



HEALTH IN HARMONY
SAVING FORESTS • SAVING LIVES



Saving Rain Forest with a Stethoscope: The Health In Harmony Model

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Inspiration



Gunung
Palung
National
Park,
Borneo
1994

Human & Environmental Health Are Intertwined

- Deforestation → Increased malaria
- Deforestation → Water Scarcity & Floods → Food insecurity
- Bad Health → Deforestation



Yani

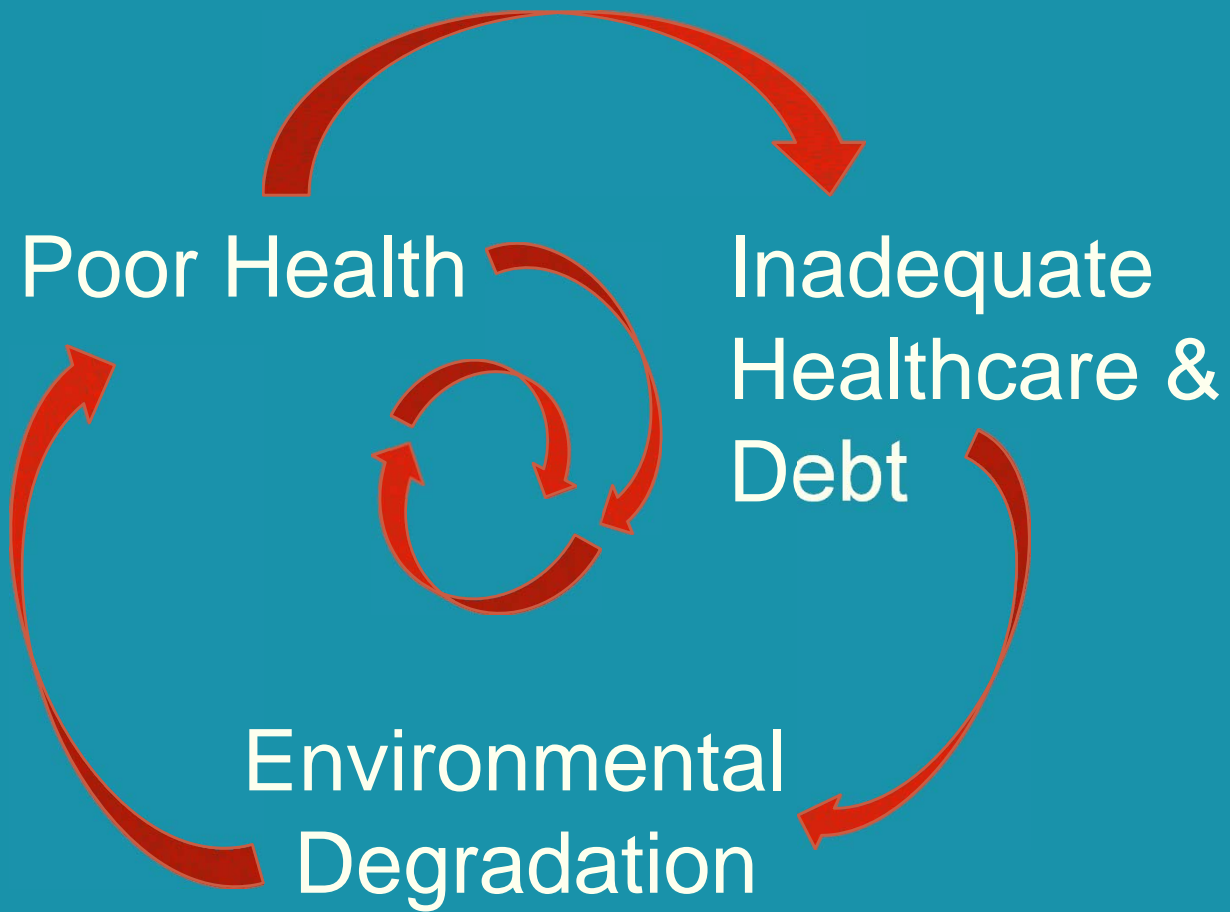


The Destructive Cycle

We surveyed 232 households. Here's what we learned:

