RENEWABLE ENERGIES AND FEALAC

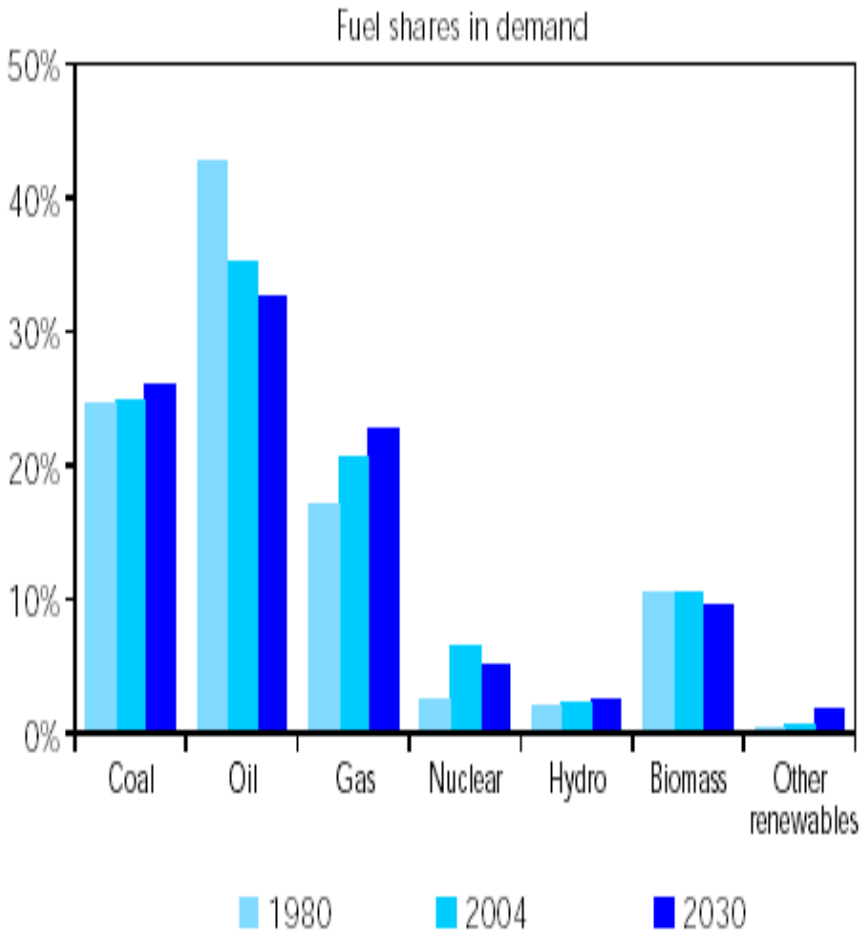
GROUP A

GROUP A

Members:

Leandro Yokomizo (Brazil)
Sukamon Hinchiranan (Thailand)
Romeo Galamgam (Philippines)
Miguel Luna (México)
Roberto Esmeral (Colombia)
Andrés Quincke (Uruguay)
Alison Carrington (Australia)

WORLD ENERGY OVERVIEW



Source: World Energy Outlook 2006, IEA

Table 1 : **World Energy-Related CO_2 Emissions by Sector in the Reference Scenario** (million tonnes)

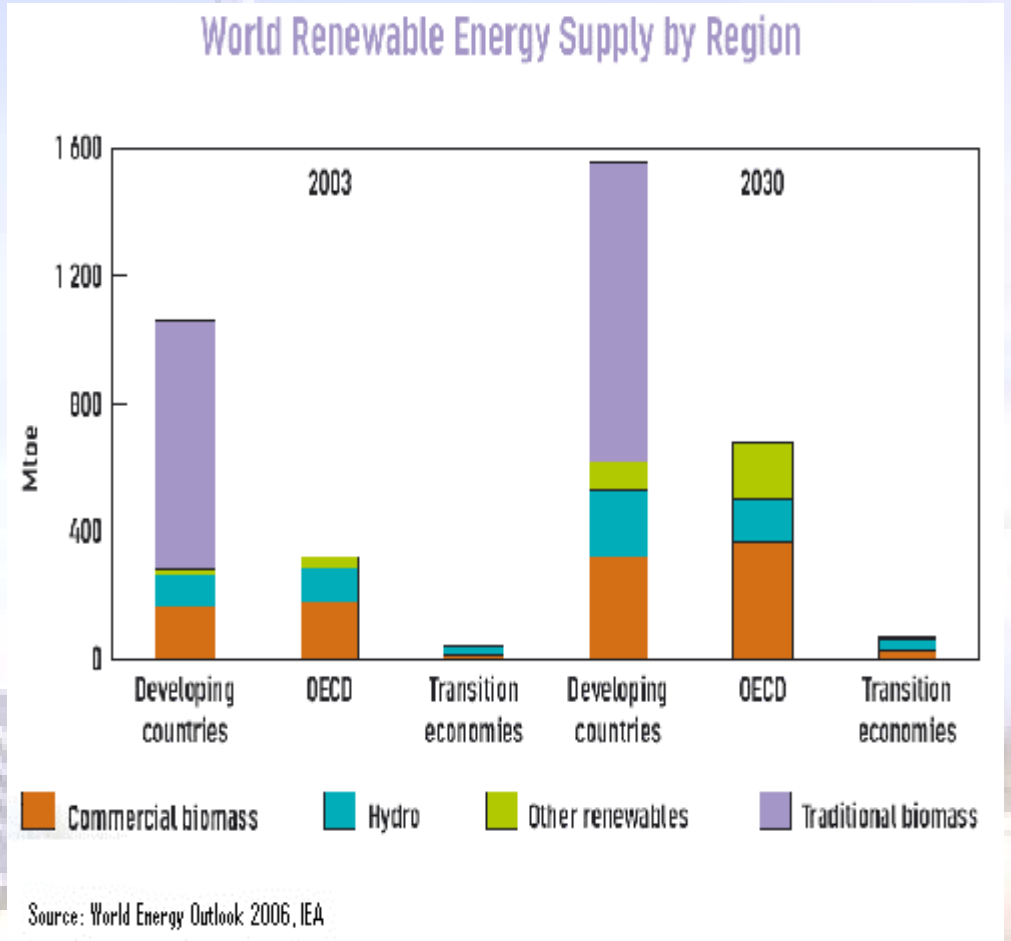
	1990	2004	2010	2015	2030	2004-2030*
Power generation	6 955	10 587	12 818	14 209	17 680	2.0%
Industry	4 474	4 742	5 679	6 213	7 255	1.6%
Transport	3 885	5 289	5 900	6 543	8 246	1.7%
Residential and services**	3 353	3 297	3 573	3 815	4 298	1.0%
Other***	1 796	2 165	2 396	2 552	2 942	1.2%
Total	**20 463**	**26 079**	**30 367**	**33 333**	**40 420**	**1.7%**

*Average annual growth rate. **Includes agriculture and public sector. ***Includes international marine bunkers, other transformation and non-energy use.

