Audience



# ArchEE - The Architecture of Environmental Evaluation:

# Understanding Evaluation, Evidence and Effectiveness

**Need for Evidence in the Environmental Sector**

Governments, foundations, and non-profit organizations want evidence about the impact of their investments so that they can understand what interventions work and why, and so they can direct resources more effectively. Researchers and policy-makers in many sectors, such as education, health care, and criminal justice, have compiled clearinghouses of evaluations and other evidence of effectiveness. Such resources in the environmental sector, however, are nascent, limited, or non-existent.

**Proposal**

 The Environmental Evaluators Network, with support from the U.S. Environmental Protection Agency, is proposing to develop an Architecture of Environmental Evaluation (ArchEE) to meet the demand for to meet the demand for better evaluation, evidence based management and improved transfer and use of knowledge generated through evaluation and similar approaches to systematic improvement and evidence based management. **ArchEE is intended to serve as an open access inventory and database for evaluations, evaluators and evaluation-related literature**, including formal evaluations and other approaches to systematic improvement and evidence-based management. ArchEE will include:

* **Evaluations**: ArchEE will allow users to search for evidence of what works, what does not, and ways to improve. Users will be able to search studies by topic, evaluation question, methodology, data, theory of change, findings, recommendations, author, and more.
* **Evaluators**: ArchEE will allow users to search for evaluators by location, experience (i.e., topics and competencies), knowledge, organization, collaborations (i.e., evaluators and organizations), and evaluations. ArchEE will help describe networks of evaluators and their work and communicate how groups of evaluators learn from one another, collaborate, and share knowledge.
* **Evaluation Literature:** ArchEE will enable users to search evaluation literature by author, title, keyword/topic, abstract, bibliography and similar categories. The content will include peer-reviewed and gray literature, such as presentations/speeches, policy documents, theses, reports, and white papers.

**Opportunity to Participate**

A small advisory group of Environmental Evaluators Network participants is currently working to refine the project’s conceptualization, design, and planning as well as taking initial steps to pilot components of ArchEE. The sponsors are currently seeking additional members of the advisory group, contributors, and funders. For more information or to get involved, please see attached draft project proposal and contact Matt Keene at keene.matt@epa.gov.

***Current Sponsors:***

**Environmental Evaluators Network**

**U.S. Environmental Protection Agency**

***For More Information Contact:***

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# ArchEE - The Architecture of Environmental Evaluation:

# *Understanding Evaluation, Evidence and Effectiveness*

# Draft Project Proposal

## Background

Governments, foundations, and non-profit organizations increasingly want to see evidence regarding the impact of their investments so that they can understand what interventions work and why, and so they can direct resources more effectively. In the United States, the Obama Administration has encouraged Federal agencies to strengthen their capacity to use evidence by “promoting knowledge-sharing among government decision-makers and practitioners through clearinghouses that help translate strong research into practice.”[[1]](#footnote-1) Some sectors such as education, health care, and criminal justice have already created clearinghouses of evaluations and evidence. For example, the *What Works Clearinghouse* ([ies.ed.gov/ncee/wwc](file:///C%3A%5CDocuments%20and%20Settings%5CMatt%5CLocal%20Settings%5CTemporary%20Internet%20Files%5CContent.Outlook%5C663W4UWG%5Cies.ed.gov%5Cncee%5Cwwc)) offers evidence related to education, the *Cochrane Collaboration* ([www.cochrane.org](http://www.cochrane.org/)) compiles studies related to health care, and the *Campbell Collaboration* ([www.campbellcollaboration.org](http://www.campbellcollaboration.org/)) provides information related to education, crime and justice, social welfare, and international development. [[2]](#footnote-2)

Demand for a better understanding of what works and why in the environmental sector is growing, and the number of environmental evaluations is also increasing. However, the environmental sector has not yet embraced an evaluation culture, so evaluations are still generally not public, unknown, and/or unused. These conditions call for the environmental sector to take a more systematic approach building, managing and using an evidence base for decision making. There are many well-documented reasons that the demand for evidence and evaluation has not been met in the environmental sector (Ferraro y Pattanayak 2006; Miteva et al. 2012). A few that are relevant to ArchEE include:

