



Rijatzul Q'ij

Semilla de Sol

**UNCTAD Expert Meeting on Green and Renewable
Technologies as Energy Solutions for Rural
Development**

Q... 0 1 5 ... 0 1 0



“Adaptative Resilience and Technological Syncretism”

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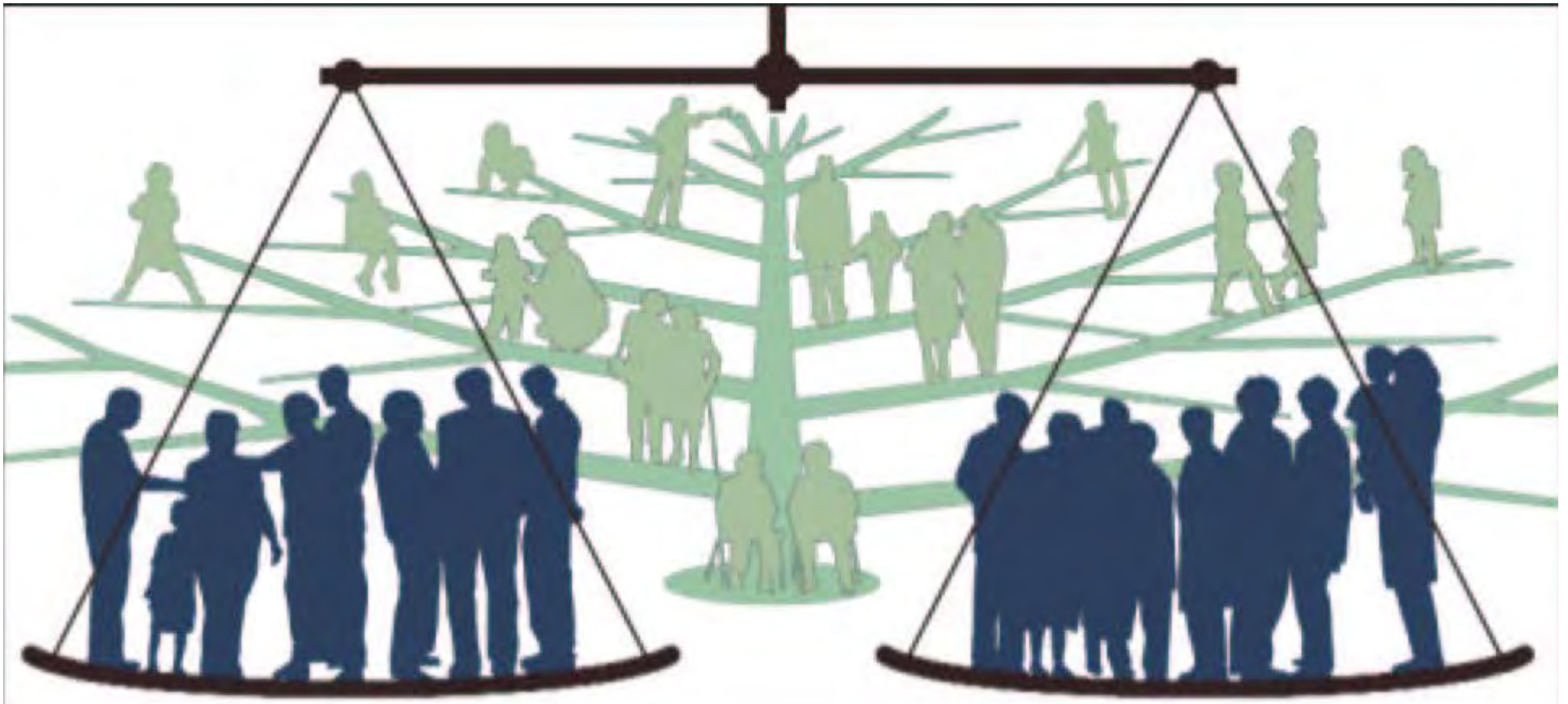
Cholb'al Q'ij / 11 Kej - Year 5126 (2010)

Topics

- The utopia: sustainable human development.
- The challenge of less developed countries. Shared but differentiated responsibilities.
- New paradigm.
- New instrumentation.
- Some food for thought.



Utopia: Sustainable Human Development



The reality:
Sustained growth



The Economist

Economic recovery, fact or fiction?

