



Infrastructure Workshop

December 13 – 17, 2010

Academy Hall | 1825 Connecticut Ave. NW, 8th floor | Washington, DC 20009

Monday, December 13

Perspectives on Infrastructure and Development; Evening Reception

Module 1: Perspectives on Infrastructure and Development

Facilitator: Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering The first day presentations include a welcome address, several keynote speakers, overviews of primary infrastructure and development issues, and structured participation settings to allow participants to interact. Afterwards, all participants are invited to a reception at AED to meet friends, old and new.

9:00 – 9:05 Kick-off and Orientation to the Workshop
Ken Baum, Senior Economist, USAID/EGAT/IE

9:05 – 9:15 Welcome Address
Alexi Panehal, Director, EGAT Office of Infrastructure and Engineering

9:15 – 9:30 Opening Keynote: Infrastructure and Development: An Opportunity to Engage
Wendy Abt, Deputy Assistant Administrator, USAID Bureau for Economic Growth, Agriculture, and Trade

9:30 – 10:30 Lost Freetown, A film by Nazia Parvez
Introduced by Jessica Tulodo, Urban Programs Team Leader, EGAT/IE/Urban Programs
The film shows how urban migration and displacement caused by the decade long civil war resulted in a doubling of the population of Freetown, stretching the city resources beyond capacity. While the situation looks bleak, there are initiatives underway that promise hope for the future.

10:30 – 10:45 Coffee Break

10:45 – 12:00 Open Discussion on Infrastructure Challenges in Participants' Jobs
Ken Baum, Senior Economist, USAID/EGAT/IE
Facilitated discussion of common and specific challenges and issues in infrastructure

12:00 – 1:00 Plenary Lunch

1:00 – 1:30 Key Infrastructure Concepts
Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy
Infrastructure is more than just physical facilities; "Businesses" that own and operate the system; Components of the financial system; The enabling environment; Operations and maintenance

1:30 – 2:15 Keynote: Integrating Infrastructure, Finance, and Economic Development: Shifting Paradigms
Wade Channell, Senior Trade Advisor, EGAT/Office of Economic Growth
Forms of infrastructure and reform goals; economic coherence; major lessons learned

2:15 – 3:00 Keynote: Health and Infrastructure
Mike Murphy, Executive Director, MASS Design Group
Recent advances in developing country health facility design with examples from Rwanda and other countries

2010 USAID Infrastructure Workshop Welcome Reception

Monday, December 13, 2010
5:00 – 7:00 PM

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3:00 – 3:15 **Coffee Break**

3:15 – 4:15 **Keynote: Feeding the Future through Infrastructure**

Gregory Gottlieb, Senior Deputy Assistant Administrator, USAID Bureau for Food Security

How infrastructure can promote agricultural development, and enhance food production, nutrition, and food security

4:15 – 5:00 **Keynote: Climate Change and Infrastructure**

Michael Nolan, Associate Director, Sustainability & Climate Change, AECOM

5:00 – 7:00 **Welcome Reception**

Tuesday, December 14

Morning Session: Construction Contracting

Module 2: Construction Contracting

Facilitator: Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering The infrastructure contracting session will first ask participants to become familiar with the basic sequence of construction contracting actions by viewing a PowerPoint presentation and reading a short narrative prior to Tuesday morning.

9:00 – 9:15 **Welcome and Overview of the Module**

Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering

Fred Guymont, Senior Engineer, EGAT/IE/Engineering Services

9:15 – 10:00 **Direct USAID Construction Contracting Experience and Issues**

Mike Gould, CH2MHill

This session will review the trends and pros and cons of USAID direct contracting and host country contracting for engineering and construction services.

10:00 – 10:45 **Host Country Construction Contracting Experience and Issues**

Moenes Youannis

We will discuss procurement reform and building host country capacity to increase the impact of foreign assistance. We will review the use of assistance agreements for infrastructure work that have been used in a number of countries.

10:45 – 11:00 **Coffee Break**

11:00 – 12:00 **Facilitated Discussion with Participants on Common and Specific Challenges and Issues in USAID Construction Contracting Experience**

Moderator: Jessica Tulodo, Urban Programs Team Leader, EGAT/IE/Urban Programs

Panelists: Jim Dunlap, Moenes Youannis, and Mike Gould

A panel of Mission and USAID/W personnel will discuss their experiences with engineering and construction contracting and will be able to answer questions from the audience.

12:00 – 1:00 **Plenary Lunch**



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Afternoon Sessions: Health Infrastructure, Climate Change, U.S. Army Corps of Engineers

Module 3: Health Infrastructure

Facilitators: Jeff Haeni, Energy Specialist, USAID/EGAT/IE/Energy, and Pattama Ulrich, RN, BSN, MPH, Lieutenant, United States Public Health Service In partnership with the Department of Defense and the Department of Health and Human Services, the Health Infrastructure module will provide analysis, strategic planning, development, implementation, training, and evaluation of infrastructure and infrastructure services primarily related to sound design, best engineering practices, and facility management and operation of health-delivery infrastructure. This information will improve understanding of the provision of health infrastructure and health infrastructure services in developing countries.

