International Affairs
Annual Report 2017-2018
Executive Summary

The Native American and International Affairs Office worked on a variety of international projects in calendar year 2017 and 2018. These included, conducting training and technical assistance abroad, conducting study tours and training in the United States for international visitors, hosting the Safety Evaluation of Existing Dams International Technical Seminar, and the first International Reservoir Sedimentation and Sustainability Workshop. NAIAO also facilitated Reclamation personnel traveling abroad for conferences and events, maintaining a strong presence for Reclamation with international partners.

The Bureau of Reclamation continued its involvement as the Country Technical Representative for the Middle East Desalination Research Center in Oman, sharing its technical expertise in desalination internationally. Employees also showcased their work at the 2017 and 2018 Stockholm World Water Week conference, highlighting the Colorado River Basin Study in 2017 and working with Tribal Nations on the Columbia River in 2018. Reclamation and Department of the Interior employees also traveled to Indonesia to conduct a Dam Safety and Operations Workshop, and attended two workshops in France in partnership with Electricité de France.

Reclamation also expanded its program with the Government of Brazil. In May 2017, one Reclamation engineer conducted dam safety training at Brazil’s Itaipu Dam, the world’s largest hydroelectric power plant. In August 2017, four employees representing three Reclamation regions conducted an Introductory Training Workshop on topics including dam safety, emergency management and risk assessment for Brazil’s National Water Management Agency (ANA). In October 2017, three employees conducted a study tour with ANA of the Sao Francisco Water Transfer Project in Brazil. Reclamation hosted a study tour of the Central Valley Project and Newlands Project for thirteen Brazilian representatives from ANA and the Ministry of Integration in September 2018. Reclamation Commissioner Brenda Burman also led a delegation from the United States Government to the 8th World Water Forum in Brazil in March 2018, where alongside Reclamation, U.S. Geological Survey and DOI Officials, she represented the United States in meetings, panels and keynote addresses.

In Denver at the Technical Service Center (TSC), the Concrete, Geotechnical, and Structural Laboratory conducted large-diameter concrete core testing for Canada’s British Columbia Power Authority. TSC employees have also continued collaboration with the Puerto Rican Power Authority by developing alternatives to reduce the risk to the public from a possible earthquake-induced failure of one of their dams. The TSC also continued its long-time relationship with the Water Resources Agency of Taiwan, holding annual meetings and conducting training, technical assistance, and joint research on sedimentation and dam safety.

Reclamation continued to host the Safety Evaluation of Existing Dams International Technical Seminar in Denver. In June 2017, 48 people from 10 different countries participated in the one-week training in Denver and study tour in Utah. In June 2018, 32 participants from 10 countries participated in both the training and study tour of the Central Valley Project. In 2017, the Central Water Commission of India sent 20 junior and senior engineers to attend the Safety Evaluation of Existing Dams Intentional Technical Seminar and then Reclamation conducted a post-seminar study tour of Glen Canyon Dam.

As part of our International Visitor Programs, Reclamation hosted 500 people from over 100 different countries in 2017 and 2018. Visitors represented every continent except Antarctica. Our visitor programs entail visits to Reclamation offices and facilities all over the Western United States.
Finally, we hosted the first **International Reservoir Sedimentation and Sustainability Workshop** in April 2018. The TSC’s Sedimentation and River Hydraulics Group partnered with the U.S. Army Corps of Engineers to provide training for reservoir sediment management for long-term sustainability. 12 participants from four countries attended the workshop.
Introduction

The Bureau of Reclamation has long been active internationally and is known worldwide for its breadth and depth of expertise. Reclamation has a comprehensive international program featuring activities such as technical assistance, training, visitor programs, seminars/workshops, and technology exchanges.

The Native American and International Affairs Office serves as the main point of contact for all international activities for Reclamation, with the exception of regional transboundary water management activities. Reclamation makes its expertise in water resources management available to support U.S. foreign policy goals, assist nations in managing their water resources, and cooperate with others to exchange technical information and expertise.