PAGE 23

America's problem with treason

LEXINGTON, PAGE 28

Arafat's choice

PAGE 39

Japan's Koizumi needs a crisis

PAGE 33

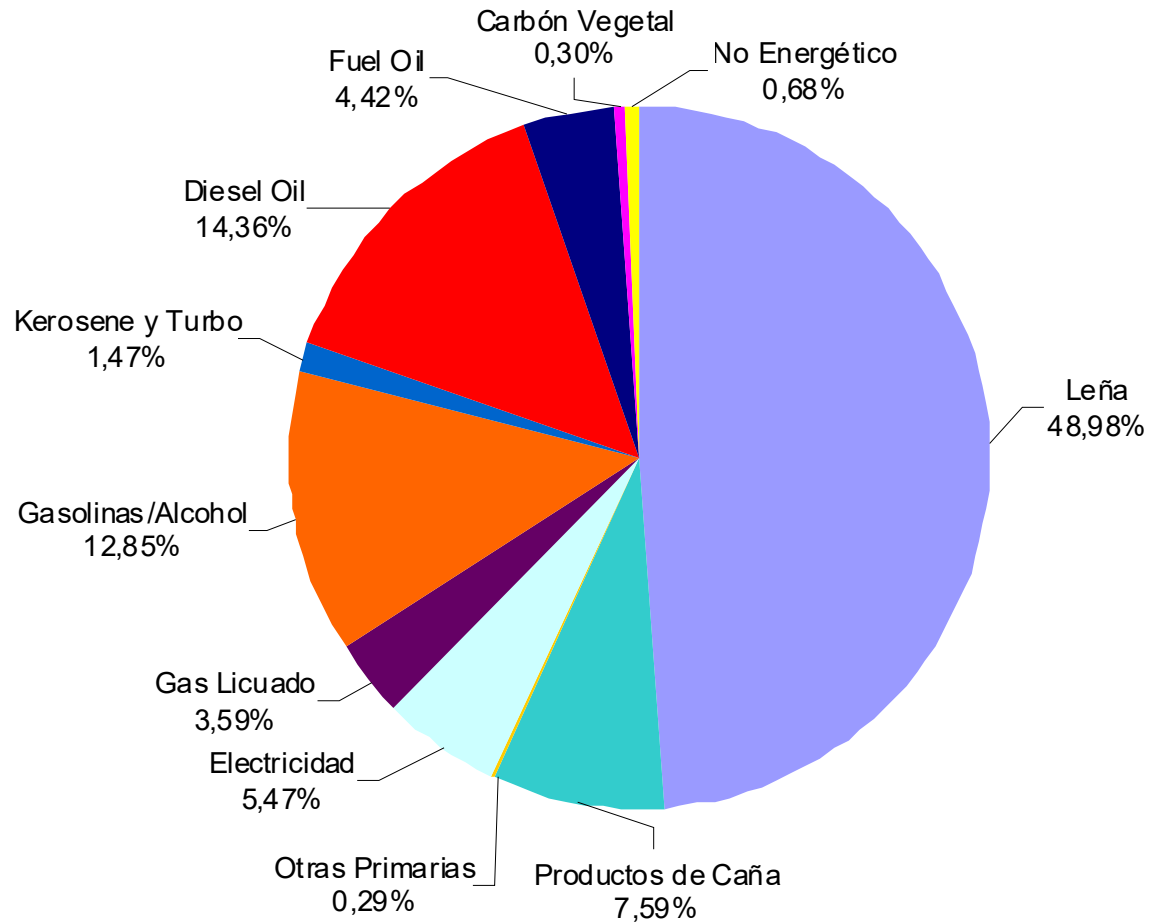
Addicted to oil



Final Consumption

Guatemala 2005

Total 47,343.23



The challenge: climate change



Developing countries need to address mitigation, but focusing on adaptation and reduction of vulnerability.









"It is impossible to solve
a problem with the same
methods that caused
this problem"

Albert Einstein



New Paradigm



From practice to conceptualization.

Looking back at our experience



13 Baktuns cycle



Source: *The Mayan Factor, path beyond technology*, 1987, P.47.