Source: World Energy Outlook 2006, IEA

RENEWABLE ENERGIES OUTLOOK

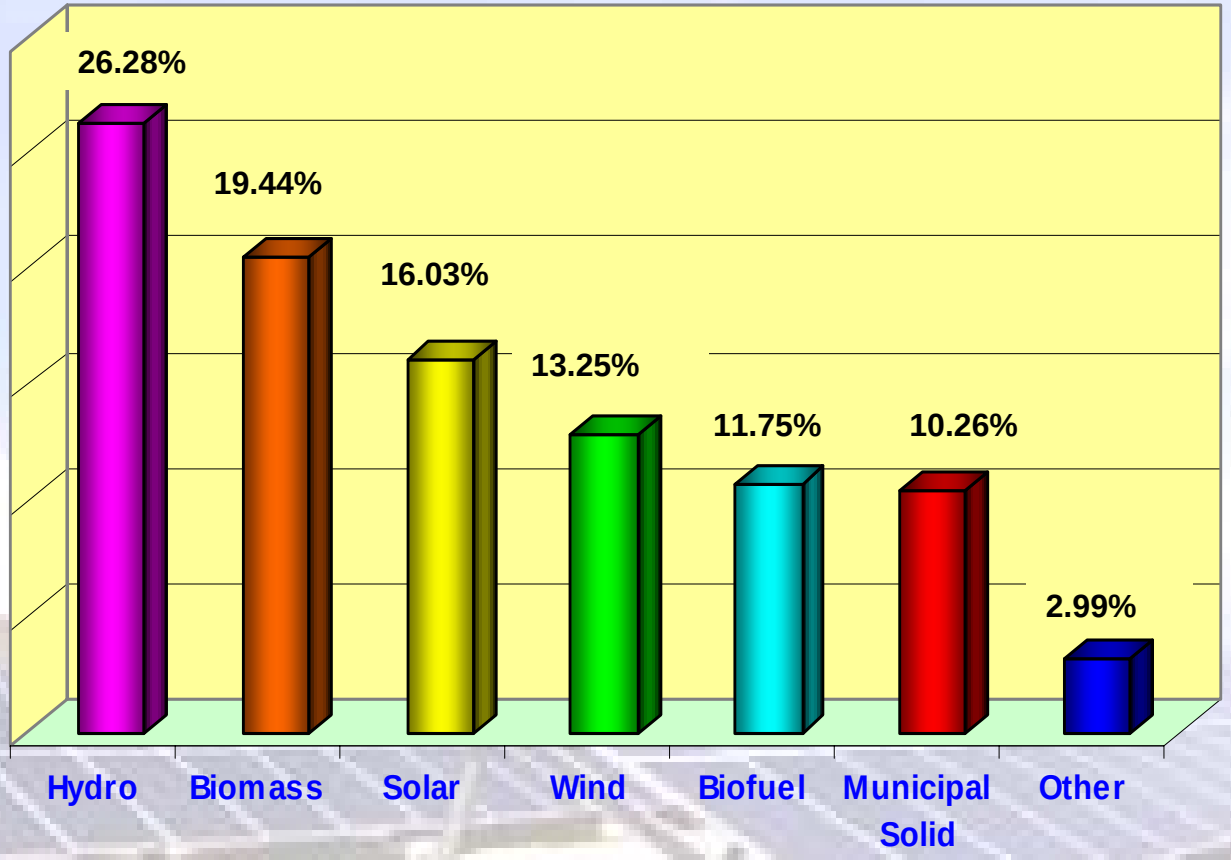
1. Increase in the use of renewable energies is expected.
2. Energy efficiency measures are not enough to avoid climate change.
3. Renewable energies against climate change.
4. Our countries may have potential to develop these energies.



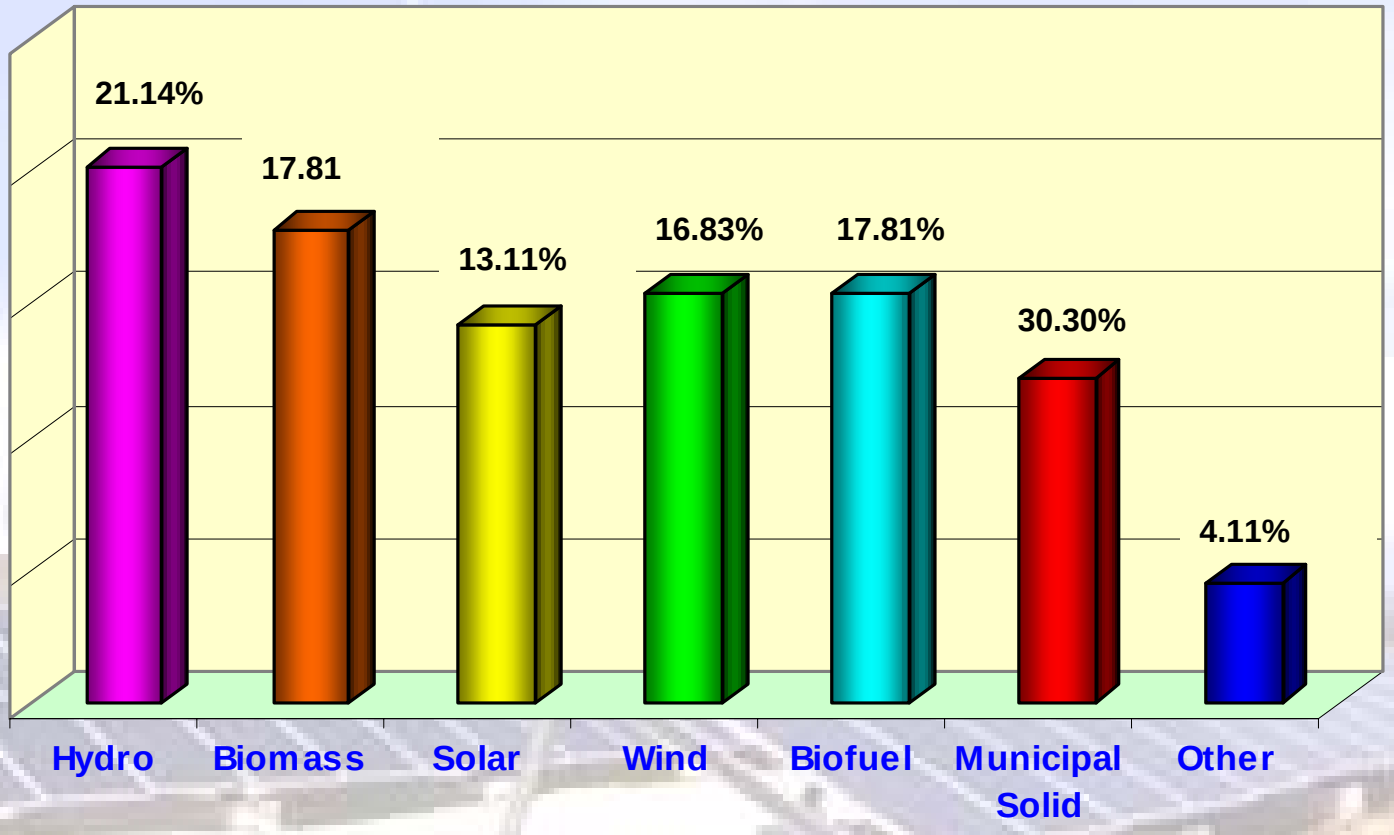
RENEWABLES IN FEALAC

- Survey carried out among FEALAC members
- Survey focused on:
  - renewable energies/ technologies used in FEALAC countries
  - renewable energy potential in FEALAC countries
  - problems associated with renewables in FEALAC countries
  - the special case of information and knowledge