Technical Assistance Updates

Technical assistance programs typically involve the assignment of Reclamation experts overseas on a short-term basis. Each program is designed to address the specific needs of the requesting agency and all costs are fully reimbursable.

Provide Expertise to the Middle East Desalination Research Center

The U.S. Department of State has supported Middle East Desalination Research Center activities that enhance the desalination capabilities in the Middle East and North Africa since 1998. Reclamation has interagency agreements with the State Department and U.S. Agency for International Development, who fund this technical assistance. MEDRC was established under the Multilateral Middle East Peace Process Working Group on Water Resources and promises to increase water supply through desalination technologies.

MEDRC addresses two of the most pressing global and regional challenges: water and peace.

Saied Delagah, Chemical Engineer, Technical Services Center periodically travels to Oman to attend MEDRC’s Country Technical Representative and Executive Council meetings at the request of the State Department to provide technical expertise on desalination to the Department of State and MEDRC. He traveled to Oman in January 2017, February 2018, and December 2018 to provide his technical expertise and support.

These trips display and share Reclamation’s technical expertise in desalination internationally. They also allow Reclamation to learn about the desalination-related challenges and needs of other countries, desalination technologies used throughout the world, and support U.S. foreign policy goals by providing technical expertise. These trips also benefit Reclamation staff by exposing staff to global challenges, new technologies, new networks and contacts, and insight on potential research and activities that can benefit the United States.
Presentations at Stockholm World Water Week

Stockholm World Water Week is the annual focal point for international water issues. Over 3,000 individuals from 135 countries participate in the Week. It is a diverse gathering of professionals from a range of sectors and countries. The focus of the Week is to network, exchange ideas, foster new thinking, and develop solutions to the most pressing water-related challenges.

In August of 2017, Carly Jerla, Supervisory Operations Research Analyst for the Boulder Canyon Operations Office presented a “Showcase Session” at World Water Week in Stockholm titled, “The Colorado River Basin Study: Collaborative Solutions to Water Sustainability”. The goal of this showcase was to highlight Reclamation’s WaterSMART program, long-term planning approaches, and the role of sound technical knowledge in facilitating stakeholder collaboration in the Colorado River Basin. The room was at capacity for this presentation and there were several questions focused on modeling tools and developing stakeholder trust.

In August 2018, John Roache, Program Manager, River & Reservoir Operations for the Pacific Northwest Region and Duane Mecham, Senior Attorney for the Department of the Interior traveled to World Water Week in Stockholm and presented a Showcase Session titled, “Nation to Nation on the Columbia River: Integrating Indigenous Perspectives into Water Resource Management”. This presentation highlighted the Reclamation’s work with various Tribal Nations throughout the Columbia River Basin and demonstrated the challenges of managing a transboundary watershed for multiple purposes. The audience had a variety of questions ranging from more technical (questions on spill and fish passage) to policy questions on resolving disagreements with stakeholders.

This trip benefitted Reclamation by providing the opportunity to showcase Reclamation’s wide-ranging work and innovative approaches to long-term planning and basin studies. Many at the event were unfamiliar with the scope of Reclamation’s work and requested follow up information and showed an interest in training programs. Ms. Jerla increased her exposure to different global water issues and gained a global perspective on water challenges and their links with societal issues. After the trip, she was “left with a renewed sense of pride in the importance of Reclamation’s work”
Reclamation’s participation in the conference increases the international community’s awareness of Reclamation’s international programs and diversity of work that it undertakes in water resources management. This enhances Reclamation’s international reputation and provides more opportunities for both personal and organizational exchanges and collaboration.