**The cosmic dragon
and the milkyway in
the great flood that
destroy and recreated
the cosmos.**

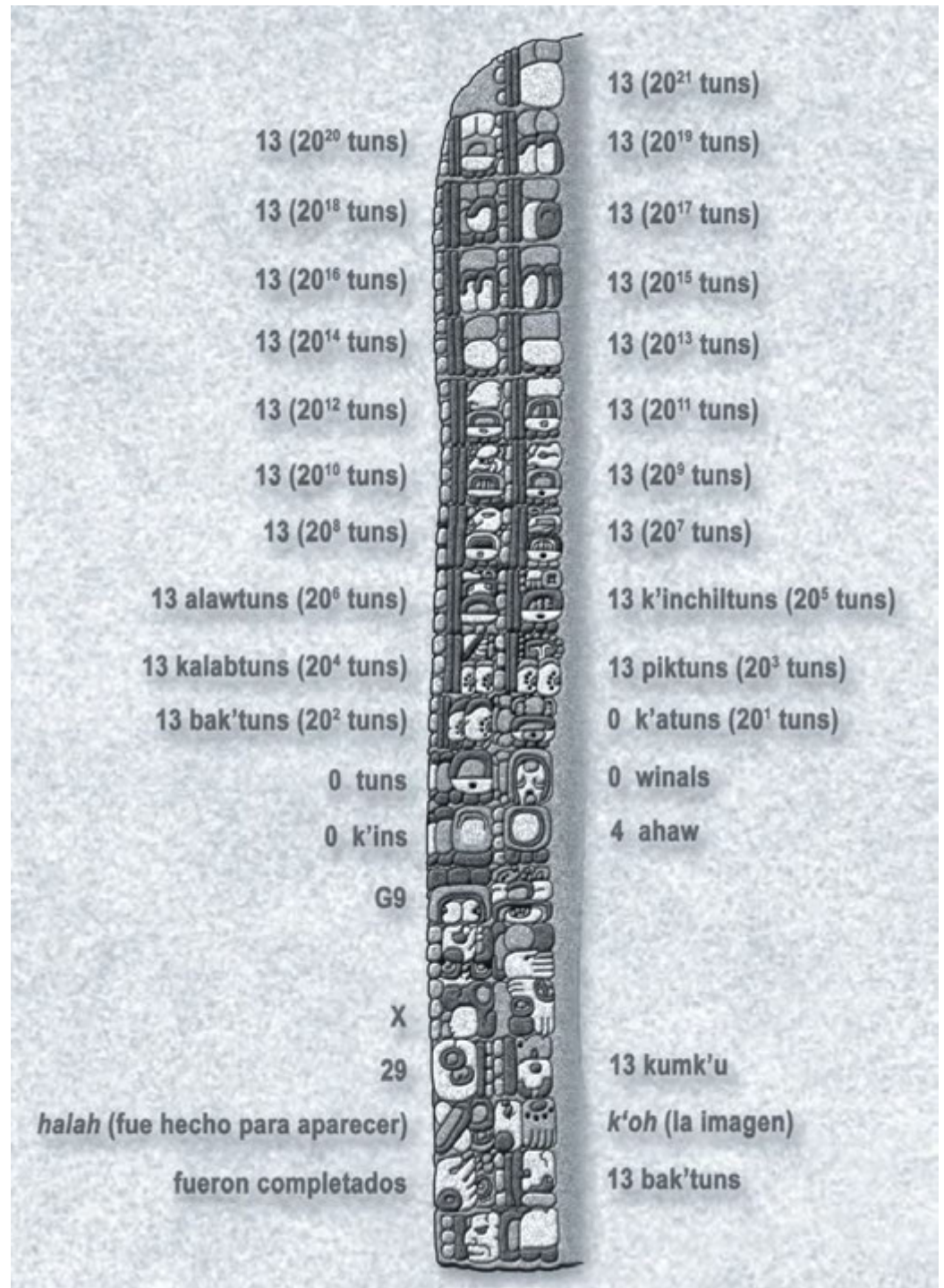
P. 74 Códice de Dresden.

Fuente: *Maya Cosmos*, 2001, p.106.

