

Country Report of The Philippines

by

The Hon. Dr. Estrella Alabastro

Secretary

Department of Science and Technology (DOST)

**MR. CHAIRMAN,
EXCELLENCIES,
LADIES AND GENTLEMEN:**

FIRST OF ALL, ON BEHALF OF THE PHILIPPINE GOVERNMENT, I WISH TO THANK THE SOCIALIST REPUBLIC OF VIETNAM AND THE GOVERNMENT OF JAPAN FOR INVITING ME TO THE 5TH FORUM FOR NUCLEAR COOPERATION IN ASIA MEETING IN HANOI, VIETNAM.

I AM GRATEFUL FOR THE OPPORTUNITY TO SHARE WITH YOU OUR VISION, EXPERIENCE AND INITIATIVES IN THE APPLICATION OF SCIENCE AND TECHNOLOGY TO CONTRIBUTE TO PHILIPPINE NATIONAL DEVELOPMENT.

MR. CHAIRMAN,

MY COUNTRY FACES DAUNTING S&T CHALLENGES AND OPPORTUNITIES. PRESIDENT GLORIA MACAPAGAL-ARROYO HAS DECLARED IN HER FIRST STATE OF THE NATION ADDRESS THAT “TECHNOLOGY IS THE FOUNDATION OF FUTURE ECONOMIC DEVELOPMENT.” THIS PRESIDENTIAL STATEMENT GUIDED THE FORMULATION OF THE NATIONAL SCIENCE AND TECHNOLOGY PLAN (NSTP) 2002-2020 WHICH PROVIDES THE POLICY FRAMEWORK AND DIRECTIONS FOR SCIENCE AND TECHNOLOGY IN THE PHILIPPINES. THE NSTP WAS A RESULT OF EXTENSIVE NATIONWIDE CONSULTATION WITH BUSINESS AND INDUSTRY LEADERS, S&T EXPERTS AND OTHER GOVERNMENT DEPARTMENTS AND AGENCIES, AND OTHER STAKEHOLDERS.

IN HER INAUGURAL SPEECH, AFTER BEING GIVEN A FRESH MANDATE TO LEAD THE COUNTRY FOR THE NEXT SIX YEARS, PRESIDENT ARROYO ENUNCIATED A TEN-POINT DEVELOPMENT PROGRAM, WHICH ADDRESSES STRATEGIC AREAS IN THE PHILIPPINE DEVELOPMENT PATH – FROM LIVELIHOOD TO EDUCATION, FROM CLEAN WATER TO ELECTRICITY FOR

THE BROAD MASSES, FROM BALANCING THE BUDGET TO THE SEARCH FOR PRINCIPLED PEACE IN A DIVIDED NATION. IT IS NOW THE TASK OF THE DEPARTMENT OF SCIENCE AND TECHNOLOGY TO FINE-TUNE THE NSTP TO STURDILY SUPPORT THIS AGENDA

FOREMOST IN THE TEN POINT DEVELOPMENT AGENDA, IS THE CREATION OF SIX TO TEN MILLION JOBS TO CUT THE EDGE OF POVERTY AND BROADEN THE MIDDLE CLASS BASE. THE VISION IS TO EMPOWER THE SMALL BUSINESS OWNERS AND DEVELOP ONE TO TWO MILLION HECTARES OF LAND FOR AGRICULTURAL BUSINESS. EMPOWERMENT OF THE SMES IS SEEN THROUGH TECHNOLOGY INTERVENTION TO COME UP WITH NEW AND BETTER PRODUCTS, ABLE TO COMPETE IN THE GLOBAL MARKET. SMALL AND MEDIUM-SCALE ENTERPRISES OR SMES, ARE CONSIDERED AS THE COUNTRY'S ENGINE FOR JOB CREATION AND WEALTH DISTRIBUTION.

IN THIS REGARD, DOST IS AGGRESSIVELY IMPLEMENTING TWO MAJOR PROGRAMS, NAMELY, 1) THE SMALL ENTERPRISE TECHNOLOGY UPGRADING PROGRAM OR SETUP, AND 2) THE TECHNOLOGY INCUBATION FOR COMMERCIALIZATION OR TECHNICOM PROGRAM.

LAUNCHED IN MID 2002, SETUP SERVES AS AN UMBRELLA PROGRAM FOR ALL TECHNOLOGY TRANSFER ACTIVITIES DONE BY DOST AGENCIES. WE ARE PLEASED TO REPORT THAT IN 2003, 781 SMES (630 EXISTING AND 151 NEW FIRMS) AVAILED OF SETUP ASSISTANCE RESULTING INTO 38% AVERAGE INCREASE IN THEIR PRODUCTION, 28% AVERAGE INCREASE IN THEIR GROSS REVENUES AND THE CREATION OF 3,779 NEW ADDITIONAL JOBS. MOREOVER, 35 SMES WERE REPORTED TO HAVE DEVELOPED CAPACITY AND CONFIDENCE TO EXPORT PRODUCTS TO MARKETS IN THE US, ITALY, JAPAN, HONGKONG, TAIWAN, NORWAY, FRANCE, GERMANY, CHINA AND AUSTRALIA, TO NAME A FEW.