**Introduction to Dam Safety, Emergency Management, and Risk Assessment Training Workshop**

Four employees representing three different Reclamation regions traveled to Brasilia, Brazil to conduct a one-week introductory training to employees of Brazil’s National Water Agency (ANA) in August 2017. This marked the first time that Reclamation employees conducted an in-country training with National Water Agency. The training provided a general introduction to topics such as safety evaluation of existing dams, risk analysis, potential failure modes, risk assessment and management, and emergency management.

Reclamation employees were able to showcase its various programs to the Brazilian government, which led to the Brazilians to request additional future training and technical assistance on these subjects.

**Study Tour of the Sao Francisco Water Transfer Project**

Three Reclamation and one USGS employee conducted a field visit of the Sao Francisco Water Transfer Project in cooperation with Brazil’s National Water Agency, the Ministry of Integration, and Brazil’s Facilities Operating Entity in October 2017. This reimbursable travel included one week of field visits along the Water Transfer Project and a one-week workshop at Brazil’s National Water Agency’s offices in Brasilia.

The one-week field visit spanned across multiple municipalities in the northeastern Brazilian states of Paraiba and Pernambuco. The team visited canals, pumping stations, dams, and other installations on this newly constructed Sao Francisco Water Transfer Project. At the workshop in Brasilia, the team discussed operations, management, monitoring, administration, and maintenance of Reclamation’s large water conveyance projects that are of a similar scale to the Water Transfer Project, including the Central Valley Project and Newlands Project.

Conducting technical assistance programs with foreign counterparts helps to maintain Reclamation’s reputation of excellence and professionalism. Reclamation continues to be a
A positive example of U.S. leadership and expertise globally while providing much needed assistance to its international counterparts. Reclamation employees agreed that this trip was one of the most important, exciting and informative professional experiences in their careers. This trip also illustrated how clearly Reclamation is considered a benchmark and model abroad, and how important Reclamation practices and policies are to accomplish its mission.

**Water Conveyance Systems Study Tour: CVP and Newlands Project**

In September 2018, Reclamation conducted a 10-day reimbursable study tour in California and Nevada for thirteen officials from ANA and the Ministry of Integration. The group toured both the Newlands Project and the Central Valley Project. The purpose of the visit was to allow Brazil’s National Water Agency and MOI employees to learn from Reclamation and its partners about the operation, maintenance, monitoring and control of large water conveyance systems. The delegation visited canals, pumping plants, fish passages, and dams in California and Nevada. The delegation also visited the California State Water Project Offices for presentations and visited one State Project pumping plant.

The Brazilian officials greatly benefited from seeing two important Reclamation water conveyance projects in person. The areas of most interest included operations and maintenance considerations, coordination with state and local actors, rate setting and water contract fulfillment, and monitoring/enforcement of water usage and calculating losses. This study tour was the first activity under a broader water conveyance systems training program that will continue with Brazil into 2020.

**Other Activities with Brazil: Webinars**

In addition to in-person activities, Reclamation has also conducted a variety of online webinar training sessions with ANA in 2017 and 2018. Topics covered include: dam safety, sedimentation, dam decommissioning, emergency management and Reclamation’s WaterSMART program. Conducting training sessions online allows for training and discussion opportunities at a much lower cost than in-country travel and is often the precursor for deeper in-person engagement.

**The 8th World Water Forum in Brasilia, Brazil**

Reclamation Commissioner Brenda Burman served as the Head of Delegation for the U.S. Government at the 8th World Water Forum, hosted by Brazil in Brasilia from March 18-23, 2018. Organized by the World Water Council, this global event on water takes place every three years in a different host country. More than 10,000 professionals from 170 countries attended the forum, including nine heads of state and more than 100 ministers, parliamentarians and mayors. The forum is held to find solutions to the world’s water security challenges, which is why the theme of 2018’s event was “Sharing Water”.

Reclamation and ANA Brazil Staff visit Shasta Dam in California. Photo credit: Bureau of Reclamation.
The Commissioner represented the U.S. in a series of high-level events attended by international heads of state and ministers. As a panelist and keynote speaker, she highlighted Reclamation’s cooperation with Mexico and innovative measures to the challenges of drought and water scarcity.