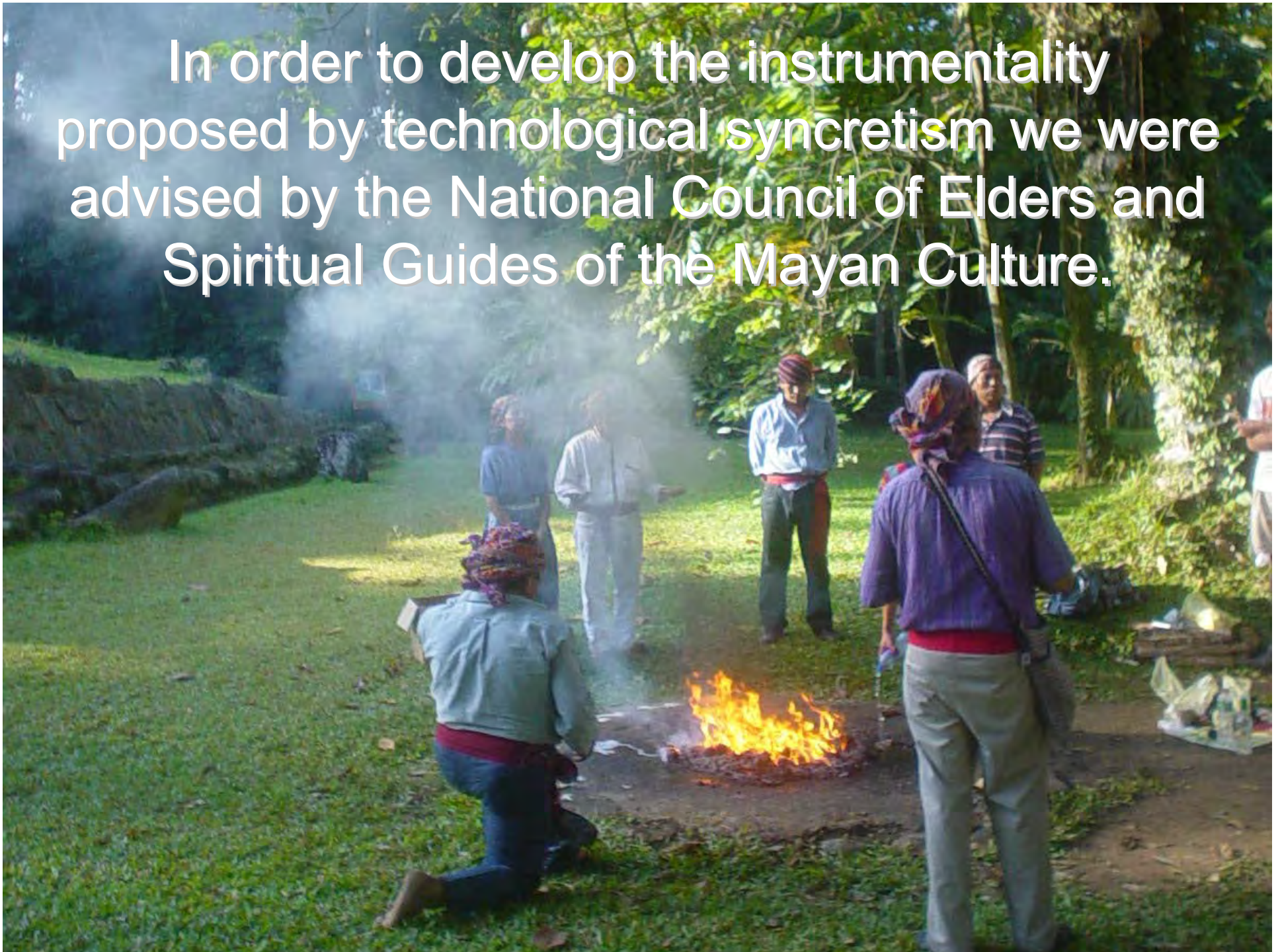


**Estela 1, Koba,
Creation day
13.0.0.0.0,
4 Ahaw
8Cumk'u.
(year 3113 BC)**

Source: *Maya Cosmos*, 2001, p.62.



In order to develop the instrumentality proposed by technological syncretism we were advised by the National Council of Elders and Spiritual Guides of the Mayan Culture.



Adaptative resilience:

A new paradigm based on complex systems approach that allows human kind to overcome adversity by integrating values and tools that come from different ways of being in the world (cosmovision and metaphysics).



Technological syncretism

A new instrumentality for nature transformation based on the blending of scaled down high tech options with scaled up traditional techniques.



Features:

High tech renewable energy technologies (RETs) developed by Western metaphysical thinking integrated with traditional Mayan knowledge & techniques for natural resources transformation.



Renewable Energy Technologies

- Biomass
- Country Reports
- Distributed Energy
- Energy Education
- Gender and Energy
- Geothermal Technology
- Hydrogen Fuel Cells
- Hydropower
- Low Energy Architecture
- Marine Energy
- Photovoltaic Technology
- Renewable Energy and Water
- Renewable Energy Policies and Impacts
- Resource Assessment
- Rural Energy Applications and Deployment
- Solar Buildings
- Solar Cooking
- Solar Materials
- Solar Thermal
- Sustainable Urban Design
- Wind Energy



Traditional knowledge

Is a cumulative body of knowledge, know-how, practices and representations maintained and developed by peoples with extended histories of interaction with the natural environment.

These sophisticated sets of understandings, interpretations and meanings are part and parcel of a cultural complex that encompasses language, naming and classification systems, resource use practices, ritual, spirituality and worldview.

ICSU, 2002.



Main goal



Local
employment
generation.



