

## CUMMINGS ECONOMICS

38 Grafton St (PO Box 2148) CAIRNS Q 4870

ABN 99 734 489 175

Tel 07 4031 2888 Fax 07 4031 1108

Email: [cummings@cummings.net.au](mailto:cummings@cummings.net.au)

Website: [www.cummings.net.au](http://www.cummings.net.au)

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**ppt 1: BEING TROPICAL –  
THE POSITIVES & NEGATIVES FOR REGIONAL DEVELOPMENT**

ADDRESS TO THE ANZRS AI CONFERENCE, CANBERRA  
By W S (Bill) Cummings, 8 December 2011

**2: THE NORTHERN 40% OF AUSTRALIA LIES IN THE TROPICS.**

**THE CAIRNS REGION RANGES FROM ABOUT 10° SOUTH TO 20° SOUTH BEING IN SIMILAR LATITUDES TO A RANGE OF TROPICAL COUNTRIES, INCLUDING MUCH OF SOUTHERN INDIA, CENTRAL AND SOUTH VIETNAM, SOUTHERN MEXICO, JAMAICA AND VARIOUS CARIBBEAN ISLANDS, MADAGASCAR AND FIJI (ALL OF WHICH ARE CLASSED AS UNDER DEVELOPED).**

**3: EUROPEAN SETTLEMENT WAS LATE.**

**SYDNEY WAS ALMOST 100 YEARS OLD WHEN CAIRNS WAS FOUNDED IN 1876.**

**PROGRESS WAS INITIALLY SLOW AND HARD WON.**

**THE MAJOR BACKBONE INDUSTRIES OF SOUTHERN AUSTRALIA'S EARLY SETTLEMENT, WHEAT AND SHEEP DERIVED FROM EUROPE, DID NOT PROSPER IN THE AREA.**

**BRITISH CATTLE BREEDS PUSHED INTO THE AREA DIED IN THEIR THOUSANDS FROM TICK-BORNE REDWATER FEVER IN THE 1890'S.**

**SUGAR CANE PLANTATIONS DEPENDED INITIALLY ON CHEAP IMPORTED PACIFIC ISLAND LABOUR AND AFTER FEDERATION ON PROTECTION OF AN IMPORT EMBARGO.**

**IT WAS NOT UNTIL THE 1960'S AND 1970'S THAT BRAHMAN CATTLE BREEDS WERE EXTENSIVELY INTRODUCED INTO THE CATTLE HERDS AND MECHANISATION OF SUGAR CANE HARVESTING DEVELOPED.**

EVEN IN THE 1930'S, SCIENTIFIC OPINION WAS DIVIDED ABOUT THE ABILITY OF EUROPEANS TO LIVE PRODUCTIVE LIVES IN THE TROPICS.

BY 1947, CAIRNS HAD A POPULATION OF ONLY 16,800, THE REGION 71,000.

- 4: BY THE 1950'S, THE ECONOMIC PICTURE IN TROPICAL AUSTRALIA WAS IN LINE WITH THE OBSERVATION OF ECONOMIST J K GALBRAITH, THEN US AMBASSADOR TO INDIA - (READ).

THE AREA EXHIBITED ONLY A VARIATION OF THE GENERAL LAG IN DEVELOPMENT IN THE TROPICS AROUND THE GLOBE. INSTEAD OF LARGE POPULATION AT LOW LIVING STANDARDS, AS PART OF THE AUSTRALIAN 'COMMON MARKET', PEOPLE IN THE AREA HAD HIGH LIVING STANDARDS, BUT THEY WERE FEW IN NUMBER (4% OF THE AUSTRALIAN POPULATION).

- 5: IT IS IMPORTANT TO RECOGNISE THAT THE RELATIVELY SMALL POPULATION IN THE REGIONS OF THE NORTH WAS NOT DUE TO A POVERTY IN NATURAL RESOURCES.

THE CAIRNS REGION (PENINSULA AUSTRALIA) ACCOUNTS FOR 26% OF ALL AUSTRALIA'S WATER RUN OFF.

