




**USAID**  
FROM THE AMERICAN PEOPLE

# **Session 2: Environmental Compliance for Environmentally Sound Design and Management**



# Session Objectives

- Define “environment”
- Give at least two examples of how the environment affects development needs & USAID programming, and how development affects the environment
- State the origins of and statutory/regulatory basis for USAID’s environmental procedures
- State the key compliance requirements established by the procedures over life-of-project
- State at least two reasons why USAID’s environmental compliance procedures are necessary



# Environment – the Big Picture

## What is Environment?

*Webster's defines it as "The totality of circumstances surrounding an organism or group of organisms, especially:*

- The complex of **physical, chemical, and biotic factors** (e.g. climate, soil, and living things) that affect and influence the growth, development, and survival of an organism or an ecological community
- The complex of **social and cultural conditions** affecting the nature of an individual or community.



# Question:



*What are some “big-picture” environmental trends affecting human health and livelihoods globally?*

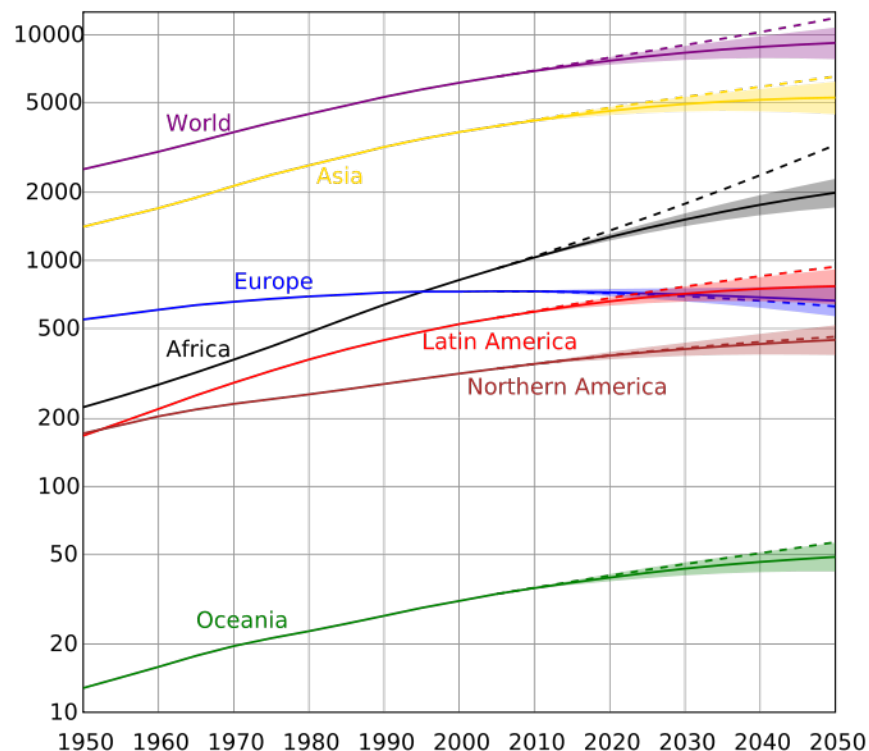
# Population growth

## UN Population estimates:\*

	Today	2050	% change
World	6.9bn	9.15bn	+32%
Africa	1.02 bn	2.19 bn	+114.7%
Asia	4.16bn	5.14bn	+23.6%
M. East	200 mn	372.9 mn	+86.3%
LAC**	590 mn	751 mn	+27.3%
Less-Developed Regions	5.7bn	7.9bn	+40%
LDCs	863mn	1.74bn	+102%

\* All data: "medium variant" projection.  
UN Population Division <http://esa.un.org/unpp>

\*\*LAC: Latin America and the Caribbean



**Increasing Population in developing areas**

**LEADS TO**

**Increased demands for water, land, fish & timber, energy, infrastructure & social services. Increased waste production.**

# Urbanization

## UN Population estimates:\*

	Urban pop as % of total		% change in total urban population
	Today	2050	
World	48.6%	69.6%	+89%
Africa	40.5%	56%	+198%
Asia	42.3 %	66.1%	+93%
M. East	79%	84%	+97.4%
LAC**	79.5%	86.3%	+38.2%
Less-Developed Regions	45.3%	67%	+107%
LDCs	29.4%	55.5%	+280%

