UNFCCC COP19 Side Event:
"New Solutions of Climate Mitigation in South & North;
NGOs Voices on the Technology Mechanism"
organized by INFORSE/HELIO/AIWC

Achieving Ecodevelopment Through Smart Energy Planning

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Proceedings: www.inforse.org/europe/conf13_COP19.htm

Climate and Energy Framework

- **Energy is not sufficient but required** for the achievement of several Millennium Development Goals (and post-2015 Sustainable Development Goals) => transversal.
- **Vulnerability of the energy system:** water for hydro and thermal plants, extreme events, summer peak, etc.

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Need to integrate both mitigation and adaptation: low-emission *and* resilient energy and development paths

Towards a Smart Energy Path
(Voie Energetique Douce et Autonome)

- **Focus on energy services and backcasting:** To assess and meet peoples' needs and aspirations.
- **Smart technologies:** Renewable energy, diverse, technologically and economically accessible, matched to meet end-use needs. And not only electricity!
- **Participatory governance** and stakeholder engagement.

Seven families of stakeholders:
National/supranational public institutions. Energy utilities. Energy service and technology providers. Users. Mediators (NGOs, universities, medias, etc.). National funding agencies. International funders.

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Energy, Ecodeveloppement and Resilience in Africa (Togo, Mali, Benin) supported by CDKN

Tool 1 - TIPEE

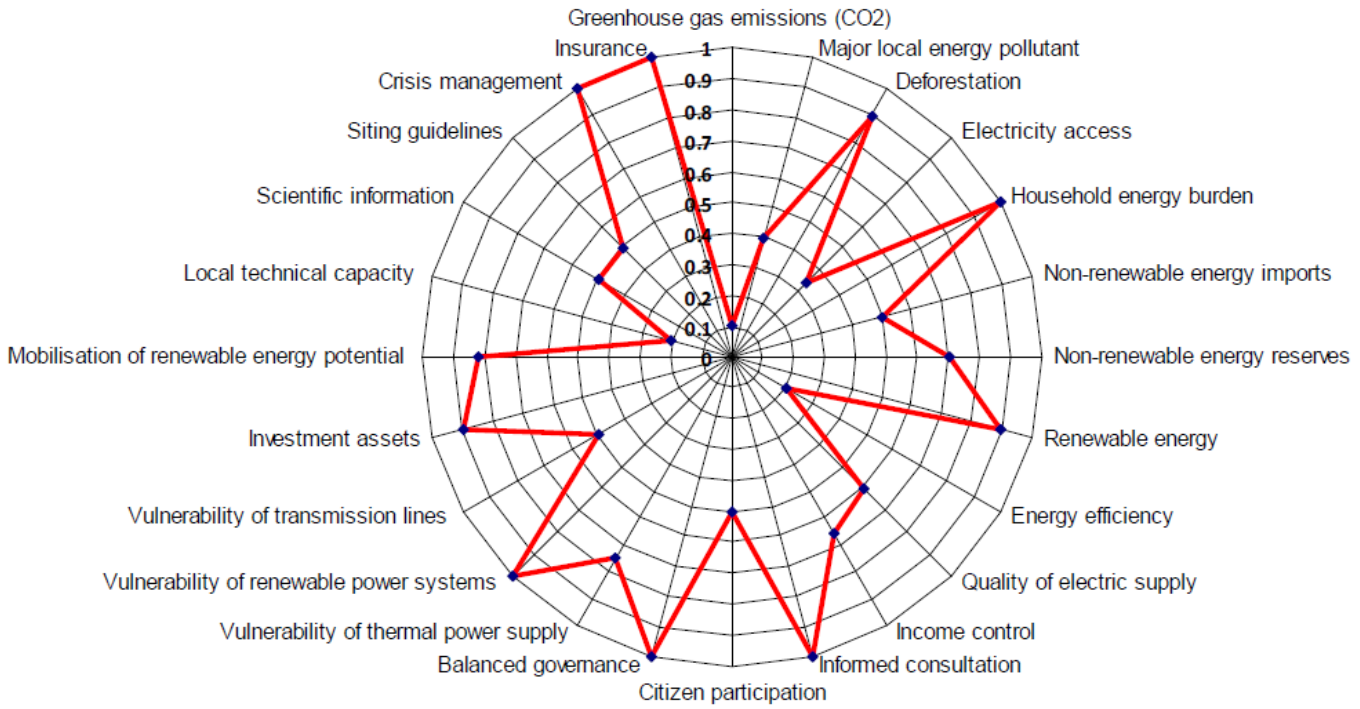
Processing Information for Energy Policies Conducive to Ecodevelopment (Traitement de l'Information pour des Politiques Énergétiques favorisant l'Écodéveloppement)

- **Tool for decision-makers** to assess national energy policies/systems in order to ensure that they contribute to climate resilient and low-carbon energy strategies.
- **To enhance knowledge for better action**: diagnostic and preparation of action.

