State of the Tropics Project

Presented at the 14th National Rural Health Conference

Professor Sandra Harding
Project Convenor, State of the Tropics
Vice Chancellor and President, James Cook University
James Cook University
Australia’s University for the Tropics

ONE UNIVERSITY – TWO COUNTRIES
THREE TROPICAL CAMPUS

Strategic Intent: Creating a brighter future for life in the tropics worldwide through graduates and discoveries that make a difference.

Strategic Themes:
• Tropical Ecosystems and Environment
• Industries and Economies in the Tropics
• Peoples and Societies in the Tropics
• Tropical Health, Medicine and Biosecurity

1960 University College established as part of The University of Queensland
1970 Gained independence as James Cook University – Australia’s University for the Tropics
1987 Cairns campus established
2003 Singapore campus established
Is life in the Tropics getting better?
The State of the Tropics 2014 Report

• 47 social, economic & environmental indicators (1980+)
• 109 nations (8 straddling) in 8 regions
• Data sourced from UN agencies, World Bank, IUCN, FAO, WHO
• Launched on June 29 by Aung San Suu Kyi
State of the Tropics Report

**Key Elements**

- **Eco-system**
  - Atmosphere
  - Land & water
  - Biodiversity

- **Human System**
  - Society, Health & Education
  - Economy
  - Governance
By 2050 the Tropics will be home to most of the world’s people including two thirds of its children

3.1 billion people in 2015
Tropical Challenges
The Challenges

- 30% live on less than $1.25 per day
- Over 70% of global maternal and child deaths
- 15 million people aged 15-49 living with HIV
- 5 million new cases of tuberculosis every year
- 96% of malaria cases
- 72% of dengue infections
The Challenges

• Neglected Tropical Diseases affect > 1 billion people worldwide
• Double burden of disease (rising Non Communicable Diseases)
• Homicide rate more than double the rest of the world
• Control of corruption, rule of law and regulatory quality are generally poor
The Challenges

- Nearly one third of land became degraded since 1980
- Almost half the tropical population is vulnerable to water stress
- Agricultural productivity growth is slowing
- More species are threatened
- More forests are being lost

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Climate change in the Tropics

- Novel climatic conditions
- Changes in temperature and rainfall beyond past variability
- Vulnerable communities (cyclones, fires, disease)
- Small island developing states are especially vulnerable

The Tropics are expanding
Tropical Opportunities
The Opportunities

• GDP per capita has almost doubled since 1990
• Poverty has declined by 50%
• Public sector debt has declined by two-thirds
• Mean years of schooling has almost doubled since 1980
• Escalating expectations and growing demand for goods and services, including health and education
The Opportunities

• Now around 7 girls for every 10 boys finish high school (3 of 10 in 1950).

• Growing representation by women in parliaments

• With almost 90% penetration, use of mobile technology has leapfrogged fixed lines.

• Faster rate of urbanisation
The Opportunities

• 10.4% of land and 6.1% of territorial waters is protected

• 41% global marine catch (32 million tones) and growing

• 36% of global aquaculture production (22 million tonnes) – globally now a larger source of animal protein than beef
The Opportunities

- ~80% world’s biodiversity
- The world’s most pristine forests
- 54% of the world’s renewable water
Health in the world’s tropical regions
Unique regions: unique issues
Central and Southern Africa

• Highest HIV prevalence in the world although it is declining
• Life expectancy increased by almost 20 years between 1950 and 2010
• The region accounts for 60% of tropical maternal deaths (related to high fertility and HIV prevalence)
• 1 in 9 children die before the age of 5
Unique regions: unique issues
North Africa and Middle East

• Highest maternal mortality rate in the Tropics
• 60% of the population is vulnerable to water stress
• Conflict and displacement are a large contributor to poor health outcomes (Sudan, Chad, Yemen)
Unique regions: unique issues
South Asia

- 90% of the South Asian population is vulnerable to water stress
- 150 million people do not have access to electricity
- Maternal and child mortality has declined rapidly, alongside fertility rates
Unique regions: unique issues
South East Asia

- Poor air and water quality
- Rising income inequality
- Ageing population
- Huge improvements in poverty rates, health and wellbeing
Unique regions: unique issues
Oceania

• Only tropical region where the prevalence of TB has increased
• Pacific economy based on remittances and development aid
• High rates of maternal mortality (particularly PNG)
• Some Pacific nations have obesity rates as high as 70%
Unique regions: unique issues
Central America

• Prevalence of HIV has continued to increase
• Very high homicide rates (Honduras, El Salvador)
• Child mortality declined by 40% since 1990
• Greatest increase in obesity since 1990
Unique regions: unique issues
Caribbean

- Highest incidence of dengue in the world
- Only a small improvement in maternal mortality
- Highest number of physicians per capita in the Tropics
Unique regions: unique issues
South America

- Rapid urbanisation
- Highest life expectancy in the Tropics
- High inequality
- Sustained prevalence of dengue and emerging diseases (Zika)
Wealthier and (not) healthier?

Double burden of disease:
• High rates of infectious disease and under nutrition occurring simultaneously with rising NCDs.
• Heart disease, stroke, cancer, respiratory disease and diabetes.
• NCD related mortality occurs at a younger age in poorer nations.
• Obesity (risk factor) growing 5.5% pa in the tropics (c.f. 3.1% in the rest of the world).
• Issue in Central America, Caribbean and Oceania.
The UN 2030 Agenda & the Tropics

The 2030 Agenda is global in scope but will play out mostly in the Tropics.
The UN 2030 Agenda & the Tropics

Despite significant progress, development has slowed:

- Inequality & poverty
- Poor health & education
- Environmental degradation
- High rates of corruption
- Low R&D capacity
International Day of the Tropics

UN resolution passed on June 14 2016, without dissent. Australia and 74 other nations cosponsored the resolution.
International Day of the Tropics
29 June

Panel discussion at United Nations Headquarters during celebration of inaugural International Day
Next steps

- 2017 - Sustainable Infrastructure in the Tropics Report to be published and launched in June
  - 75% of the infrastructure that will be needed by 2050 does not yet exist (OECD)
  - Report will assess current state, identify gaps and highlight key issues and solutions
  - Transport, energy, communication, waste and sanitation, health, education, human settlements
  - Case studies: Cape York, Singapore, Tanzania, Malaysia and others
  - Balance between social and economic benefits and impacts on environment and culture
  - Complemented by Australia ASEAN Council supported workshops

- 2016-2018 Australia-ASEAN Council workshops
- Thematic report on Health?
- 2020 - State of the Tropics 2020
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