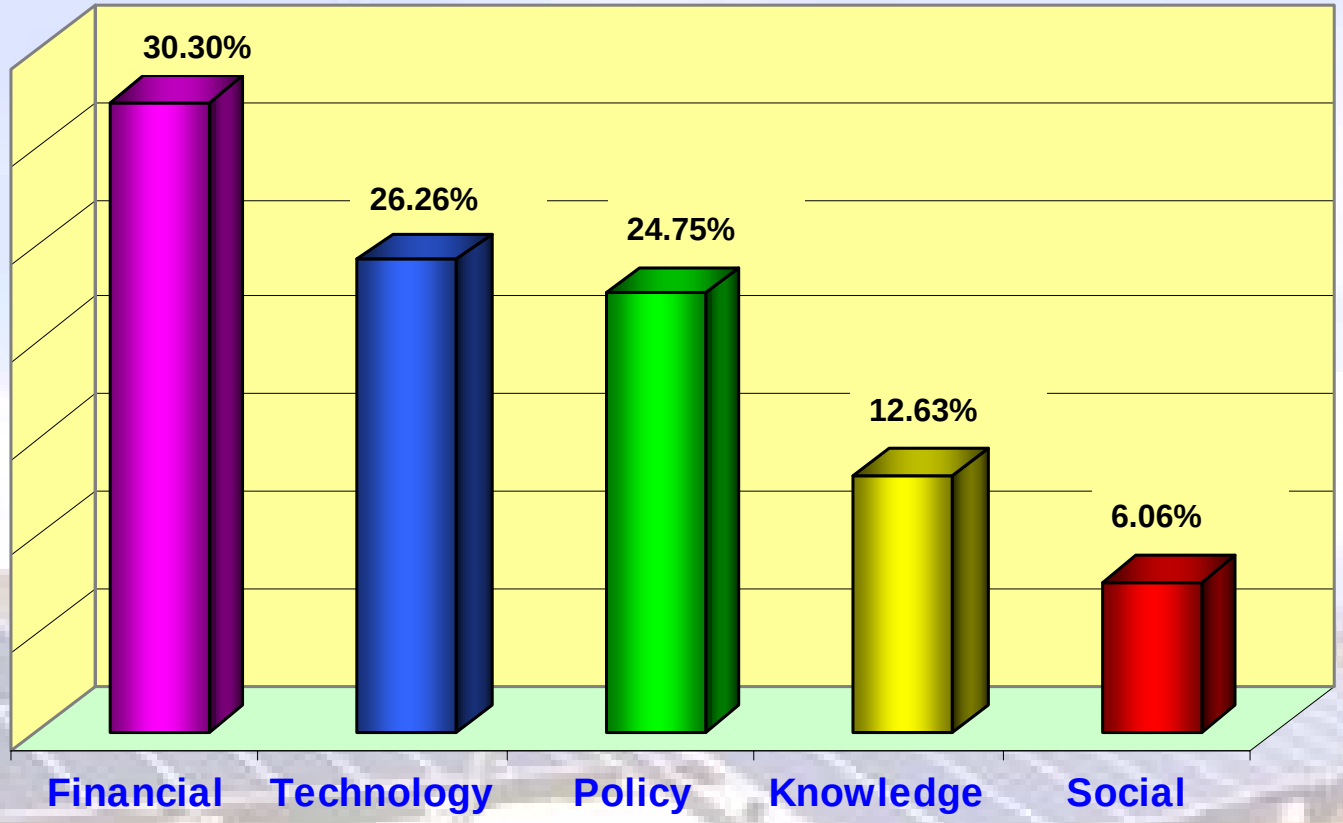
Renewable energies/ technologies used in FEALAC countries



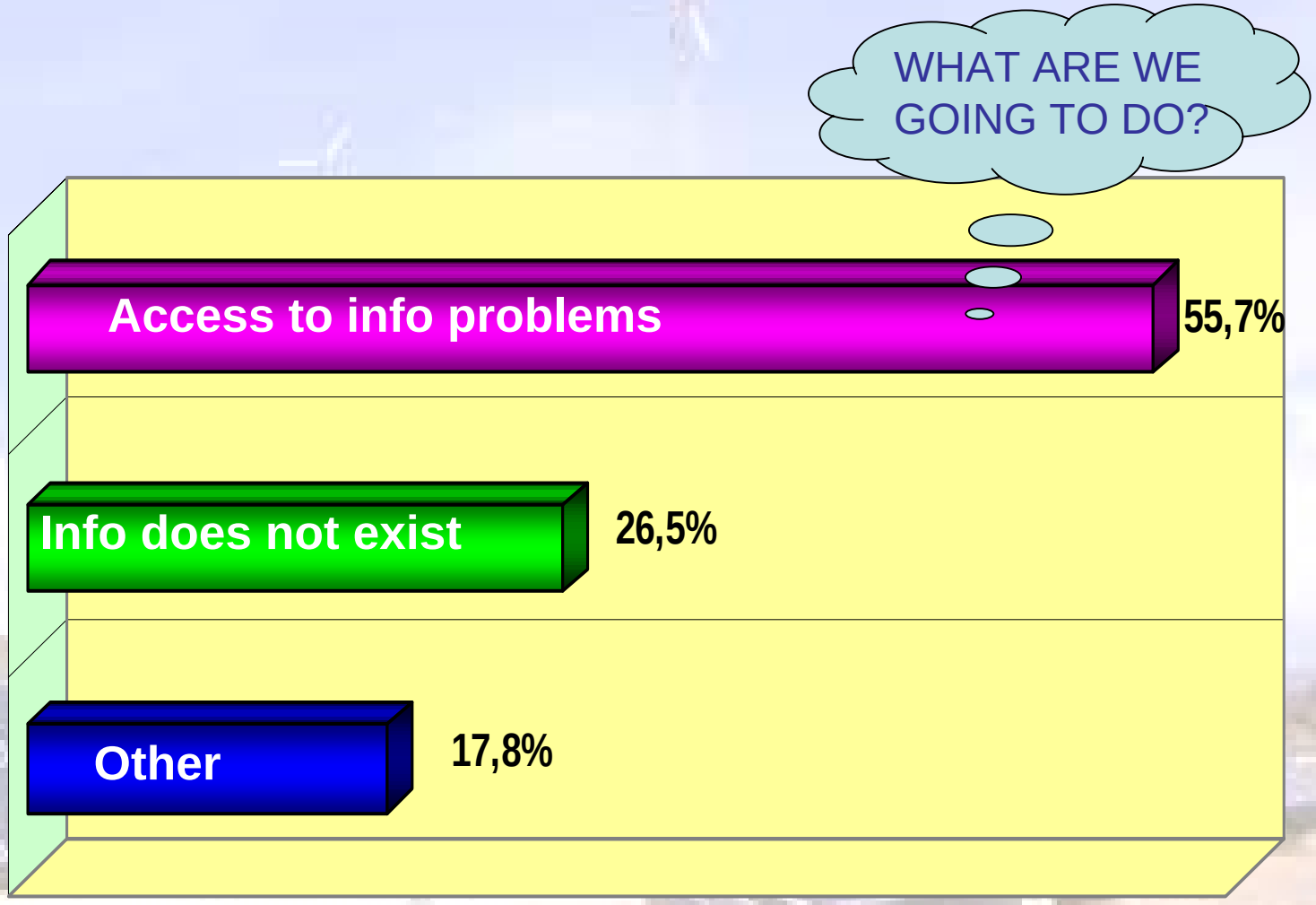
Renewable energy potential in FEALAC countries



Problems associated with renewables in FEALAC countries



Why is information a limiting factor?



So, what can we conclude??

- Problem is not the existence of information, but ACCESS to that information.

