

Embassy Science Fellows

Professional Development Opportunity for DOI Scientists

The Embassy Science Fellows Program invites applications from throughout the U.S. Department of the Interior (DOI) headquarters and Bureau staff for one-to-three-month technical assignments at U.S. posts abroad. The goal of the program is to provide expertise in science, mathematics, and engineering to support the work of embassies, consulates, and missions of the State Department while providing international experience to DOI staff. Nine other agencies participate in the program.

BACKGROUND

The Department of State (DOS) and DOI have complementary strengths and needs. DOS manages international relationships through diplomacy but needs input from the science and engineering community to formulate policy in certain areas. The Embassy Science Fellows Program (ESFP) provides a valuable mechanism for the U.S. Government (USG) to advance national research and development priorities through international collaboration and provides a venue to develop relationships which will benefit DOI. The ESFP supports collaboration with host government and local entities to meet multiple objectives: advancing USG science policy, diplomacy and development objectives; complementing and supporting bilateral, regional or global cooperative USG science and technology (S&T) activities; and strengthening the international science & technology capabilities of DOS, the U.S. Agency for International Development (USAID) and participating agencies.

ASSIGNMENT ACTIVITIES

Embassy Science Fellows typically spend from 1-3 months at foreign posts, while remaining DOI employees. The duration of the assignment varies according to the needs of the Post and the availability of the applicant, but an average stay is approximately 6 weeks. During their assignment, Fellows work closely with the Science Counselor and/or other embassy staff involved in S&T issues. In general, the Fellow serves as a visiting "consultant" to the Embassy. Depending on the needs of the Embassy, the Fellow may be called upon for such responsibilities as:

- meet with foreign colleagues in ministries, universities, and other research organizations;
- furnish expert advice and consultation to host country colleagues, officials or institutions;
- conduct research, surveys, interviews or assessments on S&T topics identified by overseas posts;
- perform site visits to develop expertise in that country's science and engineering system;
- assist with preparations for conferences and meetings taking place in the host country;
- write reports of a technical or policy nature that may be used in DOS reporting; and/or,
- provide expert advice on formulation of bilateral and/or multilateral activities and foreign policy.

In addition to the personal experience of living and working abroad, the DOI employee gains direct experience on U.S. embassy operation, foreign policy development and implementation, and insight into how scientific and technical issues intersect foreign policy concerns. Moreover, the experience affords both the individual employee and DOI a deeper understanding of the science and engineering system and institutions of one or more foreign countries.

ELIGIBILITY

U.S. citizenship is required. Eligible participants must have a science/engineering background. In addition, they must have at least 1 year of continuous Federal service, and be assigned to an established and valid position at DOI. Maximum participation in the program is twice.

CLEARANCES

A medical clearance from State is required for fellowships of more than 59 days. Employees must be able to provide proof of a national criminal check (NACI). Some fellowships may require a secret-level security clearance which will be processed by the State Department. Processing of security clearances can take 4 months or longer from the time the candidate submits the necessary forms to the State Department.

MATCHING OF AGENCIES' INTERESTS

These developmental assignments must be agreed to in advance by the Fellow, his or her DOI supervisor, the hosting Embassy, and the appropriate DOS bureaus. This agreement includes the work that the Fellow will perform at the Embassy, the Embassy staff with whom the Fellow will work, and the terms of cost-sharing between DOI and the DOS.

DOS solicits requests from embassies and consulates for experts for specific work assignments. However, the State Department is willing to explore proposals from agencies looking to enable their work. Interested DOI employees are expected to explore with their supervisors the feasibility of such a professional development assignment, their mutual preferences for countries or regions, and general time frame for availability (e.g. "6 weeks in late fall"). Following are a brief description of the Embassies' needs; the attached solicitations will provide greater detail.

Astana, Kazakhstan: provision of technical assistance and policy advice on climate change issues and low-emission development strategies to government agencies.

Bangkok, Thailand: assistance with technical advice and support in human and institutional capacity development activities; including building the capacity of Thai stakeholders in development and preparedness for environmental challenges.

Beijing, China: assistance with improved disaster preparedness and management.

Bucharest, Romania: work with officials to draft national and regional regulations for shale gas drilling and production.

Freetown, Sierra Leone: work with the Sierra Leone Environmental Protection Agency to create policies and strategies, advise organizational structures, identify needs, and provide specific science expertise.

Hanoi, Vietnam: work with CITES-Management Authority to pilot a test system to monitor and control the importation of hunting trophies, address the abuse of hunting permits.

Islamabad, Pakistan: review current data on climate change and melting glaciers; provide training sessions, professional-level discussions, and consultations with government water resource managers, university and research centers and civil society organizations active in the water sector.

Jakarta, Indonesia: provide technical assistance to advance U.S. government science and technology cooperation with the Indonesian government.

Kolkata, India: help the U.S. government understand the range and depth of ongoing scientific collaboration by identifying areas of further cooperation and advise on the engagement of students and the scientific community to promote innovative partners and programs.

