

■ THE BIOTECNOLOGY ADVANCES AND THE IMPACTS OF THIS KNOWLEDGE IN OUR SOCIETY MAKES NECESARY THAT IN A COORDINATE EFFORT, THE PRODUCTIVE SECTOR, THE INTERNATIONAL AGENCIES, THE FINANCING AGENCIES, THE RESEARCH INSTITUTIONS, THE UNIVERSITIES AND THE GOVERNMENTS WORK TOGETHER TO ACCOMPLISH THE AGREEMENTS OF THE CARTAGENA BIOSAFETY PROTOCOL

THIS REQUIERES DEVELOPMENT OF INITIATIVES TO INCREASE THE HUMAN AND TECHNICAL CAPACITIES AT ALL LEVELS, INCLUDING THE PUBLIC WHICH AS THE MAIN FINAL RECEPTOR OF THIS ADVANCES, NEED TO UNDERSTAND THE BENEFITS AND POSSIBLE RISKS OF THIS TECHNOLOGY.

ORGANIZATION OF AMERICAN STATES INITIATIVES IN BIOTECHNOLOGY

BIOSAFETY REGULATIONS IN LATIN AMERICA AND THE CARIBBEAN WITHIN THE FRAMEWORK OF THE INTERNATIONAL BIOSAFETY PROTOCOL, 2002-2003

OBJECTIVES

- STRENGTH NATIONAL SKILLS IN RISK ASSESSMENT AND MANAGEMENT OF BIOTECHNOLOGY FOOD PRODUCTS
- BUILD UP PUBLIC AWARENESS
 ABOUT BIOTECHNOLOGY BENEFITS
 AND RISKS, WITH THE ULTIMATE
 GOAL TO PROMOTE ITS SAFE AND
 SUSTAINABLE USE

THE PROJECT WAS FOCUSED ON:

- THE EVALUATION OF THE POLICIES AND REGULATORY SYSTEMS IN CHILE, PERU AND COLOMBIA;
- IDENTIFICATION OF THE TRAINNING NEEDS;
- ORGANIZATION OF A SERIES OF BIOSAFETY SEMINAR-WORKSHOPS IN THE THREE COUNTRIES, WITH THE PARTICIPATION OF WORLD WIDE DISTINGUISHED EXPERTS

ACTIVITIES

- SPECIALISED CONSULTANTS DEVELLOPED STUDIES IN COLOMBIA, CHILE AND PERU TO:
- EVALUATE THE LEGAL AND INSTITUTIONAL INFRESTRUCTURE IN BIOSAFETY;
- ESTABLISH THE METODOLOGY FOR SOCIO-ECONOMICAL STUDIES;
- DEFINE THE NEEDS FOR CAPACITY BUILDING IN BIOSAFETY;
- PROPOSE NATIONAL PROGRAMS FOR CAPACITY BUILDING IN BIOSAFETY IN THE PARTICIPANT COUNTRIES

- DURING THE SECOND YEAR AND BY REQUESTMENT OF THE COUNTRIES, THE PROJECT WAS EXTENDED TO OTHER SIX CENTRAL AMERICA AND CARIBBEAN COUNTRIES.
- COSTA RICA, JAMAICA, GRENADE, MEXICO, PANAMA, TRINIDAD AND TOBAGO

RESULTS

THE INITIATIVE PROVIDED
INFORMATION TO IDENTIFY THE
WEAKNESSES AND NEEDS FOR
THE ESTABLISHMENT OF THE
BIOSAFETY PROTOCOL IN EACH
PARTICIPATING COUNTRY

RESULTS

- DEFINED THE SPECIFIC TRAINING NEEDS AND GAVE THE BASES FOR THE DESIGN OF GENERAL OUTLINES OF BIOSAFETY TRAINING PLANS, TO CONTRIBUTE TO AN EFFICIENT IMPLEMENTATION OF THE INTERNATIONAL BIOSAFETY PROTOCOL
- ALLOWED EFFICIENT COOPERATION LINKAGES AND CONTRIBUTED TO REINFORCE THE IMPORTANCE OF BIOSAFETY FOR NATIONAL DEVELOPMENT AND THE PRESERVATION OF LOCAL BIODIVERSITY

- PROMOTED COORDINATE ACTIONS BETWEEN THE COUNTRIES FOR A BETTER IMPLEMENTATION OF THE PROTOCOL AT THE REGIONAL LEVEL
 - ORGANIZED MEETINGS, INCLUDING INTERNATIONAL EXPERTS, THE MAIN REPRESENTATIVES OF REGULATORY AND ACADEMIC INSTITUTIONS, BUSINESS ENTERPRISES, NGOs, AND CONGRESSMEN TO DISCUSS SCIENTIFIC AND TECHNOLOGICAL MATTERS TO PROMOTE BIOTECHNOLOGY AND TO PROTEC BIODIVERSITY.