* **Existing evaluations are not readily accessible to those who could use such evidence**: There has been little expectation that evaluations should be publicly available or incentives to make them available; moreover, current efforts to compile evidence related to environmental efforts are in the early stages and do not collect or provide access to primary environmental evaluation studies. For instance, the Collaboration for Environmental Evidence (CEE) (<http://www.environmentalevidence.org/>) aims to synthesize evidence about the issues of greatest concern to environmental policy and practice. CEE is relatively new compared to similar initiatives in other sectors. It has established Guidelines for Systematic Review and Evidence Synthesis in Environmental Management that are designed to promote rigorous and transparent methodologies for assessing the impacts of human activity and effectiveness of interventions. CEE focuses on synthesis and does not gather or provide access to primary environmental evaluation studies or empirical data.
* **Evaluations provide diverse types of evidence:** Initiatives such as CEE that synthesize evidence typically use studies with experimental or quasi-experimental designs. Though many environmental evaluations have gathered evidence on the effectiveness of environmental management, little of that knowledge has been generated through experimental research design. There is much debate in the evaluation community about when it is possible, practical, or warranted to conduct experimental or quasi-experimental evaluations and when other types of evaluation (e.g. case studies, qualitative studies, etc.) may be sufficient or even preferable. Currently, without a repository of evaluations, there is no clear way to search environmental evaluations by type, relevance of methodology used, or the type or quality of evidence.

**What is “Environmental Evaluation”?**

*Evaluation* is a process of systematic data collection and analysis to address questions about how well programs, policies, projects, or interventions are working, whether they are achieving their objectives, and why they are effective or not. It provides evidence that can be used to compare alternative strategies, guide program development and decision-making, and reveal effective practices.\*

*Environmental* evaluation focuses on assessing merit, worth and significance of programs, projects, policies, interventions, and strategies found in fields such as environmental protection, natural resources management and exploitation, sustainable development, climate adaption and biodiversity conservation. For this project, in order to accommodate the organizational, disciplinary, and geographic diversity of the sector, environmental evaluation is interpreted broadly to include a wide array of approaches, tools and strategies used to assess and systematically improve effectiveness – including efforts identified as research, modeling, evaluation, R&D, or systematic evidence review as well as administrative approaches such as adaptive management, performance measurement, performance management, indicator systems, scorecards, etc.

*\* This definition is adapted from “An Evaluation Roadmap for a More Effective Government,” American Evaluation Association Evaluation Policy Task Force, February, 2009.*

* **The community of environmental evaluators is fragmented** across geography, knowledge, and expertise. Although the Environmental Evaluators Network is growing and improving, it does not have sufficient information about participants and their work to provide a platform for evidence-based collaboration based on topic, competency, geography, methodology, etc.

Researchers, policy-makers, evaluators, and organizations that seek to use evaluations now have an opportunity to help to design and build a cohesive body of evidence and a network of evaluators that can advance environmental evaluation and support more systematic and collective learning.

## Project Description

The Environmental Evaluators Network, with support from the U.S. Environmental Protection Agency, is proposing to develop an Architecture of Environmental Evaluation (ArchEE) to meet the demand of for evidence related to the environment. **ArchEE is intended to serve as an open access inventory and database for evaluations, evaluators and evaluation-related literature**, including formal evaluations and other approaches to systematic improvement and evidence based management. Specifically, ArchEE will provide information about:

* **Evaluations:** ArchEE will allow users to search for evidence of what works, what does not and ways to improve. Users will be able to search across studies by topic, evaluation question, methodology, data, theory of change, findings, recommendations, author, and more. See Appendix A for a potential framework for organizing evaluations and applied research. *(include visuals/graphs about evaluations – e.g. #, type, organizations, geography, topics)*
* **Evaluators:** ArchEE will allow users to search for evaluators by location, experience (topics, competencies), knowledge, organization, collaborations (evaluators, organizations), and evaluations. ArchEE will also help to describe networks of evaluators and their work and communicate how groups of evaluators learn from one another, collaborate, and share knowledge. Network analysis, particularly social network analysis (SNA) and network visualizations will be fundamental to this component of ArchEE. *(Include examples of visualizations of SNA)*
* **Evaluation Literature**: ArchEE will enable users to search evaluation literature by author, title, keywords/topics, abstracts, bibliographies, and other bibliometric measures. The content will include peer reviewed and gray literature, including presentations/speeches, policy documents, theses, reports, and white papers. *(Include visual/graph of quantity, relevance, growth, etc. using existing peer reviewed literature inventory)*

In addition to making information about evaluators, evaluations and evaluation literature accessible,ArchEE will provide a forum to improve coordination across evaluators and evaluation users by facilitating transfer of knowledge and information generated through evaluation. ArchEE will bring together the people who conduct and use evaluations and their work.