THE REGION'S LARGEST RIVER, THE MITCHELL, HAS A WATER RUNOFF JUST BELOW THAT OF THE WHOLE MURRAY DARLING BASIN.

THE CLIMATE AND RAINFALL REGIME OF THE REGION IS VERY DIFFERENT TO THAT OF SOUTHERN AUSTRALIA AND DIFFICULT TO COMPARE.

HOWEVER, SATELLITE TECHNOLOGY IS NOW ENABLING MAPS OF UNDERLYING PLANT GROWTH POTENTIAL TO BE DEVELOPED THROUGH MEASURING THE DEGREE TO WHICH CARBON IS BEING FIXED INTO PLANTS THROUGH PHOTOSYNTHESIS THROUGH A MEASURE CALLED "NETT PRIMARY PRODUCTION – NPP".

- 6: MAP 6 SHOWS THE CAIRNS/FAR NORTH QUEENSLAND REGION COMPARED WITH THE STATE OF VICTORIA AND PENINSULA INDIA.

CLEARLY, THE UNDERLYING PLANT GROWTH POTENTIAL IS ROUGHLY EQUIVALENT TO THAT OF VICTORIA.

SOUTHERN INDIA LIES IN SIMILAR LATITUDES WITH LEVELS AND PATTERNS OF RAINFALL REMARKABLY SIMILAR.

**7:** THESE MAPS SHOW THE CAIRNS REGION AND OTHER REGIONS OF THE NORTH AND OF QUEENSLAND.

**8:** THE INDICATIONS ARE THAT GIVEN THE RIGHT TECHNOLOGY AND INVESTMENT, THE REGION HAS A CAPACITY TO GREATLY EXPAND AGRICULTURAL PRODUCTION OVER TIME.

**9:** MAP 8 SHOWS THE LOCATION OF MINERAL OCCURRENCES IN QUEENSLAND IDENTIFYING THE STRONG CONCENTRATIONS OF COAL MINING AND NOW COAL SEAM GAS IN THE CENTRAL QUEENSLAND AREA AND BASE METALS IN THE MT ISA AND NORTH WEST REGION.

FROM THE MAP, IT IS OBVIOUS THAT THE THIRD LARGEST CONCENTRATION IS IN THE AREA WEST OF CAIRNS, SOMETIMES REFERRED TO AS THE NORTH EAST MINERAL PROVINCE.

IN ADDITION, ARE COAL AND POTENTIALLY COAL SEAM GAS DEPOSITS IN THE COOKTOWN DISTRICT, WORLD CLASS SILICA SAND DEPOSITS AT CAPE FLATTERY AND WORLD CLASS BAUXITE AND KAOLIN DEPOSITS IN THE WEIPA AREA.

**10&11:** FINALLY, NATURAL TOURISM RESOURCES HAVE BECOME IMPORTANT AND THE REGION HAS A WIDELY RECOGNISED WORLD CLASS CONCENTRATION AND QUALITY OF NATURAL TOURISM RESOURCES IN A RELATIVELY SMALL AREA BASED ESPECIALLY ON THE GREAT BARRIER REEF AND THE WET TROPICS RAINFORESTS (SEE MAPS 9 & 10).

**12:** TO UNDERSTAND THE REGIONS OF THE NORTH, IT IS ALSO IMPORTANT TO RECOGNISE THAT ALTHOUGH POPULATIONS ARE COMPARATIVELY SMALL, REALITIES OF AREAS AND DISTANCES RESULT IN A SERIES OF MAJOR REGIONS UP THE COAST OF QUEENSLAND AND ACROSS THE NORTH BASED ON THE REGIONAL CITIES OF ROCKHAMPTON, MACKAY, TOWNSVILLE, CAIRNS AND DARWIN.

**13:** IT IS IMPORTANT TO RECOGNISE THE SCALE OF THESE REGIONS.

IN DEPTH, THE CAIRNS REGION COVERS HALF THE LATITUDES OF QUEENSLAND AND IS AS DEEP AS THE STATE OF NEW SOUTH WALES.

