

Environment and War

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Environment and War

- ◆ Relationship between the environment and war
 - Cause
 - Direct impact
 - Longer-term impact
- ◆ Policy implications
- ◆ Research questions

Classic nation-state wars and
Current conflicts

Environment and War

- ◆ Complex Humanitarian Emergencies
 - Majority of current conflicts
 - ◆ 40/52 intra or interstate conflicts in 2000 are communally based
 - Key features
 - ◆ Failed states, non-state actors
 - ◆ Mass migration and regional destabilization
 - 34.5 million refugees and IDPs by end of 2000
 - ◆ Direct targeting of civilians, human rights abuses
 - ◆ Increasingly criminalized

Not including war in Iraq, which began as nation-state war and quickly collapsed into an occupation battling an insurgency

These conflicts are called complex because they usually have a mixture of conflict and disaster, often chronic disaster, and often these chronic disasters are based in environmental issues—drought, famine—and a very ugly political animus against stigmatized ethnicities within the society

These are wars against people—but they are often about other things as well—and here the issue of environmental resource constraints and fights over access to the few goods that the society can lay claim to become very relevant

These are wars among and within poor countries, primarily

Environment and War

- ◆ Underlying conditions
 - Poverty
 - Arms availability
 - Communal tensions
 - Chronic state failure

Prevailing views on underlying conditions that lead to these current wars

Underlying conditions for classic nation-state wars very complex topic, not addressed here—and generally speaking environmental issues are recognized as factors—in sweeping great power assessments such as Russia's need for warm water ports, Japan's need for sources of oil and other raw materials, the quest of imperial states for colonies, power, markets, economic gain from extraction of minerals and agricultural production—so it is not as if the environment, broadly speaking, is not relevant to discussions of nation-state wars—it's just that the topic is vast and laced with many other, mainly political, considerations

Poverty here means development failure and environmental degradation—not simply talking about per capita income or GDP

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- ◆ Precipitating factors
 - Shifts in dynamics of group relations
 - Rise of malignant leadership
 - Acute state failure
 - Possibly severe disaster

Prevailing views on what causes these CHEs to break out at any given time

Environment and War

- ◆ Underlying conditions
 - Focus here on those that relate to environment
 - ◆ Poverty
 - ◆ Arms availability

Again—poverty seen as failures in economic development and/or degradation of the environment

And arms availability arising from development failures, criminalization of the economy, influence of international trade in small arms

Environment and War

- ◆ Underlying conditions

- Poverty

- ◆ Development failure and environmental degradation
 - ◆ Population growth
 - ◆ Intensifying pressure on scarce resources
 - ◆ Many instances world-wide
 - ◆ Systematic investigation to date (Homer-Dixon) suggests linkage is not tight

Indonesia—forest depletion

India—population pressures, water

China—water scarcity, arable land

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- ◆ Underlying conditions, continued
 - Poverty
 - ◆ Dealt with by state capacity
 - ◆ Becomes an issue when states fail

State capacity to deal with elite competition and balance trade-offs

Ingenuity at state level to negotiate pressures for de-centralization or sharing of power and potential rise in urban civil violence

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- ◆ Underlying conditions, continued
 - Arms availability
 - ◆ Definition of small arms
 - ◆ Numbers in circulation
 - ◆ Markets
 - ◆ Major producers and exporters

Definition of small arms: any weapon portable and usable by one to three persons (a.p.landmines included)

Numbers in circulation: 500 million military-style arms in circulation (one for every 12 persons)

Markets: Legal market \$3-6 billion per year

Illegal market \$2-10 billion per year

Major producers and exporters: China, Russia, U.S.

Environment and War

- ◆ Underlying conditions, continued
 - Arms availability

 - ◆ Role in current wars
 - **Main weapons in 46 of 49 conflicts assessed in 1990s**
 - **Casualties: 300,000 deaths/yr from wounds caused by small arms in conflict**
 - **Casualties: 200,000 deaths/yr in peacetime**

Exceptions are Gulf War, Ethiopia-Eritrea, Kosovo/NATO (which are all classic nation state wars)

Environment and War

- ◆ Underlying conditions, continued
 - Arms availability
 - ◆ Human security implications
 - **Vicious cycles of brutality**
 - **Secondary impacts from fear and violence**
 - **Threats and Opportunity Costs**

Cycles of brutality—new technologies distort tradition conflict modes

Secondary impacts: forced migration, collapse of livelihoods

Threats to relief workers, refugees, IDPs; targeting, militarization

Environment and War

- ◆ Underlying conditions: Darfur
 - Underlying conditions
 - ◆ Poverty
 - ◆ Arms
 - Precipitating factors
 - ◆ Shift in group dynamics
 - ◆ Malignant leadership

Underlying conditions

Drought, desertification, population growth

Intensifying pressure on land, water, grazing rights

Massive infusion of small arms in last 10 years

Precipitating factors

Political settlement of north-south civil war

Intensifying sense of alienation from center on part of western (Darfurian) tribal leaders

Malignant manipulation of ethnicity

Environment and War

- ◆ Direct impact of means and methods of war
 - Major impact in classic nation-state wars
 - ◆ Nuclear weapons production and testing
 - ◆ Aerial bombardment
 - ◆ Land mines and UXO
 - ◆ Despoliation, defoliation, and toxic pollution

Discussed in reading, will not go into details here

You may need to become more familiar with nuclear weapons issues if tensions with North Korea and Iran continue to escalate

We are not finished with these threats, despite the lull in the 1990s

Aerial bombardment of significant environmental impact requires massive industrialized military capacity with large air force and munitions production facilities