ArchEE is intended to help:

* **Managers, planners, and policy makers** at governmental agencies, firms, NGOs, and environmental/conservation organizations find effective and tested practices and policies, reduce use of unproven or ineffective practices and policies, improve programs and interventions, and share relevant evidence with their peers and key stakeholders.
* **Evaluators** improve collaborations around topics, evaluation questions, methodological challenges, findings, theories of change, and geography.
* **Those seeking to conduct evaluations** to find evaluators and researchers with relevant knowledge and expertise.
* **Funders and researchers** conduct meta-analyses and prioritize gaps and overlaps in evaluation practice and research. Funders and researchers will be able to use ArchEE to baseline the current quality of environmental evaluation as well as evaluator capacity and competencies and answer questions like “Which topics or sectors are being evaluated and which have not been evaluated?” “Which approaches are effective in addressing a particular challenges and which is not?” “Where do we have enough evidence and where is it still lacking?” “In what areas does the evaluation community have relatively strong evaluation capacity/competency and in what areas is experience limited?”
* **Teachers** at undergraduate and postgraduate programs need evaluation information to teach students. Theoretical frameworks, methodologies, case studies, and practical applications would be very valuable. Education is paramount since the field of evaluation is still an emerging discipline in many countries and strengthening local capacities is necessary.

## Draft Conceptual Model of ArchEE



## Work to Date

A small advisory group of Environmental Evaluators Network participants is working to refine the project’s conceptualization, design and planning as well as taking initial steps to gather information in support of ArchEE. Specifically, the advisory group has taken steps to:

1. **Conduct a social network analysis** of 60 participants in the US Environmental Evaluators Network Pacific Forum *[Can Vance Borland expand on this]*; and
2. **Inventory approximately 2,000 peer-reviewed papers** related to environmental evaluation published between 2000 and 2010. The inventory includes authors, titles, sources, languages, keywords, author contact information, funding agencies and grant numbers, funding text, cited references, publisher information, publication information, subject category, and abstract text *[add description of search protocols here]*;
3. **Inventory and classify individual environmental evaluations**. A preliminary and narrowly scoped online search and communications with EEN participants have generated a list of 50+ sources of environmental evaluations.

A list of data sources compiled as part of this work is included in Appendix B. A list of participants and contributors to this work is included in Appendix C.

## Next Steps and Opportunities to Participate

The ArchEE sponsors are currently seeking additional members of the advisory group, contributors and funders. Advisory group members will work closely with each other to refine the concept of ArchEE, develop the project plan (outlined in section VII below) and potentially seek funding for the project. If you are interested in joining the advisory group please contact Matt Keene at keene.matt@epa.gov.

The current ArchEE advisory group is seeking feedback from the community of environmental evaluators. The advisory group will first introduce the project and work to date at the Environmental Evaluators Network Pacific (EENP) Forum scheduled for September 22-24, 2013. During a few breakout session designed to further develop the project plan, members of the advisory group will gather input and feedback on ArchEE, around questions such as:

1. How would potential users envision using ArchEE? A list of potential uses of ArchEE is included in Appendix E.
2. What would be the most important features of ArchEE?
3. What attributes would be important in characterizing individual evaluations and studies related to evaluation?
4. What sources of data should ArchEE draw on? An initial list of sources is included in Appendix B and a bibliography is included in Appendix F.
5. Based on the review of other repositories (see Appendix D), what should we learn about the design, implementation and evolution of other repositories/clearinghouses and their analysis of comprehensive evaluation information (i.e., beyond quasi- and experimental research design)?
6. What are strengths and weaknesses of the ArchEE concept? What are opportunities and threats related to ArchEE?

## Timeline

*[straw man to start the discussion]*

|  |  |
| --- | --- |
| Fall 2013:  | Build ArchEE network; conceptualization and design of ArchEE |
| Fall 2013 – Spring 2014:  | Design and build prototype ArchEE; begin pilot testing ArchEE components |
| Summer 2014:  | Evaluate ArchEE concept, design and implementation (pilot); Learn, adapt and communicate  |
| Fall 2014: | ArchEE Implementation  |

## Project Plan

*Option: base the project planning on the Open Standards framework:*

<http://www.conservationmeasures.org/wp-content/uploads/2013/05/CMP-OS-V3-0-Final.pdf>