Commissioner Burman was accompanied by 10 other representatives from DOI, USGS, and Reclamation, including Principal Deputy Assistant Secretary for Water and Science Dr. Andrea Travnicek, Attorney-Advisor Bob Snow, and Deputy Commissioner for Operations David Palumbo. These attendees spoke on panels, attended bilateral meetings and networking events, and staffed a DOI booth at the conference exposition.

Attending World Water Forum increased international awareness of Reclamation’s mission and accomplishments, expanded its professional network of contacts, and helped employees gain a broader understanding of the common ground all countries face in tackling water challenges. Reclamation has a global reputation of excellence in water management, and attending international conferences allows Reclamation to maintain that reputation and broaden the understanding of the depth and breadth of Reclamation’s programs.

**Dam Safety and Operations Workshop in Indonesia**

Two Reclamation engineers and one DOI engineer traveled to Jakarta, Indonesia for one week in May 2017 to conduct a reimbursable Dam Safety and Operations Workshop for the Government of Indonesia. The team provided 5 days of in-country training to approximately 35 staff and 15 executives of the Office of Dam Operational Improvement and Safety Management. The team also visited two nearby dams, Jatiluhur and Cirata Dams. This trip provided an opportunity to showcase Reclamation’s International Affairs Program, mission and operational practices, as well as provide detail on Reclamation’s dam safety practices. Reclamation staff benefited from broader exposure to international facilities, other operational practices and exposure to other cultures and customs.

**Workshops in Partnership with Electricité de France (EDF)**

Tony Wahl, P.E., Hydraulic Engineer at the Technical Service Center traveled to Aussois, France in December 2017 to attend two workshops sponsored by the European Commission on Large Dams and the French Committee on Dams and Reservoirs, both hosted by Electricité de France, the major producer, distributor, and marketer of electricity.
in France. EDF has been a long-time collaborator with Reclamation’s hydraulics laboratory.

Both workshops focused on erosion problems associated with overtopping of dams. Tony presented on recent embankment breach tests performed in Reclamation’s hydraulics laboratory and on Reclamation’s experience with overtopping flow at Gibson Dam in 1964 and provided an analysis of potential overtopping flows and abutment armoring needs for other Reclamation dams.

The workshops provided an opportunity for Reclamation to learn about state-of-the-art techniques for modeling erosion that occurs during overtopping of embankment dams and during high-velocity flows in unlined rock spillway chutes. Reclamation research projects will benefit from awareness of and collaboration with other research programs. Tony also gained significant knowledge about new developments in the measurement and prediction of soil erodibility and the modeling of erosion affecting embankments and rock chutes.

**BC Hydro Concrete Testing (Oct 2017-Feb 2018)**

The Bureau of Reclamation conducted reimbursable large-diameter concrete core testing for Canada’s British Columbia Power Authority Ruskin Dam/Powerhouse from October 2017 to February 2018 at Reclamation’s Concrete, Geotechnical, and Structural Laboratory (CGSL) in Denver. BC Hydro’s Ruskin Dam is undergoing modifications related to seismic stability. As part of this effort, BC Hydro requested that CGSL test 10-inch diameter concrete core specimens from the Ruskin Dam lift lines in direct shear. Because of the size of the specimens and the specialized nature of the work, CGSL is the only laboratory with the unique equipment capable of performing this work.

CGSL is a part of Reclamation’s Technical Service Center in Denver, CO. It features a complete concrete laboratory complimented by complete structural testing capabilities, including a 5-million-pound universal testing machine and vibration laboratory. Some of the laboratory capabilities include direct shear testing, cement testing, freezing and thawing equipment, durability testing, among others.