- This conclusion leads us to make the following proposal:

"Create a tool to collect and organize existing information, to make information easily available within the FEALAC network and to share experiences"

FEALAC Renewable Lobby

- The FEALAC Renewables Lobby is an online space where information meets.

- The Lobby contains:
  1. Technical information
  2. Economic & financial information
  3. Country policies
  4. Suppliers and stakeholders
  5. Successful experiences

Technical information

- Inventory of existing renewable energy sources and technologies in FEALAC member countries
- Advancements in technology
- Inventory of equipment
- Inventory of CDM projects
- Quality control and equipment standards
- Technical cooperation

Economic and financial

- General economic and financial principles
- Funding/ financial requirements stipulated by partners/ investors
- Experiences on access to funding from partner countries, multilateral funds, private sector investors
- A database of CER transactions involving FEALAC countries
- Energy market developments and prices

Country policies

- Government policy on foreign investment, environment, energy (including history of policy development)

- Relevant government institutions and processes (eg. government ministries, legal systems)

- Country membership of international and regional organization and agreements

- Examples of regulatory frameworks which successfully encourage the development and use of RE

  - Financial incentives and support from government
  - Standard setting
  - Coordination of engagement with private sector and investors

Suppliers and stakeholders

- A direct link between FEALAC members and possible investors, buyers, consultants (eg JICA, NEDO, Mitsubishi, JBIC, JCF and JETRO)

- Detailed contact information related to machine and equipment providers

Successful experiences

- Programs and projects successfully implemented in FEALAC member countries (particularly concerning sustainable and economic development and environmental protection)

- Examples of negative experiences (to share lessons learned)

- Links to other related, non-FEALAC websites to obtain more detailed information

Most important challenge

- How can we ensure that member countries contribute to the website and that the data is kept updated?

Thank you for your attention

Cooperation among FEALAC member countries on renewable energy, energy savings and energy efficiency

Young Leader Invitation Program - “Cooperation on CDM”

Group B:
Armando Rodríguez (Cuba)
Felipe De León (Costa Rica)
Marcelo Mata (Ecuador)
Kyaw Thi Wa (Myanmar)
Phakkavanh Phissamay (Laos)
Le Anh Ngoc (Vietnam)
Jenny Tapia Flores (Chile)

Outline

- Key Concepts
- CDM and energy status in our countries
- Challenges and Opportunities related to the CDM
- Proposal:
  - Objectives
  - Components
    - Policies
    - Tools
    - Replicable Project (RP) Committee
    - Logical Framework Analysis
- Conclusions

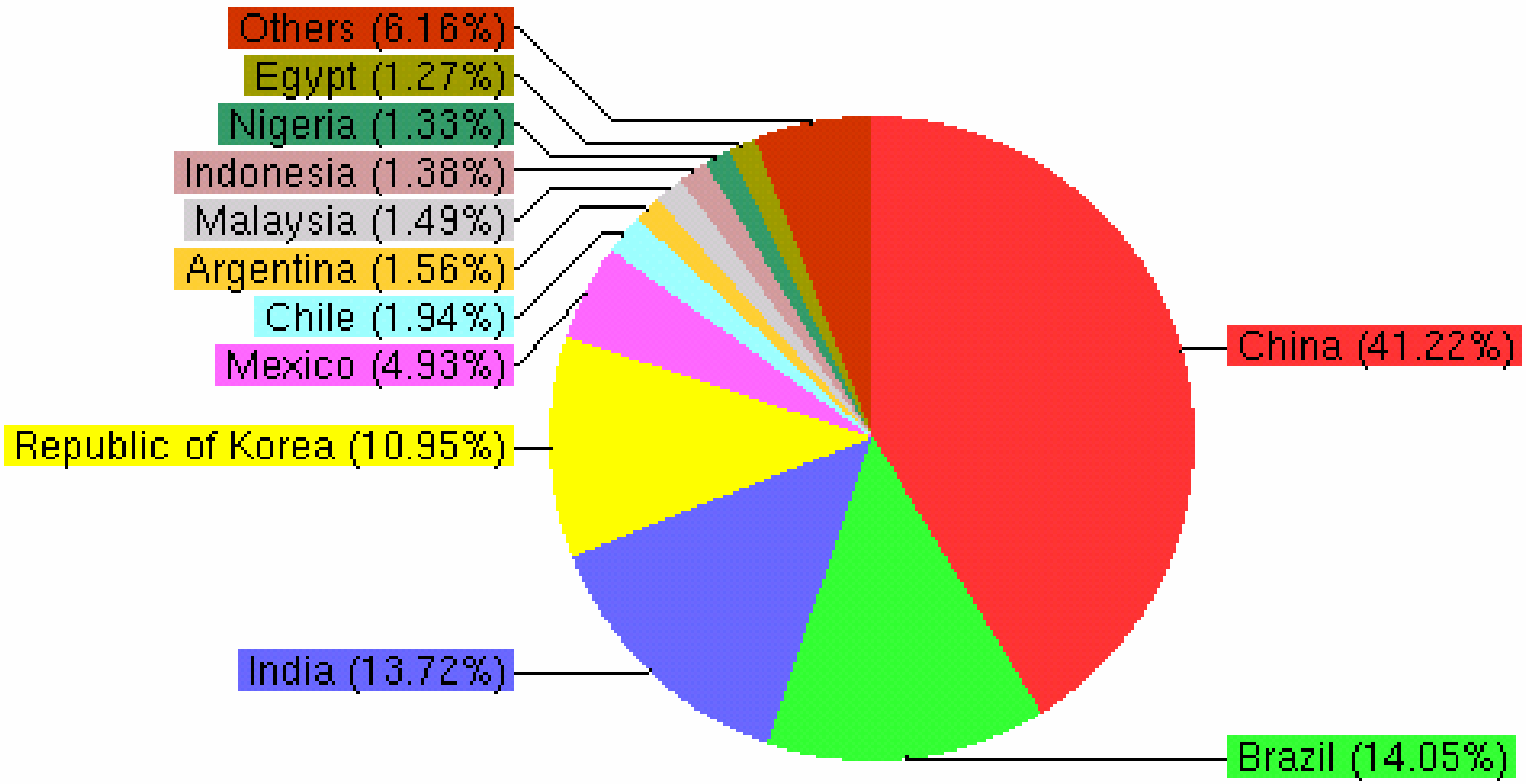
Key Concepts

- **Renewable energy** (RE): energy derived from resources that are regenerative or for all practical purposes can not be depleted. (US DOE)
- **Energy savings**: project activities which reduce energy consumption, on the demand side through directly reducing demand.
- **Energy efficiency**: project activities which reduce energy consumption, on the supply and/or demand side through physical or procedural changes. (UNFCCC)
- **Sustainable development**: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (UNFCCC)
- **Replicability**: Stating a process, design or project in a way that permits others to replicate it in some other place and come to the same conclusions.