* 1. Conceptualize/Design
		+ Governance structure/Team
			- Convene advisory team/board
			- Establish expectations, roles and leadership
		+ Theory of Change/Conceptual Model
			- Purpose, vision
			- Scope
			- Goals, outcomes
			- Audiences
			- Communications
			- Resources (Skills, Knowledge, Networks, Funding)
	2. Design/Plan Actions and M&E (Strategic Plan)
		+ Action Plan - Goals, Strategies, Assumptions and Objectives
			- Design
				* Organizational framework
				* Protocols for contribution
				* Database
			- Data (collection, management, access, analysis, etc.)
			- Dissemination and use
			- Products and Services (database/website, journal, presentations, etc.)
		+ Measurement and Evaluation Plan (Integrate evaluation – e.g., evaluation questions)
		+ Operational plan – Funding, human capacity, challenges/risks, lifespan
	3. Implement/Pilot Actions and M&E
		+ Work plan – detailed, short term (< 1 year) with timelines
			- What specific activities and tasks are required to complete each planned strategy, monitoring step, or operational function?
			- Who will be responsible and who will be accountable for completing each activity and task?
			- When will each task be undertaken and what will be the sequence of linked activities and tasks?
			- How much money and other resources will be needed to complete each activity and task?
		+ Refine budget
		+ Implement plans (pilot?)
	4. Analyze, Learn, Use, Adapt
		+ Data preparation and Analysis
			- Analytical approaches, strategies, tools
				* Social network analysis
				* Meta-analysis
				* Qualitative analysis
			- Publish data
		+ Interpret results, recommendations
		+ Adapt strategic plan
	5. Capture and Disseminate Learning, Implement
		+ Document and share learning
		+ Website – <http://www.environmentalevaluators.net/>
		+ Workshops – EEN Workshops, other
		+ Conferences – EEN and other evaluation and performance conferences
		+ Journal – environmental evaluation journal

# Appendix A: Notes toward a Framework for Organizing Evaluation/Applied Research

on Environmental Effectiveness

|  |  |  |  |
| --- | --- | --- | --- |
| *Some Environmental Topics* | **Evaluation Questions**What evidence is needed to Inform near-term decisions about environmental policy, conservation policy, protection or restoration or regulation efforts, sustainable development etc.? | **Research Design Problems**What challenges in research design and practical feasibility make it difficult for applied research and evaluation studies to provide the information needed to inform decisions? | **Applied Research Solutions**How can personnel, institutions, and methods from basic research more readily contribute to applied research that informs social decisions? Are there ways to conduct basic research that simultaneously addresses near-term applied research needs?  |
| **Ecological Outcomes**Biodiversity* Predators, Endangered Species
* Fish
* Birds

Ocean* Estuaries
* Fisheries
* Marine Reserves/Protected Areas

Rivers* Water Quality
* Quantity & Flow; Allocation
* Fish

ForestsRange and Desert LandUrban LandCrosscutting Issues* Climate Adaptation
* Habitat Protection/Restoration
* Invasive Species
* Ecosystem Services
* Multiple Use
* Mitigation Banking
 |  |  |  |
| **Social Outcomes**Sustainable Systems* Food
* Energy
* Transportation
* Water/Wastewater
* Buildings, Development
* Forest & Fiber Products
* Minerals
* Waste reduction/disposal

Education* Formal Science, Engineering and Environmental education
* Informal, Non-formal
* Social Marketing, Public Education, Public Perception of Environmental Choices
* Voluntary Certification Programs
* Enhancing Regulatory Compliance

Public Health* Air Quality
* Water Quality, Allocation
* Flooding, Disaster Preparedness
* Consumer Protection

Crosscutting Issues* Climate Change Mitigation & Adaptation
* Resource Use Efficiency
* Land Use, Water Use
* Toxic or Degraded Site Restoration
* Policy, Regulation
 |  |  |  |

# Appendix B: Data sources

*(Just a start…)*

## Environmental evaluators

* EEN data on evaluators and organizational affiliation (e.g. registrations 2006-2013)
* EEN Forum evaluation forms
* Survey Data of evaluators
* EEN Pacific Registration
* (*Potential data source*) add a form to EEN web for evaluators to enter names, affiliations, evaluations conducted and other attributes
* AEA Environmental Program Evaluation Topical Interest Group
* AEA Social Network Analysis TIG
* AEA Qualitative analysis TIG
* EEN LinkedIn membership
* AEA LinkedIn group
* <http://www.europeanevaluation.org/community/national-and-regional-societies-and-networks.htm>