1:00 – 1:05 Welcome and Overview of the Module

Jeff Haeni, Energy Specialist, USAID/EGAT/IE/Energy
Pattama Ulrich, RN, BSN, MPH, Lieutenant, United States Public Health Service

1:05 – 1:30 The Impact of Infrastructure on Health Services in Developing and Post-Conflict Countries

Dr. Bruno Himmler, Office of the Assistant Secretary for Preparedness and Response, HHS
This presentation will provide context for the breakout session, focusing on the importance of sustainable capacity development of reliable infrastructure for the provision of health services and the roles of different USG agencies in health facility construction.

1:30 – 2:00 Innovative Options for Addressing Health Infrastructure Needs

Craig Usswald, SCMS
This presentation will focus on innovative solutions to address supply chain infrastructure deficiencies in PEPFAR countries.

2:00 – 3:15 Roundtable Discussion: Perspectives from the Field

Moderator: Michael Murphy, MASS Design Group
Panelists: Robert Macleod, Infrastructure Specialist, USAID/Pakistan; Damenew Yohannes, Construction Specialist, USAID/Ethiopia; Col. Guy Kiyokawa, Deputy Chief of Staff for Facilities, Office of the Army Surgeon General
This session will focus on lessons learned, successes, and challenges of implementing USAID and other USG supported health facility infrastructure projects. Post conflict, post disaster, and other developing countries will be highlighted

3:15 – 3:30 Coffee Break

3:30 – 5:00 Working Session

Lead Facilitator: Pattama Ulrich, RN, BSN, MPH, Lieutenant, United States Public Health Service
Support facilitators: Dr. Bruno Himmler, Office of ASPR, HHS; Michael Murphy, MASS Design; Jeffrey Haeni, USAID/EGAT/IE; Col. Guy Kiyokawa, Office of the Army Surgeon General; Dr. Jim Fike, Col, USAF International Health Specialist
The group working session will begin with a description of the SafeHouse model/framework, a guiding tool on how to scale and sustain a resilient community (with hidden and obvious factors, and then present a scenario to course participants who will then break into several small groups to recommend solutions. Each group will be responsible for a different aspect of a health facility infrastructure program including the design, construction, operations, and long term sustainability. Each group will be responsible for developing an approach to address the assigned topic, including determining key stakeholders to be consulted and questions to be answered.



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Module 4: Global Climate Change

Facilitator: William Breed, Team Leader, USAID/EGAT Global Climate Change Team This session will provide an overview of USAID's direct climate change work and improve understanding of the implications of climate change on the provision of key infrastructure services in rural and urban areas of developing countries, as well as the relationship between efforts to reduce greenhouse gas emissions and infrastructure development. This session focuses on the Agency's direct climate change activities which receive climate change funding, and is designed to complement presentations in other sessions which have indirect climate activities which do not get climate funding, yet which have climate impacts.

- 1:00 – 1:05** **Welcome and Overview of the Module**
William Breed, Team Leader, USAID/EGAT Global Climate Change Team
- 1:05 – 1:45** **Overview of GCC Negotiations**
Jonathan Pershing, Deputy Special Envoy for Climate Change, State Department
Discussion of major trends in climate change policy, both globally and in the USG, with specific emphasis on the outcomes from the Copenhagen and Cancun negotiations. Includes Q&A.
- 1:45 – 2:30** **USAID Work on GCC**
William Breed, Team Leader, USAID/EGAT Global Climate Change Team
The USG approach to GCC and USAID's contribution, including GCC pillars and expected funding
- 2:30 – 3:15** **GCC and Clean Energy Guidance**
Genevieve Maricle, Ph.D., AAAS Fellow, USAID/PPL Office of Policy
The GCC clean energy appropriation and definition; direct and indirect activities; monitoring and evaluation
- 3:15 – 3:30** **Coffee Break**
- 3:30 – 4:15** **Low Emissions Development Strategies (LEDS)**
Jennifer Leisch, Ph.D., AAAS Fellow, USAID/EGAT Global Climate Change Team
The Enhancing Capacity for Low Emission Development Strategies initiative aims to assist partner countries in reducing long-term emissions trajectories while fostering sustainable economic growth. Creating a LEDS requires the ability to assess, plan, and prioritize activities to mitigate climate change. Greenhouse gas inventories, economic modeling, and sector specific actions for climate resilient mitigation will be discussed.
- 4:15 – 5:00** **Carbon Markets and Financing**
Michael Hanowsky, Ph.D., AAAS Fellow, USAID/EGAT Global Climate Change Team
The role of carbon markets in greenhouse gas mitigation and economic development; how they could be and are currently used.