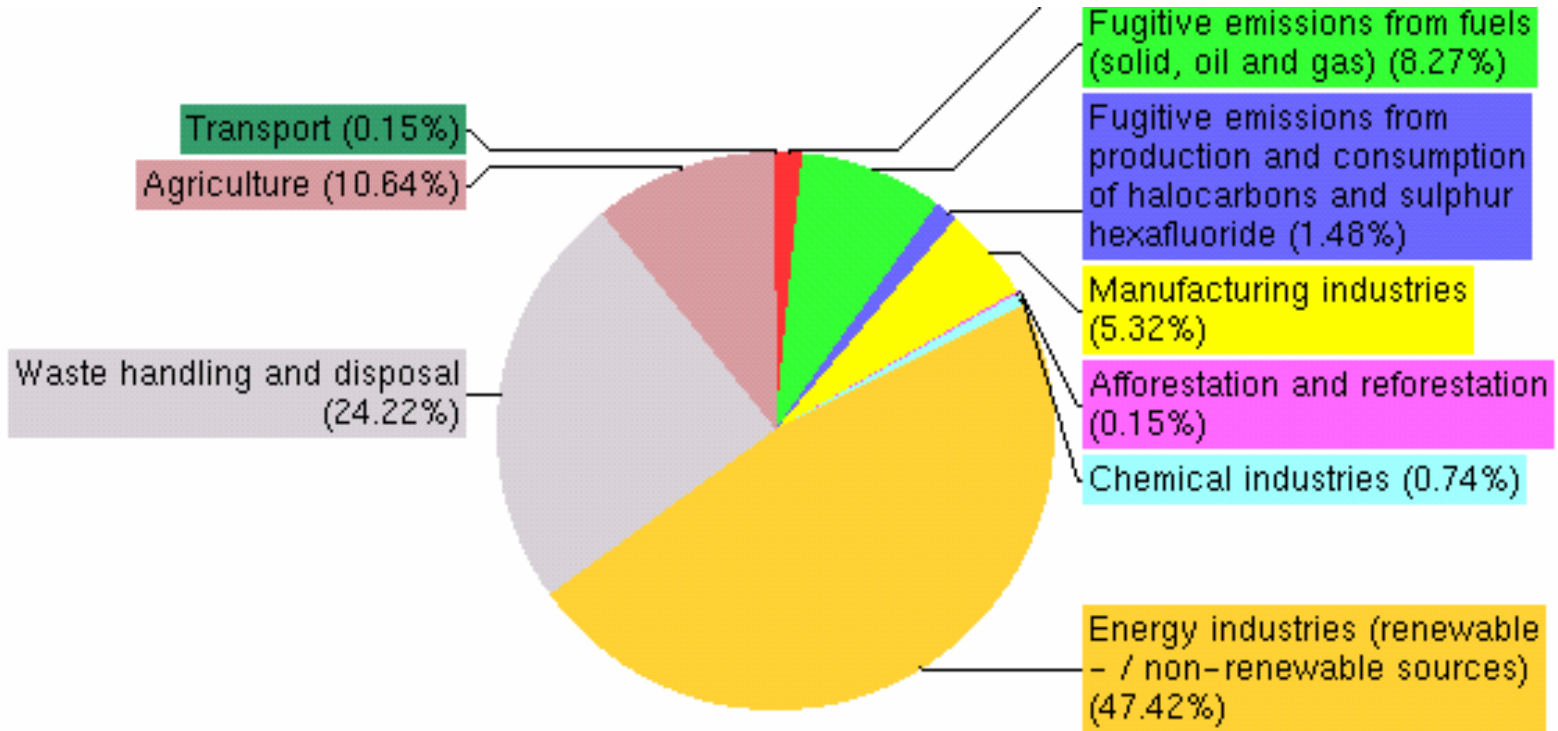
CDM and energy status in our countries

Background Information and CDM status	Renewable energy	Policies	Projects
■ Ratified UNFCCC ■ Ratified Kyoto Protocol ■ DNA ■ Board of Director ■ Website ■ Public awareness	■ Small Hydropower ■ Biomass energy ■ Solar energy ■ Geothermal energy ■ Biofuels ■ Renewable energy program and Energy saving program	■ Direction of renewable energy and Energy Efficiency ■Regulation/guideline for implementation of CDM project ■ Guidelines for investor on CDM projects	■ PDD preparation / approval ■PIN approval ■Project Implementation

Expected average annual CERs from registered projects by host party



Distribution of registered project activities by scope



Challenges and Opportunities related to CDM

- Challenges:
  - Lack of financial resources.
  - Need to educate the public, local authorities and other local stakeholders.
  - Require a more effective network for information exchange (knowledge, expertise and technology).
    - Widely different levels of CDM development between FEALAC countries in the areas of: policy, information accessibility, technology and practical experience.
    - Although most CDM projects were developed in a small group of FEALAC countries such as China, Brazil and Korea other members have very limited, if any experience with the CDM.

Challenges and Opportunities related to the CDM

- Opportunities
  - Biofuels, particularly biodiesel and bioethanol.
  - Methane recovery from LFG, fossil fuel extraction, agro-industrial process and wastewater management system.
    - Shifting from biogas flaring to sound biogas usage policies.
  - Solar energy, hydropower, wind power.
  - Transportation sector projects.
  - Energy efficiency projects.

Proposal

Objectives

- Enhance the cooperation among FEALAC member countries on renewable energy, energy saving and energy efficiency.
  - Promote sustainable capacity development through a “Train the Trainers” approach.
  - Encourage knowledge transfer among member countries focusing on young leader development.
  - Establish a knowledge base of replicable projects which takes advantage of the similarities between FEALAC countries.

Components of the proposal

- Legal framework (Policies)
- Capacity building (Seminars / Workshops)
- Information exchange
- Practical application
  - Financial considerations
  - Technology transfer
  - Indigenous HR development
    - Research and Development

Policies

- Strengthen cooperation among FEALAC countries on energy policies.
  - Strengthen cooperation among FEALAC country's energy institutions.
    - Leverage FEALAC cooperation to take advantage of economies of scale and attract financing.
- Encourage "knowledge transfer" by sharing experiences and lessons learned about CDM and RE projects.
- Promote capacity building to develop renewable energy and CDM projects as well as risk management capacity building.

Tools

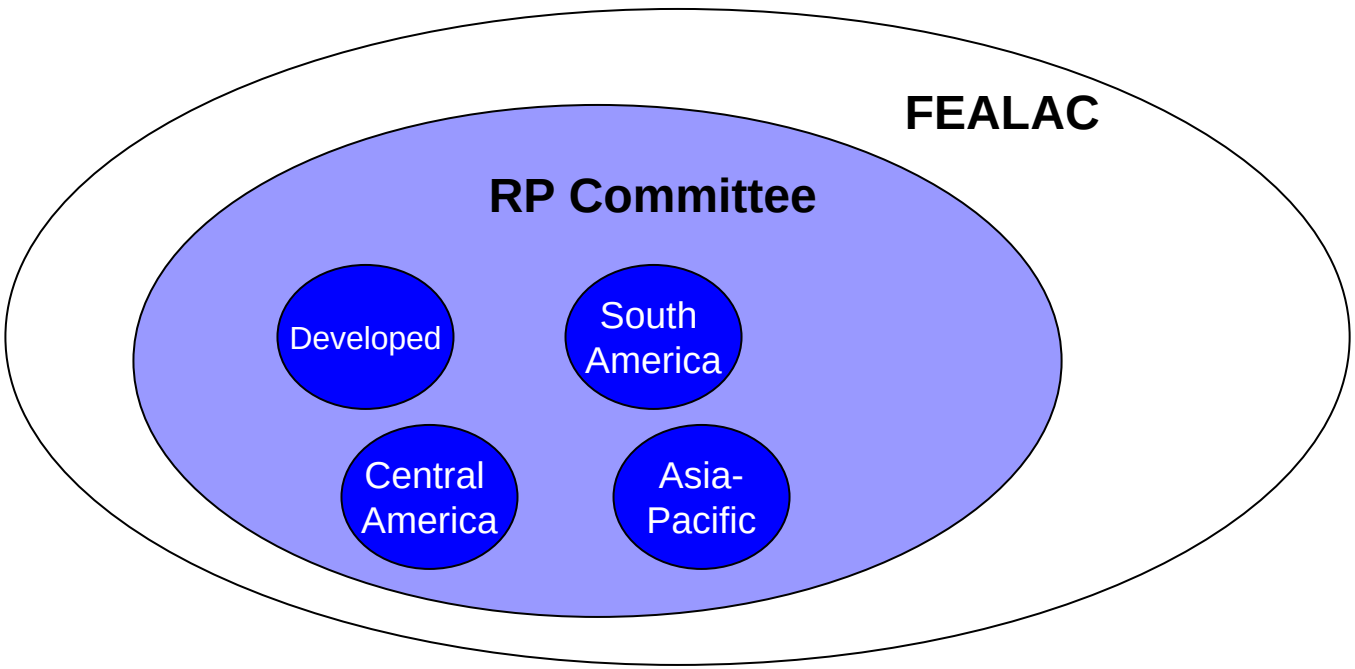
- Seminars / Workshops (“Train the Trainers”)
- Forums / Policy dialogue / Partnerships
- Young Leader Network (YLN) for energy and CDM development
- Replicable Project (RP) Committee