ORGANIZATION OF AMERICAN STATES INITIATIVES IN BIOTECHNOLOGY

CAPACITY BUILDING FOR THE SAFE AND SUSTAINABLE USE OF BIOTECHNOLOGY, WITHIN THE FRAMEWORK OF THE BIOSAFETY PROTOCOL AND THE FUTURE AGREEMENT FOR FREE COMMERCE IN THE AMERICAS (ALCA), 2004-2006

BIOSAFETY PROTOCOL

THE PROJECT IS BASED ON ARTICLE 22 OF THE CARTAGENA PROTOCOL:

COOPERATION MECHANISMS WILL BE IMPLEMENTED TO INCREASE AND TO REINFORCE THE HUMAN RESOURCES AND THE INSTITUTIONAL CAPACITIES IN BIOSAFETY INCLUDING BIOTECHNOLOGY, IN THE LESS DEVELOPED COUNTRIES.

- THE PROJECT WAS DESIGNED TO WORK WITH WORLD WIDE AND REGIONAL HIGHLY QUALIFIED EXPERTS TO TRAIN IN COURSES AND SEMINARS PROFESSIONALS FROM GOVERNMENTS, UNIVERSITIES AND THE PRIVATE SECTOR WITH EMPHASIS IN THE LESS DEVELOPED COUNTRIES.
- THE OAS FUNDING WAS ONLY SEED MONEY.
- THUS, IT WAS A REQUIREMENT TO FIND THE COOPERATION AND SUPPORT OF OTHER INSTITUTIONS OR PROJECTS WITH SIMILAR OBJECTIVES FOR BIOTECHNOLOGY IN THE REGION

OBJECTIVE

THE OBJECTIVE IS TO REINFORCE THE NATIONAL AND REGIONAL CAPACITIES IN:

- THE EVALUATION AND HANDLING OF GMOs RISKS,
- THE MANAGEMENT AND INNOVATION OF THE AGRO-FOOD BIOTECHNOLOGY INDUSTRY,
- PUBLIC AWARENESS ABOUT GMOs AND
- THE GENERATION OF INFORMATION FOR NATIONAL AND INTERNATIONAL NETWORKS IN BIOSAFETY THAT INCLUDE THE PUBLIC AND PRIVATE SECTOR AND UNIVERSITIES

PARTICIPANT COUNTRIES

ARGENTINA, BRAZIL, COLOMBIA, CHILE, COSTA RICA, ECUADOR, GRENADA, JAMAICA, MÉXICO, NICARAGUA, PANAMA, PARAGUAY, PERU, EL SALVADOR AND TRINIDAD & TOBAGO

ADRESSED

- PROFESSIONALS WORKING IN GOVERNMENT INSTITUTIONS IN AREAS RELATED TO BIOTECHNOLOGY INCLUDING MINISTERIES, REGULATORY, PATENTS, INNOVATION AND FOMENT OFFICES AND RESEARCH INSTITUTES:
- UNIVERSITIES SCIENTISTS AND GRADUATE STUDENTS,
- DECISION MAKERS ;BUSINESS EXECUTIVES,
- INDUSTRY ENTREPRENEURS;
- JOURNALISTS AND ADVISERS FROM DEPUTIES AND SENATORS

ACTIVITIES

- ORGANIZATION OF TRAINNING COURSES AND SEMINARS;
- PUBLICATION OF REPORTS, PAPERS AND BOOKS ON THE TOPICS COVERED BY THE PROJECT;
- IMPLEMENTATION OF A WEB PAGE;
- ADVISING TO PARLAMENTS IN THE DISCUSSION OF BIOTECHNOLOGY AND BIOSAFETY LAWS.

