



Water in Resilient Cities & Ecosystems:

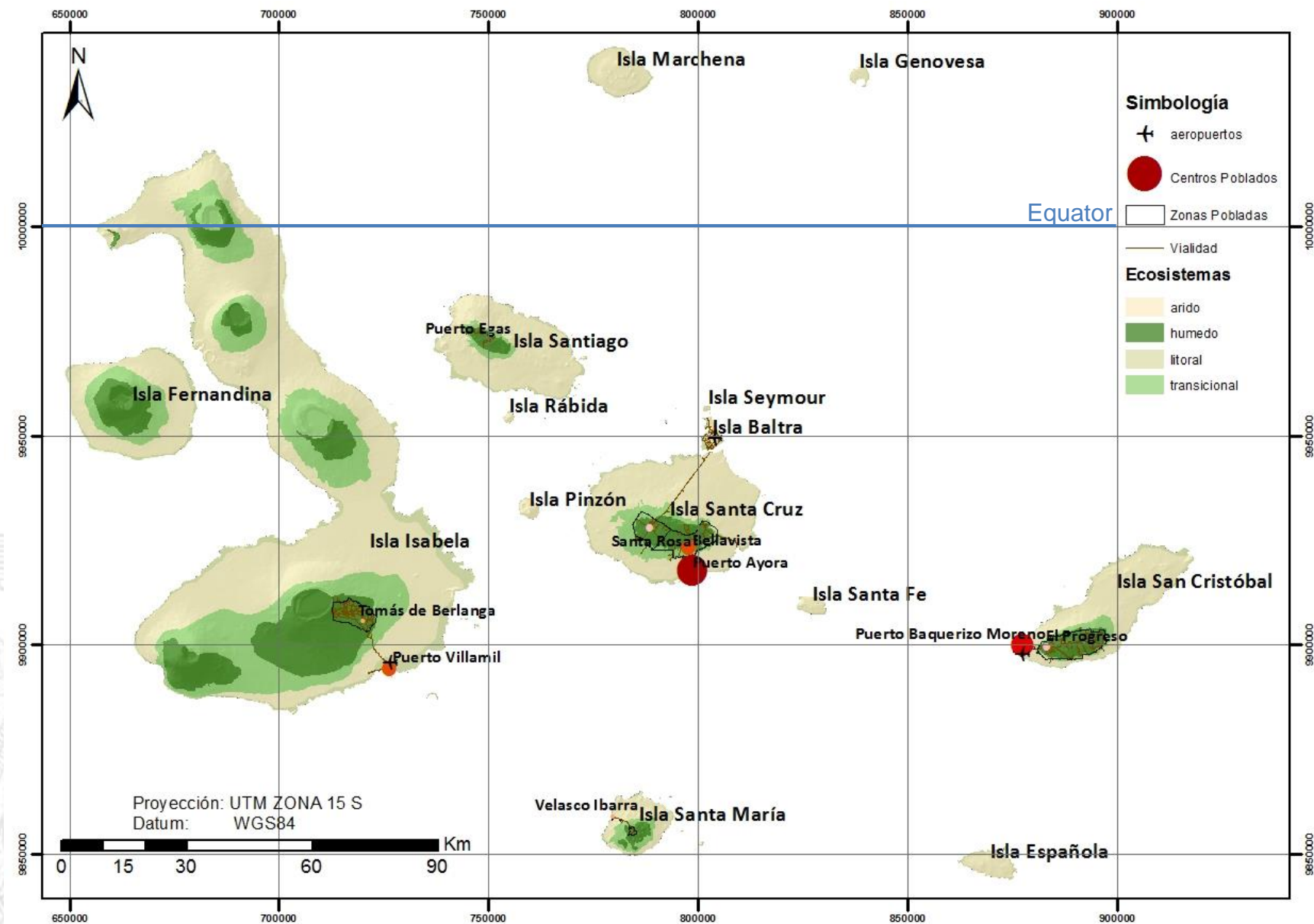
Challenges & Opportunities in the Galapagos