## Environmental evaluation literature

* Peer-reviewed environmental evaluation literature database (2000-2010)
* EU impact assessment guidelines <http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm>
* Sixth Environmental Action Programme (2002-2012) at the EU which calls for the ‘improvement of the process of policy making through … ex post evaluations of the effectiveness of existing measures in meeting their objectives’:<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:242:0001:0015:EN:PDF>
* EU Environmental Action Programme: <http://ec.europa.eu/environment/newprg/proposal.htm>
* Communication from the European Commission from 2007 ‘Responding to Strategic Needs: Reinforcing the use of evaluation’ (<http://ec.europa.eu/dgs/information_society/evaluation/data/pdf/sec_2007_0213_en.pdf>)
* The EU’s financial regulation (<http://ec.europa.eu/dgs/secretariat_general/evaluation/docs/syn_pub_rf_modex_en.pdf>)
* A communication from the European Commission from 2010 ‘Smart Regulation in the European Union’ (see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0543:FIN:EN:PDF>) stresses the importance of evaluations in general because of their importance in ensuring the quality of regulation through the policy cycle.
* Mickwitz, P. 2012.Chapter 15 “Policy Evaluation”. In Jordan, A.J. and C. Adelle (ed.) *Environmental Policy in the EU: Actors, institutions and processes* (3e). Routledge: London and New York, 267-286).

## Environmental evaluations

### *International*

* UNDP [Evaluation Resources Centre](http://erc.undp.org/) (evaluations conducted by UNDP are searchable by key word): http://erc.undp.org/index.html;jsessionid=50703E0D0EFD86C6811C3C4B582BB1B7
* [UNEP Evaluation Office](http://www.unep.org/eou/): http://www.unep.org/eou/
* [GEF Evaluation Office](http://www.thegef.org/gef/EvaluationsStudies): http://www.thegef.org/gef/EvaluationsStudies
* World Bank (including but not necessarily limited to the [Independent Evaluation Group](http://ieg.worldbankgroup.org/webpage/evaluations) of the World Bank): http://ieg.worldbankgroup.org/webpage/evaluations
* [Independent Evaluation Office](http://www.adb.org/site/evaluation/resources/main) of the Asian Development Bank: http://www.adb.org/site/evaluation/resources/main
* OXFAML: [http://policy-practice.oxfam.org.uk/publications/search?i=1;q=\*;q1=publications;q2=oxfam+evaluation+reports;x1=page\_type;x2=series](http://policy-practice.oxfam.org.uk/publications/search?i=1;q=*;q1=publications;q2=oxfam+evaluation+reports;x1=page_type;x2=series)
* IUCN (including protected areas evaluation): <http://www.wdpa.org/me/PDF/global_study_2nd_edition.pdf>
* Collaboration for Environmental Evidence: http://www.environmentalevidence.org/

### *Europe/United Kingdom*

* EEN Europe
* European Union ex-ante impact assessments: <http://ec.europa.eu/governance/impact/ia_carried_out/cia_2013_en.htm>
* DG Environment of the European Commission: <http://ec.europa.eu/dgs/environment/evaluation_reports.htm> and/or <http://ec.europa.eu/dgs/secretariat_general/evaluation/search/results.do> <http://ec.europa.eu/environment/pubs/studies.htm>
* Studies undertaken for the European Commission examining the different links between environment and the economy: <http://ec.europa.eu/environment/enveco/studies.htm>)
* European Environment Agency: <http://www.eea.europa.eu/publications#c14=&c12=&c7=en&c9=all&c11=5&b_start=0>
* European Court of Auditors: <http://eca.europa.eu/portal/page/portal/publications/auditreportsandopinions>
* Research Framework Programmes: <http://ec.europa.eu/environment/integration/research/research_links_en.htm>
* European Environment Agency report from 2001 ‘Reporting on environmental measures: Are we being effective?’ (<http://www.eea.europa.eu/publications/rem/page001.html>)
* Evaluation website of the European Commission (see <http://ec.europa.eu/dgs/secretariat_general/evaluation/key_feat_en.htm>)
* Flanders Environment Reports: ‘Environment and Nature Report Flanders 2003: Policy evaluation’ (see <http://www.milieurapport.be/upload/main/docs/Administrators/MIRA-BE/EnvironmentalPolicyEvaluation_report.pdf>); ‘Flanders Environment Report 2005: Policy evaluation’ (see <http://www.milieurapport.be/Upload/main/docs/Administrators/MIRA-BE/MiraPE2005EWeb.pdf>); ‘Flanders Environment Report 2007: Policy evaluation’ (see <http://www.milieurapport.be/Upload/main/docs/Administrators/MIRA-BE/BE_rapport-2007-Engels-voor%20website-def.pdf>)
* NARA reports on Flemish nature policy published in 1999, 2001, 2003, 2005 and 2007 contain evaluation work (see <http://www.inbo.be/content/page.asp?pid=BEL_NARA_OUD2>). In 2012 there was a specific policy (evaluation) report (see  [http://www.inbo.be/content/page.asp?pid=BEL\_NARA\_NARA2012download](http://www.inbo.be/content/page.asp?pid=BEL_NARA_NARA2012download" \t "_blank)).
* The Belgian Court of audit (see: <https://www.ccrek.be/EN/Publications/Topic.html?id=52101c1d-4778-4bd4-902e-38f11cf38543>).
* Natural England