- Average household emergency resources (assets + borrowing) = **\$260** (Only **\$163**, for logging households)
- 33% do illegal logging
 - Median *annual* income from logging = **\$326**
- Health care costs are high
 - 13% had a major medical emergency last 3 months
 - Mean cost = **\$360**
- 30% of households are in debt
 - Average debt is more than **\$100**
 - Debt is highly correlated with medical emergencies [$p=.01$]







Reversing the Cycle



Investment in Education

Good Health

Excellent Health
Care & Non-Cash
Payment Options

Decreased
Birth Rate

Decreased Mortality

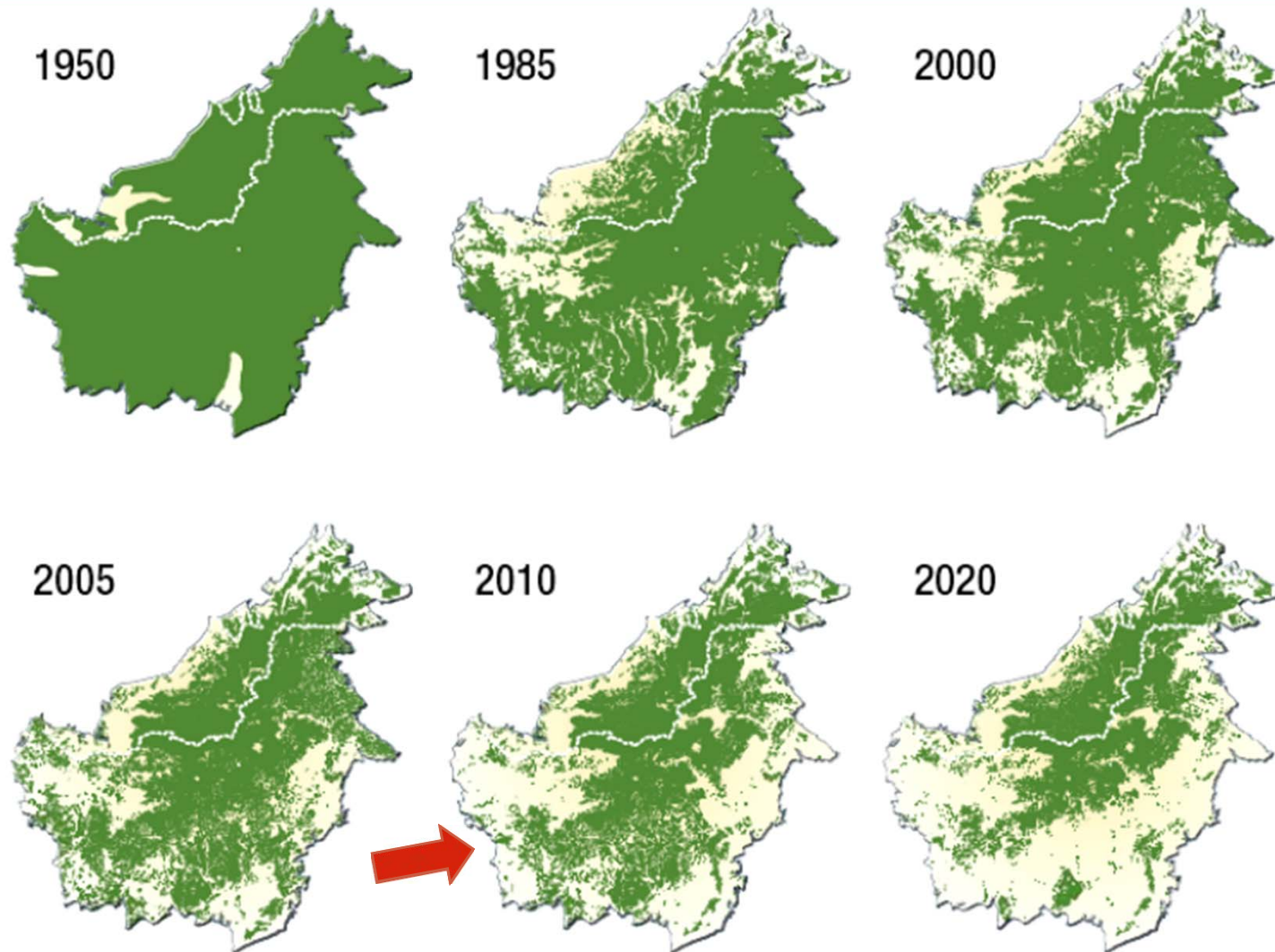
Environmental
Protection and
Restoration