\* UN Population Division  
<http://esa.un.org/unup/index.asp>

\*\*LAC: Latin America and the Caribbean



**Urban population will grow more than 2X as fast as rural population for the foreseeable future**

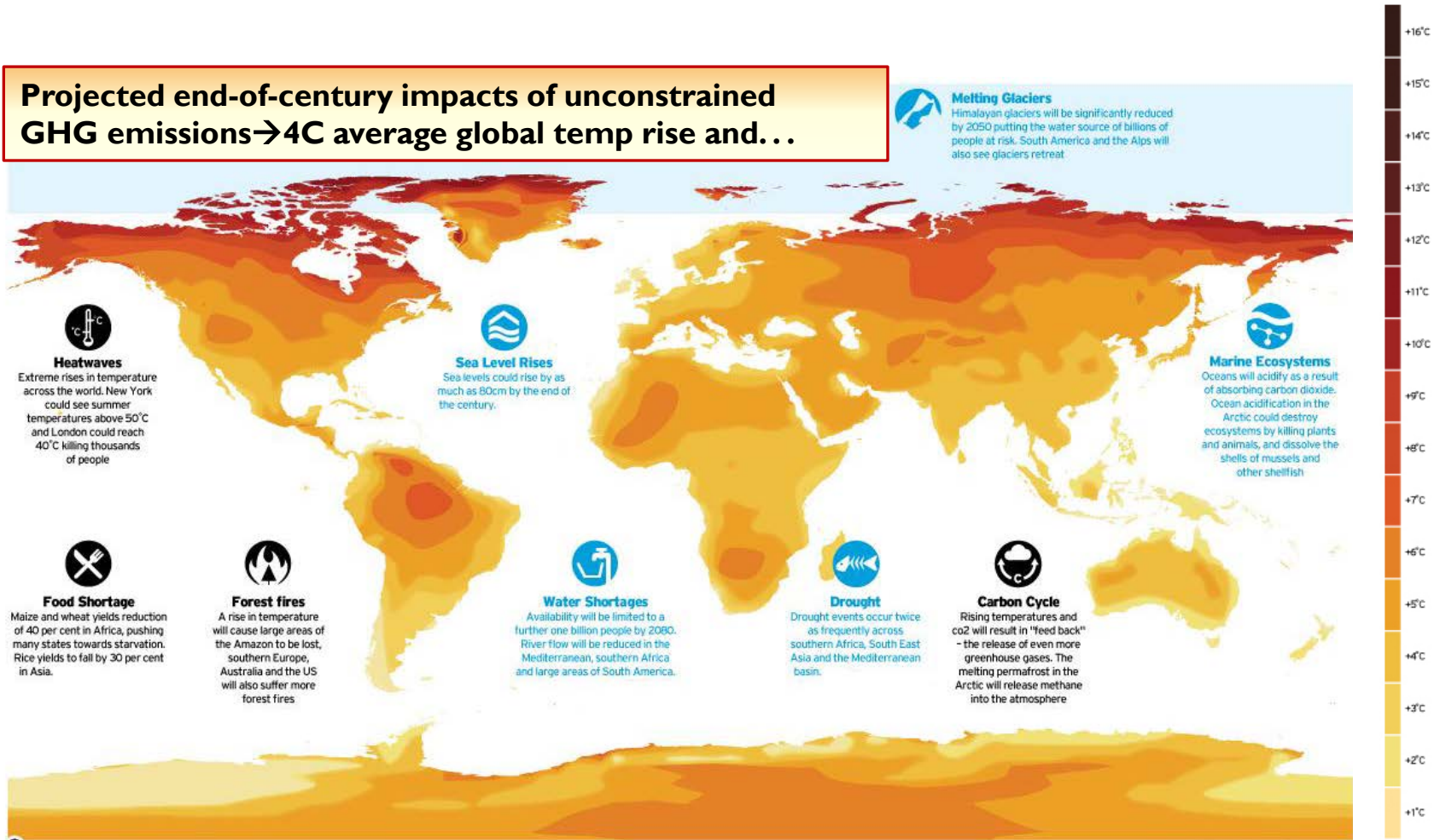
**Most urban growth in the next 25 years in developing countries**

**LEADS TO**

**Increased urban environmental health hazards (given poor municipal sanitation, waste management capacity).**

# Global climate change

## Projected end-of-century impacts of unconstrained GHG emissions → 4C average global temp rise and...



Temperature rise over pre-industrial climate baseline

# Question:

## Relationship between Environment and Development



*What examples can you give of development programs or projects that have been affected by the environment?*

*What examples can you give of where the environment has been affected by development programming?*



# Inseparable relationship

- Cannot separate the environment and development.
- Much of USAID's portfolio is a direct response to or directly affected by critical environmental trends.
- But active programmatic responses to external. Environmental challenges are only half of the “environment and development equation” for USAID.