Module 5: The U.S. Army Corps of Engineers Expertise and Experience in Infrastructure

Facilitator: Bruce Elliott, USACE Liaison Officer, DCHA Office of Military Affairs The US Army Corps of Engineers (USACE) is the World's largest public engineering organization and has broad engineering experience, capabilities and services it can provide as a supporting partner of USAID in a variety of infrastructure activities. The presentations will be organized to provide information about what information, skills, and expertise is available, provide some examples of these support capabilities, and to provide information about how USAID staff (and others) can obtain access.

- 1:00 – 1:05** **Welcome and Overview of the Module**
Bruce Elliott, USACE Liaison Officer, DCHA Office of Military Affairs



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- 1:05 – 1:45** **Introduction to the US Army Corps of Engineers**
Mohan Singh, SES, Chief, Interagency and International Services Community of Practice, Chief, North Atlantic and Transatlantic Regional Integration Team, USACE
Building effective partnerships; USACE's Afghanistan experiences
- 1:45 – 2:30** **USACE Capabilities Part 1: USACE's broad capabilities, including areas of Subject Matter Expertise and USACE's UNESCO role and how they can be used by USAID**
Lindy Wolner, Program Manager, Interagency and International Services, USACE and Will Logan
- 2:30 – 3:15** **USACE Capabilities Part 2: Engineering R&D, Reach-back, Tele-Engineering**
Jill Jackson, Physical Scientist, Engineer Research and Development Center, USACE
- 3:15 – 3:30** **Coffee Break**
- 3:30 – 5:00** **Capacity Building and USACE Efforts around the World**
Sheryl Lewis, National Manager for Capacity Development, USACE; Mark Schnabel, Liaison Officer to PACOM, USACE; Marcelo Salles, Liaison Officer to SOUTHCOM, USACE; Andy Bruzewicz, Program Manager, USACE Civil/Military Emergency Preparedness

Wednesday, December 15

Morning Sessions: Water, Transportation for Feed the Future, Science and Technology

Module 6: Water Resources #1

Facilitator: Jim Franckiewicz, Water Team Leader, EGAT/NRM/Water The morning sessions will contextualize common issues, concerns and planning considerations for water supply, sanitation and irrigation infrastructure projects in different geographic and climatic regions, and examine and evaluate key issues related to water resources, potable water, sanitation, and irrigation infrastructure development.

- 9:00 – 9:45** **Water Resource Management for the Public Good**
Jim Franckiewicz, Water Team Leader, EGAT/NRM/Water
- 9:45 – 10:30** **Water Results Framework and the Water Earmark**
Sharon Murray, Water Resource Specialist, EGAT/NRM/Water
- 10:30 – 10:45** **Coffee Break**
- 10:45 – 12:00** **Financing for Water and Sanitation for Health (WASH) Infrastructure Projects**
Carl Mitchell, Environmental Protection Specialist, EGAT/NRM/Water

Module 7: Transport and Rural Infrastructure

Facilitator: Jacob Greenstein, Senior Engineer, EGAT/IE/Engineering Services This session will cover the following topics: institutional modernization of transport agencies; road safety considerations; cost-effectiveness and quality of engineering services; rural and urban transport services; integrated planning of multi-modal transport services; socio-economic considerations for road and bridge investments and maintenance works; principles of planning and implementation of low cost roads and bridges in poor countries; and development and operation of community-based SMEs for road and bridge maintenance services.



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- 9:00 – 10:00 Key Transport Concepts: Modernization, Safety, and Cost Effective Considerations for Transportation**
Jacob Greenstein, Senior Engineer, EGAT/IE/Engineering Services
This session lays out the key issues related to transportation programs: (1) institutional modernization, (2) cost effective/reliable engineering services, (3) engineering innovations, (4) transportation planning, (5) health & safety. This session also demonstrates how transportation is tied to key Agency Initiatives and priorities such as Feed the Future, Global Climate Change and Economic Growth.
- 10:00 – 10:45 Innovative Public-Private Partnership of Planning and Operations of Port and Road Services**
Mauricio Gutierrez, Chemonics
- 10:45 – 11:00 Coffee Break**
- 11:00 – 11:30 Farm to Market Roads: Principal Issues, Impacts, and Strategies**
Sophie Taintor, Engineer, USAID/San Salvador/Office of Economic Growth
This session looks transportation planning and cost effectiveness in rural roads programs.
- 11:30 – 12:00 Farm to Market Roads: Community-Based SMEs for Road Maintenance Services**
Sara Wessels, Engineer, EGAT/IE/Engineering Services
This session looks at institutional/capacity building issues and cost effectiveness related to rural roads.

