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REMARKS BY DANIEL SANDOVAL (MEXICO) AT THE 7TH UNIVERSITY OF GUYANA TURKEYEN AND TAIN CONFERENCE. NEW AMSTERDAM, MAY 10th, 2017.

“EMERGING OIL AND GAS ECONOMIES - LESSONS FOR GUYANA FROM THE MEXICAN EXPERIENCE AND THE QUEST FOR ECONOMIC COOPERATION”

ALL PROTOCOLS OBSERVED.

I WANT TO THANK VICE CHANCELLOR PROFESSOR IVELAW GRIFFITH FOR INVITING ME TO JOIN THIS ACADEMIC DISCUSSION. IN THE PRESENT CONTEXT OF THE ECONOMIC TRANSFORMATION OF GUYANA THAT THE OIL AND GAS SECTOR IS WIDELY EXPECTED TO EFFECT.

I WILL ADDRESS A NUMBER OF ISSUES THAT HAVE TO DO WITH SOME RELEVANT EXPERIENCES IN MEXICO REGARDING THE RAPID EXPANSION OF OIL REVENUES IN AT LEAST THREE EPISODES OF OUR ECONOMIC HISTORY, AS WELL AS SOME LESSONS LEARNED THAT CAN BE RELEVANT FOR GUYANA.

MY PRESENTATION IS INTENT ON SHEDDING LIGHT TO CONCRETE EXPERIENCES AND MOSTLY DOWN-TO-EARTH, PRACTICAL ASPECTS, AND CONSISTS OF FOUR PARTS:

- 1) THE ROLE THAT THE VAST DEPOSITS OF OIL AND GAS HAVE PLAYED IN THE ECONOMIC DEVELOPMENT OF MEXICO.
- 2) THE TWIN EPISODES OF A SIGNIFICANT SURGE IN EXPORTS EARNINGS IN THE OIL AND GAS SECTOR AND THE VERY DIFFERENT OUTCOMES THAT POLICYMAKERS ACHIEVED.
- 3) THE RECENT ENACTMENT OF A COMPREHENSIVE LEGAL REFORM IN OIL AND GAS IN MEXICO, HIGHLIGHTING BEST PRACTICES.
- 4) LESSONS LEARNED BY THE MEXICAN ECONOMY IN THE CONTEXT OF DECADES OF MASSIVE EXPORTS OF OIL AND GAS.

- *THE OIL INDUSTRY IN MEXICO BETWEEN 1901 AND 1938*

MEXICO HAS BEEN A MAJOR OIL PRODUCER SINCE THE EBANO OILFIELD STARTED BUSINESS IN 1901, INDEED, IN THE 1920S THE COUNTRY WAS THE WORLD'S SECOND LARGEST EXPORTER.

HOWEVER, DURING THE FIRST FOUR DECADES OF RAPID EXPANSION OF THE OIL AND GAS INDUSTRY IN MEXICO, THE OIL COMPANIES WERE INSULATED FROM THE NATIONAL ECONOMY. THEY CREATED FEW JOBS, THEY WERE NOT INTERESTED IN BUILDING DOMESTIC SKILLS OR TRAINING THE LOCAL POPULATION AND PAID ALMOST NO TAXES TO THE NATIONAL TREASURY.

OIL EXTRACTION IN MEXICO WAS VERY PROFITABLE FOR FOREIGN COMPANIES, MOSTLY U.K.-OWNED AND U.S.-OWNED. MEXICAN OILFIELDS RANKED AMONG THE MOST PRODUCTIVE IN THE PLANET. PRODUCTION AT THE RICHEST OIL WELL, CERRO AZUL 4, AVERAGED 260,000 BARRELS PER DAY.

THE LACK OF CONNECTION BETWEEN THE OIL-EXPORTING INDUSTRY AND THE REST OF THE ECONOMY LED THE FOREIGN COMPANIES TO IGNORE THE RULINGS OF MEXICAN COURTS. AT THAT POINT, THE FEDERAL GOVERNMENT COULD NOT ALLOW THE FIRMS TO DEFY THE AUTHORITIES AND IN 1938 THE OIL INDUSTRY WAS EXPROPRIATED.