TIPEE: 24 Indicators

Multidimensional, clear, simple, transparent, participatory approach

Technological, environmental, social, cultural and institutional facets + resilience of energy systems and policies

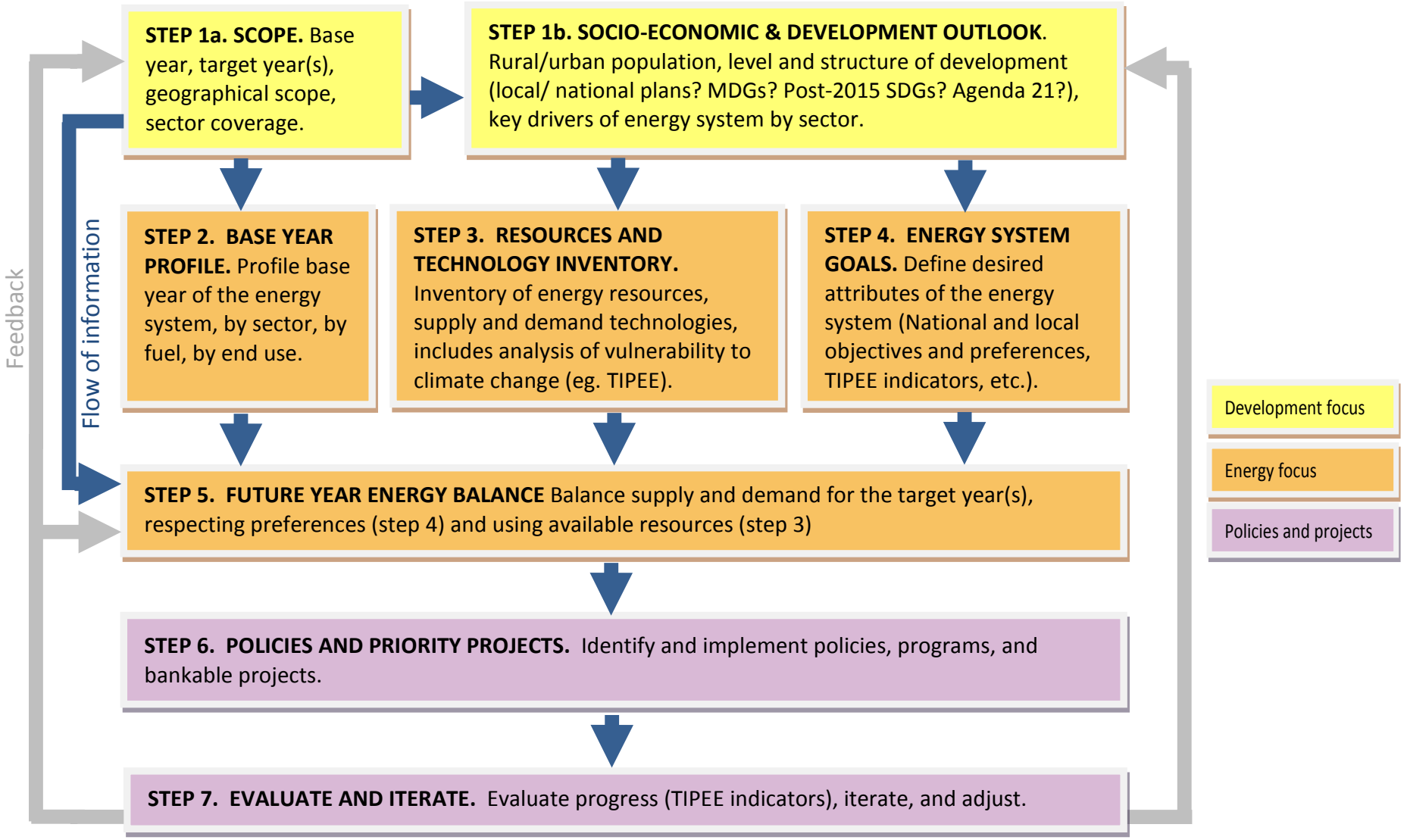


The desired value is 0, which indicates a very low footprint whether it be from an environmental, resource use or vulnerability perspective.