Module 8: Science, Technology, and Innovation in Development

Facilitator: Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering New science and technology can, appropriately applied, act to accelerate the pace of economic development particularly in the context of infrastructure investments. The module will open with a presentation concerning innovative use of new science and technology as a means to respond to development challenges and its potential for delivering results as a priority Agency initiative. The subsequent presentations will discuss new science and technology for water resources, energy, and Geospatial Information Systems (GIS).

- 9:00 – 9:10 Welcome and Overview of the Module**
Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering
- 9:10 – 9:50 Science, Technology, Innovation, and Grand Challenges in Infrastructure and Development**
Dave Ferguson, Senior Analyst, PPL/Science and Technology
- 9:50 – 10:30 ICT Solutions for Feed the Future**
Eric White, Integra, LLC
- 10:30 – 10:45 Coffee Break**
- 10:45 – 12:00 Using Geospatial Information Systems to Plan Infrastructure Programs – An Interactive Session**
Carrie Stokes, GIS Specialist, EGAT/NRM/Land Resources Team

12:00 – 1:00 Plenary Lunch

Afternoon Sessions: Water, Enabling Environment, and Biofuels

Module 9: Water Resources #2

Facilitator: Jim Franckiewicz, Water Team Leader, EGAT/NRM/Water The focus of this module will be to present and analyze lessons learned from water, sanitation and irrigation infrastructure development projects. Planners, local authorities, and Agency



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staff managing water related infrastructure development programs must be able to understand issues related to assessing risks and vulnerabilities of water, sanitation and irrigation systems, infrastructure, and related organizational capacity.

1:00 – 1:05 Welcome and Overview of the Module

Jim Franckiewicz, Water Team Leader, EGAT/NRM/Water

1:05 – 2:20 Water Supply and Sanitation

Marc Andreini, Engineer, EGAT/NRM/Water; Allegra Da Silva, AAAS Fellow, EGAT/Office of Environment Science and Policy; and Jay Graham, USAID/GH/Office of Health, Infectious Diseases and Nutrition, Maternal and Child Health Division

This presentation will introduce many of the key concepts and main technologies used in the field of water supply and sanitation in both rural and urban settings of developing countries.

2:20 – 3:00 Infrastructure to Support Ecosystem Goods, Services, and Food Security

Barbara Best, Coastal Resources and Policy Advisor; and Jonathan Lautze, EGAT/NRM/Water

Sound, sustainable and resilient water resource use requires a watershed-planning approach that integrates both human-built and natural infrastructure for food production and climate adaptation.

3:00 – 3:15 Coffee Break

3:15 – 4:00 Urban Water Footprints and Sustainable Water Systems

Emilie Stander, Ph.D., AAAS Fellow, EGAT/NRM/Water

This session will focus on S&T issues and approaches surrounding urban water infrastructure that can be applied in the developing world. Using the model of urban water footprints, we will discuss the impact of current urban water system design and implementation on ecosystem and human health and explore the features of sustainable water systems that might be utilized in urban and peri-urban centers in developing countries. Both green and gray infrastructure approaches will be discussed, including highlights from recent research on benefits and implementation as well as opportunities for integrating both approaches in urban centers. Case studies from the emerging fields of total water management and low impact development will be used to illustrate considerations for design and construction.

4:00 – 5:00 Participant Presentations

Yacob Wondimkun, Environment Officer, USAID/Ethiopia/NRM

Roger Sydney, Engineering Officer, USAID RDM/A; USAID/Timor-Leste District Water Supply, Sanitation and Hygiene Services Project, DWASH

George Kokochashvili, Engineer, USAID/Caucasus

Module 10: Enabling Environment, Effective Regulation, and Private Sector Participation

Facilitator: Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy Improving the policy environment and providing effective regulation of electricity, water and sanitation service providers can dramatically improve coverage, financial sustainability and service quality. These three sessions will look at emerging best practices for improving the enabling environment and regulation of public utilities. Several country cases will be reviewed, and participants will have the opportunity to present their own success stories in this field.

1:00 – 1:05 Welcome and Overview of the Module

Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy

1:05 – 2:00 Transformation Works: Manila Water, Georgia and Kabul Electricity Distribution

Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy

Heather Skilling, Water Resource Specialist, USAID/AFR/SD/Economic Growth, Environment, and Agriculture



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David Keith, Tetra Tech

There are many examples in developing countries where deeply troubled water and power utilities have “turned around” to provide good services on a sustainable basis. This session provides a “snapshot” of three real examples of utility transformation. Two have shown excellent results for years; one is a work in progress.

2:00 – 3:00

Fixing Corporate Governance

Maria Vagliasindi, Lead Economist, Energy, Transport, and Water Department, World Bank

John Gulliver, Pierce Atwood

Corporate governance – as distinct from civil governance – is a critical driver of change for infrastructure service providers. This session will examine the building blocks of good corporate governance, how donors and our counterparts can “fix” corporate governance, and what happens when we succeed in improving corporate governance.