COURSES AND SEMINARS

■ THE PROJECT HAS ORGANIZED THE FOLLOWING COURSES AND SEMINARS:

- RISK ANALYSIS FOR PLANTS WITH NOVEL TRAITS AND FOOD SAFETY: PANAMA CITY, SEPTEMBER, 2004;
- BIOSAFETY, MONITORING AND SEGREGATION OF GMOs AND NON GMOS GRAINS AND SEEDS. BUENOS AIRES, ARGENTINA. 2004;

COURSES AND SEMINARS

- DETECTION OF GMOs IN SEEDS, GRAINS AND FOOD. FOOD ASSESSMENT: REGULATORY FRAMEWORK, BARUTA, VENEZUELA, APRIL, 2005;
- PUBLIC PERCEPTION IN LATIN-AMERICA, PORTO ALEGRE, BRASIL, SEPTEMBER, 2005;
- INNOVATION AND MANAGEMENT IN AGROBIOTECHNOLOGY, BOGOTA, OCTOBER,2005;
- INNOVATION, MANAGEMENT AND COMMERCIALIZATION IN BIOTECHNOLOGY, SANTIAGO, CHILE, NOVEMBER 28- DECEMBER 2

RISK ANALYSIS FOR PLANTS WITH NOVEL TRAITS AND FOOD SAFETY PANAMA CITY, SEPTEMBER, 2004

- REGULATORY FRAME:
- RISK ASSESSMENT OF FOOD DERIVED FROM GMOS PLANTS;
- PUBLIC PERCEPTION AND COMMUNICATION OF THE RISK:
- TRANSGENIC CROPS DESIGNED TO PRODUCE DRUGS AND INDUSTRIAL CHEMICALS;
- BIOLOGICAL COMPOUNDS OBTAINED BY BIOTECHNOLOGY FOR VETERINARY USE;
- RISK ASSESSMENT OF TRANSGENIC ANIMALS:
- EXAMPLES WERE PROVIDED TROUGH CASE STUDIES

RISK ANALYSIS FOR PLANTS WITH NOVEL TRAITS AND FOOD SAFETY PANAMA CITY, SEPTEMBER, 2004

DR. SUBHASH GUPTA, APHIS-USDA;
DR. MARGARET JONES, USDA-APHIS;
DR. WILLIAM YAN, HEALTH CANADA
Dr. RICHARD LEVINE;
ING. JUAN C. BATISTA, SENASA- ARGENTINA;
DRA. CLAUDIA FORERO, ICA, COLOMBIA;
DR. LIONEL GIL, UNIVERSIDAD DE CHILE,
DR. MARILIA NUTTI, EMBRAPA, BRAZIL

BIOSAFETY, MONITORING AND SEGREGATION OF GMOS AND NON GMOS GRAINS AND SEEDS.

BUENOS AIRES, ARGENTINA. SEPTEMBER, 2004

- THEORETICAL AND PRACTICAL ASPECTS OF DETECTION AND QUANTITATION OF GMOs IN GRAIN AND SEEDS INCLUDING REAL TIME PCR METHODS;
- THEORETICAL AND PRACTICAL ANALISIS OF SEGREGATION OF GMOs AND NON GMOs GRAINS AND SEEDS
- VISITS TO THE FACILITIES OF COMPANIES AND PORTS ENVOLVED IN SEGGREGATION PRECESS.

BIOSAFETY, MONITORING AND SEGREGATION OF GMOS AND NON GMOS GRAINS AND SEEDS. BUENOS AIRES, ARGENTINA. 2004

- Dr Alejandro Tozzini, INTA-Argentina,
- **Dr Heather Arbucle (CFIA, Canada).**
- **■** Graham Head, Monsanto USA,
- Carlos L. Camaño, SENASA.
- **Dr. Moises Burachik SAGPyA, Argentina.**
- **Dr. Perla Godoy SAGPyA, Argentina.**

INNOVATION AND MANAGEMENT OF BIOTECHNOLOGY SANTIAGO, CHILE, DECEMBER 2005

- VALORIZATION OF THE RESULTS OBTAINED BY THE SCIENTIFIC RESEARCH.
- BIOTECHNOLOGY AND COMMERCE: A GLOBAL OVERVIEW
- LATIN-AMERICA A DEVELOPMENT REGION IN BIOTECHNOLOGY
- **FINANCING AND ENTRPRENEURSHIP**
- BIOMEDICINE FROMM THE LABORATORY TO THE MARKET
- EDUCATION, RESEARCH AND COMPANIES, THE INTERACTIONS