### *Canada*

* Fisheries and Oceans Canada: <http://www.dfo-mpo.gc.ca/ae-ve/evaluations-eng.htm>
* Natural Resources Canada: <http://www.nrcan.gc.ca/evaluation/reports/2797>
* Parks Canada: <http://www.pc.gc.ca/docs/pc/rpts/rve-par/eval_rev_e.asp>
* Environment Agency Canada: [www.ec.gc.ca/ae-ve](http://www.ec.gc.ca/ae-ve)
* Treasury Board of Canada Secretariat Audit and Evaluation Database <http://www.tbs-sct.gc.ca/aedb-bdve/home-accueil-eng.aspx>
* Agriculture and Agri-Food Canada Evaluation Reports<http://www.agr.gc.ca/eng/about-us/offices-and-locations/office-of-audit-and-evaluation/audit-and-evaluation-reports/agriculture-and-agri-food-canada-evaluation-reports/?id=1231274036741>
* Office of the Auditor General of Canada: <http://www.oag-bvg.gc.ca/internet/English/cesd_fs_e_921.html>
* EEN Canada
* Ontario Trillium Foundation

### *Mexico*

* EEN Mexico
* Parks Commission
* Agriculture, Forestry and Environment Ministries
* Fondo Mexicano para la Conservacion

### *United States*

* EPA
* NOAA Evaluation reports
* USAID: [www.usaid.gov/results-and-data/progress-data/evaluations](http://www.usaid.gov/results-and-data/progress-data/evaluations)
* IFAD - <http://www.ifad.org/evaluation/public_html/eksyst/doc/index.htm>
* OECD - <http://www.oecd.org/dac/evaluation/>
* NFWF: <http://www.nfwf.org/results/evaluationreports/Pages/evaluationreports.aspx>
* Cochrane collaboration related to environment/human health (lead, asthma, environmental health)
* Campbell Collaboration related to environment/human health
* 3IE – search impact evaluations related to the environment, natural resources, biodiversity, climate, pesticides, agriculture, water, pollution, air
* FAO
* CDC
* BLM
* NASA
* US National Parks Service
* Fish and Wildlife Service
* Forestry Service
* Annie E Casey Foundation - <http://www.aecf.org/KnowledgeCenter/SearchResults.aspx?source=topsearchKC>
* Gates Foundation
* Packard Foundation
* Moore Foundation
* WCPA
* WWF
* TNC
* CI
* Sierra Club
* Conservation Measures Partnership
* <http://www.climate-eval.org/eLibrary>
* <http://www.seachangecop.org/taxonomy/term/555>
* The American Council for an Energy-Efficiency Economy provides research papers on a subscription basis (<http://aceee.org/publications>)
* The International Energy Program Evaluation Conference provides an online repository of conference papers (<http://www.iepec.org/?page_id=499> )
* The California Measurement Advisory Council (CALMAC) provides a repository of all evaluations of publicly-funded energy efficiency programs in California (<http://www.calmac.org/search.asp> ) and a list of contacts with their topic coverage areas (<http://www.calmac.org/maestro-contacts.asp>
* LBNL's Energy Efficiency Standards Group has a list of publications: <http://efficiency.lbl.gov/publications> . Most of these publications are too narrowly focused, but there are higher-level papers like energy and economic impacts of energy and water conservation standards that may be helpful for those in natural resource conservation and climate change: <http://efficiency.lbl.gov/publications/energy-and-economic-impacts-us-federal-energy-and-water-conservation-standards-adopte-1>
* Energy Sciences Network Green Networking ( <http://www.es.net/RandD/green-networking>)
* Green Touch example of a research-based article about connection between climate change and energy use: <http://www.greentouch.org/index.php?page=how-the-ict-industries-can-help-the-world-combat-climate-change>
* North American Association for Environmental Education (<http://www.naaee.net>)
* MEERA (if still active; looks like the most recent report is from 2011; check with Michaela Zint (<http://meera.snre.umich.edu> )