Reclamation TSC employees ran, analyzed, and reported the results of this testing to BC Hydro and concluded the work in February 2018.
Puerto Rico: Technical Assistance for Patillas Dam (2017 and 2018 Combined)

Reclamation has provided reimbursable training and technical assistance to the Puerto Rico Electric Power Authority since the 1950’s. In 2017, Reclamation began work on developing alternatives to reduce the risk to the public from a possible earthquake-induced failure of PREPA’s Patillas Dam. This work will be continued into 2020. After alternatives are developed, Reclamation will prepare the final design and construction specifications for the selected alternative. In addition to the design and analysis of corrective-action alternatives for the embankment dam, Reclamation will provide hydrologic analysis to develop the Probable Maximum Precipitation for all of Puerto Rico and the Probable Maximum Flood specifically for the Patillas Dam watershed.

This new agreement builds on Reclamation’s past work and will help to reduce the risk of seismic-induced failure at Patillas Dam. Reclamation has previously performed engineering analyses and a probabilistic risk analysis of the hydraulic-fill embankment of Patillas Dam. Reclamation concluded that the hydraulic fill embankment design of the dam was not suitable for the highly seismic site and that the risks of earthquake-induced failure of the dam are more than Reclamation guidelines, requiring action to reduce the risk to the public.

Itaipu Brazil Dam Safety (2017) Reclamation Engineer Conducts Dam Safety Training at World’s Largest Hydroelectric Power Plant

Itaipu Dam, located between Brazil and Paraguay, is named one of the seven modern wonders of the world by the American Society of Civil Engineers and is truly awe-inspiring. Completed in 1984, Itaipu Dam consists of four dams joined together, spanning 4.8 miles in length. Its installed generation capacity of 14 gigawatts makes it the second largest hydroelectric power station in the world, after the Three Gorges Dam in China. Itaipu Binacional, the entity that manages Itaipu Dam, is jointly managed by Brazil and Paraguay. The dam is located on the Parana River at the border between these two countries. The dam was the result of a diplomatic agreement between Brazil and Paraguay that settled a land dispute between the two nations by converting most of that land into the dam’s reservoir.

Reclamation Civil Engineer Jay Stateler traveled to Foz do Iguacu, Brazil, in May 2017, to provide reimbursable training and technical assistance. The training covered subjects such as potential failure modes for dams, instrumentation, visual inspections, dam aging and lessons from dam incidents and failures. Itaipu Binacional recently welcomed several new engineers to its staff and this training was designed to help develop their professional knowledge.

Reclamation can learn a lot from a staff of professionals managing a structure of this size and complexity. The joint management of Itaipu Dam by Brazil and Paraguay was particularly impressive to Stateler, who described Itaipu Binacional as “very conscious of maintaining an equal balance of employees; they want things as close to 50-50 as possible, the two countries work incredibly well together.”

In describing the operations and maintenance at Itaipu Dam, Stateler observed, “The O&M work being done at Itaipu Dam is of the highest
standard.” One example is the attention to detail that Itaipu Binacional maintains on its dam safety monitoring program, employing a total of 10 engineers who exclusively focus on instrumentation data evaluation and routine visual monitoring.

Stateler’s trip highlights the benefits of working cooperatively with other countries. There is much to be learned from each other.

Reclamation Annual Meetings with Taiwan (2017 and 2018)

The technical assistance and cooperation for water resources program between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office was established in 1987 as part of a reimbursable Agreement for Technical Assistance in areas of water resources development. Reclamation serves as the designated technical representative of AIT, the official arm of the U.S. Department of State in Taiwan. Various water resources projects have since been carried out and executed through Reclamation and Taiwan’s Water Resources Agency. Years of collaboration have produced fruitful results and have proven beneficial to both sides in dealing with challenges facing the sustainable use of limited water resources.

Appendix 6 and 8 of the 1987 Agreement are currently active and fully reimbursable to Reclamation. Ongoing activities under Appendix 8 address sedimentation issues, which are of great concern to the Taiwanese. These reimbursable activities have produced significant benefits for Reclamation in areas such as sediment modeling and experience with reservoir-sediment sluicing options. Through Appendix 6 Reclamation provides technical assistance relating to the design and construction of dams and dam safety issues, which builds on and reinforces Reclamation’s existing expertise in these areas.