INNOVATION AND MANAGEMENT IN BIOTECHNOLOGY NOVEMBER 28-30,2005 SANTIAGO, CHILE

- INNOVATION AS ESTRATEGY TO COMPITE;
- EXTERNAL ANALYSIS OF OPORTUNITIES AND RISKS:
- PLANNING INNOVATION PROJECTS:
- DIRECTION AND CONTROL OF TECHNOLOGICAL INNOVATION PROJECTS;
- REGIONAL AND SECTOR STRATEGIES TO DEVELOPMENT OF BIOTECHNOLOGY COMPANIES
- EVALUATION METHODS FOR NEW IDEAS TO START UP BIOTECHNOLGY COMPANIES
- CASE STUDIES

INNOVATION AND MANAGEMENT OF BIOTECHNOLOGY SANTIAGO, CHILE DECEMBER 2005

- DANIELLE BENERMAN ,FRANCE
- NICOLE BURLE, FRANCE
- CHRISTIAN POLICARD, FRANCE
- SIXTINA GIL, FRANCE
- KALIDAS SHETTY, USA
- STEPHEN ALDRICH. USA
- FERNANDO QUEZADA USA
- TEO FORCHT, USA
- ROY THOMASON USA
- VICTOR LINK, CANADA
- SAMUEL ABRAHAM, CANADA
- UTZ DORNBERGER, GERMANY
- MARCELO ARGUELLES, ARGENTINA
- F. ROZANSKY, ARGENTINA
- WIN DEGRAVE, BRASIL
- PAEZ DE CARVALHO, BRASIL
- MARCELO ARGUELLES, ARGENTINA
- T. SANGUINETTI, URUGUAY

WEB PAGE

- THE PROJECT HAS IMPLEMENTED A WEB PAGE PROVIDING IMPORTANT INFORMATION IN BIOSAFETY AND BIOTECHNOLOGY FOR NATIONAL AND INTERNATIONAL NETWORKS:
- INCLUDE CONSULTANCY WORK DONE IN NINE LATIN-AMERICAN COUNTRIES ABOUT BIOSAFETY REGULATIONS, NEEDS TO IMPLEMENT THE CARTAGENA PROTOCOL, NEEDS IN BIOSAFETY AND IN BIOTECHNOLOGY CAPACITY BUILDING;
- TEACHING MATERIAL AND PRESENTATIONS IN POWER POINT GENERATED IN THE COURSES AND SEMINARS:
- PROJECTS REPORTS, FUTURE ACTIVITIES, LINK TO OTHER BIOTECHNOLOGY WEB SITES, AND NEWS.





COLLABORATION WITH ENTERPRICES AND RELATED ASSOCIATIONS

- THE PRIVATE SECTOR HAS ACTIVELY COLLABORATED INCLUDING SEVERAL BIOTECHNOLOGY COMPANIES AND DIFFERENT INTERPRISE ASSOCIATIONS SUCH AS:
- LATIN-AMERICAN FEDERATION OF BIOTECHNOLOGY COMPANIES (FELAEB);
- CHILEAN ASSOCIATION OF BIOTECHNOLOGY COMPANIES (ASEMBIO);
- CHILEAN ASSOCIATION OF SEED PRODUCERS (ANPROS);
- CHILEAN ASSOCIATION OF ENVIRONMENTAL COMPANIES (AEPA)
- ARGENTINEAN FORUM OF BIOTECHNOLOGY,
- CHAMBER OF COMMERCE OF BOGOTA:
- BIOPROGRESO, COLOMBIA