# Appendix C: Participants and Contributors

## Current Project Advisory Group

Matt Keene, U.S. EPA Evaluation Support Division

Michael Coe, *[List affiliation]*

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## Additional Contributors

*[These are individuals are potential data sources; modify this list depending on who actually provides information]*

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Cris Sette, Better Evaluation

# Appendix D: Review of Other Repositories

Researchers and policymakers in many sectors, such as education, healthcare, and criminal justice, have compiled repositories of evidence to inform programs, policies, and interventions. Four examples of such repositories include:

* What Works Clearinghouse (WWC): Established in 2002 by the Institute of Education Sciences (IES) at the U.S. Department of Education, WWC aims to promote informed education decision making by providing schools, school districts, and education program developers with a central and trusted source of scientific evidence about “what works” in education.
* Campbell Collaboration (C2): C2 is a nonprofit organization that aims to help policymakers, practitioners, researchers, and the public make well-informed decisions about what works in the social, behavioral, and educational arenas. C2 conducts systematic reviews of studies of interventions, which it publishes in an online monograph series, and archives in C2’s online library.
* Crime Solutions: Crime Solutions provides evaluations of criminal justice-related programs and practices for practitioners and policymakers who are not social scientists. The review process and evidence ratings are meant to give users “access to social science evidence that is otherwise difficult for them to obtain.”
* **International Initiative for Impact Evaluation (3ie)**: 3ie, a non-profit organization, funds evaluations and systematic reviews of development programs to “inform policy and improve lives of the poor.” In its dual role as funding agency and knowledge broker, 3ie assists researchers to carry out evaluations and communicate findings more effectively to influence policy.

A review of these four repositories suggests they share many features in common. They also have some differences, reflecting the sponsor’s decisions about scope, purpose, and accessibility. Major similarities and differences include the following:

* Scope: Three of the four repositories reviewed are dedicated to a single discipline (i.e., education, crime, or international development programs), and cover several topics within each discipline. Campbell Collaboration is the exception, covering social welfare, crime and justice, education, and international development. All four repositories aim to reach policymakers and practitioners and to inform evidence-based decision making. The repositories generally favor randomized control trials or quasi-experimental designs, but 3ie also includes qualitative research.
* Information: All four repositories go beyond simply archiving existing studies to critiquing and interpreting the research. WWC and Crime Solutions provide “evidence ratings” for research findings based on their assessment of the strengths and limitations of the methodologies. The other repositories do not provide ratings, but do provide reviews and critiques. The repositories include both individual studies and meta-analyses of research in a particular area.
* Format: The format varies depending on the type of report (e.g., single study or synthesis, quick or in-depth review). All four repositories include basic summary information, with links to full reports. In addition, WWC and Crime Solutions provide graphics that summarize the strength of evidence for each study or intervention.
* **Functionality:** The repositories all have search capabilities, some more advanced than others. All four allow users to conduct simple searches (type in keywords) or advanced searches (filter by topic, type of document, publication date, demographics, etc.). Users accessing WWC and Crime Solutions can search by evidence rating. C2 lets users save their search history for future reference. WWC and C2 let users export the search results and/or full publications to RIS, Excel, and/or PDF. Crime Solutions lets users send “program or practice profiles” to Facebook, Twitter, or Myspace. 3ei does not allow users to export search results.
* **Accessibility:** All four databases are open to the public, free of charge, and do not require registration. However, 3ie redirects users trying to download the original research to an external website (e.g., online journal), which often requires payment to access the full article.
* **Design and evolution:** Contractors support three of the four repositories: WWC (Mathematica), 3ie (Aptivate), and Crime Solutions (Lockheed Martin). Mathematica appears to provide content support, while Aptivate and Lockheed Martin provide Web design and technical support. Three sites (WWC, C2, and Crime Solutions) have taken steps to enhance their services over time.[[3]](#footnote-3) C2 developed a more user-friendly and sophisticated search function, added new resources beyond the searchable library, and launched Danish, Japanese, and Chinese language versions of the site. Crime Solutions recently added a “practices” section in addition to its well-established “programs” section. WWC added more reviews to its website and began to consider quasi-experimental designs (previously it only considered randomized control trials) in an effort to increase the repository’s relevance and usefulness.