- THE ROLE OF THE OIL INDUSTRY IN MEXICO'S INDUSTRIALIZATION 1938-1979

AFTER FOUR DECADES OF EXPORT-ORIENTED OIL EXPLOITATION IN MEXICO, THE COUNTRY LACKED THE SKILLS AND TECHNOLOGY TO MANAGE THE INDUSTRY. THE DIRE SITUATION LED THE FEDERAL GOVERNMENT TO ESTABLISH SPECIFIC TRAINING INSTITUTIONS, SUCH AS THE NATIONAL POLYTECHNICAL INSTITUTE (IPN), WHICH BECAME A RESEARCH UNIVERSITY AND HAS A MEMORANDUM OF UNDERSTANDING WITH THE UNIVERSITY OF GUYANA.

ALTHOUGH THE GOVERNMENT LACKED THE RESOURCES TO INVEST IN THE EXPANSION OF THE OIL AND GAS SECTOR, FROM 1938 TO 1978, THE NATIONAL PETROLEUM COMPANY, PEMEX, REMAINED THE SINGLE LARGEST COMPANY IN THE COUNTRY AND THE ENERGY SECTOR FOCUSED ON SUPPLYING THE NATIONAL ECONOMY. THE RAPID INDUSTRIALIZATION IN MEXICO FROM 1940 TO 1970 EVOLVED IN LOCKSTEP WITH AN OIL AND GAS INDUSTRY THAT VASTLY EXPANDED ITS VALUE CHAIN AND DIVERSIFIED INTO PETROCHEMICALS.

A RELIABLE SUPPLY OF OIL WAS INSTRUMENTAL TO BUILD A RESILIENT DOMESTIC ECONOMY. ALTHOUGH MEXICO'S EXPORTS OF CRUDE OIL WERE SMALL, FROM 1950 TO 1970 THE NATIONAL ECONOMY SUSTAINED GROWTH RATES IN EXCESS OF 7% PER YEAR WITH LITTLE INFLATION. THAT PROCESS WAS KNOWN AS "THE MEXICAN MIRACLE".

A KEY ELEMENT IN THE QUEST TO BUILD DOMESTIC CAPACITIES WAS THE CREATION, IN 1965, OF AN ENGINEERING BODY, THE MEXICAN INSTITUTE FOR PETROLEUM (IMP), WHICH PROVIDES SOLUTIONS TO UNLOCK VALUE IN BOTH UPSTREAM ACTIVITIES CLOSELY RELATED TO EXTRACTION AND DOWNSTREAM ACTIVITIES INVOLVED IN OIL PROCESSING.

A DISTINCTIVE FEATURE OF IMP'S EARLY YEARS WAS ITS FOCUS ON PRACTICAL TASKS, AS THE INSTITUTE WAS SET TO CATER TO AN INLAND-BASED OIL INDUSTRY BUT HAD TO DEVISE NEW STRATEGIES IN THE MID-1970S, WHEN LARGE OFFSHORE OILFIELDS WERE DISCOVERED IN THE GULF OF MEXICO.

- *A TOXIC OIL BOOM IN 1979-1981*

AFTER DECADES OF EXTRACTING MODEST VOLUMES OF OIL, AROUND 300,000 BARRELS PER DAY, MOSTLY FOR DOMESTIC CONSUMPTION AND LOW-PRICED EXPORTS, IN 1979, AS A RESULT OF THE OFFSHORE DISCOVERIES AND THE PRICE SPIKES CAUSED BY THE 1973 AND 1979 OIL SHOCKS, THE NATIONAL OIL COMPANY PEMEX BECAME THE WORLD'S THIRD LARGEST EXPORTER OF A HIGH-PRICED COMMODITY, SHIPPING MORE THAN 3 MILLION BARRELS OF OIL PER DAY. THE TRANSFORMATION IN TERMS OF EMPLOYMENT AND INCOME IN THE NEW OIL HUBS IN THE REGIONS OF CAMPECHE AND TABASCO WAS DRAMATIC, WITH TRADITIONAL FISHING COMMUNITIES GAINING POPULATION AND TURNING INTO MIDDLE- CLASS CITIES.

FOR INSTANCE, CIUDAD DEL CARMEN, A FISHING TOWN UNTIL THE SEVENTIES, SAW ITS POPULATION DOUBLE IN THE DECADE TO 1980 AND THEN IT DOUBLED AGAIN AS THE TOWN BECAME AN OIL HUB WITH EXTENSIVE INFRASTRUCTURE.

BUT, IN THE ABSENCE OF CHECKS AND BALANCES AT THE NATIONAL OIL COMPANY (PEMEX), THE MUCH ENHANCED REVENUES FROM OIL EXPORTS ENDED UP FUELLING WHAT CAN ONLY BE CALLED A TOXIC OIL BOOM WITH A HANGOVER THAT WAS TO LAST TWENTY YEARS AND BURDEN MEXICO WITH HUGE EXTERNAL DEBT.