Replicable Project (RP) Committee

- *" Establish a knowledge base of replicable projects which takes advantage of the similarities between FEALAC Countries."*
  - Design and implement RE and CDM projects in such a way that the acquired knowledge and experience allow the establishment of similar projects in other areas with reduced costs and risks and maximum benefits.
- Technology Transfer + Capacity Development = **Sustainable Development**
  - "Teach a man to fish" principle.

Replicable Project (RP) Committee - Structure

- Create a committee within the FEALAC framework dedicated to the selection, implementation and analysis of concrete, replicable projects.



Replicable Project (RP) Committee - Structure

- Subcommittees based on especially strong similarities between the countries that make them up.
- Each country would be represented by a delegation incorporating the private and public sector as well as academics and led by a clearly designated focal point.
- Each subcommittee would select a project to propose to the full RP Committee for implementation.
  - Selection based on replicability, feasibility and sustainability.
- RP Committee would vote on which project(s) to implement based on the same criterion while considering budgetary constraints.
  - Each region must be selected once before others may be selected again.

Replicable Project (RP) Committee - Operation

- Once a project has been selected by the RP Committee for implementation the Committee selects a group of experts which become the Implementation Team for that particular project.
- The RP Committee would then become the Project Developer through its experts.
- Similar to common corporate structure:
  - FEALAC = Stakeholders
  - RP Committee = Board of Trustees
  - Implementation Teams = Specific business units

Replicable Project (RP) Committee - Funding

- Initial funding would have to come in the form of a loan or grant (WB, JBIC, etc).
- Subsequent funding would be acquired thorough:
  - Project revenue.
  - CER revenue.
  - “Lessons learned” reports.
  - “Lessons learned” consulting.
- Goal: To make the RP Committee economically independent.

Replicable Project (RP) Committee - Benefits

- Substantial contribution to sustainable development through:
  - Indigenous HR development.
  - Technology transfer.
  - Demonstration projects.
  - Increased cooperation.
- Establishment of regional and international “best practices” for specific projects.

Logical Framework Analysis

	Description	Information needed	Indicators	Assumptions
Target / Goal	Enhance cooperation among countries	Develop a SWOT analysis for members.	Cooperative project development	Development of CDM and RE is a common goal.
Objectives	Establishment of the tools	Plans based on SWOT results.	Number of activities	Enhanced communication will improve performance
Activities	YLN	Determine modes of communication.	Establishment of ICT system.	ICT is necessary for effective communication.
	RPC	Delegation with clearly established focal point.	Number of RP implemented.	Concrete results will foster cooperation.

Conclusion

- FEALAC could greatly enhance its contribution to the development of the CDM in its member countries by:
  - Strengthening policy dialog.
  - Establishing the YLN to facilitate communication.
  - Creating the RP Committee to bring all of its CDM efforts to concrete fruition.

Thank You

Economic and Financial Policy on CDM

Current situation in East Asia and Latin America

Tokyo February, 2007.

Group C in FEALAC

El Salvador

Republic of Korea

Guatemala

Cambodia

Panama

Indonesia

Venezuela

Contents

- FEALAC Objectives
- Current situation of financial and economic activities of CDM in Asia and Latin America.
- SWOT
- Case Study: CDM in Indonesia
- Recommendations
- Conclusions

FEALAC Objectives

- To increase and improve mutual understanding, trust, political dialogue and friendly cooperation among member states with a view to enriching and sharing experiences, and developing new partnerships

- To tap the potential of multidisciplinary cooperation in areas of economics, trade, investment, finance, culture, tourism, science and technology, environmental protection, sports and people-to-people exchange

- To expand the common ground on important international political and economic issues with a view to working together in different international forum in order to safeguard common interests.

Current situation of financial and economic activities of CDM in Asia and Latin America.

Current status of CDM Development and Implementation

	Countries	Kyoto Protocol	DNA	DOE	National Comunications	CDM Potential	Outgoing Projects (UNFCCC)	Achievment	Incentives	National Funds
Asia	Cambodia	july 4 2002	yes	no	1	12	1	8%	yes	no
	Indonesia	2004	yes	no	1	40	11	28%	yes	no
	Korea	1999	yes	yes	1	10	3	30%	yes	yes
Latinamerica	El Salvador	October 15 1998	yes	no	1	14	3	21%	no	no
	Guatemala	July 7 1999	yes	no	1	13	8	62%	yes	no
	Panama	March 9 1999	yes	yes	1	106	8	8%	no	no
	Venezuela	Dec. 2004	no	no	1	N / A	0		no	yes

SWOT

- Strengths
- Weaknesses
- Opportunities
- Threats

SWOT: Strengths

- All countries are parties of Kyoto Protocol
- Most of the countries (80%), has DNAs, that are in charge exclusively to CDM.
- The first communication (1990 data) on GHGs inventories have already done.
- CDM project potentiality is clearly identify (National Portfolios).
- At least one CDM project is in the UNFCCC pipeline in each country.
- Government promotes CDM in order to increase economical advantages and sustainable development.

SWOT: Weaknesses

- Access to information
- No power on DNAs
- Lack of DOEs
- Lack of qualified and specialized personal within the DNAs to enhance and to improve CDM.
- Not enough institutions will accomplish CDM objectives.
- Lack of local economical and financial instruments to enhance CDM and to prevent unilateral negotiations of CERs.

SWOT: Opportunities

- Win-win solutions
- Networking between FEALAC members
- International financial resources available
- Free taxes for renewable energy projects developments
- Technology transfer
- Enhance quality of life in rural communities where the CDMs projects are developed.

SWOT: Threats

- Corruption.
- No clear policy post Kyoto Protocol (2012 - ?)
- Constant changes within UNFCCC methodologies.
- Competitiveness for markets between non annex one parties.
- Petroleum prices fluctuations
- **USA doesn’t ratified Kyoto Protocol**

CASE STUDY: INDONESIA, one successfully CDMs project approved.

- Industry: Cement, reduction of CO2 emissions by reducing clinker contents.
- CERs / year: 471,646
- Project period: 10 years.
- Total CERs: 4,716,460.
- Fix price of CER per tone: $ 5.00
- Total revenues from sale of CERs: $ 23,582,300

CASE STUDY: INDONESIA, one successfully CDMs project approved.