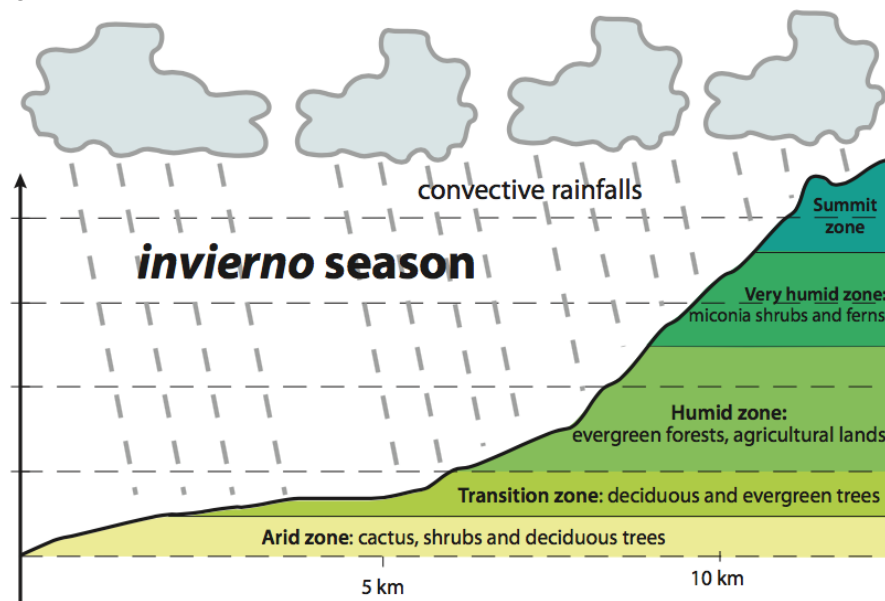
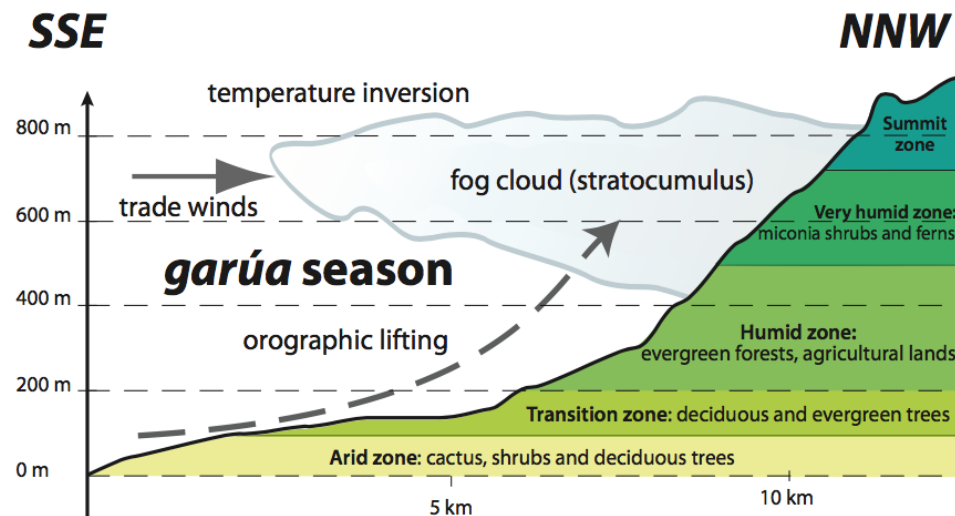
Dr. Norman Wray Reyes
Minister-President Galápagos Government Council

GALAPAGOS SPECIAL REGIME

- ✓ Declared **National Park**, Republic of Ecuador, 1959
- ✓ **1st Natural World Heritage Site**, UNESCO, 1978
- ✓ **Biosphere Reserve**, UNESCO, 1985
- ✓ **Whale Sanctuary**, Republic of Ecuador, 1990
- ✓ **Galapagos Marine Reserve (GMR)**, Republic of Ecuador, 1998
- ✓ **Galapagos Special Law**, Republic of Ecuador, 1998
- ✓ Inclusion of GMR in World Heritage Site, UNESCO, 2001
- ✓ **RAMSAR Site**, UNESCO, 2002
- ✓ **Rights of Nature and Galapagos Special Regime**, Constitution of 2008
- ✓ **New Organic Law for Galapagos**, 2015







COOL SEASON: GARÚA

- June to December
- Strong tradewinds
- Orographic Rainfall
- Inversion layer in highlands