Some examples from the field



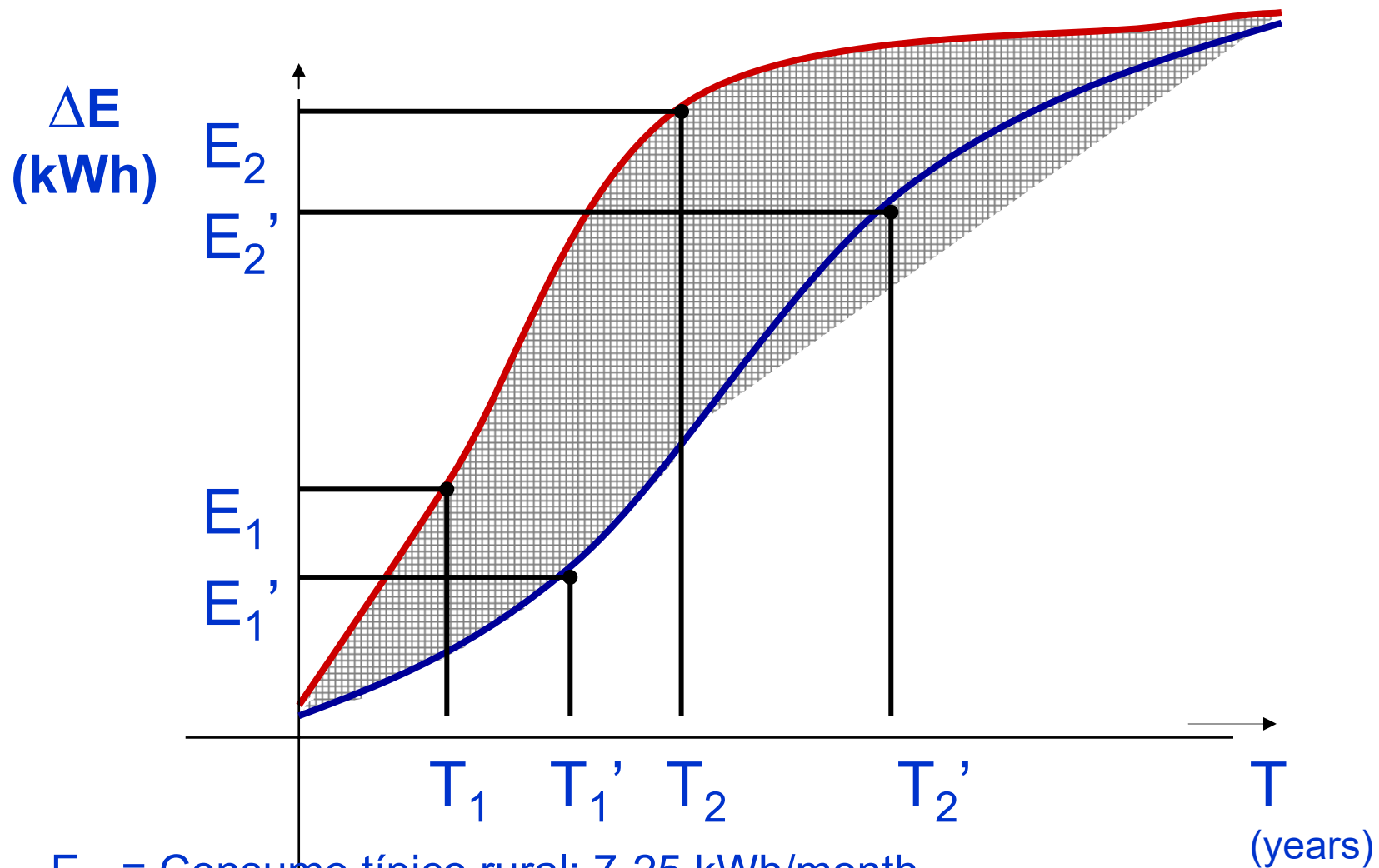
Renewable Energy Based Small Enterprise Development in the Quiché, Region of Guatemala