THE DOST TECHNICOM PROGRAM WAS LAUNCHED AS A COMPREHENSIVE AND UNIFIED STRATEGY TO ENHANCE TECHNOLOGY DEVELOPMENT FOR COMMERCIALIZATION AND TO FAST-TRACK THE TRANSFER AND COMMERCIALIZATION OF PROMISING R&D RESULTS OF GOVERNMENT R&D INSTITUTES, ACADEME AND THE PRIVATE SECTOR.

THE TECHNICOM, BRIDGING THE GAP BETWEEN THE STAGE OF TECHNOLOGY DEVELOPMENT AND ACTUAL ADOPTION AND

COMMERCIALIZATION, TARGETS TO: 1) STIMULATE TECHNOLOGICAL INNOVATION; 2) STRENGTHEN THE CAPACITY OF ENTERPRISES TO TAP AND ADAPT PROMISING R&D RESULTS; 3) INCREASE PRIVATE SECTOR INVESTMENT AND ADOPTION OF GOVERNMENT-INITIATED R&D BREAKTHROUGHS; AND 4) MAXIMIZE BENEFITS FROM GOVERNMENT'S INVESTMENTS IN R&D ACTIVITIES.

MR. CHAIRMAN,

THE DOST INITIATED THE "PHILIPPINE RESEARCH, EDUCATION AND GOVERNMENT INFORMATION NETWORK" OR PREGINET WHICH NOW SERVES AS A NATIONWIDE BROADBAND NETWORK WITH 3 EXCHANGE POINTS AND 20 REGIONAL ACCESS POINTS INTERCONNECTING ABOUT 80 INSTITUTIONS FROM GOVERNMENT, THE ACADEME AND THE PRIVATE SECTOR. IMPLEMENTED AND MANAGED BY THE DOST'S ADVANCED SCIENCE AND TECHNOLOGY INSTITUTE OR ASTI, THE PREGINET HAS ENABLED THESE INSTITUTIONS TO UNDERTAKE COLLABORATIVE R&D IN AREAS SUCH AS NETWORKING TECHNOLOGIES, DISTANCE EDUCATION, TELEMEDICINE, AGRICULTURE AND DISASTER MITIGATION. THE PREGINET IS CONNECTED TO THE ASIA-PACIFIC ADVANCED NETWORK (APAN) WITH JAPANESE GOVERNMENT SUPPORT. THROUGH THIS APAN LINK, THE PREGINET'S LOCAL PARTNER INSTITUTIONS ARE GIVEN ACCESS TO THE SCIENCE, TECHNOLOGY AND RESEARCH TRANSIT ACCESS POINT (STARTAP), THE LARGEST INTERCONNECTION OF RESEARCH AND EDUCATION NETWORKS IN THE WORLD.

MR. CHAIRMAN,

IN THE LAST THREE YEARS, THE DEPARTMENT HAS WORKED HARD TO PUT IN PLACE THE BASIC ELEMENTS OF A WORKABLE PHILIPPINE NATIONAL INNOVATION SYSTEM. HOWEVER, MORE WORK HAS TO BE DONE. FIRST, WE NEED TO STRENGTHEN FURTHER THE COUNTRY'S INNOVATION SYSTEM. SECOND, WE NEED TO CONTINUOUSLY BUILD OUR R&D CAPACITY BOTH AT THE INDIVIDUAL AND INSTITUTIONAL LEVELS. THIRD, WE NEED TO GENERATE ADDITIONAL RESOURCES FOR S&T. AND, FINALLY, WE NEED TO IMPROVE S&T GOVERNANCE.

STRENGTHENING OF THE COUNTRY'S INNOVATION SYSTEM MEANS PAYING CLOSER ATTENTION TO REMOVING THE BARRIERS THAT HINDER KEY PLAYERS IN THE S&T COMMUNITY, THE GOVERNMENT R&D

INSTITUTIONS, HIGHER EDUCATION INSTITUTIONS, THE PRIVATE BUSINESS AND EVEN THE CIVIL SOCIETY TO WORK TOGETHER.