3:00 – 3:15

Coffee Break

3:15 – 5:00

Building Effective Regulators: A Panel Discussion on Difficult Challenges

Moderator: Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy

Module 11: Biofuels in Developing Countries

Facilitator: Gil Jackson, Chemical Engineer, EGAT/IE/Engineering Services This module will explore how the incorporation of techniques to create biofuels, bio-products; and biodiesel from collecting and processing biomass, urban wastes, and agricultural wastes can help USAID developing countries to reduce carbon emissions, dependence on oil imports and improve their economics. Topics addressed include sustainability; case studies in USAID; know-how; liquid biofuels production; improved economic growth, and climate change by presenters from USAID and elsewhere.

1:00 – 1:30

Welcome, Overview of the Module, and Overview of Biofuels and its Role for USAID Missions

Gil Jackson, Chemical Engineer, EGAT/IE/Engineering Services

1:30 – 1:45

Sustainability of Biofuels Feedstocks

Erik Streed, Senior Forestry Advisor, EGAT/NRM/Forestry

1:45 – 2:15

U.S. Policy on Biofuels

Richard Simmons, PE, State/EEB Office of International Energy and Commodities

2:15 – 3:00

The International Biofuels Scene

Sheila Moynihan, Biomass Program, U.S. Department of Energy

This and the following session will provide an overview of DOE and national lab international biofuels collaborative research and deployment activities with developing countries. This will include information on biofuels programs with Brazil, Colombia, and India, and global biofuels sustainability studies.

3:00 – 3:15

Coffee Break

3:15 – 3:45

An overview of DOE Biofuels Activities in USAID Countries

Ron Benioff, Director of International Programs, DOE/National Renewable Energy Lab

3:45 – 4:15

Potential Role of Algae in USAID Countries for Fuels and Remediation

Matthew John Diedzic, Jr, P.E., President and Founder, Blackrock Energy Corporation; Eugene R. Tracy, Ph.D., Chancellor Professor of Physics, The College of William & Mary; Robert Beitle, Ph.D., P.E., Louis Owen Professor of Chemical Engineering, University of Arkansas



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4:15 – 5:00

Biofuels in Asia Missions

David Walden, Winrock Associates

The presentation will provide an overview of the main biofuel activities in SE Asia and India/Pakistan. As a case study, the development of the first sugar cane to ethanol plant privately funded and operational in the Philippines will be presented. The plant, which produces 125,000 liter/d of fuel grade ethanol, sells 3-4MWe to the local utility and recycles to the fields all nutrients in the solid and liquid plant wastes, has been operational for 3 years, is a key part of that country's plan to meet its mandated E10 program from domestic supplies. Finally, the issue of biofuel sustainability will be presented in terms of the policies, planning and programs of selected regional countries.

Thursday, December 16

Morning Sessions: Clean Energy, Corporate Governance, and Rural Infrastructure for Feed the Future

Module 12: Clean Energy

Facilitator: Sharon Hsu, Energy Program Specialist, EGAT/IE/Energy This module will review key clean energy topics including grid-connected renewable energy, financing for clean energy, energy efficiency, and the enabling environment.

9:00 – 9:05

Welcome and Overview of the Module

Sharon Hsu, Energy Program Specialist, EGAT/IE/Energy

9:05 – 9:30

PFAN: Enabling Financing for Clean Energy

Collin Green, GCC Specialist, USAID/EGAT Global Climate Change Team

Mobilizing private sector financing for mitigating climate change and promoting development

9:30 – 10:30

Regulatory Incentives for Renewable Energy

Bevan Flansburg, NARUC

The regulator's role in developing renewable energy projects

10:30 – 10:45

Coffee Break

10:45 – 11:20

Grid-Connected Low Carbon Electricity

Ken Wentzel, Deloitte Consulting

Richard Longstaff, Deloitte Consulting

11:20 – 12:00

Energy Efficiency

Ira Birnbaum, Sr. Energy Advisor, USAID/E&E/Energy and Infrastructure

Module 13: Infrastructure, Corporate Governance, and Private Sector Participation

Facilitator: Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy Best practices for reforming water, sanitation and energy utilities include improving corporate governance of the utility, and using private participation, such as management contracts, concessions and divestiture. This module will include three sessions: (1) Overview of Best Practices and Emerging Trends with Utility Corporate Governance and PSP; (2) In-depth Session on How to Improve Corporate Governance in Public Utilities; and (3) case studies.

9:00 – 9:05

Welcome and Overview of the Module

Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy

9:05 – 9:45

Turning Around Troubled Water Utilities



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Afghanistan Water Cost Recovery – Amy Nolan Osborn, ICMA

Northern Uganda Water Contracts – A lioune Fall and John Butler, Tetra Tech ARD

Deeply troubled water utilities can be turned around. This session presents two very different models for currently being used to accomplish this. One works with public sector urban utilities to improve their performance and put in place incentives for staff that match the performance gains. The other uses an innovative “contractualization” model that has proven successful in many other Ugandan towns to address water needs in poor communities with large numbers of IDP residents.