**IN AREA, IT IS 1½ TIMES THE SIZE OF VICTORIA, LARGER THAN THE BRITISH ISLES AND IS ABOUT THE SIZE OF CALIFORNIA.**

**THE COASTLINE FROM CARDWELL TO CAPE YORK AND AROUND TO THE NORTHERN TERRITORY BORDER IS THE EQUIVALENT IN LENGTH TO THE COASTLINE FROM BRISBANE AROUND TO ADELAIDE.**

**MARINE RESOURCES ALONG THE EAST COAST, GREAT BARRIER REEF AREA, THE TORRES STRAIT AND GULF OF CARPENTARIA ARE SUBSTANTIAL AND VARIED.**

**14: TO UNDERSTAND THE REASONS FOR AND THE PATTERN OF GROWTH IN THE REGION, IT IS IMPORTANT TO RECOGNISE THAT THESE REGIONS, ESPECIALLY THOSE IN THE FAR NORTH, HAVE BEEN, AND IN MANY RESPECTS STILL ARE, PART OF A FRONTIER ECONOMY WHOSE RESOURCE BASE IS STILL LARGELY UNDERDEVELOPED.**

**THE CAIRNS REGION, ALTHOUGH NOW THE LARGEST IN THE NORTH IN POPULATION, STILL HAS ONLY A RELATIVELY SMALL POPULATION OF 300,000 IN AN AREA 1½ TIMES THE SIZE OF VICTORIA.**

**15: LIKE OTHER REGIONS IN THE NORTH, IT IS WELL OFF CENTRE FROM MAJOR AUSTRALIAN MARKETS. APART FROM RESOURCE BASED PROCESSING, OR IN VERY LIMITED AREAS WHERE SPECIAL SKILLS HAVE BEEN DEVELOPED, MANUFACTURING FOR A NATIONAL MARKET HAS BEEN OUT OF THE QUESTION.**

**16: HOWEVER, A NUMBER OF MAJOR UNDERLYING FACTORS HAVE BEEN FAVOURABLE TO THE DEVELOPMENT OF THE REGION'S PREVIOUSLY UNDERDEVELOPED NATURAL RESOURCE BASE OF PLANT GROWTH POTENTIAL, MARINE, MINERAL, AND NATURAL TOURISM RESOURCES.**

**17: THE FIRST HAS BEEN THE EXPANDING GLOBAL ECONOMY REACHING OUT FOR PREVIOUSLY UNDERDEVELOPED RESOURCES.**

**IMPORTANTLY, TROPICAL AUSTRALIA IS RELATIVELY CLOSE TO THE GREAT GROWTH AREAS IN NORTH EASTERN ASIA, FIRST OF JAPAN, SOUTH KOREA AND TAIWAN, BUT NOW OF CHINA.**

**18: THESE ECONOMIES HAVE BEEN GOING THROUGH GROWTH CYCLES OF DEMAND:**

- **MINERALS, ENERGY, BASIC AGRICULTURAL COMMODITIES.**
- **HIGHER VALUE PROTEIN AGRICULTURAL COMMODITIES.**
- **TOURISM.**

**19: THE SECOND CRITICAL FACTOR HAS BEEN TRANSPORT & COMMUNICATION DEVELOPMENTS THAT HAVE BROKEN DOWN THE COST BARRIERS OF REMOTENESS FROM MAJOR MARKETS IN AUSTRALIA AND IN OTHER PARTS OF THE GLOBE.**

**THE ADVENT OF BULK CARRIERS HAS REVOLUTIONISED THE TRANSPORT OF MINERALS AND BULK AGRICULTURAL COMMODITIES.**

**IMPROVED ROAD AND ROAD TRANSPORT VEHICLES HAVE LED TO THE OPENING UP OF MARKETS IN SOUTHERN AUSTRALIA THAT TAP INTO THE REGION'S SUPERIOR ABILITY TO PRODUCE TROPICAL FRUITS AND VEGETABLES.**