# Appendix E: Potential Uses of ArchEE

*[Based on feedback from contributors/participants at the Environmental Evaluators Network Pacific Forum, fill in examples/more detail and/or revise list of potential uses of ArchEE.]*

ArchEE will help:

1. Develop an evidence base around specific topics to improve decisions (e.g. learn from the evidence generated by evaluations related to storm water runoff to improve related programs and policies)
2. Learn from, and avoid unnecessary duplication of, past evaluations of relevant programs, topics, methods used and other attributes of evaluations that will improve future evaluations
3. Understand the quality of environmental evaluations and relevant research (e.g. compare environmental evaluations to the discipline’s standards, find lack of or over-attention to certain topics, methods, questions, etc.)
4. Improve the design of new programs and policies by learning from evaluations that address relevant goals, activities, interventions, strategies, policies, strengths and weaknesses, theories of change and/or overall effectiveness.
5. Build evidence for decision making where its lacking (i.e. improve strategic decisions and resource allocation about evaluation by directing evaluation resources to programs, topics, questions that have not been studied…avoid evaluating issues where sufficient evidence already exists)
6. Identify evaluators/teams with appropriate skills, knowledge, experience and networks
7. Identify and disseminate specific information to target audiences (e.g. find evidence of activities that are effective or not at achieving particular outcomes and disseminate that information to specific offices working to achieve those outcomes
8. Identify and connect latent networks of evaluators or evaluands (programs, policies, projects) to encourage collaboration around common issues (e.g. identify and connect groups of evaluators or program managers that have common characteristics but are geographically disperse and/or not connected)
9. Synthesize evidence related to specific interventions, programs, etc. to determine effectiveness (e.g. systematic review)
10. Inform educators and education curricula of environmental evaluation competencies and capacity the existing evidence base (i.e. match curricula to current needs, past learning and effective practice)
11. Find the relationships between environmental evaluation and evaluation in other sectors to initiate or improve collaboration and learning across sectors

# Appendix F: Bibliography

*(just a start…)*

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# Appendix G: Additional Reviewer Comments

1.

Many thanks for giving me the opportunity to comment on this proposal. ArchEE is an exciting and innovative proposal and I am happy to contribute in any way I can.

I have made some initial comments on the attached. In answer to your specific questions;

I see ArchEE as highly complementary to the activities of CEE. There are real prospects for joint working and I think we need some open discussion on how this might develop. I am happy to circulate the ArchEE proposal within CEE and gather feedback on ways in which the relationship could develop.

A journal of environmental evaluation needs careful thought. Starting a new journal is not a small undertaking and carries some risk as well as taking some time to establish. I would be happy to share the experience of starting the CEE journal, Environmental Evidence.

I would really like to see some case studies emerging where individual evaluations of environmental interventions have been collected together to measure effectiveness or impact in more general terms. This would certainly help with designing the concept of ArchEE. Alternatively, we could look at other sectors for examples of this process.

I hope the Forum goes well and I look forward to the hearing about the feedback you receive and next steps on ArchEE.

Cheers

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1. U.S. Office of Management and Budget, “Next Steps in the Evidence and Innovation Agenda (M-13-17)” July 26, 2013. [↑](#footnote-ref-1)
2. Additional examples of clearinghouses include: the International Initiative for Impact Evaluation for development programs ([www.3ieimpact.org/en](http://www.3ieimpact.org/en/)); Crime Solutions for criminal justice, juvenile justice, and crime victim services ([www.crimesolutions.gov](https://www.crimesolutions.gov/)); National Registry of Evidence-based Programs and Practices for mental health promotion, substance abuse prevention, and mental health and substance abuse treatment ([www.nrepp.samhsa.gov](http://www.nrepp.samhsa.gov/)); the California Evidence-based Clearinghouse for Child Welfare ([www.cebc4cw.org](http://www.cebc4cw.org/)); the U.S. Center for Disease Control and Prevention’s Understanding Evidence resource for violence prevention practitioners (http://vetoviolence.cdc.gov/evidence/); and the Department of Labor's Clearinghouse of Labor Evaluation and Research (not currently available online). [↑](#footnote-ref-2)
3. There was not information on the evolution of the 3ei repository website. [↑](#footnote-ref-3)