

CULTURAL ECOLOGY

1. INTRODUCTION

interactions between human society-culture
& natural environment

industrial high-energy culture

- recent & only for 100-200 years
- centralized food production
- economy of manufactured goods
- poorly adapted to environment

traditional low-energy culture

- economy of hunting & gathering
- basic mode of human existence
for millions of years
- lived within limits of environment

80 billion since humans evolved

- 90% hunters & gatherers
- 6% farming
- 4% industrial

years (bp)	population	% h-g
10,000	10 million	100
500	350 million	1
100	3 billion	0.001
today	6+ billion	0.000...

2. HUNTERS & GATHERERS

lifespan - medium

diet - high carbohydrates, low lipids
- healthy & varied

work - 12-19 hours per week

sex roles - equal, meat vs. plants

population - low density, 1-125/sq mi
nomadic - seasonal food supplies

swidden agriculture - slash-burn

acculturation - most resisted

- disease, malnutrition, displaced,
missionaries, slavery, overpop.

3. CONTROL OF FERTILITY

culture - adaptation to limit yr-round sexuality & to control fertility

sex taboos - rules against sex
- exogamy prevents incest

breast-feeding - delays ovulation

endemic warfare - *like gang war*
- killed only a few males
- led to redistribution of population

cannibalism - ritual, rarely for food

infanticide - mostly killed baby girls
- females control population size

4. INDUSTRIAL CULTURE

overpopulation - now over 6 billion
- incr ~200k/day, double ~40 yrs

famine - est. 25% undernourished
- inadequate distribution of food

resource depletion
- minerals, nonrenewable energy

decreased biodiversity
- species extinction, loss of habitat

pollution - solid waste, sewage, acid rain
- smog, chemical & nuclear wastes
- global warming, ozone depletion

5. DEMOGRAPHIC TRANSITION HYPOTHESIS

stage	birth	+	death	>	population growth
1	high	+	high	>	low hunter-gather.
2	high	+	low	>	high begin. industr.
3	low	+	low	>	low adv. industr.

advanced industrialized regions
- w. Europe, Japan, US-Canada
- 100 yrs ago stage 2, emigrated
- now stage 3, low growth ~0.1%

beginning industrialized regions

- Latin America, Africa, Asia
- now stage 2, high growth ~1.8%
- not certain if advance to stage 3