Illustrative Insights from TIPEE

- **Climate vulnerability of the energy system:** biomass and hydro (shortage/ floods) in the 3 countries, flooding risk in coastal areas (Togo & Benin).
- **Household air pollution:** biomass combustion is the 1st /2nd cause of premature deaths.
- Dependency on **fossil fuel imports** => renewable energy also for energy security and economic resilience.
- **Limited participatory governance** even if framework exists
- **Lack of data:** energy intensity of industry, fossil fuel statistics, decentralized energy information

Tool 2 – SEP in a 7 step Approach



Concluding Remarks

- **TIPEE results** for 2005-2010 available for the 3 countries at the beginning of 2014
- **Learning-by-doing:** Application of SEP approach in a case study in Togo
- Identify **bankable projects / SE4ALL**
- Creation of national **multi-stakeholder comittees**
- **South-South** exchanges
- **Regional mobilization** beyond the 3 countries

Thanks!

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Annex

Indicators

Environment	Indicators	Parameters
Indicator 1	Greenhouse gas emissions (CO_2)	Greenhouse gas emission (CO_2) from the energy sector
Indicator 2	Major local energy pollutant	Concentration or emission level of a significant energy-related local pollutant (CO, NO_x, or SO_x particulates) per capita
Indicator 3	Deforestation	Number of hectares of deforestation or loss of forest vegetation (biodiversity) used for energy purposes
Social		
Indicator 4	Electricity access	Number of households that are electrified and consume electricity
Indicator 5	Household energy burden	Proportion of household income spent on energy services
Economy		
Indicator 6	Non-renewable energy imports	External energy dependence
Indicator 7	Non-renewable energy reserves	Number of days of stock of non-renewable energy supplies
Technology		
Indicator 8	Renewable energy	Deployment of modern, local renewable energy
Indicator 9	Energy efficiency	Energy intensity of industry; GHG emissions per unit of production; or energy intensity of the economy
Indicator 10	Quality of electricity supply	Length and recurrence of power cuts and variations in voltage
Governance		
Indicator 11	Income control	Reduction in the share of energy revenues that escape taxation
Indicator 12	Informed consultation	Public hearings and consultations on the impact assessments of proposed energy projects
Indicator 13	Citizen participation	Active participation of civil society (particularly women) in the energy sector
Indicator 14	Balanced governance	Balanced representation of energy demand and supply stakeholders as well as transparency in the decision-making process

Indicators

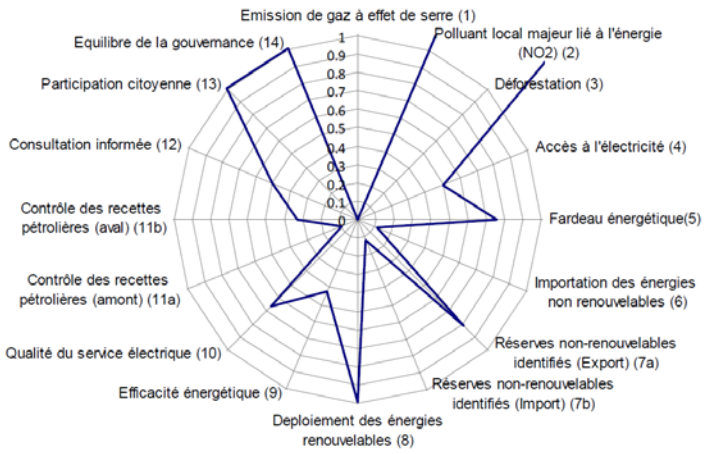
Vulnerability		
Indicator 15	Vulnerability of thermal power supply	Vulnerability of power plants (and refineries if applicable) to flooding
Indicator 16	Vulnerability of renewable power systems	Vulnerability of renewable energy systems to climatic variations
Indicator 17	Vulnerability of transmission lines	Length of transmission lines/distribution networks threatened by extreme weather events
Resilience		
Indicator 18	Investment assets	Rate of domestic savings/GDP
Indicator 19	Mobilisation of renewable energy potential	Proportion of national investment earmarked for renewable energy and energy efficiency
Indicator 20	Local technical capacity	Annual number of science and engineering graduates per total population
Indicator 21	Scientific information	Availability of risk maps (flooding, desertification, contamination)
Indicator 22	Siting guidelines	Climate-proofing guidelines for power plant siting and building
Indicator 23	Crisis management	Emergency plans for power plants
Indicator 24	Insurance	Availability of domestic insurance policies that account for climate change-related damages