# Illegal sand mining and suction dredging



# In environment and development, things are often complicated . . .



# Example of the Aswan Dam



1960 – 1970: Aswan High Dam is built for year-round irrigation; annual Nile floods stop. Salt is no longer washed from soils



Farmers apply more water to crops, causing the water table to rise



Waterlogging and salination have adverse effects on monuments and crops



**Caused significant damage to two industries essential to the Egyptian economy**



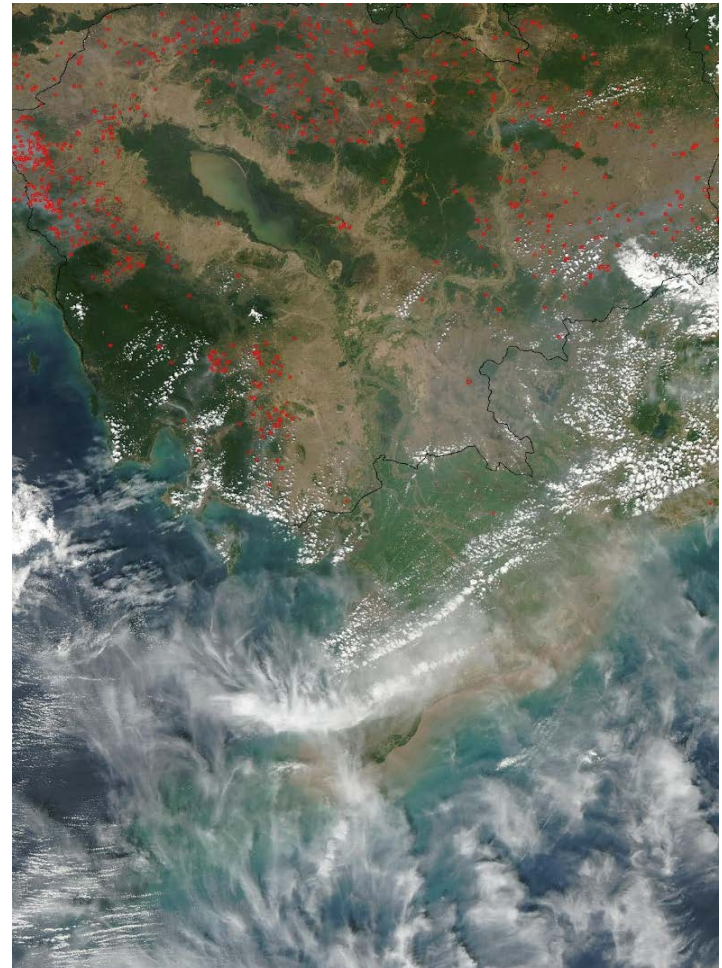
# **USAID's Environmental Procedures**

## **Their Origins & Statutory Basis**

# The other half of the “environment and development equation” for USAID

USAID has mandatory environmental procedures to limit adverse impacts of USAID development activities on ecosystems, environmental resources and environmental quality—particularly as they affect human health and livelihoods.

Fires to prepare land for planting in SE Asia create a huge regional smoke plume. Image: NASA



# Origin & mandate of USAID's environmental procedures

## An “environmental failure”

1974

*In 1974, USAID provided highly concentrated Malathion to poorly trained field workers on an agricultural project in Pakistan*

*Working without protective equipment in the heat, the workers sprayed each other.*

*5 died.*

1

First a court mandate

Then a mandate in law:

2

§117 of the FAA requires that USAID:

**utilize an Environmental Impact Assessment (EIA) process to:**

**“fully take into account the impacts of [its] programs and projects upon the environment and natural resources”**

of host countries prior to implementation.

1975

Sued by US NGOs for non-compliance with NEPA, USAID settled out of court, agreeing to develop environmental safeguard procedures.