Watershed Management



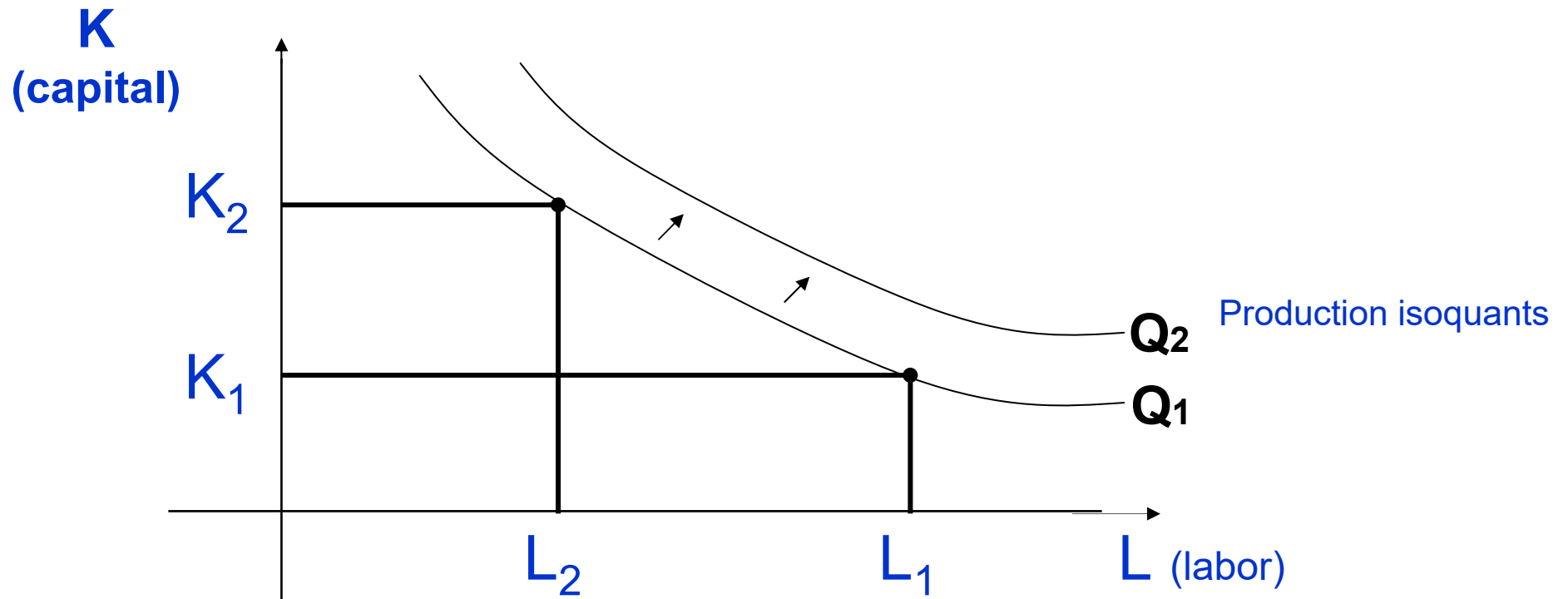
Productive uses of renewable energy, consumer surplus



E_1 = Consumo típico rural; 7-25 kWh/month.

E_1' = Consumo productivo; 35-70 kWh/month.

Scaled down appropriate technology



$$Q_1; K_1/L_1 = K_2/L_2$$





Local Autonomy



People's Participation



Women Participation

Renewable Energy



Community Services





Improved Cook Stoves



ASOCIACIÓN ARTE MAYA XOKOMEEL



MUSEO A CIELO ABIERTO

- Murales al fresco
- Galerías comunitarias



Asociación de Artesanas





**Three generation
of dream weavers.**

Blending of technologies





New product development



Asociación Lema'

Re-valorización del conocimiento tradicional de tinción de textiles por medio de plantas tintoreas





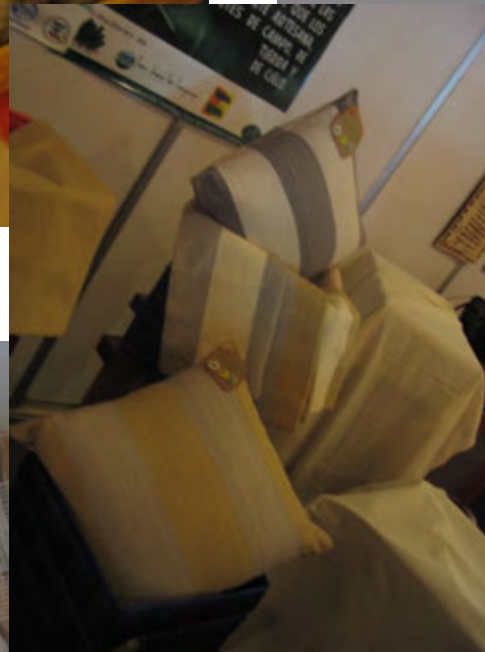




New product



development



Asociación Rupalaj K'istalin





Native germ plasm. Asociación Rupalaj Kistalin



ASOCIACIÓN Q'OMANEEL

Production and
comercialization of
medicinal plants.





Alcohol 70%
→ 165ml de agua her
vida

Ingredientes:
→ 1 libra vaselina
→ 1 onza ocote picado
→ 2 tazas de hojas de eucalipto picadas
→ 5 onzas alcanfor
→ 28 botes plásticos

Procedimiento:
1) Desinfectar...
2) Derretir vaselina en baño maría y agregar eucalipto y alcanfor. Dejar hasta que el eucalipto esté dorado.
3) Sacar del fuego y dejar enfriar.
4) Enjuagar...
5) Aplicar sobre el pecho, espalda o cabeza.
6) 6 meses después...
7) Alivia dolor de pecho y resaca de la gripe.