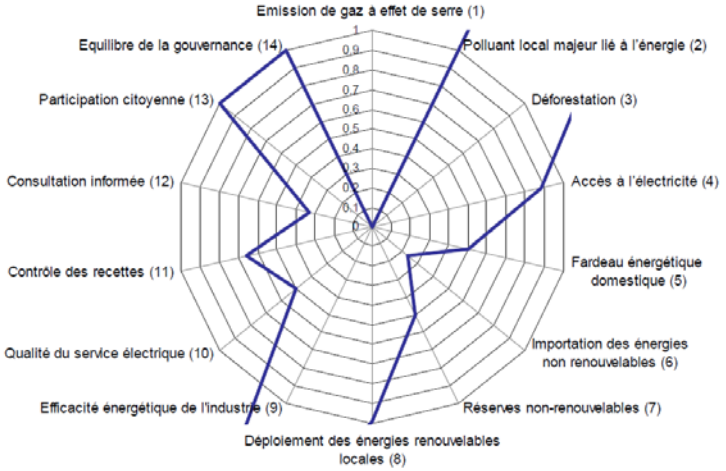
Togo and Cameroon Reports

(Togo update, Mali and Benin reports will be available in 2014)

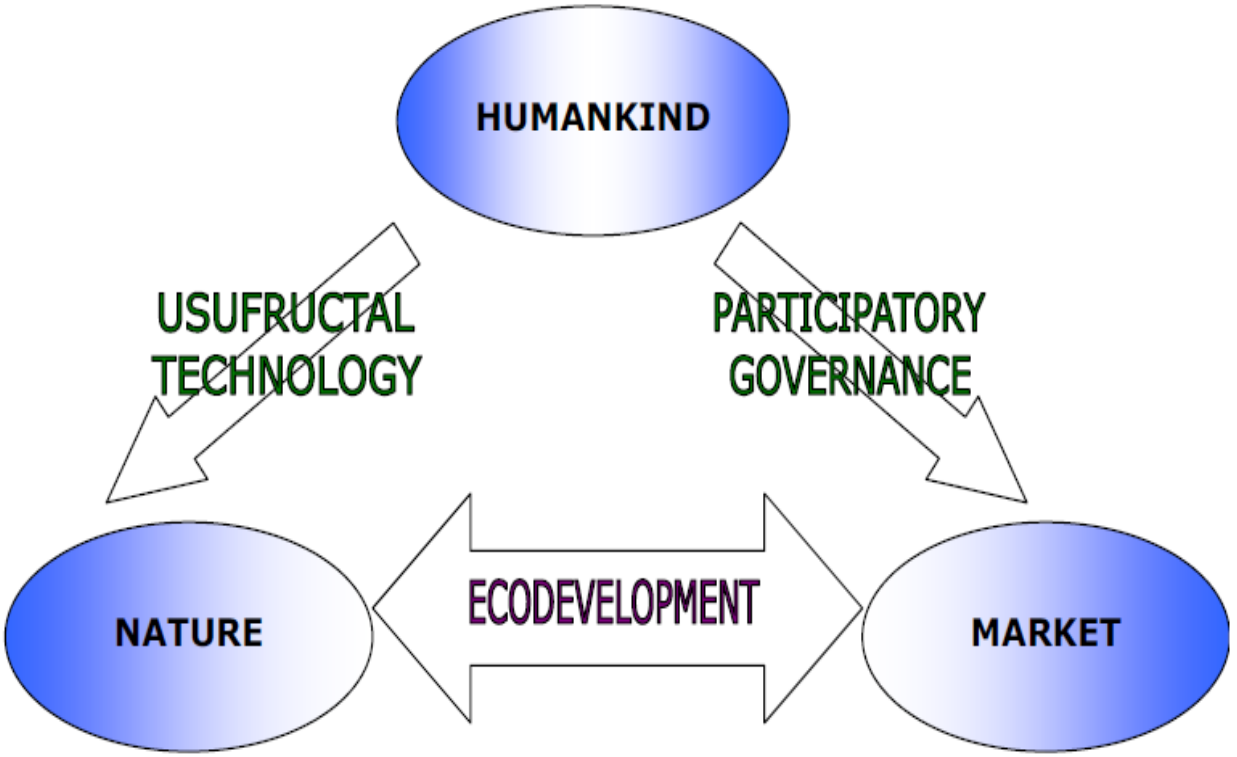
http://www.helio-international.org/TIPEECam2011.pdf

http://www.helio-international.org/TIPEETogoReport.pdf





Ecodevelopment



Humans, utilising usufructal technologies use natural resources; through participatory governance, markets are controlled and regulated. It is through these processes and interactions that ecodevelopment is achieved.

(Source: HELIO International)