Similarly—for widespread soiling and devastation of the environment—need massive chemical spreads—as in Vietnam from the air or in the Gulf War from oil spills—environmental terrorism

Within reach of current non-state actors, if we include terrorists in that category

Environment and War

- ◆ Direct impact of means and methods of war, continued
 - Major impact in CHEs
 - ◆ Landmines and UXO
 - ◆ Scorched earth tactics
 - ◆ [perhaps] refugee and IDP settlements

Refugees—deforestation, pollution and pressure on scant water sources, dropping of water table, massive influx of paper and plastic from humanitarian aid

Very evident in Tanzania and DRC, from Rwanda conflict; and in Chad now from Darfurian conflict

Environment and War

- ◆ Direct impact of means and methods of war, continued
 - Vulnerable ecological systems
 - ◆ Coral reefs
 - ◆ Islands
 - ◆ Deserts
 - ◆ Endangered habitats
 - Paradoxical protection
 - ◆ War zones, NW production areas

Desert tracks from 60 years ago—disruption of grasses and sand—in North Africa from WW 2

Predations of Pacific war—WW 2

Note abundance of animal species in SE Asia after VN war; rumors of such in Chad and Central African Republic (fleeing Darfur war); virtual wildlife refuge around Rocky Flats NW facility in Colorado

Environment and War

- ◆ Longer-term impact
 - Immediate needs “post-conflict”
 - ◆ Establish cease-fire
 - ◆ Restore security
 - ◆ Short-time frame in which to do this

Constraints on post-conflict stabilization: Key elements of immediate post-conflict setting

- Formal or informal cease-fire in place
- Cessation of open fighting
- Before disarming or demobilizing local populations
- Before legitimate local institutions established
- Evidence of local leadership emerging
- High potential for return to violence
- Time for action very short

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- ◆ Longer-term impact
 - Major stabilization imperatives
 - ◆ Return home
 - ◆ Re-establish community
 - ◆ Restore hope in the future

Return home: refugee return, resettlement, abatement of in-region migration, tracing, demobilize

Re-establish community: foster inclusion, emphasize egalitarian distribution, introduce essential services

Restore hope in the future: increase levels of safety, introduce administrative accountability, build infrastructure, accentuate education

Environment and War

- ◆ Longer-term impact
 - Major environmental problems
 - ◆ Infestation of landmines and UXO
 - ◆ Destruction of housing stock
 - ◆ Destruction of transport
 - ◆ Destruction of water and utility grids

Environment and War

- ◆ Longer-term impact
 - Example of Kosovo
 - ◆ Expulsion and return
 - ◆ International effort at rebuilding
 - ◆ Housing and property rights

Mass expulsion of 800,000, internal displacement of ? 500,000
10,000 Kosovar Albanians killed, 1,500 Serbian civilians, 5,000
Serbian military and police

75% of housing stock major damage or destroyed

Massive destruction of transport and utilities

Thousands of landmines and UXO

Key inputs from international community and diaspora: security
force (KFOR), rebuilding infrastructure (roads, bridges, utilities),
rebuilding housing

Key outstanding issues: Property rights. Legal and regulatory
framework, Economic viability

Ultimate political status

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- ◆ Longer-term impact
 - Example of Afghanistan
 - ◆ Prolonged war, drought
 - ◆ Extensive destruction and landmines
 - ◆ International efforts need to focus on security, return, restoration

23 years of war, >4 years of severe drought, 4 million refugees, 2 million IDPs

1-2 million killed, Millions of landmines and UXO, only 1/3 of country surveyed (priority areas)

Terrible health indices

Restoration of security paramount

Short window of opportunity

Priority emergency efforts: food security, drought assessment

Priority reconstruction efforts: infrastructure, water and sanitation, de-mining, livelihoods approach (poppy cultivation?), restoration of cash economy, emergency health care initiatives

Afghanistan



Afghanistan



Afghanistan



Environment and War

- ◆ Policy implications in CHEs
 - Post-conflict settings especially prone to tensions relating to the environment
 - ◆ State is weak
 - ◆ Human security not established
 - ◆ International community needs to act quickly to moderate these tensions

Community tensions around resource issues may be more likely to flare and fan out of control in post-conflict setting

Post-conflict cycles of human insecurity are feared to ensue unless strategies to address environmental degradation and development failures are embedded in emergency aid and reconstruction

Environment and War

- ◆ General Preventive Measures
 - Promote existing international law on war and the environment
 - Impose sanctions
 - Designate fragile areas in advance
 - Ban weapons of mass destruction
 - Establish international environmental database and crisis management system

Geneva Protocol on Chemical Weapons 1925

Biological Weapons Convention 1972

Two Protocols to the Geneva Conventions
1977

Convention on the Production of Military and
Any Other Hostile Use of Environmental
Modification Technologies (the En-Mod
Convention 1977

Convention on Excessively Injurious Weapons
1981

Sanctions against infliction of environmental damage during war

Prior designation of proscribed and protected areas

Environment and War

- ◆ Research questions
 - Role of forced migration
 - Relationship between demography and environment
 - Role of urbanization
 - Empirical assessments in current post-conflict settings
 - Baseline vulnerability assessments of fragile ecosystems

As mediating variable for environmental degradation and development failures contributing to war

Migration across national borders arising from political causes or severe economic hardship

Projected to be major factor in state stability world-wide

Can be seen as collapse in human security (home)

Empirical assessment of impact on post-conflict settings

Prospectively follow Afghanistan, Angola, Rwanda, Mozambique (and Palestine)

Historical analysis of relative contribution of these factors to post-conflict instability—Angola 1992-2002, Rwanda 1959-1994, Somalia ongoing

Insufficient information about effects of war on natural ecosystems