Escala de pH
Ácido → Neutral → Básico
↓
Productos

Grados de Alcohol (%)
0% → 100%

Alcohol etílico 70%

Ministerio de Salud Pública
Quaneel



Q'omanceel
Shampoo de romero
Producto elaborado artesanalmente por mujeres T'ujutiles de San Juan La Laguna, Solimá, Guatemala.
Ayuda a nutrir el cabello.
Ingredientes: extracto de Romero, agua, cloruro de sodio, color y olor artificial.
Precaución: solo para uso externo.

Q'omanceel
Shampoo de sábila
Producto elaborado artesanalmente por mujeres T'ujutiles de San Juan La Laguna, Solimá, Guatemala.
Ayuda a nutrir el cabello.
Ingredientes: extracto de Aloe Vera, agua, cloruro de sodio, color y olor artificial.
Precaución: solo para uso externo.

Q'omanceel
Shampoo de sábila
Producto elaborado artesanalmente por mujeres T'ujutiles de San Juan La Laguna, Solimá, Guatemala.
Ayuda a nutrir el cabello.
Ingredientes: extracto de Aloe Vera, agua, cloruro de sodio, color y olor artificial.
Precaución: solo para uso externo.

Q'omanceel
Pomada Viek
Producto elaborado artesanalmente por mujeres T'ujutiles de San Juan La Laguna, Solimá, Guatemala.
Ayuda a nutrir el cabello.
Ingredientes: extracto de Aloe Vera, agua, cloruro de sodio, color y olor artificial.
Precaución: solo para uso externo.