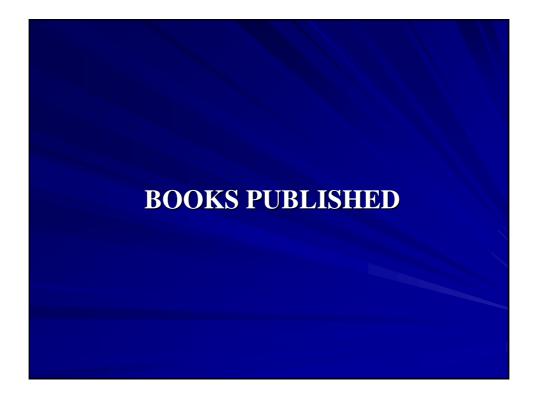
PUBLICATIONS

- DUNCAN, E. Julián. International Biosafety Protocol: the Trinidad Position. Electronic Journal of Biotechnology [online]. Declarations and Open Letters. 12 December 2004. Available from Internet http://www.ejbiotechnology.info/feedback/declarations/08/index.html. ISSN 0717-3458.
- VENTURA, Arnoldo. Biosafety Regulations Under the Cartagena Protocol: The Jamaican Case. Electronic Journal of Biotechnology [online]. Declarations and Open Letters. 27 July, 2004. Available from:http://www.ejbiotechnology.info/feedback/declarations/0 7/index.html. ISSN 0717-3458
- SOTO PACHECO, Ángel Arturo. The Situation of Legal and Institutional Structure of Bio-security. Electronic Journal of Biotechnology [online]. Declarations and Open Letters. 20 December, 2004. Available from: http://www.ejbiotechnology.info/feedback/declarations/10/inde x.html. ISSN 0717- 3458.

PUBLICATIONS

- The Multinational Biosafety Project of theOrganization of American States. Verastegui J., Martínez V., Roca W., de Peña M. and Gil . . Journal of Electronic Biotechnology ON LINE, January 2004, Available from: http://www.ejbiotechnology.info/feedback/declarations/10/index.html. ISSN 0717-3458.
- DE VERE PITT, J. and ROBERTS, D.
 Assessment of Grenada's capacity to implement
 the Biosafety Protocol. Electronic Journal of
 Biotechnology [online]. 15 August, 2004, vol. 7, no.
 2. Available from:
 http://www.eibiotechnology.info/content/vol7/issue

http://www.ejbiotechnology.info/content/vol7/issue 2/issues/2/index.html . ISSN 0717-3458.





GMOS: PRODUCTION, COMMERCIALIZATION, BIOSAFETY AND PUBLIC AWARENESS

- BIOTECHNOLOGY IN THE WORLD
- **BIOSAFETY OF GMOs:**
- COMMERCIALIZATION OF GMOs
- **PUBLIC PERCEPTION OF GMOs**
- 25 articles
- **254** pages
- **■** Language Spanish

GMOS: PRODUCTION, COMMERCIALIZATION, BIOSAFETY AND PUBLIC AWARENESS

- Paul Meyer, Health, Canada
- **■** Phil MacDonald CFIA, Canada
- **■** Karen McIntyre Health Canada
- **■** Bill Anderson Ag-West, Canada
- Pat Traynor VPI, USA
- **■** Carmen Vicien Conabia
- **■** Moises Burachick SACPyA
- Carlos Muñoz INIA, Chile
- **■** Ray Mouling. Monsanto
- **■** Bruce Hayes Agriculture Ministery , Canada
- Bernardo Badani Agriculture Ministery, Canada
- **■** Lionel Gil. U. of Chile

Biosafety and International Commerce of Transgenic Food: Decisions and Challenges

- BIOSAFETY POLICIES
- REGULATORY FRAME AND THE BIOSAFETY PROTOCOL
- RISK ASSESSMENT AND RISK MANAGEMENT OF GMOs
- SOCIAL ECONOMIC IMPACT OF GMOs
- **PUBLIC PERCEPTION OF GMOs**
- CAPACITY BUILDING IN BIOSAFETY IN AGRO-BIOTECHNOLOGY
- **BIOTECHNOLOGY INDUSTRY**
- 34 ARTICLES, 433 PAGES
- LANGUAGE SPANISH

BIOSAFETY AND INTERNATIONAL COMMERCE OF TRANSGENIC FOOD: DECISIONS AND CHALLENGES

- PATRICIA TRAYNOR, USA
- SUBHASH GUPTA, USA
- JOSE LUIS SOLLEIRO, MEXICO
- LEYLA ODA, BRASIL
- JAVIER VERASTEGUI, PERU
- MOISES BURACHIK, ARGENTINA
- ALBERT SASSON, FRANCE
- JULIAN DUNCAN, TRINIDAD AND TOBAGO
- LIONEL GIL, CHILE