WRA and Reclamation hold annual meetings, alternating between Taiwan and the United States. These annual meetings have two elements, a day-long meeting to discuss the results of the work performed in the prior year and to establish the scope and priorities for the upcoming year, and visits to a selection of the host-country’s water-management facilities. This helps to expose the visiting country’s experts to the technologies being used and problems being encountered at those facilities. Senior leaders in WRA and Reclamation attend both the annual meeting and technical tours.

In October 2017, A six-member team from the Bureau of Reclamation, led by Deputy Commissioner for Operations David Palumbo, traveled to Taipei, Taiwan to participate in the 30th Anniversary meeting between AIT, Reclamation and TECRO in the United States. While in Taiwan, the team conducted three site visits. The first site the team visited was the Yuanshantzu Flood-Diversion Tunnel near Taipei. WRA shared their current coating technology to protect the tunnel, which can be beneficial to Reclamation since many spillways and dams owned by Reclamation experience similar issues.

The team also visited the Tsengwen Reservoir Silt Tunnel in Tainan. The high erodibility of Taiwan’s geology makes silt management a particular challenge to continued operation of dams and other water-management facilities in the country. Finally, the team visited the
Liyutan Reservoir in Miaoli. Reclamation has been involved in design discussions on how to build the sluicing gates at this dam properly. Several Reclamation members on the team are currently working on similar projects at Reclamation reservoirs. The visit helped Reclamation learn about other ways to manage sedimentation. Reclamation is particularly interested in learning how the previous techniques worked at the site.

In November 2018, Reclamation hosted the 31st annual meeting with the Taiwan Water Resources Agency in Washington, D.C. During the meeting, WRA and Reclamation discussed the work performed in the 2018 scope of work of the cooperative agreement, discussed 2019 WRA work requests for Reclamation’s consideration, and signed the 2018 Annual Meeting Conclusions document which summarized the 2018 work accomplishments and identified 2019 work items to be completed.

In addition to the annual meeting, WRA and Reclamation staff visited the Department of Transportation, Federal Highway Administration and Turner- Fairbank Research Center, and NASA’s Goddard Space Flight Center.

Taiwan WRA and Reclamation attendees at the 31st TECRO-AIT Annual Meeting in Washington, DC, November 2018. Photo credit: Bureau of Reclamation

Training, Visitor, Seminar, and Workshop Updates

Reclamation provides reimbursable technical training, workshops, and visitor programs for foreign visitors to the United States. Programs are tailored to fit each request and vary in length. Programs usually combine office assignments and training with field visits or study tours to Reclamation’s Denver, regional, and area offices and facilities.


The Safety Evaluation of Existing Dams International Technical Seminar has been offered since 1983, and over 1,300 people from 90 countries have participated. Each year, up to 50 international engineers and technical experts from up to 15 different countries all travel to Denver to attend the seminar. The seminar occurs over a two-week period every June, providing attendees with comprehensive instruction in dam safety examination and evaluation.
The first week of training in Denver includes lectures, case histories and structured discussions covering all aspects of a dam safety examination program led by Reclamation engineers and geologists with extensive expertise in the areas of design, construction, operation, maintenance and dam safety. The course outlines the hydrologic, seismic, geotechnical, electrical, mechanical and structural considerations of dam safety as well as operations, maintenance, surveillance and emergency preparedness. A tour of Reclamation’s Research Laboratories is also featured. The second week of the SEED Seminar includes a study tour where participants visit Reclamation projects in a different region each year.

In June 2017, 48 people from 10 different countries participated in the seminar. The study tour brought participants to several Reclamation facilities in Utah. In June 2018, 32 participants from 10 countries attended. During their first week in Denver participants traveled to Pueblo Dam, west of the city of Pueblo, Colorado. Reclamation staff led participants in an abbreviated simulated dam examination.

