
AD HOC COMMITTEE
TO DEVELOP THE SCOPE OF AN
OPERATIONAL REVIEW
OF
U.S. AID ENGINEERING RESOURCE CAPACITY

ACEC Research & Management Foundation
1015 15th Street, N.W.
Washington, D.C.

November 20, 1989

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AD HOC COMMITTEE
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Purpose

To conduct a comprehensive study of the Agency for International Development's engineering resource capacity as it presently stands and as it should develop over the next decade.

1. Explore the roles and needs for engineering services in the Agency operations over the next ten years. The contractor shall describe various program operational responsibility scenarios and project Agency needs under each of these scenarios, taking into consideration attrition, different skill levels, etc. and the mix of disciplines. This information should be adequate to project a long-term recruitment plan for the Agency.
2. Given that much of AID's engineering workload is contracted out to the private sector, determine which areas may not be contracted because of legal or professional constraints; AID management responsibilities; and the minimum level of AID in-house engineering/technical capacity based on those considerations.
3. Examine AID present engineering capacity both direct-hire and contract, and determine in-house and non-direct hire engineering needs and expertise for the next decade in terms of the magnitude and disciplines on engineering required.
4. Assess the need for further, more comprehensive review of engineering resources capacity issues (Phase II), and, if the recommendation is in the affirmative develop a scope of work for Phase II, outlining in detail which areas require in-depth coverage, the time resources and frame required, and the type of report that should be produced by a Phase II study.
5. Prepare a report outlining the findings of Phase I study supported by background information, operational agenda and recommendations.

Tasks

Information Collection

1. Meet with AID personnel selected by the AID GTR to discuss project goals and direction.
2. Review congressional and other written material concerning the directions proposed for AID.
3. Develop three future scenarios based on material and interviews that reflect possible directions and missions AID could have in the near future.
4. Interview 5 - 10 AID employees and/or consultants to obtain their views on the roles for engineers in and out of AID under the future scenarios.
5. Discuss findings with Review Committee. Develop report for submission to AID.

Schedule

	<u>October</u>	<u>November</u>	<u>December</u>	<u>January</u>	<u>February</u>
1.	*-telecon discussions-	*		*	
2.	-----				
3.		-----			
4.			-----		
5.		-----*	*-----	*-----	(Possible slippage due to Holidays)

Reports Required

Draft Report 11/15

Comment back from AID 20 days December 5/20

January 4 final

Progress to Date

A general review of written material has been completed. This has consisted of documents from AID, the Congress and private sector reports.

AID material reveals a steadily diminishing number of engineers over the past 10 years within the ranks and a multiplicity of goals spawned out of added congressional mandates. The results seem to be an agency with so many purposes that few are fulfilled. Diminished engineering expertise has resulted from a shift in programs within AID, a misperception that engineering expertise is necessary only on capital projects, as well as a pay scale that has failed to keep up with the private sector. The lack of sufficient in-house engineering expertise and review of AID projects has impaired their effectiveness.

On the private side, groups advancing basic human needs and environmental programs point to the failure of large capital projects to achieve their goals. Engineers are vilified implicitly along with the policy that produced the projects.

U.S. engineering firms have, in the meantime, broadened the scope of their practice to meet the many new challenges brought on by such crises as the energy and environment. Despite the views put forth by some advocates that do not recognize the need for engineers, an examination of many overseas projects involve engineering expertise as a fundamental pillar to success.

Future scenarios are being formed based on interviews and the input from the project committee. These will reflect possible directions and missions AID could have in the near future. The recent developments in eastern europe have occurred in a timely fashion to be considered by the study team.

A list of potential interviewee within AID has been compiled and interviews will take place in early December. The interviews will solicit views on the roles for engineers in and out of AID under future scenarios.

Letter sent to the AID Ad Hoc Committee

November 2, 1989

60-038-6

^ F1? ^

^ F2? ^

^ F3? ^

^ F4? ^

Dear ^ F5 ^:

For the past year the ACEC Research & Management Foundation has been working with the ACEC's International Engineering Committee and its AID Subcommittee to encourage the Agency for International Development to conduct a review of its engineering resource capability. Committee members Jim Woglam and Lee Francis have been untiring in this effort. They introduced ACEC/RMF to Ray Love and Frank Kenefick of AID, who in turn after much discussion asked us conduct a preliminary study of AID's engineering resource capacity.

Much has been written in the past few years (from many viewpoints) on how AID could better serve U.S. interests. This study will examine the need for engineering talent in an agency that has seen engineers playing a smaller and smaller role. One of the key elements of this investigation will be to determine how AID itself views engineers and their role, both within and as contractors to the agency. With many agencies, including AID, now paring down internal staff, it will also be important to determine how much in-agency engineering expertise is needed to administer AID-funded projects.

I am writing to ask whether you will be able to assist in this effort or would like to be informed of the study as it proceeds. Time is of the essence, since to have the maximum impact on decision making within AID and possibly on the Hill we must complete our study by the end of the year.