- THE INFORMATION RELEASED BY THE PROJECT PROVIDED RELEVANT INFORMATION FOR THE REPORT OF THE PRESIDENTIAL BIOTECHNOLOGY CHILEAN COMMISSION DESCRIBING THE CHILEAN GOVERNMENT POLICIES IN BIOTECHNOLOGY.
 - THE PROJECT HAS HELPED THE CHILEAN GOVERNMENT DOING A CONSULTANCY WORK IN ORDER TO ESTABLISH A TECHNICAL DECREE FOR AUTHORIZATION OF TRANSGENIC FOOD DERIVED FROM BIOTECHNOLOGY FOOD.
 - HAS PROVIDED INFORMATION FOR THE DISCUSSION OF BIOSAFETY LAWS IN THE PARLIAMENTS OF PERU AND MEXICO

RESULTS

- IT HAS BEEN BUILT A NET OF PERSONS AND INSTITUTIONS INVOLVED IN BIOSAFETY IN AGROFOOD BIOTECHNOLOGY IN LATIN-AMERICA, CANADA, USA
- ACTUALIZED TEACHING MATERIAL HAS BEEN DEVELOPED IN RISK ASESSMENT AND RISK MANAGMENT OF GMOs, DNA TRACEABILITY, INNOVATION AND MANAGMENT IN BIOTECHNOLOGY
- PROFESSIONALS FROM REGULATORY AGENCIES, MINISTERIES AND UNIVERSITIES, AND THE PRIVATE SECTOR HAS BEEN TRIANNED AT HIGH LEVEL FOR WELL RECOGNIZED LEADERS

RESULTS

- FIVE CAPACITY BUILDING COURSES HAS BEEN ORGANIZED IN BIOTECHNOLOGY FIELDS SUCH AS:
- BIOSAFETY, RISK ASSESSMENT AND RISK MANAGEMENT OF GM FOOD;

DNA ANALYSIS AND TRACEABILITY IN GMOs AND DERIVED FOOD;

■ INNOVATION AND MANAGEMENT IN BIOTECHNOLOGY;

FUTURE ACTIVITIES

- NEXT YEAR THE PROJECT ACTIVITIES WILL BE CENTERED IN BIOTECHNOLOGY PUBLIC AWARENESS;
- A CONSULTANT HAS BEEN HIRED TO DELINEATE THE BASIS FOR A REGIONAL POLICY IN BIOTECHNOLOGY PUBLIC PERCEPTION, CONSIDERING THE DIFFERENCES BETWEEN COUNTRIES;
- PUBLIC PERCEPTION SURVEYS WILL BE DONE IN REPRESENTATIVE COUNTRIES AND THEIR RESULTS AS WELL AS THE PROPOSAL OF THE CONSULTANT WILL BE DISCUSSED IN TWO SEMINARS ONE IN THE CARIBBEAN REGION AND THE OTHER IN SOUTH AMERICA

CONCLUSIONS

- THE OAS HAS ASSUMED A PIONEAR AND FUNDAMENTAL ROLE IN THE PROMOTION OF DIAGNOSTIC NEEDS AND CAPACITY BUILDING IN BIOTECHNOLOGY BIOSAFETY IN LATIN-AMERICA AND CARRIBBEAN COUNTRIES;
- HAS STRENGHT COOPERATION WITHIN THE REGION, SPECIALLY BETWEEN MORE AND LESS DEVELLOPED COUNTRIES:
- THIS HAS BEEN A KEY FACTOR TO TRAIN PROFESSIONALS AT HIGH LEVEL

CONCLUSIONS

THIS INITIAVE HAS BEEN THE FIRST
COORDINATED AND SISTEMATIC
MULTINATIONAL EFFORT TO
ENHANCE CAPACITY BUILDING IN
BIOSAFETY IN THE REGION, BEING A
PIONNER PROJECT AND
COMPLEMENTARY TO THE GLOBAL
AND ENVIRONMENTAL FACILITY
PROJECTS

CONCLUSIONS

■ 175 PROFESSIONALS FROM 17 COUNTRIES REPRESENTING ALMOST 100 INSTITUTIONS HAVE BEING TRAINED IN FIVE THEORETICAL AND LABORATORY COURSES

■ 650 PROFESSIONALS HAVE PARTICIPATED IN SIX SEMINARS

CONCLUSIONS

WE ARE WILLING TO COLLABORATE AND TO SHARE EXPERIENCIES WITH SIMILAR INITIATIVES IN THE ASIA PACIFIC REGION AS WELL AS IN ORDER REGIONS OF THE WORLD.