9:45 – 10:30

A Work in Progress: Lights On in Liberia

Isabel Marques-de-Sa, Principal Investment Officer, International Finance Corporation

John Leber, International Finance Corporation

Liberia has faced major challenges getting electricity services reestablished. After an initial reconstruction period, the focus of donors shifted to institutional and business issues. A national utility, LEC, was corporatized. When this did not solve the financial and operational problems of the sector, GOL and donors turned to an IFC-supported management contract. An IPP complicated the situation.

10:30 – 10:45

Coffee Break

10:45 – 12:00

Case Studies Exercise on Lagos Water, Nangarhar Electricity, and Iraq Cost Recovery

Facilitator: Allen Eisendrath, Energy Team Leader, EGAT/IE/Energy

Participants will work on one of three case studies drawn from real challenges that we face in infrastructure. Cases are short, and require participants to work in teams to identify key recommendations to address these three situations. Each team will be asked to present their recommendations.

Module 14: Innovative Infrastructure to Support Feed the Future

Facilitator: Sara Wessels, Engineer, EGAT/IE/Engineering Services This session will cover innovative procurement procedures, port planning and operations, and Information Communications Technology (ICT), with a focus on how each can be used to support the Feed the Future initiative. It will also include a discussion on USAID infrastructure projects lessons learned and the importance of quality assurance/quality control.

9:00 – 9:30

Innovative Performance Based Procurement Procedures for Infrastructure

Jacob Greenstein, Senior Engineer, EGAT/IE/Engineering Services

9:30 – 10:00

Lessons Learned from Infrastructure Failures:

The Importance of Good Design and Quality Control/Assurance

Roger Sydney, USAID Regional Development Mission/Agency

10:00 – 10:30

Innovative Port Planning and Operation Procedures to Support Feed the Future

Paul Kent, Nathan and Associates

10:30 – 10:45

Coffee Break

10:45 – 11:45

Transforming Agriculture Through Better Management of Rainfall: Turning Liabilities into Assets

Mike McGahuey, Natural Resources Advisor, EGAT/NRM/Land Resources Team

11:45 – 12:00

Module Wrap-Up

Sara Wessels, Engineer, EGAT/IE/Engineering Services

12:00 – 1:00 Plenary Lunch



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Afternoon Sessions: Energy Poverty, Post-Conflict Reconstruction, and Urban Services

Module 15: Energy Poverty

Facilitator: Jeff Haeni, Energy Specialist, USAID/EGAT/IE/Energy This module will include sessions focused on addressing the energy poverty challenge, including (1) Policy Options, Decentralized Energy, Grid Expansion, and Low income urban customers.

- 1:00 – 1:45** **Welcome, Overview of the Module, and Overview of the Energy Poverty Challenge**
Jeff Haeni, Energy Specialist, USAID/EGAT/IE/Energy
Review different components of energy poverty challenge including both electricity and cooking/heating.
- 1:45 – 2:30** **Case Study: Mali Rural Electrification Program**
Jeff Haeni, Energy Specialist, USAID/EGAT/IE/Energy
Sharon Hsu, Energy Program Specialist, USAID/EGAT/I&E/Energy
Participants will be given a short narrative discussing Mali's off-grid rural electrification program and be asked to brainstorm about options for resolving emerging challenges.
- 2:30 – 3:00** **Expanding Energy Access in Georgia – Lessons Learned**
Morning Washburn, Energy Program Specialist, EGAT/IE/Energy
Overview of lessons learned from a recent evaluation of USAID/Georgia's clean energy program.
- 3:00 – 3:15** **Coffee Break**
- 3:15 – 4:15** **Case Study: Bangladesh Rural Electrification Program**
Jim Walsh, Senior Representative, National Rural Electric Cooperative Association (NRECA) International
Jim Ford, NRECA Country Director for Bangladesh
Case study highlighting the progress and challenges associated with the USAID-supported Bangladesh rural electrification program.
- 4:15 – 5:00** **Connecting Low Income Urban Neighborhoods**
Simone Lawaetz, Energy Program Specialist, EGAT/IE/Energy
Approaches for addressing electricity theft, turning users into customers, and expanding service in low-income urban neighborhoods

Module 16: Post-Conflict Reconstruction

Facilitator: Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering The primary objective of this module is to improve understanding of how to effectively manage, develop, and implement infrastructure programs and activities in post conflict situations, including but not limited to water resources, vertical structures, ICT, roads and bridges, and rural and urban infrastructure – to provide: (1) clear guidance for how to effectively and strategically manage, design, and implement infrastructure programs and activities in post conflict situations; and (2) provide an annotated compendium of lessons learned.