# Where are the procedures found?

**USAID's Environmental Procedures** are the response to these mandates. They consist of:

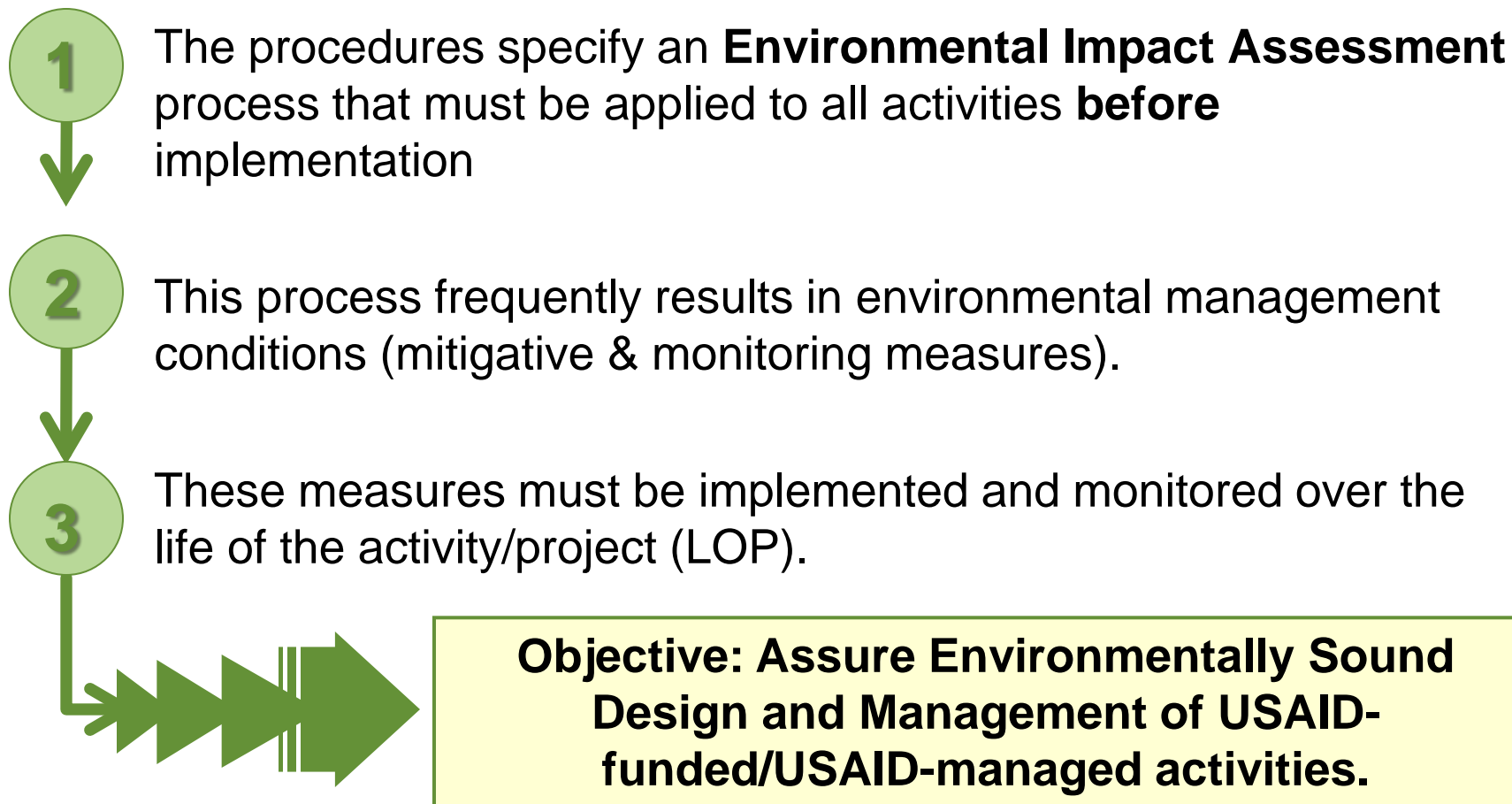
- **Federal regulations:**  
22 CFR 216 ( "Reg. 216") and
- **Mandatory Agency Policies** as set out in USAID's Automated Directives System (ADS), (especially--but not only--201.3.11, 202.3.6, 204 & 303)

**Compliance with the procedures is mandatory. With limited exceptions for disaster assistance, they apply to every program, project, activity, and amendment supported with USAID funds.**





# What do the procedures require? (the big picture)



# What do the procedures require?

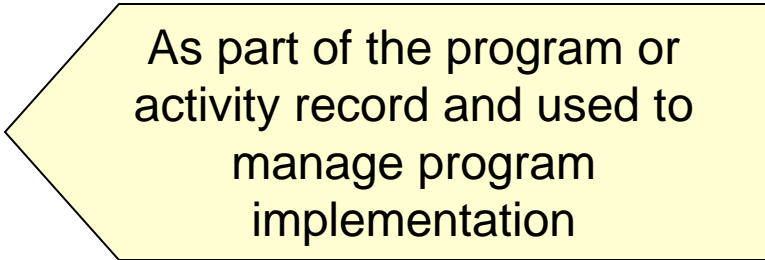
1. Environmental considerations must be taken into account in activity planning.
2. No activities implemented without **approved Reg. 216 environmental documentation.**
3. Any resulting environmental mitigation and monitoring conditions are:
  1. Written into contract instruments.
  2. Carried out by the implementing partner, and this implementation is monitored