Sacramento, California, and then by motorcoach to Redding, California. The final tour included site visits to Lewiston Dam, Trinity Dam, Keswick Dam, and Shasta Dam, all part of the Central Valley Project, located in Reclamation’s Mid Pacific Region. Participants celebrated a successful seminar and new friendships with a Lake Shasta Dinner Cruise.

The SEED Seminar is incredibly important to the professional development of its international attendees. Reclamation often receives thank-you messages from program alumni. One participant from Canada wrote, “I would like to send you a big thank you for organizing this seminar and for making sure we got the most out of it. Being new to hydro-generated power, this seminar will absolutely have a profound effect on my career, and I am looking forward to put what I have learnt into action.” Another alumnus from Nigeria said, “This is to show my appreciation for the hospitality, warm reception and support accorded to me during the seminar. Thank you very much. I also appreciate the pleasantries contained in the program.”

Reclamation values this unique opportunity to share dam safety knowledge and experience, and to provide guidance for attendees interested in learning more about dam safety. We appreciate all the staff whose hard work ensures a successful, and learning-filled event.

The post-session study tour began with a tour of Colorado’s Rocky Mountain National Park, one of the most popular national parks in the United States. Participants then traveled by air to

Participants at the 2017 International SEED Seminar Tour – Starvation Dam. Photo credit: Bureau of Reclamation

Participants at the 2018 International SEED Seminar. Photo credit: Bureau of Reclamation
International Reservoir Sedimentation and Sustainability Workshop (April 2018)

Reclamation’s International Affairs Office hosted the 1st International Reservoir Sedimentation and Sustainability Workshop April 16-22, 2018. The TSC’s, Sedimentation and River Hydraulics Group partnered with the U.S. Army Corps of Engineers to provide training for reservoir sediment management for long-term sustainability. 12 participants from four Countries attended the workshop.

Participants gained an understanding about reservoir sedimentation processes and rates, as well as how to analyze and develop conceptual designs of reservoir sediment management systems. The workshop covered the basic principles of sediment transport and reservoir sedimentation. Site visits in Colorado included Strontia Springs Dam and Paonia Dam, both with active reservoir sediment management projects.

Central Water Commission, India (June 2017)

In 2012, the Central Water Commission (CWC) under the Ministry of Water Resources of India and World Bank assistance, implemented a Dam Rehabilitation and Improvement Project (DRIP) in four states in India. The project originally envisioned the rehabilitation and improvement of approximately 223 dams within four states, but now has increased the total number of dams to 250.

The primary objectives of DRIP include the improvement of the safety and performance of selected existing dams and to strengthen the dam safety institutional setup in participating states, as well as in CWC. The project is also promoting new technologies and strengthening project management activities in the CWC and other participating organizations.

As part of the objectives to strengthen dam safety and project management, Reclamation’s International Affairs Office developed a training program for 20 junior and senior engineers from CWC. Training included participation in the June 2017 SEED Seminar and Study Tour and a post-seminar study tour to Glen Canyon Dam.

International Visitor Programs

Reclamation hosted approximately 500 people from over 100 different countries in 2017 and 2018 at its facilities in the United States. Visitors represented every continent except Antarctica. Countries represented include Australia, Laos, Ghana, Indonesia, and Peru. Our visitor programs entail visits to Reclamation offices and facilities all over the Western United States.

The Story Continues: 2019

2019 is shaping up to be another exciting and productive year for international work at Reclamation. 2019 will mark the 30th anniversary of the annual SEED seminar and study tour. Reclamation will continue its strong collaboration between Brazil’s National Water Agency, providing two training programs in
Brazil, one on dam inspection and the other on emergency management.

If you are interested in receiving more news about Reclamation’s international affairs program, please fill out the form to join our email list: http://goo.gl/forms/TnFn9hDMeD