N'djamena, Chad: collaborate with University of Ndjamenas researchers and administrators along with the government of Chad, donors, and Lake Chad representatives to identify current and future research priorities and funding sources to support science-based solutions for the disappearance of Lake Chad.

Paramaribo, Suriname: assist the Ministry of Physical Planning to implement a GIS program and develop the capacity of the necessary staff to continue data collection from which the government can make rational policy decisions on forest and environmental management.

Reykjavik, Iceland: enhance the bilateral science research ties with Iceland in the key Mission Strategic Plan priority of the Arctic, advance the Mission's objectives, and work with the Stefansson Arctic Institute on various initiatives.

Tashkent, Uzbekistan: provide technology commercialization training to Government of Uzbekistan officials and scientists as well as assess the commercial potential of Uzbekistan's current scientific facilities and projects.

Tbilisi, Georgia: contribute to the work of the Tbilisi Embassy and the USAID Mission under the supervision of USAID's Office of Energy and Environment in forestry and natural resource management policy, climate change policy and development, the USG Enhancing Capacity for Low Emission Development Strategy, and emissions inventories and planning.

Antananarivo, Madagascar: Consult on the development of ecotourism coursework

Guangzhou, China: Multiple posts to: assess risks to water quality and supply; assess risks to water quality and supply; and evaluate disaster preparedness, determine causes of biodiversity loss.

Suva, Fiji: Improve screening methods for plant viruses, staff capacity building

Vientiane, Laos: Developing a regional approach for climate change affecting Mekong River tributaries.

Majuro, Marshall Islands: Lead a national coastal resources inventory

Wellington, New Zealand: Multiple opportunities including: Developing risk models to assess building earthquake resilience; enhancing management ecology to enhance freshwater environments; consulting on achieving sustainable management of coastal environments.

Lisbon, Portugal: Advising by a research associate on issues of marine science and/or energy security

Vilnius, Lithuania: Advising on energy efficiency in military applications

EXPENSES AND TRAVEL

It is intended that timing of these assignments be coordinated for minimum disruption of the DOI staff member's regular workload. **Individual offices are responsible for the expenses of their employees during their Embassy Science Fellow tenure, including salary and benefits, international travel, two training courses (one in Washington DC) and a reduced fraction of the M&IE portion of per diem for the locality.**

For those applying for the following opportunities:

- Tbilisi, Georgia
- Bucharest, Romania
- Beijing, China
- Jakarta, Indonesia
- Kolkata, India
- Vientiane, Laos
- Antananarivo, Comoros
- Guangzhou, China
- Lisbon, Portugal
- Bangkok, Thailand
- Majuro, Marshall Islands

There is a *possibility* that supplementary funding would be available to defray some or all of the costs. If you are interested and appropriate for the assignment, please apply, and funding possibilities can be explored if your candidacy is put forward to the Embassy.

Embassies will provide, at a minimum, housing, office space and infrastructure, including a computer and official in-country travel.

APPLICATION PROCESS

If you are interested, please secure permission from your supervisor to apply. Please use the attached application form to apply for particular assignments at specific posts.

All non-USGS DOI applicants must submit the application form to Colleen Castle at colleen_castle@ios.doi.gov by COB **August 9th**. This is a priority deadline; applications submitted afterwards may still be considered, but submissions before this deadline are preferred.

USGS applicants must submit their application form to Jean Noe Weaver at jweaver@usgs.gov.

NPS applicants should copy their applications to Rudy D'Alessandro (rudy_dalessandro@nps.gov) in the NPS Office of International Affairs. **All NPS applicants must have the approval to apply from their Associate Director or Regional Director.**

All BLM applicants should also copy their applications to Olivia Sierra (osierra@blm.gov) in the BLM Office of International Affairs.

Candidate applications are ultimately screened by the requesting embassy/consulate which then reviews and selects the final Fellow.

APPLICATION FORM (see next page)

Embassy Science Fellowship Program 2012-13 Application

Please attach a Resume/Curriculum Vitae to this form

Note: This application requires your supervisor's signature in order to be considered for the ESF program
Forward signed application (3 pages) & Resume/Curriculum Vitae to Agency Coordinator

1. Name (Last, First, MI):

2. Name of Agency and Agency Coordinator:

3. Current position:

Area(s) of Expertise:

4. Office contact information:

Address

Email:

Phone:

Fax:

5. Home Contact Information:

Address:

Phone:

Email:

Emergency Contact Person:

6. Proposed Post for Fellowship:

1st Choice:

2nd Choice:

3rd Choice:

5. Proposed Dates for Assignment/Availability (list for each proposed post, if applicable):

1st Choice:

6. Discuss desired assignment(s) highlighting relevant experience, training, and what you would accomplish if selected—use separate pages:

7. Language Ability: evaluate skills using excellent, good, poor, fair or native fluency.

Language

Writing

Speaking

Reading

8. Have you previously been granted a security clearance?

If so, please specify the issuing agency, date issued, and the level of clearance granted:

Confidential/Secret/Top Secret

9. Have you previously been issued a medical clearance by the Department of State?

If so, please provide the date that the clearance was issued:

10. Have you previously completed Department of State training, Security Overseas Seminar, MQ911 or its equivalent? If less than five years ago, provide the classes taken and the dates completed:

11. Previous Professional International Experience:

Date (from-to)

Country

Reason/Project

ACKNOWLEDGMENTS

By signing below, you agree to be considered for participation in the Embassy Science Fellows Program. Your information will only be shared with appropriate Department of State personnel and your parent agency. It does not constitute a guarantee that you will be placed nor are you bound to accept any assignment offered.