**ROAD IMPROVEMENTS AND ROAD TRAINS HAVE CHANGED CONDITIONS FOR THE LONG DISTANCE TRANSPORT OF CATTLE.**

**LARGE WIDE BODIED JETS HAVE TRANSFORMED TOURISM.**

**20: THIRDLY, TECHNOLOGY HAS BEEN DEVELOPED MORE SUITED TO THE REGION, NOT JUST IN PLANT AND ANIMAL BREEDS, BUT IN BEING ABLE TO TRANSPORT VISITORS TO THE REEF SAFELY AND TO EXPLORE THE REEF'S UNDERWATER BEAUTY.**

**TECHNOLOGY HAS ALSO BEEN DEVELOPED AFFECTING EVERY DAY LIVING LIKE AIR-CONDITIONING, WEATHER FORECASTING, JET SPRAYS, SUPERIOR INSECTICIDES AND DETERGENTS. VERY IMPORTANTLY, TROPICAL HEALTH THREATS LIKE MALARIA HAVE BEEN BROUGHT UNDER CONTROL.**

**21: AND FINALLY, SUCCESS HAS BROUGHT SUCCESS, WITH BUILD UP OF POPULATION, INFRASTRUCTURE AND SPECIALIST SERVICES IN FIELDS LIKE EDUCATION, HEALTH, SPORTS AND THE ARTS MAKING THE AREA A MORE ATTRACTIVE PLACE TO LIVE AND IN THE PROCESS LEADING TO A REDUCTION IN THE COST OF PRODUCTION.**

**IMPORTANTLY, THIS PROCESS HAS ALSO BEEN GOING ON IN SURROUNDING REGIONS LEADING TO THE DEVELOPMENT OF LARGER MARKET OPPORTUNITIES.**

**22: WHILE THE FOREGOING FACTORS ARE MAINLY POSITIVE TO THE REGION, THERE HAVE BEEN NEGATIVE SIDE EFFECTS.**

**FALLING TRANSPORT COSTS AND IMPROVING COMMUNICATIONS ALSO HAVE NEGATIVE EFFECTS OF MAKING IT CHEAPER TO DELIVER IMPORTED GOODS AND SERVICES INTO THE NORTH'S REGIONS FROM LARGER LOWER COST PRODUCERS IN LARGER CENTRES CAUSING DAMAGE TO INDUSTRIES AND BUSINESSES FORMERLY SHELTERED BY TRANSPORT AND COMMUNICATION COSTS. OBVIOUS CASUALTIES IN THE CAIRNS/FAR NORTH REGION HAVE BEEN THE BREWERY AND CLAY BRICK WORKS.**

**IN FACT, REGIONS THAT ARE NOT EXPANDING THEIR 'OUTSIDE INCOME' WILL SOON SEE THIS FACTOR RESULT IN A DECLINE IN THEIR SERVICE TOWNS, SUCH HAS OCCURRED IN MANY AGRICULTURAL AREAS OF SOUTHERN AUSTRALIA, BUT ALSO EVIDENT IN THE PREVIOUSLY INTENSIVELY DEVELOPED SHEEP AREAS OF WESTERN QUEENSLAND.**

**23: THE OTHER MAJOR NEGATIVE FACTORS HAVE RELATED TO INCREASING IMPACTS OF ENVIRONMENTAL PROTECTION AND THE COMPLICATIONS OF NATIVE TITLE.**

**THE REGIONS, ESPECIALLY IN THE FAR NORTH, HAVE A LARGE INDIGENOUS POPULATION. THEY ALSO HAVE LARGE AREAS OF PREVIOUSLY UNDERDEVELOPED POTENTIAL AGRICULTURAL LANDS AND AREAS LIKE THE RAINFORESTS AND REEF OF SPECIAL SIGNIFICANCE AND TOURISM VALUE.**

**THE REGION HAS BECOME A MAJOR TARGET OF NATIONAL AND INTERNATIONAL ENVIRONMENTAL LOBBIES NEGATIVE TO DEVELOPMENT OF THE REGION'S RESOURCE BASE – NEGATIVE FACTORS THAT WERE NOT AROUND WHEN EQUIVALENT DEVELOPMENT TOOK PLACE IN SOUTHERN AUSTRALIA.**