**The output of the EIA process specified by 22 CFR 216\***

**USAID monitors via field inspections and review of routine project reports submitted by IPs. To make this possible, project reporting by IPs must provide an auditable record of environmental compliance.**

# What do the procedures require? (cont'd)

4. Environmental compliance is assessed annually as part of formal Mission (operating unit) reporting.
5. Environmental compliance documentation is maintained by the Mission & each sector team



As part of the program or activity record and used to manage program implementation

**In contrast to gender and general sustainability assessment, pre-implementation environmental review is required by law and regulation, not just Agency policy.**

# Overview: Roles & Responsibilities

## USAID

**Assures** Reg. 216 documentation in place.

**Establishes/approves** environmental mitigation & monitoring conditions.

**Oversees** compliance with these conditions, a core part of AOR/COR responsibilities.

## Implementing Partners

**Implement** environmental management conditions established in Reg. 216 documentation.

**Report** on implementation to USAID.

# Why be so systematic?



# Waste management problems are not limited to hospitals. . .



# Hazards to health?



# Protecting personal health





# Cleaning up after the fact



# Cause and effect can be complicated

## Ongoing mass arsenic poisoning in Bangladesh

### Arsenic poisoning

**Nerve damage**

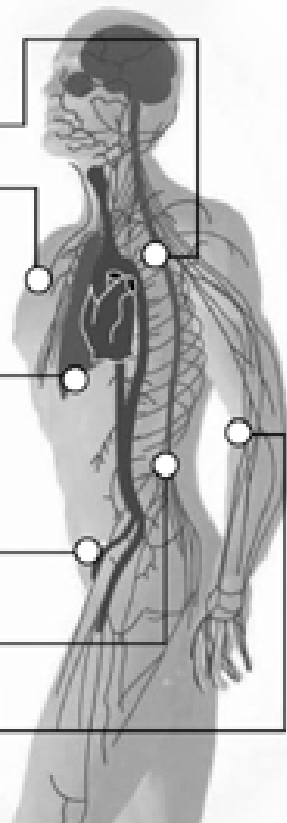
**Skin damage:**

- Hyperkeratosis (scaling skin)
- Pigment changes

**Increased cancer risk:**

- Lung
- Bladder
- Kidney and liver cancers

**Circulatory problems in skin**



Ponds excavated for fill to build-up ground level in villages for flood protection

Ponds provided a source of organic carbon which settles to bottom of pond, seeps underground and is metabolized by microbes

Created conditions for mass arsenic poisoning when villages switched from surface water to "cleaner" tube wells.

creates chemical conditions that cause naturally occurring arsenic to dissolve out of the sediments and soils and move into groundwater



# Environmental Failure

**Multiple Pathways to  
“Environmental Failure”**

# Designing for average conditions, not expected variability

Global change will affect  
both average conditions &  
expected variability



This schoolhouse is being **rebuilt** in makeshift fashion with plank walls & split-bamboo roof.

Why? Strong winds ripped the aluminum sheet roofing off the donor-funded “permanent” structure and toppled the landcrete walls.

In this area, one or two storms every 5 years typically have winds of this strength.

Other “average conditions” to be careful of:  
Rainfall, tides, water tables. . **What else?**

# Failure to plan for the effects of increased scale



*(Or, failure to plan for success!)*

The environmental effects of a small-scale animal husbandry project may be minor

**BUT** if the project is successful, and many more individuals begin to hold larger numbers of animals, serious problems may arise. . .

Health hazards from animal waste. . .

Fodder shortages (may lead to overgrazing and erosion and/or land conflicts)

# Finally, small-scale is not small impact!

- **Myth:**  
“*Environmental impacts of small-scale activities are negligible*”
- **Reality:**  
Impacts of a single poorly designed/implemented small-scale activity may be small in absolute terms
  - But local impacts to people and communities can be very significant
  - If small-scale activities are numerous, together they can have significant cumulative impacts.



Potable water supply near hospital morgue



Total failure of latrines to contain pathogens

# USAID's environmental procedures



Are processes that:

- Help avoid environmental failures
- Maximize environmental benefits

In short,  
they help achieve  
**environmentally sound  
design & management  
(ESDM)**