AND NUTRITION SECURITY



Availability

From scarcities to equitable distribution:

- ✓ No structural food deficit by 2050 – globally!
- ✓ More shocks and regional food insecurity
- ✓ Risk of further disruptions to food trade
 - Democratized food systems, from reformed trade policies to local production and consumption models

FOOD AND NUTRITION SECURITY



Access

From conflict and marginalization to rights:

- ✓ Delocalized food systems, disenfranchised producers, slums
- ✓ Decent work deficit in rural areas
- ✓ Land grabs by foreign investors
- ✓ Competition between food and fuel crops
 - A right-based approach to improve access to entitlements

FOOD AND NUTRITION SECURITY



Stability

From shocks to safety nets:

- ✓ Volatility of food markets
- ✓ Volatility of energy markets
- ✓ Climate change and climate variability
 - Putting in place social schemes to face crisis
 - Building adaptive capacity

FOOD AND NUTRITION SECURITY



Utilization

From waste to sustainable consumption:

- ✓ 1/3 of all foods produced are lost: from post-harvest losses to points of retailing and consumer waste
- ✓ 2 billion people with micro-nutrient deficiencies, of which 950 million people go hungry
- ✓ 2 billion people overweight and obese, including in developing countries



FOOD AND NUTRITION SECURITY

Availability

From scarcities
to equitable distribution

Access

From conflict and
marginalization to rights

Stability

From shocks
to safety nets

Utilization

From waste
to sustainable
diets





SYSTEMS THINKING

From trade-offs to synergies

**Climate-change
mitigation &
adaptation**

**Ecosystem
services &
health**

**Green energy
& materials**

**Green jobs
& livelihoods**

Need systems redesign, not merely adjustments

A NEW MODEL: GEA



Environmental

Ecological intensification for low-footprint food systems:

- ✓ Build soil health and functional landscapes
- ✓ Understand ecological interactions for stable agri-food systems
- ✓ Integrate plant and animal diversity (for better eco-functionality)
- ✓ Efficiently use natural resources and recycle biomass
 - Innovations and science: agroecology, marine multi-species dynamics, multi-trophic aquaculture, nutrition + green inputs
 - Crop yields/ha AND nutrient density of net output/ha

A NEW MODEL: GEA



Social

Labour-centered and healthy food systems:

- ✓ Community-based access to productive resources (e.g. tenure)
- ✓ Address the gender-gap in agriculture to reduce number of hungry
- ✓ Potentially 200 million full-time green jobs in 2050 (AG, FO, FI)
- ✓ Social safety nets to vulnerable people and safe living
- ✓ Micronutrient-rich diets (diversified food production, traditional)
- ✓ Reduced food waste (e.g. education, labelling, cold storage)



A NEW MODEL: GEA

Economic

Working markets and resilient smallholders:

- ✓ National trade frameworks for resilient local food systems
(at least for key staple foods)
- ✓ Smallholders focus & localized producers/consumers initiatives
- ✓ Market information and transparency
 - Cooperation for accurate data on food production, consumption & stocks: Agricultural Market Information System (G20, June 2011)



A NEW MODEL: GEA

Governance

Responsibility, accountability and rights in the food value chain:

- ✓ Regulate trade for trade to be fair
- ✓ Human-rights to accessing food (e.g. land rights to indigenous people)
- ✓ Integrated economic, environmental and social policy, planning and implementation
- ✓ Improved public and corporate social responsibility mechanisms
- ✓ Voluntary sustainability guidelines for food and agriculture systems
- ✓ Transparency, traceability and labelling on food products

A NEW MODEL: GEA



Environmental

Ecological intensification for low-footprint food systems

Social

Labour-centred and healthy food systems

Economic

Working markets and resilient smallholders

Governance

Responsibility and accountability throughout the food supply chain



MAKING THE TRANSITION TO GEA



Knowledge

Ecological science and transdisciplinarity:

- ✓ Unify knowledge beyond disciplines (e.g. systems knowledge)
- ✓ Valuing and using indigenous systems and traditional knowledge
- ✓ Solutions to be contextual (e.g. regional specificity)
- ✓ Put producers at the centre of research and extension
- ✓ Maximize efficiency and sustainability of all agricultural inputs:
 - ✓ Natural resources (e.g. adapted seeds and breeds)
 - ✓ New technologies (e.g. marker-assisted breeding)
 - ✓ People management (e.g. farmers-field-schools, village-based resource centers)

MAKING THE TRANSITION TO GEA



Culture

Awareness and consumer choices:

- ✓ Change policy-makers perceptions about traditional values (e.g. in long-term harmony with nature)
- ✓ Empower producer groups (e.g. farmers cooperatives) and resource users groups (e.g. water) through capacity building
- ✓ Health campaigns (e.g. food choices impact on nutrition)
- ✓ Right to choose food: from proper regulations, to quality processing, to sufficiency strategies by marketers, to robust indicators and labelling of food and agriculture products

MAKING THE TRANSITION TO GEA



Finance

Payment for public goods:

- ✓ Food and agriculture as a global common good
- ✓ Fair opportunities yield greater and more stable financial benefits
- ✓ GEA investments: R&D agri-food ecology, upfront financing, remuneration of positive externalities, supply chain infrastructure
- ✓ Redirect perverse subsidies to rewarding virtuous practices
- ✓ Apply the polluter-pays principle (e.g. toxic food and agriculture)
- ✓ Apply the precautionary principle (e.g. for price volatility)
- ✓ Increase the share of ODA to agriculture and food security

MAKING THE TRANSITION TO GEA



Institutions

Integrated policy, planning and management:

- ✓ Revive rural development for sustainable agrarian economies
- ✓ Develop institutions that can deal with the informal sector
- ✓ Integrate agriculture and food in multi-lateral environmental policies
- ✓ Adjust national institutional frameworks for integrated policy, planning and management (across sectors and among stakeholders)
- ✓ Build public-private partnerships for integrated landscape management
- ✓ Promote local urban/rural food networks and public procurement

MAKING THE TRANSITION TO GEA



Knowledge

Ecological science
and inter-disciplinarity

Culture

Awareness and
consumer choices

Finance

Payments
of public goods

Institutions

Integrated policy,
planning and management





GEA MESSAGES

Keep producers nurturing!

Mutualism

The green economy needs agriculture and vice-versa

Agri-culture

Dignified peasantry for Earth stewardship

Beyond profitability

Full-cost pricing of food (internalizing environmental and social costs & benefits)

Inclusive implementation

Cross-sectoral cooperation (agriculture not in isolation)





THANK YOU



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