**24: HOWEVER, DESPITE THESE NEGATIVES, UNDER THE INFLUENCES OF THE POSITIVES, THE REGION HAS BEEN ABLE TO EXPAND ITS OUTSIDE EARNINGS DRAMATICALLY SINCE THE PAST FIVE DECADES.**

**IN 1957, SUGAR ACCOUNTED FOR ABOUT 60 – 70% OF THE REGION'S BASE INDUSTRIES EARNING INCOME FROM OUTSIDE THE REGION.**

**IT HAS HELD ON TO AND EXPANDED THE SUGAR INDUSTRY.**

**AGRICULTURE HAS BEEN A GROWTH SECTOR AND OTHER AGRICULTURE, ESPECIALLY EXPANSION OF TROPICAL FRUIT PRODUCTION, HAS GROWN TO EXCEED SUGAR TWO-FOLD.**

**FISHERIES EXPANDED BUT PLATEAUED.**

**MINING EXPERIENCED UPS AND DOWNS BUT IS NOW ON THE WAY UP AGAIN.**

**TOURISM, BECAME A MAJOR GROWTH SECTOR.**

**25: NORTH BOUND SHIPPING TRADE IS NOW WORTH OVER \$800M.**

**26: MINING IN THE WIDER REGION OF NORTHERN AUSTRALIA, PNG AND PAPUA INDONESIA IS NOW WORTH OVER \$40 BN AND THERE ARE NOW FLY-IN SERVICES TO ABOUT 16 MINING RELATED CENTRES.**

**27: TWO TYPICAL 'PORTER' CLUSTERS HAVE DEVELOPED IN MARINE SERVICES INCLUDING THE NORTH EAST NAVAL BASE WORTH ABOUT \$800M A YEAR AND AVIATION SERVICING WORTH ABOUT \$3 TO \$400M A YEAR.**

**28: AGAINST THIS BACKGROUND, IT IS NOT SURPRISING THAT THE REGION'S POPULATION HAS GROWN TO BE APPROACHING 300,000.**

**CAIRNS ITSELF IS NOW AT OVER 150,000 AND PASSED 7 OTHER REGIONAL CITIES IN SIZE SINCE 1976.**

**29: SO WHAT ARE THE MAJOR LESSONS FROM THE FOREGOING ABOUT THE POSITIVES AND NEGATIVES OF BEING IN THE TROPICS IN AUSTRALIA.**

**THE POSITIVES:**

**THE AREA WAS HISTORICALLY UNDER DEVELOPED IN RELATION TO ITS RESOURCE BASE.**

**IT IS STILL GOING THROUGH A STRONG RESOURCE DEVELOPMENT PHASE NOT JUST IN MINING, BUT AGRICULTURE AND TOURISM.**

- 30:** THAT RESOURCE DEVELOPMENT PHASE INCLUDES THE INDONESIA PACIFIC TO THE NEAR NORTH GIVING MAJOR NEW OPPORTUNITIES TO THE REGION'S SERVICING CITIES AS MARKETS GROW AND NEW TRANSPORT LINKS INTEGRATE THE PREVIOUS FRAGMENTED ECONOMIES.
- 31:** TRANSPORT AND COMMUNICATION DEVELOPMENTS CONTINUE TO BREAK DOWN THE OLD BARRIERS OF REMOTENESS (PNG EXAMPLE).
- 32:** THE AREA IS CLOSER TO THE GREAT NEW INDUSTRIALISING AREAS IN CHINA AND INDIA.
- 33:** TECHNOLOGY HAS BEEN DEVELOPING MORE SUITED TO THE AREA IN RELATION TO INDUSTRIES (CASSAVA, UPLAND RICE, TROPICAL WHEATS), BUT IN RELATION TO EVERY DAY LIVING. (DENGUE BREAKTHROUGHS.)
- 34:** SUCCESS BREEDS SUCCESS FACTORS HAVE BEEN TURNING THE NORTH'S TROPICAL CITIES FROM BEING ONCE CONSIDERED HARDSHIP POSTINGS TO DESIRED PLACES TO LIVE WITH DEVELOPING UNIVERSITY CAMPUSES, HEALTH, CULTURAL AND SPORTING FACILITIES.
- 35:** IN SUMMARY, THE AREA IS STILL IN A CATCH UP PHASE WITH SOUTHERN AUSTRALIA.
- 36:** THE NEGATIVES  
THE AREA'S HISTORY OF UNDER DEVELOPMENT STILL LEAVES IT WITH A POOR BASIC INFRASTRUCTURE.  
  