FROM 1979 UNTIL THE OIL PRICES FELL IN 1982, THE MINISTRY OF NATIONAL ASSETS PRESSED THE NATIONAL OIL COMPANY PEMEX TO SCALE UP INVESTMENT BY TAPPING INTO THE INTERNATIONAL FINANCIAL MARKETS TO RAISE FOREIGN CURRENCY-DENOMINATED DEBT WITH SHORT-TERM MATURITY. THE GOVERNMENT OF THE DAY WAS BETTING ON PERMANENTLY HIGH OIL PRICES TO PAY FOR THE HUGE SURGE IN PEMEX INVESTMENT THAT MEANT A THREE-FOLD SPIKE OF MEXICO'S EXTERNAL DEBT. THE DROP IN OIL PRICES LED TO CURRENCY SHORTAGES, CONTRACTION OF CREDIT, DEVALUATION, INFLATION, AND A FULL DECADE OF NEGLIGIBLE GROWTH OF THE NATIONAL ECONOMY.

FROM 1979 TO 1981, OIL EXPORTS SPARKED AN EXPANSION IN DOMESTIC AGGREGATED DEMAND THAT LED TO 8% GDP GROWTH PER YEAR WITH 30% INFLATION. THE FALL IN EXPORT REVENUE MADE THE ECONOMY CRASH TO PERSISTENT STAGNATION WITH OVER 100% INFLATION PER YEAR DURING THE EIGHTIES.

THE INTERNATIONAL PRICE OF OIL WAS TO REMAIN ESSENTIALLY FLAT FROM 1982 TO 2002 (AROUND US \$ 15 DLLS PER BARREL), SAVE FOR A DROP IN 1998 THAT BRIEFLY HALVED PRICES TO US \$8 DLLS A BARREL.

- *THE MORE CAUTIOUS APPROACH TO THE OIL BOOM FROM 2002 TO 2014*

THE 1979 TO 1981 OIL BOOM SAW THE PRICE OF OIL TREBLE AND THEN DROP BY HALF. THE OIL BOOM AFTER SEPTEMBER ELEVENTH WAS MUCH BIGGER.

FROM 2002 UNTIL MID-2008, INTERNATIONAL PRICES OF OIL ROSE TENFOLD FROM \$ 13 DLLS TO \$ 130 DLLS PER BARREL. THEN A TWO-THIRDS DROP THAT LASTED LESS THAN A YEAR, FROM AUGUST 2008 TO 2009, WAS FOLLOWED BY A PRICE RECOVERY. FROM 2010 TO 2014, PRICES AVERAGED SOME \$ 100 DLLS PER BARREL.

IN STARK CONTRAST TO THE SITUATION OF THE PRODUCTIVE SECTORS IN 1982, WHEN THE MEXICAN ECONOMY WAS BASICALLY CLOSED TO IMPORTS AND RELIANT ON OIL TO ACCESS FOREIGN CURRENCY, THE DECADE-LONG OIL BOOM IN THE EARLY YEARS OF THE CENTURY FOUND AN ESSENTIALLY OPEN MEXICAN ECONOMY THAT HAS FREE-TRADE AGREEMENTS WITH 44 COUNTRIES.

MEXICO CURRENTLY RECEIVES FOREIGN CURRENCY IN SEVEN MAJOR WAYS: EXPORTS OF MANUFACTURED GOODS, AGRICULTURAL EXPORTS, FOREIGN DIRECT INVESTMENT, OIL, RAW MATERIALS, REMITTANCES, AND TOURISM.

THE SUDDEN BOUT OF PROSPERITY IN THE OIL AND GAS SECTOR ELICITED A CAUTIOUS APPROACH FROM THE NATIONAL GOVERNMENT. RATHER THAN TAPPING INTO FOREIGN DEBT, MOST OF THE EXISTING STOCK OF EXTERNAL DEBT WAS SWAPPED FOR PESO-DENOMINATED DEBT WITH LONG-TERM MATURITY. CONSUMER PRICES HAVE SEEN LITTLE INFLATION IN MORE THAN 10 YEARS (BELOW 5 PERCENT) AND EVEN THE 40 PERCENT DEVALUATION OF THE MEXICAN PESO SINCE 2012 HAS HAD ALMOST NO EFFECT ON COMMERCIAL CREDIT.