18 11:23 AM



18 11:24 AM









**Traditional knowledge of local biodiversity use
for multiple purpose activities**

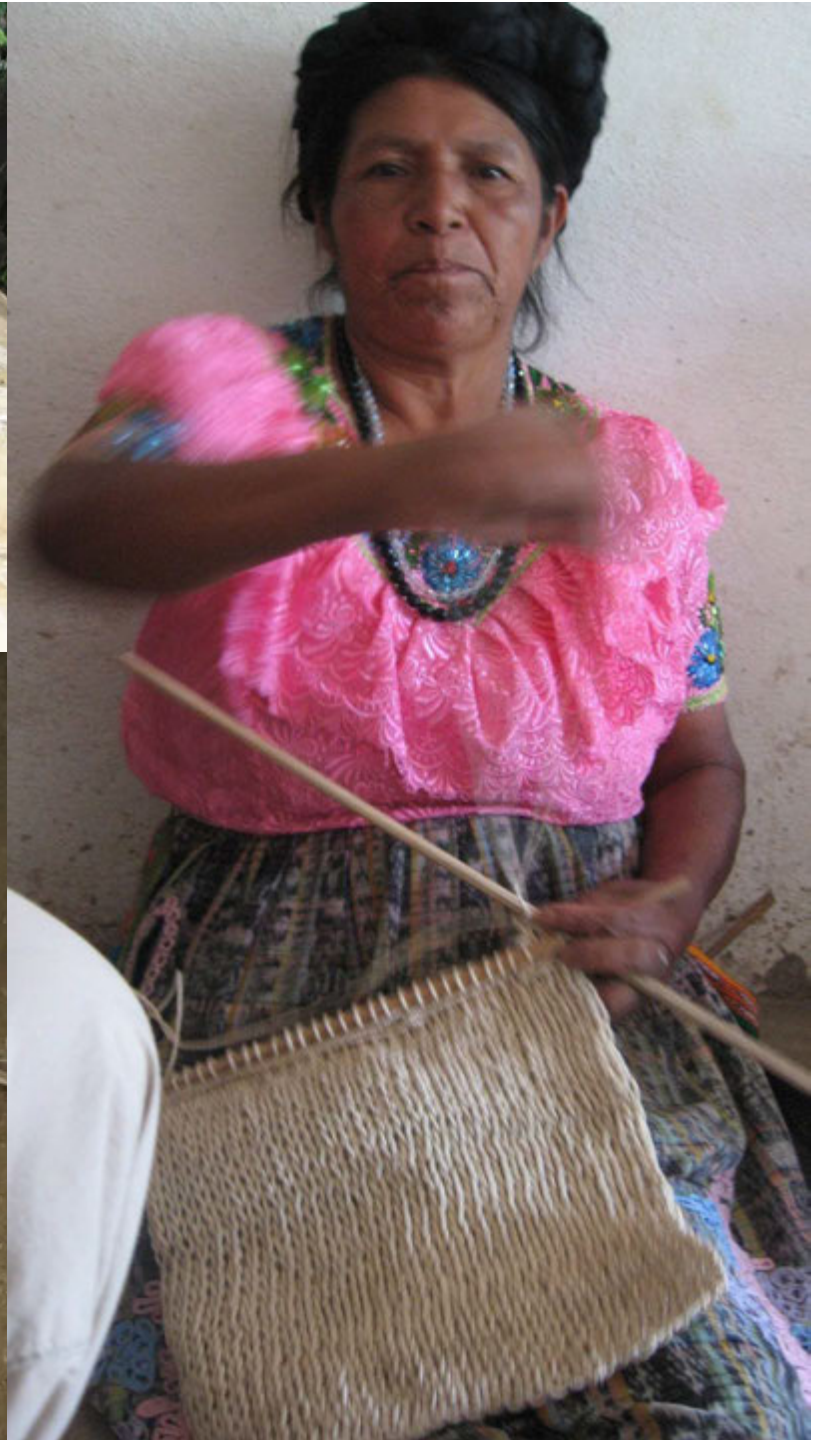


*Dintel 24 de
Yaxchilán,
México.*

*Tomado de Linda
Schele y Mary
Ellen Miller, 1986.
Fotografía de
Justin Kerr.*



Traditional Mayan tools









Creativity workshops



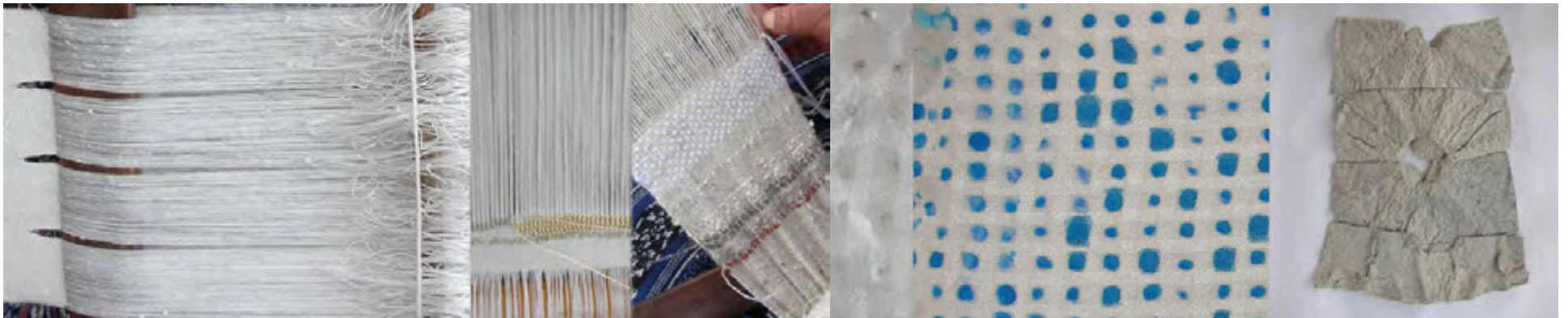


New products





Continuous innovation







Trendy market products





Incorporation of Gender Issues

Education Application





Health

Health Vaccine Refrigeration



Productive Uses



Technological syncretism

Co-creates options for nature transformation integrating traditional Mayan knowledge and high tech Western technologies based on energy efficiency and renewable energy technologies that mimic the natural rhythms of mother earth, decoupling economic growth from improved well being.



**Technological syncretism
an opportunity for
adaptation and reduction of
the vulnerability imposed
by climate change.**



Some food for thought



Technological sincretism

Fusions two paradigmatic
ways of being in the world:

cosmovision-Maya
metaphysical-Western



Science might be complemented
by **traditional knowledge**,
both can be verified or
falsified by experience.



Leapfrogging to:

Expanded energy services that are environmentally sound, as well as safe, affordable, convenient, reliable, and equitable, that also include traditional knowledge and techniques for vulnerability reduction and general well-being.



The Innovation Chain

Innovation does not necessarily occur in a linear and sequential mode, nor can it be described solely in technical terms.

Technology involves economic, technical, and cultural elements.



Capacity Development

Must be an explicit part of any successful strategy to use energy as an instrument to achieve adaptative resilience that in turn will allow sustainable development.



Capacity co-creation is a continuous process. This is one of many reasons that development assistance should move away from short-term projects to longer-term programmatic support, where the Western methods are open and willing to **listen to traditional people knowledge.**