The study consists of reviewing AID's engineering resource capacity as it presently stands and recommending how it should develop over the next decade. Since it is difficult to guess how the next decade will unfold, we will propose three scenarios that would reflect a low, medium and high need for engineering involvement. The scenarios will be developed by inviting comments from the IEC and the AID Developmental Subcommittee, of which you are a present or past participant. We will play the scenarios against the need for engineering resources within AID.

We will then interview present and past AID staff members to identify their views concerning engineering resource needs *vis-a-vis* the scenarios.

Next we will project AID's engineering manpower needs under each of these scenarios, taking into consideration attrition, different skill levels, etc., and the mix of disciplines. We will also examine AID's present engineering capacity, both direct-hire and contract, and determine in-house and non-direct-hire engineering needs and expertise for the next decade in terms of the magnitude and disciplines of engineering required. This information will serve as a preliminary basis to project a long-term recruitment plan for the Agency within the different scenarios.

Although much of AID's engineering workload is contracted out to the private sector, we will try to determine which areas should not be contracted because of legal or professional constraints; AID management responsibilities; and the minimum level of AID in-house engineering/technical capacity based on those considerations.

Finally, we will assess the need for a further, more comprehensive review of engineering resources capacity issues and, if the recommendation is in the affirmative, develop a scope of work outlining in detail which areas require in-depth coverage, the time resources and schedule required, and the type of report that should be produced.

A final report will provide findings from above analyses supported by background information, operational agenda, and recommendations.

We welcome this opportunity to work with AID and IEC to present the views of the engineering community. I would value your participation. Enclosed is a brief questionnaire that will generate some of the information requested above.

Sincerely,

Jack R. Warner
President

Enclosure

AD HOC COMMITTEE
To Develop the Scope of an Operational Review of
U.S. AID Engineering Resource Capacity
(Correct if necessary:)

- | | |
|--|---------|
| <input type="checkbox"/> Yes, I would like to volunteer | ^ F1? ^ |
| Areas of Participation | ^ F2? ^ |
| <input type="checkbox"/> Read Draft Report | ^ F3? ^ |
| <input type="checkbox"/> Attend Meeting(s) in Washington | ^ F4? ^ |
| <input type="checkbox"/> No | ^ F6? ^ |
- Fax: _____

If you have volunteered, please help now by giving us your opinions to develop the scenarios for AID's future.

For each topic below, list two events, statements, etc. that would cause AID to need more or less engineering expertise within the agency. Phrases with each topic are intended to jog you creativity, not limit it.

Technical *New field techniques; developing arrangements for private companies to draw on U.S. technical resources, e.g., Corps of Engineers test labs - need fewer AID engineers.*

1.

2.

Commercial *Rise of Asian engineering; development of third world, in-country engineering talent; government operations; privatization of LDCs.*

1.

2.

Informational *Artificial intelligence = more engineers?; photonics = fewer or better trained engineers?; computers, cross border information transfer.*

1.

2.

Management *Larger integrated firms; need for companies and financiers to cooperate to compete with other countries.*

1.

2.

Social *Concern for global environment; need for assessments-by who?*

1.

2.

Political *Cessation of strife with communist block; aid to Russia and other communist countries, especially in Eastern Europe.*

1.

2.

Economic *Rise of Eurodollar; falling of U.S. dollar; EC '92.*

1.

2.

Demographic *Third-world cities choke on pollution and population; high rates of population growth; need to create new employment opportunities, especially for young.*

1.

2.

Societal *U.S. becomes protectionist; no viable way to stop foreign investment in U.S. firms; professional registration recognized reciprocally on a world-wide basis.*

1.

2.

Educational *Engineering graduates scarce worldwide; third-world engineers must return home; government pays competitive salaries.*

1.

2.

Labor *Skilled labor pool shrinks in craft areas and agriculture.*

1.

2.

Institutional *Agency for International Development restructured to eliminate vs. increase engineers.*

1.

2.

Health *AIDs epidemic decimates Africa; water & irrigation programs curtailed. Japan takes lead in Asian river basin development.*

1.

2.

Family *Developed nations' population tends toward zero population growth: technically trained third world personnel required to stay or return to home country.*

1.

2.

Other Comments:

Return by mail or fax to: **Jack Warner, ACEC Research & Management Foundation, 1015 15th Street N.W., Suite 802, Washington, D.C. 20005 (202/347-7474) Fax 202/898-0068**

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List of Potential Interviews within AID

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5942 MS
647 8596
Frank Kenefick

AID Training Office

Terry Liercke
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SA-II - 307
former Egypt Desk officer
663 2360 fax 663 2291

Bureau for Africa

Walter G. Bollinger
Acting Assistant Administrator
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6936 MS
647 9244

Edward L. Saiers Deputy Asst Adm.
6942 MS
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Office of Project Development
Timothy Bork, Director
2637 MS
647 8181

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310 WL
235 0801

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Fredrick Hansen
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401 SA II
663 2512

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Bureau for Latin American & the Caribbean

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2248 MS
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