



From waste to resource: Biomass and soil carbon as the key to sustainability

Agro-energy as an element of sustainable agriculture.

Soil Organic Carbon: The Key to Regeneration

Increasing the organic carbon content improves soil structure, water retention and nutrient availability.

The lack of rational effective management of Biomass leads to the loss of soil regeneration potential.

- Increasing the organic carbon content of the soil translates into higher yields and better crop quality.



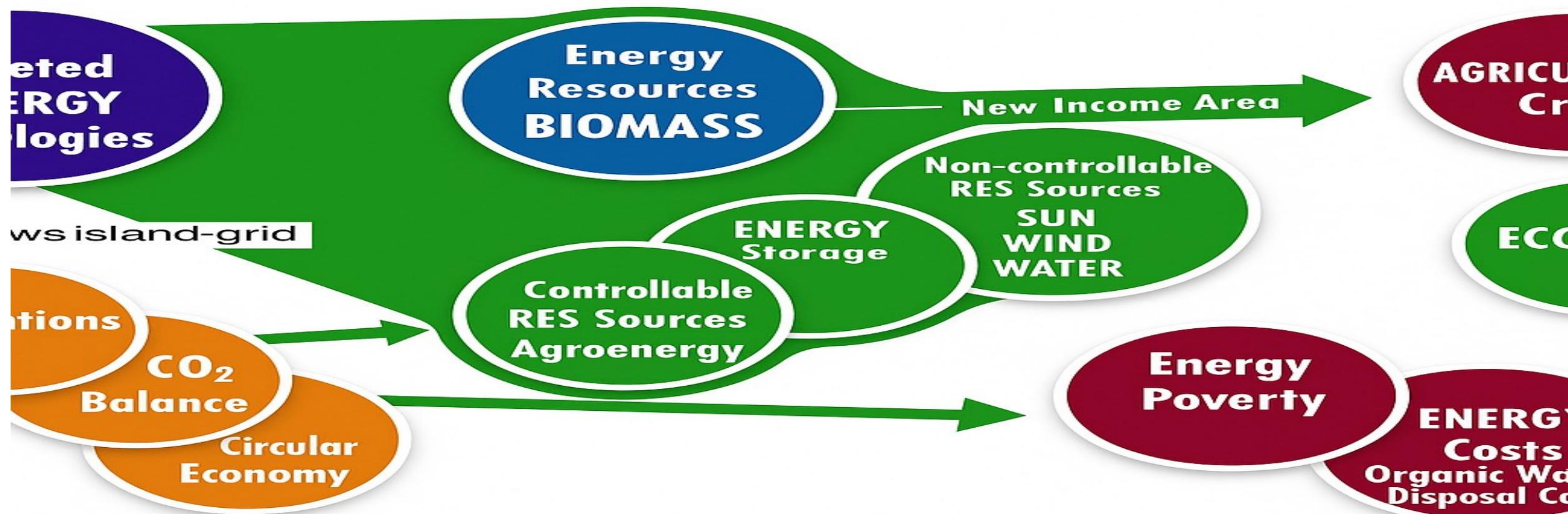
Use of biomass and ashes:

Biomass ashes, such as wood ash, are rich in minerals such as calcium, potassium and phosphorus, which will improve soil fertility.

- Proper use of ashes can balance the pH of the soil and improve its chemical properties.



Biomass as the foundation of energy self-sufficiency



Organization of cooperation networks for RES development to support local development—mission of the Green Locomotive

New technologies: Biomass storage as an alternative to energy storage

Using Biomass for Power and Biochar Production

Restoration and maintenance of the carbon profile on energy crop plantations as an element ensuring soil well-being

- Organic composite fertilizers (ONKs) - biochar, soil bacteria and biomass ashes

System Integration : Waste as a Resource .



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APPLICATION OF GASIFICATION AND PYROLYSIS
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Agroenergetics as an element of sustainable agriculture:

Agroenergy, i.e. the use of biomass for energy production, can contribute to the reduction of greenhouse gas emissions and increase the profitability of farms by selling surplus energy.

- The introduction of agro-energy systems can also support local communities, creating new jobs and increasing the energy independence of regions