MOST OF CAPE YORK IS STILL CUT OFF BY ROAD OVER THE BULK OF THE WET SEASON AND NOT CONNECTED TO THE POWER GRID.  
  
COMPARED WITH ITS POPULATION, UNIVERSITY CAMPUS AND SOME HEALTH SERVICES STILL LAG.
- 37:** DESPITE STRONG POPULATION GROWTH, THE REGIONS REMAIN SMALL AND OFF CENTRE TO MAJOR NATIONAL MARKETS.



**38:** FRAGMENTED NATIONAL BOUNDARIES AT TIMES CAUSE PROBLEMS OF INTEGRATING THE MARKETS OF THE NORTH AND NEAR NORTH, PNG, PACIFIC ISLANDS AND PAPUA INDONESIA.

**39:** THE UNDER DEVELOPED STATUS OF MOST OF THE TROPICAL AREAS AND LACK OF TRANSPORT AND COMMUNICATIONS BETWEEN THEM MEANS THAT THERE IS LITTLE INFLOW OF TECHNOLOGY COMING IN FROM OTHER TROPICAL COUNTRIES.

THE REGION OFTEN HAS TO PIONEER ITS OWN TECHNOLOGY.

THIS HOWEVER, IS PROVIDING AN OPPORTUNITY FOR LEADERSHIP IN THE TROPICS AND ENHANCING THE CROSS FLOWS AROUND THE TROPICS.

**40:** THERE ARE STILL REAL PROBLEMS OF ADAPTATION WITH CYCLONES.

WE HAVE GOT TO A POINT WHERE NO LOSS OF LIFE IS OCCURRING AND NEW BUILDINGS ARE ABLE TO WITHSTAND VERY STRONG CYCLONES, BUT ESPECIALLY WITH OLDER BUILDINGS, SUBSTANTIAL DAMAGE TAKES PLACE.

**41:** A RELATIVELY LARGE PROPORTION OF THE POPULATION ARE INDIGENOUS AND FACE SPECIAL CHALLENGES.

**42:** THERE IS A LACK OF APPRECIATION OF THE FACT THAT THE TROPICAL AREAS ARE GENERALLY AT A DIFFERENT STAGE OF DEVELOPMENT AND THE “DON’T TOUCH ANYTHING” ATTITUDE OF MANY FROM OUTSIDE THE AREA, SUPPORTED BY AN EXAGGERATED VIEW OF LEVELS OF TOURISM THAT CAN BE GENERATED BY THE NATURAL ENVIRONMENT, IS IN STRONG CONTRAST TO THE REALITIES OF SOUTHERN AUSTRALIA WHERE LARGE SCALE ENVIRONMENTAL MODIFICATION TOOK PLACE IN THE PAST AS AN ESSENTIAL PART OF ECONOMIC DEVELOPMENT.

**43:** THERE ARE STILL OLD PERCEPTIONS AROUND ABOUT BEING ABLE TO LIVE AND WORK IN THE TROPICS AND HEALTH HAZARDS THAT ARE LARGELY UNFOUNDED.

HOWEVER, NEW ARRIVALS TO THE AREA HAVE TO LEARN TO ADAPT AND HOW TO LIVE IN A TROPICAL ENVIRONMENT, JUST AS PEOPLE FROM TROPICAL AREAS HAVE TO LEARN TO ADAPT TO LIVING IN A COLD CLIMATE.

.ppt **44:** End.