TO REALIZE OUR VISION OF A TECHNOLOGY-BASED ECONOMIC GROWTH, WE HAVE TO DEVELOP A CRITICAL MASS OF S 7 T EXPERTISE IN FIELDS STRATEGIC TO OUR NATIONAL DEVELOPMENT , INCLUDING NUCLEAR SCIENCE AND TECHNOLOGY

MR. CHAIRMAN,

NUCLEAR SCIENCE AND TECHNOLOGY IS AN INTEGRAL PART OF THE NATIONAL SCIENCE TECHNOLOGY PLAN AND CUTS ACROSS THE FIELDS OF SCIENCE AND TECHNOLOGY APPLICATION. OUR PARTICIPATION IN THE EIGHT AREAS OF COOPERATION IN THE FNCA, AND NOW IN THE PANEL ON THE “ROLE OF NUCLEAR ENERGY FOR SUSTAINABLE DEVELOPMENT IN ASIA” HAS ACCRUED FOR US THE BENEFITS OF SHARING OF FACILITIES, AND KNOWLEDGE, AND FACILITATED THE IDENTIFICATION OF PROBLEMS AND SOLUTIONS SPECIFIC TO OUR OWN SITUATION. FOR EXAMPLE, TRAINING OF OUR STAFF WORKING ON THE USE OF IRRADIATED CARRAGEENAN AS A PLANT GROWTH PROMOTER WAS FACILITATED THROUGH THE FNCA –MEXT NETWORK. THE OPEN LECTURE ON MUTATION BREEDING OF ORNAMENTAL PLANTS CONDUCTED IN CONJUNCTION WITH THE FNCA WORKSHOP HAS DRAWN THE INTEREST OF MAJOR ORNAMENTAL PLANT GROWERS IN THE COUNTRY.

THE PHILIPPINE ENERGY PLAN FOR 2004 –2013 HAS NOT CONSIDERED NUCLEAR ENERGY AS A POWER SOURCE DUE TO THE FOLLOWING :

- A) THE GOVERNMENT’S THRUST ON ENERGY SELF-SUFFICIENCY AND THE VIGOROUS PROMOTION OF INDIGENOUS AND RENEWABLE ENERGY RESOURCE SUCH AS NATURAL GAS (5-10 TCF), COAL (1.3 BILLION MT) GEOTHERMAL (4,500 MW), HYDRO (9,000 MW) WIND (7,000 MW), SOLAR, ETC, AND**
- B) THE NEGATIVE PUBLIC OPINION ON THE USE OF NUCLEAR ENERGY TECHNOLOGY DUE TO SAFETY AND ENVIRONMENTAL CONSIDERATIONS.**

RECENTLY, HOWEVER, THE WISDOM OF KEEPING OPEN THE NUCLEAR OPTION FOR SECURING ENERGY SUPPLY AND ENVIRONMENTAL PROTECTION HAS BEEN POINTED OUT. IN THIS REGARD MORE EFFORT SHOULD BE PUT FORWARD TO ENHANCE PUBLIC EDUCATION AND

IMPROVE PUBLIC ACCEPTANCE OF NUCLEAR POWER BY ADDRESSING SAFETY ASSURANCE AND RISK AND BENEFIT ISSUES.

WE ARE MOVING TOWARDS ESTABLISHING EFFECTIVE REGULATORY INDEPENDENCE OF THE REGULATORY AUTHORITY FROM THE MANAGEMENT OF OPERATORS OR USERS OF NUCLEAR ENERGY. AS A FIRST STEP, THE PNRI WHICH IS MANDATED TO PROMOTE AND REGULATE THE PEACEFUL APPLICATIONS OF NUCLEAR ENERGY HAS ESTABLISHED A REGULATORY CONTROL PROGRAM FOR PNRI FACILITIES. A SUBSEQUENT STEP WOULD BE THE CREATION OF DEPUTY DIRECTOR FOR REGULATIONS POSITION WHO WOULD BE VESTED WITH THE AUTHORITY FOR REGULATORY MATTERS. THE FINAL STEP WOULD BE THE SPIN-OFF OF THE REGULATORY BODY, INDEPENDENT FROM PNRI, BUT THIS LAST STEP WOULD REQUIRE LEGISLATIVE ACTION.

MR. CHAIRMAN,

WE LIVE IN A RAPIDLY CHANGING WORLD. TO ENABLE ONE COUNTRY TO COPE WITH THE FAST EVOLVING CHANGES, COLLABORATION WITH OTHER COUNTRIES, SPECIALLY HER NEIGHBORS, IS NO LONGER AN OPTION BUT A REQUIREMENT. THE FNCA THROUGH THE YEARS HAS PROVIDED AN IMPORTANT FORUM FOR NUCLEAR COOPERATION IN OUR REGION. THE PHILIPPINES COMMITS ITS SUPPORT TO THE COOPERATION. THUS, WE WOULD LIKE TO REITERATE OUR OFFER TO HOST THE 2008 FNCA MEETING.

THANK YOU FOR THIS PRIVILEGE OF SHARING WITH YOU. MY WISHES FOR A SUCCESSFUL MEETING. *MABUHAY.*