THE FIFTY PERCENT DROP IN OIL PRICES SINCE 2014 HAS DEALT A BLOW TO THE ENERGY EXPORTS BUT SO FAR HAS HAD LIMITED SPILLOVER EFFECT OVER THE LARGER NATIONAL ECONOMY. EXPECTED INFLATION FOR 2017 IS BELOW 6 PERCENT AND DOMESTIC CREDIT HAS NOT CONTRACTED.

SINCE 2013, MEXICO HAS BEEN INTENT ON MODERNIZING THE OIL AND GAS SECTOR AND DEVELOPING DEEPWATER RESERVES.

IN ORDER TO ACHIEVE THIS, MEXICAN CONGRESS ENACTED A COMPREHENSIVE ENERGY-SECTOR REFORM IN ORDER TO TAP INTO INTERNATIONAL BEST PRACTICES AND TRANSFORM THE OIL AND GAS INDUSTRY FROM AN INWARD-LOOKING MODEL TO A MORE COMPETITIVE MODEL. THIS COMPREHENSIVE APPROACH TO REFORM LEADS US TO DISCUSS SOME LESSONS LEARNED:

- *LESSONS LEARNED IN A CENTURY OF OIL EXPLOITATION IN MEXICO*

1) SET A CLEAR PURPOSE FOR THE OIL INDUSTRY

OVER FORTY YEARS, EXPORT-ORIENTED, FOREIGN-OWNED OIL COMPANIES CONTRIBUTED LITTLE TO THE NATIONAL ECONOMY, EVEN IN THE WAY OF TAXES AND ROYALTIES.

THE OIL INDUSTRY WAS EXPROPRIATED IN 1938. FROM THE FORTIES AND UNTIL THE EARLY SEVENTIES, THE NATIONALIZED OIL INDUSTRY RECEIVED LITTLE REVENUE IN THE WAY OF EXPORTS, BUT IT PROVIDED RELIABLE OIL SUPPLIES TO THE DOMESTIC NEEDS, WHICH MADE IT POSSIBLE FOR THE ENTIRE NATIONAL ECONOMY TO EXPAND RAPIDLY.

2) IMPROVE INDUSTRY GOVERNANCE

THE OIL BOOM OF 1979 – 1981 DELIVERED SHORT-TERM GAINS, BUT THEN, IN THE ABSENCE OF PROPER CHECKS AND BALANCES IN POLICY-MAKING, THE QUEST TO EXPAND EXPORTS QUICKLY LED TO INDEBTNESS, DISTORTED DOMESTIC PRICES AND THE RESULT WAS A DECADE OF STAGNATION. THAT SHOULD NOT HAPPEN AGAIN, AND THE MOST IMPORTANT PROVISION FOR THAT IS ROBUST AND FUNCTIONAL GOVERNANCE.

IN MEXICO, BETTER INDUSTRY GOVERNANCE MUST START WITH THE VERY BOARD OF THE NATIONAL OIL COMPANY (PEMEX). FOR POLITICAL REASONS, THE WORKERS UNION WAS ALLOCATED SEATS AT THE BOARD FORTY YEARS AGO. THAT SITUATION DID NOT IMPROVE DECISION-MAKING. THE COMPREHENSIVE REFORM HAD TO CORRECT THIS SITUATION.

AS OF 2017, THE STREAMLINED BOARD OF THE NATIONAL OIL COMPANY PEMEX HAS 10 MEMBERS: THE MINISTER OF ENERGY, THE MINISTER OF FINANCE, THREE OFFICIALS FROM THE FEDERAL GOVERNMENT APPOINTED BY THE PRESIDENT, AND FIVE INDEPENDENT BOARD-MEMBERS WITH PROFESSIONAL EXPERIENCE IN THE FIELD APPPOINTED BY THE FEDERAL GOVERNMENT AND RATIFIED BY THE MEXICAN SENATE.

PROPER REGULATION FOR THE OIL INDUSTRY GOES BEYOND THE COMPOSITION OF THE BOARD OF THE NATIONAL OIL COMPANY (PEMEX). THE RECENTLY ENACTED REFORM DREW FROM INTERNATIONAL BEST PRACTICES AND PUT IN PLACE REGULATORY MECHANISMS THAT INCLUDE THE CENTRAL GOVERNMENT AND THREE TECHNICAL BODIES WITH CONSIDERABLE AUTONOMY:

- I) THE ENERGY REGULATION COMMISSION (CRE) EXECUTES OVERSIGHT OF PETROLEUM AND ELECTRICITY UTILITIES IN ORDER TO PROMOTE BETTER PERFORMANCE.
- II) THE NATIONAL COMMISSION FOR HYDROCARBONS (CNH) ALLOCATES PRODUCTION BLOCKS AND MONITORS RESERVES.
- III) THE AGENCY FOR SAFETY, ENERGY AND THE ENVIRONMENT (ASEA) DEALS WITH RISK PREVENTION.