Time is Running Out



Most Critical Conservation Issue on the Planet”





Health Care



- US residents, medical students & nurses
- Mobile clinic, ambulance
- DOTS program for TB
- Eyeglasses/Cataracts
- Mosquito Nets
- Free Birth Control

Founded in July 2007, the **ASRI Clinic** is by now a vital medical resource:

- 25,000 patient visits
- 72 staff members
- Trained over 40 Indonesian doctors, and hundreds of health care providers



Integrating the Environment into Health Care

- Patients can pay with goods & services
- The clinic never denies health care to anyone
- Non-logging villages receive extra discounts



Innovating the “Red-Green” Monitoring System



- **Green** = no illegal logging or burning in the National Park bordering that village
- **Red** = some illegal logging or burning during that month

ASRI staff & forest guardian ground patrols provides *logging data*. Every village is visited every 3 months.

Volunteers



- Health & Conservation
- Learning from each other
- Solving the world's problems together



Community Involvement

If the world was willing to say,
*“Thank you for preserving
the forest”*
— what would you ask for?



- Reliable 4 WD ambulance service
- Mobile clinic visits
- Organic farm training
→ Goats for Widows
- Forest Guardians
- **Hospital**



ASRI's Newest Initiative: Forest Guardians



- 30 villagers
- Developing alternatives to logging
- In one hamlet, 2/3 of the logging teams have stopped logging
- Agroforestry & Organic Farming Solutions
- Funded by the Whitley Fund for Nature Conservation Award

Reforestation



- Integrated with Health Care
- Experimental Design
- Alang-alang grassland –doesn't grow back
- So far planted 25 acres over 2 years.
- Will plant 38,000 seedlings in 15 acres this year.

Challenges

- There is no room for all our patients
- Ambulance serves as an extra treatment room
- No room to expand
- No facility for surgery – the biggest cost in health care



A Dream Close to Realization



The new hospital will serve more people and provide a broader range of medical services, including *x-rays*, *surgery*, and *in-patient care*.

Space for Patients and their Families

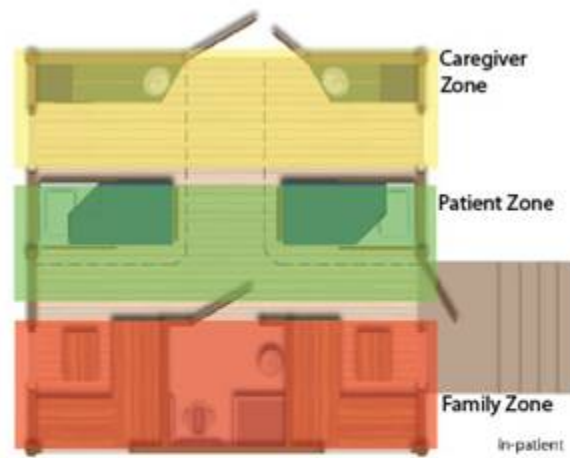
VISION: HEALING

A place for hope and healing

Applicable principles from Evidence-based Design



Healing gardens and views of nature help to create positive distraction, to lower blood pressure and anxiety, to reduce use of pain medication, and to aid to passive cooling.



Operable, louvered windows to increase natural light, with a sense of control

Strategic Sink Placement to reduce infection spread



Handrails in bathrooms to reduce patient falls

Family Zone to improve psychological well-being and to provide sense of control and involvement



Louvered windows and openings help to maximize natural light and views to nature.

elements of evidence-based design

Replicating the Model



- Elements of the Model
 - Listening to Communities!!
 - Health Incentives for moving towards a healthier planet
 - Non-cash payment options
 - Alternative Healthy Incomes
 - First & Developing World Working together



Saving Lives, Saving Rain Forest

www.healthinharmony.org

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Goats for Widows