- Strength: biomass CDM project
- Weakness: financing portfolio, lack of know how and technology
- Opportunity: CERs, Installation of new equipment and acquirement of specialized know how.
- Thread: no project, other projects

CASE STUDY: INDONESIA, one successfully CDMs project approved.

WIN WIN situation

- **Benefit of CDM:**

1. **Environmentally friendly cement**
2. **Reduction of fossil fuel and the use of renewable materials**
3. **Job opportunities**
4. **Waste management solutions**
5. **Added value: CERs of the project.**

CASE STUDY: INDONESIA, one successfully CDMs project approved.

WIN WIN strategy: it is traduced in

Environmental sustainability

Economic sustainability

Social sustainability

Technology sustainability

Results

- Enhance business opportunities
- The buyer of the CERs, has economical revenues of it and at the same time complies with the emission reduction commitments. Indonesia benefits from the sale of the CERs with revenues $ 23,582,300. The situation show a win win situation.
- Technology transfers
- Enhanced participation by developing countries that contributes significantly to emissions
- Need to ensure that their priorities which are economic growth, poverty eradication and education
- Greening investment globally is key

Conclusions

- Blue ocean market.
- Sharing of information
- FEALAC objectives are one of the appropriate frameworks to enhance CDM opportunities.
- The Kyoto mechanism can generate investment
- The members of FEALAC bears potential to mobilize resources for developing countries by human networking

Recommendations

- CDM projects, required commitment from top management, local consultants who assist project developer and investment.
- Enhance business opportunities.
- Tie-up business relationships and partnerships.
- Pressure from private sector for long-term, well-defined strategies being built.

For more information, contact:

- Panama: elias.dawson@anam.gob.pa
- Korea: youngkjoo@yahoo.co.kr
- El Salvador: nvaquero@cnpml.org.sv
- Cambodia: navannouk@yahoo.com
- Indonesia: jgellidon@gmail.com
- Guatemala: gjuarez@comegsa.net
- Venezuela: alexis.colmenares@mre.gob.ve

Arigato

Gracias

Terima Kasih

Orkun

Thanks

Gamsa habnida

FEALAC Young Leaders Invitation Programme

"Cooperation on Clean Development Mechanism (CDM)"

OVERCOMING BARRIERS TO POSSIBLE CDM PROJECTS AMONG FEALAC COUNTRIES

Group D

7th February 2007

Tokyo, Japan

Group D

 **ARGENTINA**	Debora Alejandra Swistun
 **BRUNEI**	Hj Mosaidi Mohd Said
 **CHINA**	Fu Ping
 **MALAYSIA**	Norain Mohd Arif
 **NEW ZEALAND**	Damian Ryan
 **NICARAGUA**	Manuel Madriz Callejas
 **PARAGUAY**	Rolando De Barros Barreto
 **PERU**	Gabriela Fontenla Razzetto

Overview

Part 1 – FEALAC and the CDM

Part 2 – The Barriers to CDM Projects

Part 3 – Our Proposed Solution

Part 4 – Conclusions

Part 1 – FEALAC and the CDM

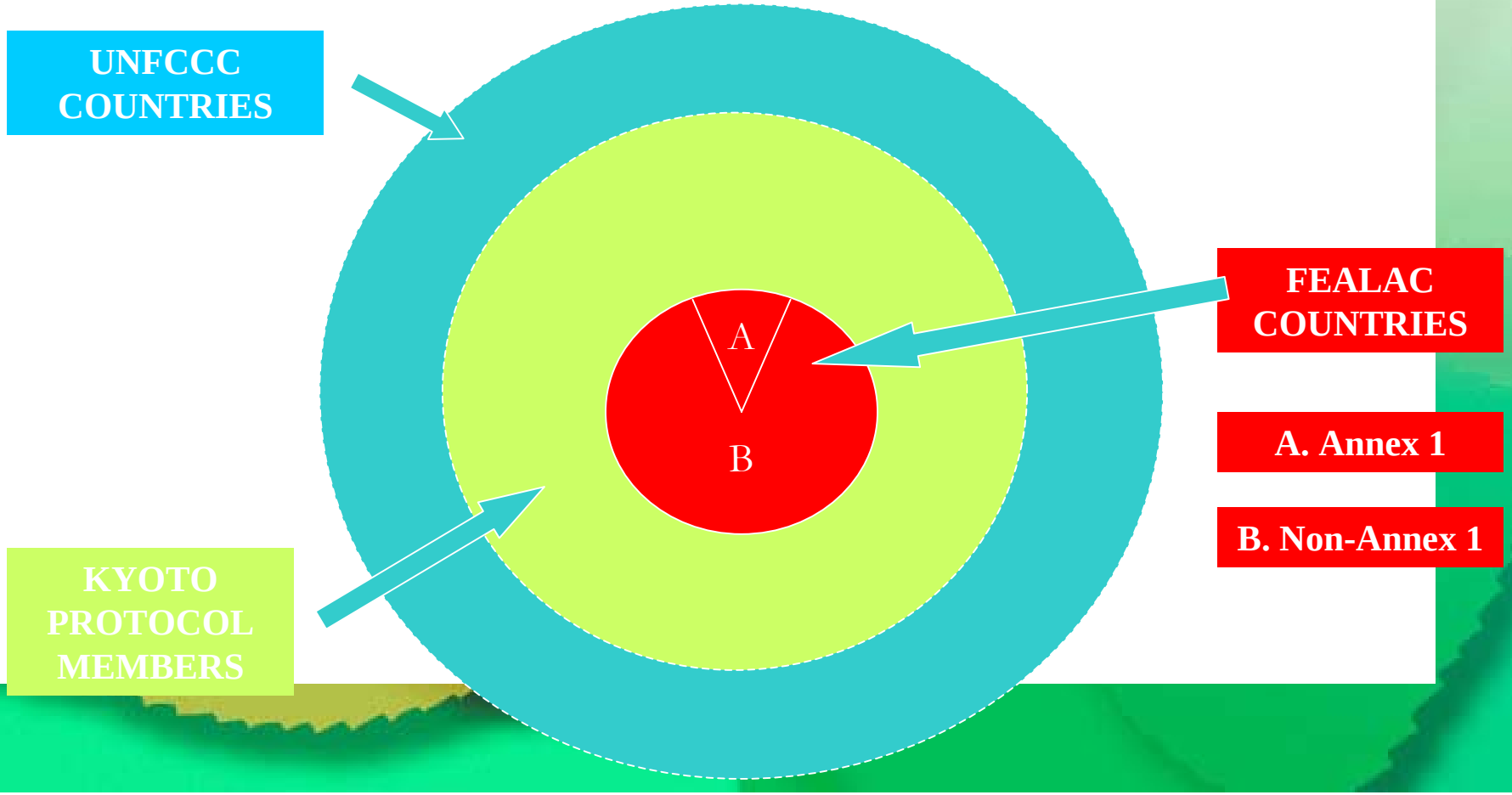
1.1 Purpose of FEALAC

East Asia

Latin America

Part 1 – FEALAC and the CDM

1.2 FEALAC relationship to the CDM



Part 1 – FEALAC and the CDM

1.3 Observations

- FEALAC is a forum based on cooperation
- FEALAC can be seen as subset of larger Kyoto Protocol / UNFCCC family
- Majority of FEALAC countries mainly non-Annex 1 members
- Japan is only key FEALAC CER buyer
- It follows:
  - A lot of CDM project demand will be from non-FEALAC Annex 1 countries
  - Co-operation **amongst** FEALAC countries could play an important role in attracting Annex 1 country interest in FEALAC CDM projects