HOT SEASON: INVIERNO

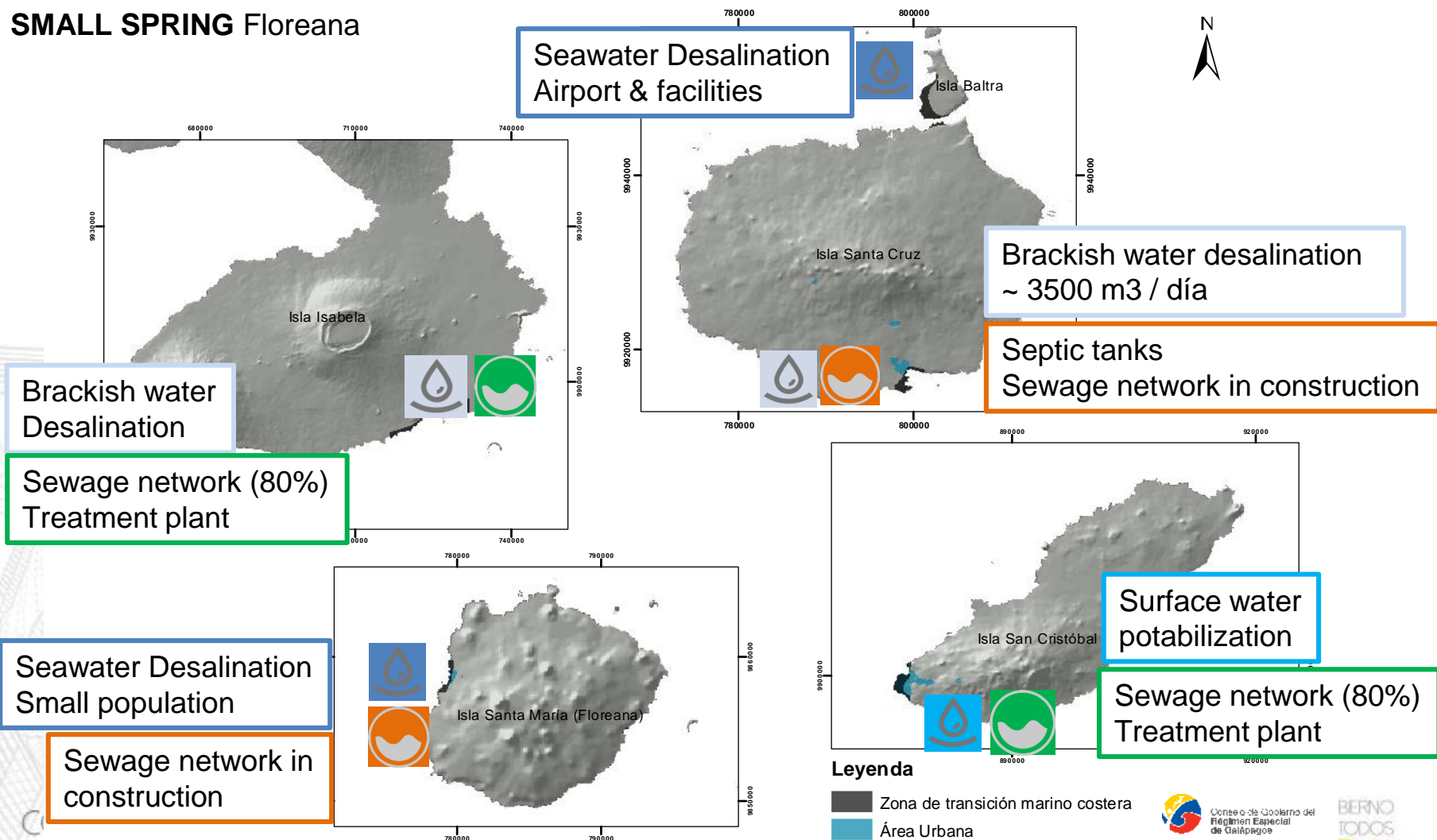
- January to May
- Weakened tradewinds
- Convective Rainfall
- Heightened during El Niño events

WATER & SANITATION

SURFACE WATER ONLY San Cristóbal Island

BRACKISH SUBSURFACE WATER StaCruz & Isabela

SMALL SPRING Floreana



WATER & CLIMATE CHANGE THREATS



GALAPAGOS CHALLENGES & OPPORTUNITIES

Paradigm shift towards circular economy driven nature-based ecotourism measured against wellbeing of community and ecosystems (GCF Galápagos proposal)

- ⇒ Generate incentives & policy to align & integrate productive sectors
- ⇒ Strengthen community-participation & green entrepreneurship.
- ⇒ Higher returns for productive sectors that invest in best water practices.
- ⇒ Integrated watershed management to balance between seasonality, availability & create fund to respond in the face of extreme events.

Increased water demand for urban areas will lead to increase in desalination technology (Centre for Innovation Proposal)

- ⇒ Learn from other island states / regions to integrate water treatment & re-use with renewable energies – closed loop; generates water for productive sectors even in the face of drought.
- ⇒ Foment innovation for water saving technology as well as renewable energy penetration.

A large tortoise, likely a Galapagos tortoise, is shown in a close-up, low-angle shot. It is positioned in a field of tall, green grass. The tortoise's head is extended forward, and it is actively eating a piece of grass. Its shell is dark and textured, with visible scutes. The word "GRACIAS" is overlaid in white, bold, sans-serif capital letters on the left side of the tortoise's shell.

GRACIAS