- 1:00 – 1:05** **Welcome and Overview of the Module**
Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering
- 1:05 – 3:00** **Provincial Response Teams (PRTs): What Have We Learned?**
Moderator: Ken Baum, Senior Economist, USAID/EGAT Office of Infrastructure and Engineering
Panelists: Frances Fierst, Engineer, DCHA/OCR and EGAT/IE/Engineering Services
- 3:00 – 3:15** **Coffee Break**



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3:15 – 3:45 **Transformative Innovation for Development and Emergency Support (TIDES)**
Lou Elin Dwyer, National Defense University

3:45 – 5:00 **Best Practices and Lessons Learned from Afghanistan**
Gul Afghan Saleh, Program Manager, Energy, Power and Water Resources, USAID/Afghanistan/OIEE; and Robert Helmerick, Senior Engineer, USAID/Afghanistan/OIEE (TBC)

Module 17: Urban Services

Facilitator: Nancy Leahy, Urban Advisor, EGAT/IE/Urban Programs The urban setting is the development context where most USAID sector initiatives come together as a comprehensive whole. Participants will learn about domestic urban initiatives that can serve as useful models for applications abroad. Participants will identify and explore various solutions for real life challenges by working through an ICMA case study, and will contribute their own expertise to problem solving based on the case study. Experts in urban economy, health and water/sanitation, and global climate change will enrich the exploration of how to bring different sector objectives together, drawing on both technical and field expertise. This workshop will be participative and exercises will build on each other. The attendees are encouraged to arrive at the opening and stay through the entire workshop.

1:00 – 1:45 **Welcome to Urban Programs and Overview of the Module**
Jessica Tulodo, Urban Programs Team Leader, EGAT/IE/Urban Programs
The function of EGAT/IE/UP, the topics we cover, how we can assist missions, information about the new Urban Working Group, introduce UP team

1:45 – 2:45 **Initiatives in Sustainable Urban Development**
Moderator, Nancy Leahy, Urban Advisor, EGAT/IE/Urban Programs
Panelists: Danielle Arigoni, EPA; Eric Beightel, DOT
What can we learn about urban challenges in the US? What are some successful approaches (ie Sustainable Communities Initiative)? How can we apply these lessons to the countries where we work? How can partnerships between US and developing country cities increase knowledge transfer and capacity?

2:45 – 3:00 **Introduction to Case Study**
Moderator/Facilitator, Sandra Tripp-Jones, ICMA
Panelist: Amy Osborn, ICMA

3:00 – 3:15 **Coffee Break**

3:15 – 4:00 **Case Study: Urban Development in Afghanistan**
Moderator/Facilitator, Sandra Tripp-Jones, ICMA
Panelist: Amy Osborn, ICMA
USAID has worked with ICMA to address urban challenges in Afghanistan since 2004. This session will provide a real-life example of experiences implementing programs designed to improve urban services. A short activity at the end will ask participants to list what they thought were the biggest challenges, which will serve as a segue into the next session, which will be thematic in nature.

4:00 – 4:50 **Linking Urban Themes**
Moderator: Nancy Leahy, Urban Advisor, EGAT/IE/Urban Programs
Panelists: Urban Economy: Mathew Chandy, CHF; Health and Water/Sanitation: Jay Graham, GH/HIDN; Global Climate Change: Dan Hoornweg, World Bank
This session will feature experts who will discuss how urban issues fit into USAID's key initiatives.

4:50 – 5:00 **Module Evaluations and Wrap-Up**



Infrastructure Workshop

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Friday, December 17

Morning Sessions: Financing Infrastructure; Information and Communications Technology; Post-Disaster Reconstruction; Graduation and Diplomas

Module 18: Financing Infrastructure

Facilitator: Mike Keshishian, Local Governance Advisor, EGAT/IE/Urban Programs Participants will have a basic understanding of how cities are financed, different kinds of debt instruments available to cities, and what some of the constraints are to municipal financing in developing countries.

- 9:00 – 9:10** **Introductions and presentation of course objectives**
Jessica Tulodo, Urban Programs Team Leader, EGAT/IE/Urban Programs
- 9:10 – 9:45** **Basics of how cities are financed**
Mike Keshishian, Local Governance Advisor, EGAT/IE/Urban Programs
Importance of fiscal decentralization for cities; Different kinds of local taxes; Various fees; Transfers from the national government, equalization formulas; Borrowing (just briefly presented here as an element of how cities are financed, to be expanded upon for the remainder of the workshop)
- 9:45 – 10:30** **Expanded discussion of municipal capital financing DCA and UP joint-session**
Carl Mitchell, Environmental Protection Specialist, EGAT/NRM/Water
Brad Johnson, RMA
Necessity of borrowing for infrastructure and the importance of infrastructure for economic growth; Preconditions for borrowing, creditworthiness, transparency; Revolving funds (Renewable Energy Case Study); Bonds (Revenue bonds, General obligation bonds); Bond insurance; Credit enhancements
- 10:30 – 10:45** **Coffee Break**
- 10:45 – 12:00** **Continuation of expanded discussion of municipal capital financing**
Brad Johnson, RMA
Public-Private Partnerships (Ukraine examples); Philippines Case Study; Creditworthiness, corruption, transparency, due diligence; The perils of sub-national debt (Argentina example); Full-cost recovery for municipal services (case study of how this does not work in South Africa); Case study (FIRE in India and/or Credit Guarantee in Zambia).