Part 2 – Barriers to CDM Projects

2.1 Potential CDM Projects

Country	Biodiesel	Biomass	Other renewables	A/R	Energy efficiency	Non-CO2 GHGs
	✓	✓	✓		✓	
	✓	✓		✓		✓
	✓	✓	✓	✓	✓	✓
	✓	✓	✓			
	✓	✓		✓		
	✓	✓	✓			
	✓	✓	✓	✓		
	✓		✓	✓	✓	

Part 2 – Barriers to CDM Projects

2.2 Key Barriers to FEALAC CDM Projects

Country	Cost	Technology	Expertise	Materials	Infrastructure	Methodology
	✓			✓	✓	
		✓		✓		✓
	✓	✓				✓
	✓	✓				✓
	✓		✓			✓
	✓				✓	✓
	✓	✓		✓		
		✓				✓

Part 2 – Barriers to CDM Projects

- **2.3 Observations**
- Bio-diesel, Biomass and Other Renewables are CDM sectors important to a large number of FEALAC surveyed countries
- Surveyed countries share the same constraints across a number of different sectors

Part 3 – Our Proposed Solution

3.1 FEALAC CDM e-Forum

– Vision –

"A virtual forum for sharing ideas and problems and bringing CDM projects to the market"

– Benefits –

- A problem shared is a problem solved
- Pool / combined limited human and material resources
- Lowest cost information exchange (cf seminars)
- User driven (content always relevant)
- Online – real-time access (convenient)

Part 3 – Our Proposed Solution

3.2 CDM e-Forum: How it might work (1)

FEALAC CDM e-FORUM www.fealac-cdm-eforum.org

Help Centre

Market Place

Biodiesel
Biomass
Other RE
A / R
Energy Eff.
Non CO2 Gas
Other
Etc

Technology Issues	Methodology Issues	Regulations Issues	Etc etc

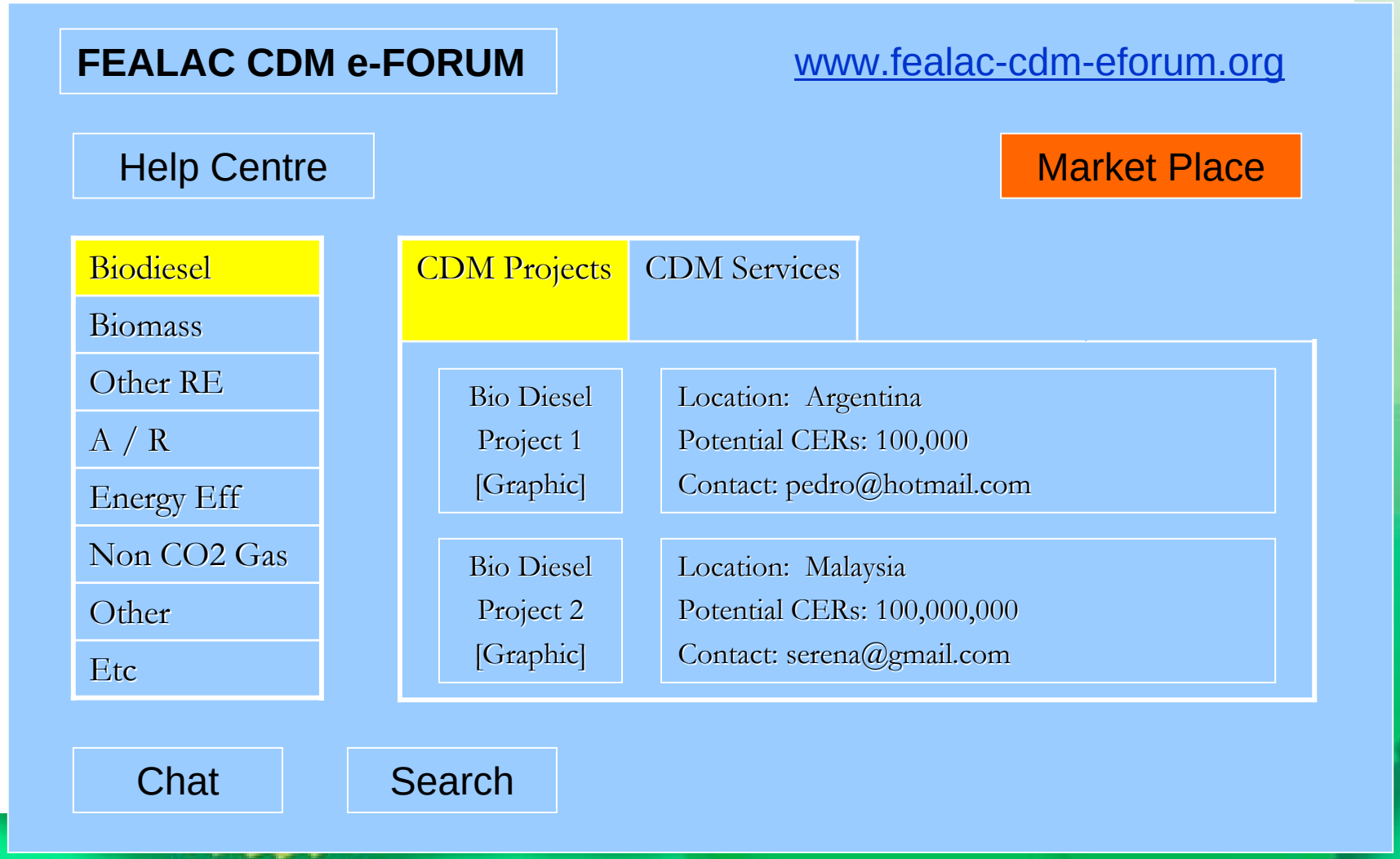
- Article 1 [Link to information on a particular technology issue relating to biodiesel]
- Article 2 [2nd link to information on biodiesel technology
- Article 3 […..and so on …..]

Chat

Search

Part 3 – Our Proposed Solution

3.3 CDM e-Forum: How it might work (2)



Part 3 – Our Proposed Solution

3.4 Observations: Other issues to be considered

- Funding: How much? From where?
- Quality of information: How to ensure?
- Promotion: How? By whom?
- Link with other regional forums and govt CDM/JI program eg APEC, EAS, JKAP, etc
- Who runs/maintains FEALAC CDM e-Forum?

Part 4 – Conclusions

E-Forum provides a tool that:

a) Reinforces the wider purpose of FEALAC ie strengthening cooperation between East Asia and Latin America

b) Helps overcome the various barriers identified by FEALAC surveyed countries to implementation of CDM projects

c) Can potentially connect FEALAC to the wider CDM community

d) Helps contribute to meeting the objectives of the UNFCCC, the Kyoto Protocol and the CDM

Thank you, Gracias, Terima Kasih, Arigato from Group D!

Name	Country	Name	Country
Debora Alejandra Swistun	*Argentina*	**Hj Mosaidi Mohd Said**	*Brunei*
Fu Ping	*China*	**Norain Mohd Arif**	*Malaysia*
Manuel Madrix Callejas	*Nicaragua*	**Damian Ryan**	*New Zealand*
Rolando De Barros Barrero	*Paraguay*	**Gabriela Fontenla Razzetto**	*Peru*