3) ENCOURAGE PRIVATE PRODUCTIVE INVESTMENT

UNTIL RECENTLY, THE BASIC MODEL IN MEXICO REGARDING OIL AND GAS CONSISTED OF ONE NATIONAL OIL COMPANY AND ONE CENTRAL REGULATOR WITH A VISIBLE ROLE FOR THE MINISTRY OF FINANCE IN THE DEVELOPMENT OF THE PETROLEUM INDUSTRY.

SINCE 2014 A NEW APPROACH HAS BEEN TAKING SHAPE: THE NATIONAL OIL COMPANY (PEMEX) CAN NOW CREATE JOINT VENTURES, TEAMING UP WITH DOMESTIC AND INTERNATIONAL OIL FIRMS AND EVEN ENTERING FARMOUTS SUCH AS THE ONE ANNOUNCED WITH AUSTRALIAN GIANT BHP BILLITON.

GIVEN THE CURRENT AVAILABILITY OF FINANCE IN THE INTERNATIONAL MARKETS, IT MAKES NO SENSE FOR THE MEXICAN GOVERNMENT TO RAISE DEBT IN ORDER TO INVEST IN THE OIL AND GAS INDUSTRY. INSTEAD, CLEAR RULES SHOULD ENCOURAGE PRIVATE COMPANIES TO COMPETE ON CONDITIONS OF EQUAL FOOTING AND DEVELOP DEEPWATER RESERVES WITH STATE-OF-THE-ART PROPRIETARY TECHNOLOGY.

SO FAR, COMPREHENSIVE ENERGY-SECTOR REFORM HAS BEEN DELIVERING. IN DECEMBER, THE ALLOCATION OF 11 BLOCKS WAS OVERSUSCRIBED AND INTERNATIONAL COMPANIES SUCH AS ITALIAN ENI MADE COMMITMENTS TO INVEST MORE THAN 70 BILLION DOLLARS.

4) OIL IS AN IMPORTANT PART OF THE ECONOMY, NOT THE ENTIRE ECONOMY

THE MOST IMPORTANT LESSON THAT MEXICO LEARNED IS THAT OIL AND GAS SHOULD BE A VERY IMPORTANT INDUSTRY, BUT IT SHOULD NOT BE ALLOWED TO DISTORT THE ENTIRE ECONOMY IN TIMES OF BOOM OR IN LEAN YEARS. AS OF 2017, MEXICO EXPORTS SOME 400 BILLION U. S. DOLLARS OF GOODS.

CARS AND TRUCKS MAKE UP THE SINGLE LARGEST EXPORT, AMOUNTING TO 30 BILLION DOLLARS A YEAR. GIVEN THE VALUE CHAIN OF THE MOTOR INDUSTRY, MEXICO ALSO IMPORTS LARGE QUANTITIES OF INTERMEDIATE GOODS.

SINCE THE START OF THE OIL BOOM, PETROLEUM EXPORTS HAVE BEEN BETWEEN 5 PERCENT AND 8 PERCENT OF TOTAL EXPORTS. THIS MEANS THAT, IN THE CASE OF MEXICO, THE BULK OF FOREIGN REVENUE COMES FROM OTHER SECTORS.

AGRICULTURE HAS BECOME A MAJOR CURRENCY-EARNER. EVEN AS MEXICO HAS BECOME A LARGE PURCHASER OF GRAIN, EXPORTS OF BOTH FRESH AND FROZEN PRODUCE HAVE PERFORMED WELL. THIS HELPS MEXICO TO KEEP A SUPERAVIT IN THE AGRICULTURE TRADE BALANCE.

THE OUTLOOK FOR 2017 IS THAT EXTERNAL SALES OF MAINLY NON-TRADITIONAL CASH CROPS, SUCH AS BERRIES, AVOCADOS, GARLIC, AND TOMATOES WILL EXCEED 30 BILLION U. S. DOLLARS. SO WHILE A PROFITABLE OIL INDUSTRY IS A SURE BET, PROPER ATTENTION HAS TO BE PAID TO AGRICULTURE AS WELL IN ORDER TO PROMOTE SUSTAINABLE ECONOMIC GROWTH.

THANK YOU VERY MUCH.