Module 19: Information and Communication Technology

Facilitator: Joe Duncan

, Acting ICT Team Leader, EGAT/IE/Information and Communications Technology Team This session on Information and Communication Technology (ICT) will focus on USAID's new Global Broadband and Innovations (GBI) Program managed by the I&E Office's ICT Team, including a brief explanation of its mechanisms and partnerships. The presentations will describe the value-added services being rolled-out at Program Offices and Missions in support of (1) scalable and replicable innovation-driven sector development programs; (2) use of host country universal service funds for domestically financed infrastructure build-outs in underserved target regions; (3) New ICT sector programs include innovative tools for mobile banking, GIS, disaster networks, educational gaming, telemedicine, and other applications. The discussion will emphasize the importance of mobile networks and applications in meeting USAID's current development agenda. Other topics will be leveraging of public-private partnerships, Cisco Academy, and experience in restoring connectivity in Haiti and how this model can be replicated in non-disaster situations.

- 9:00 – 9:05** **Welcome and Overview of the Module**
Joe Duncan, Acting ICT Team Leader, EGAT/IE/ICT



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- 9:05 – 9:30** **Importance of ICT to Development**
Dave Ferguson, Senior Analyst, PPL/ST
- 9:30 – 10:00** **Value of Public Private Partnerships and Focus on Mobile for Development**
Erin Mote, NetHope
Focus of Value-Added from NetHope partnerships and working groups to address common ICT requirements. Examples of ICT application in Health and Education
- 10:00 – 10:30** **New Technologies for Connectivity and Universal Service Funds (USF)**
Darrell Owen, ICT Advisor, EGAT/IE/ICT
New lower cost, innovative approaches for providing connectivity to rural areas. What USFs are and how funds can support development programs.
Eric White, Integra, LLC.
TA to USF in Africa and training for Information Ministries in each region.
- 10:30 – 10:45** **Coffee Break**
- 10:45 – 11:30** **Haiti and beyond**
Frank Schott, NetHope
How the proven success of ICT connectivity in Haiti can be replicated in non-disaster countries
- 11:30 – 12:00** **Serious Gaming/USAID's Innovations for Youth Capacity and Engagement (IYCE) Initiative**
Patricia Flanagan, Infrastructure Advisor, EGAT/IE/ICT, and Maryanne Yerkes, Democracy Fellow, DCHA/DG
Serious gaming strengthens existing programs by developing tools and effective models for using ICT and new media to capture youths' interests, while helping them develop the skills and knowledge they need to effectively transition to adulthood. Serious gaming helps mitigate risks to youth and reduce poverty by providing opportunities for positive youth engagement, education, livelihoods development, and health care services to prepare youth for their roles as active, healthy, and constructively engaged citizens.

Module 20: Post-Disaster Reconstruction

Facilitator: Victor Udoewa, Engineer, AAAS Fellow, EGAT/IE/Engineering Services The primary objective of this module is to improve understanding of how to effectively manage, develop, and implement infrastructure programs for disaster risk reduction. Through presentations and a disaster negotiations simulation exercise, the module aims to provide: (1) additional guidance for how to effectively and strategically minimize risk of future disasters in post disaster situations; and (2) demonstrate the complexity of stakeholders and issues involved in negotiating and determining reconstruction choices in post-disaster and recurring disaster situations.

- 9:00 – 9:30** **Infrastructure Disaster Risk Management: Prevention and Urgent Repair Procedures**
Jacob Greenstein, Senior Engineer, EGAT/IE/Engineering Services
Daniel Hollander, Engineer, WBGZA/WRI
- 9:30 – 10:30** **Post-Disaster Reconstruction Negotiations Simulation: Part 1**
Victor Udoewa, Ph.D., Engineer, AAAS Fellow, EGAT/IE/Engineering Services
- 10:45 – 11:00** **Coffee Break**
- 10:45 – 12:00** **Post-Disaster Reconstruction Negotiations Simulation: Part 2**
Victor Udoewa, Ph.D., Engineer, AAAS Fellow, EGAT/IE/Engineering Services



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12:00 – 12:30 Plenary: Closing Remarks, Diplomas, and Evaluations

Alexi Panehal, Director, EGAT Office of Infrastructure and Engineering

12:30 – 1:30 Plenary Lunch