Signature of Applicant:

Date:

By signing below, you agree that, to the extent that travel funds are available, if the applicant is matched, the office/agency has sufficient funds to support the Embassy Science Fellow's round-trip international travel (as much as \$4000) and if not located in the Washington, DC, area, domestic travel to the Foreign Service Institute located in Arlington, Virginia, to take a two-day mandatory course (total tuition cost including online course: \$460).

Approval by Supervising Official:

Date:

MRN 12 Antananarivo 326

SUBJECT: Embassy Science Fellows Program 2012 - Embassy Antananarivo for the Comoros

1. (U) Subject of Proposal and General Information

- Topic: Development of Ecotourism Curriculum & Partnership Project
- Host institution: University of Comoros
- Time frame: October 1 – December 19, 2012 (flexible)
- Additional skills: Knowledge of French
- Security clearance requirement: None

2. (SBU) Proposal Description

-- Comoros is made up of three volcanic islands to the north of Madagascar in the Indian Ocean. Once distinguished for having more coups than any other country, Comorans have placed themselves firmly on the democratic path with three peaceful transitions of power in the last decade. The Muslim nation has a history of good relations with the United States, though many poor Comorans are drawn to study in Iran, Pakistan, and Lybia where they grow more radicalized in their worldviews. This was the case with the late Harun Fazul, mastermind of the embassy bombings in Tanzania and Kenya, who recently met his end in Somalia.

-- Realizing the lack of higher education was a root cause of underdevelopment and religious radicalization, former President Assoumani Azali created a university for the country in 2003. The University currently offers three year degrees in nine different colleges, with 5,500 enrolled students. The Embassy's strategic engagement with the University has been to help them develop a modern, American-style curriculum, particularly focusing on tourism, which is the islands' most promising sector. USAID is providing \$50,000 to fund partnerships with American universities that will develop the University's English language program, a pre-requisite for the international tourism market. The Public Affairs Section is focusing its efforts on both curriculum development and the tourism sector, including using the Ambassador's Fund for Cultural Preservation to renovate the islands' historic sultans' palaces.

-- The Comoros' unique and pristine environment holds the potential to make it a major ecotourism site. Because of its academic isolation and low level of development, the Comoros has not been able to take full advantage of its unique environmental resources. Yet, driven by University-led expertise on how to develop the tourism potential of these sites, the country could fast become a tourism hot spot. The first step in developing this expertise is creating a curriculum and training teachers to engage and empower students and indigenous expertise in this area.

-- The Embassy Science Fellow (ESF) will work with administrators and teaching staff at the University of Comoros to assist the University in creating a curriculum in ecotourism, along with

working with staff members on developing potential longer term partnership projects that can build on the work of the USAID grant in technical fields related to ecotourism. The fellow will also coordinate short courses in tourism for students and presentations for tourism professionals, as well as foster collaboration with researchers and scientists between the U.S. and the Comoros in the ecotourism industry and related fields.

3. (SBU) Administrative Support

The University of Comoros will provide housing, office space, and in-country transportation for the fellow. The housing will be quite basic; running water, cell phone and internet connectivity, and electricity will be very limited and suffer frequent interruptions. The ESF should come prepared to not have access to many modern conveniences, including incoming mail service and adequate healthcare. The Embassy wishes to stress that this assignment will be a hardship and the fellow should come prepared for those conditions. The Embassy will be unable to fund any such services on behalf of the ESF. The Public Affairs Section will be present in the Comoros for the fellow's arrival and an FSO assigned the Comoros portfolio will spend much of their time in the Comoros, but is based in Madagascar. An American military civil affairs team is permanently located on the same island. Since there is no Embassy located in the country no pouch or check cashing services are available.

4. (SBU) RSO Concurrence

Madagascar is a two year assignment with a 25 percent hardship differential. RSO clears a Science Fellow for the Union of the Comoros with the provision that housing meets RSO approval.

MRN 12 Guangzhou 394

SUBJECT: Consulate Guangzhou's Application for 2012 Embassy Science Fellows Program

Subjects of Proposal and General Information

1. (U) SUMMARY: In response to reftel, ConGen Guangzhou requests that the Department identify an Embassy Science Fellow (ESF) to serve at post during the winter 2012 period up to February 2013. Post requests ESFs that can conduct projects in one of four areas: (1) innovation capacity and policy; (2) water resources; (3) infectious diseases and public health; (4) biodiversity and climate change. Post appreciates the opportunity to submit proposals and believes an ESF would be greatly beneficial to Mission outreach, reporting, and U.S. foreign policy goals. End SUMMARY.
2. (U) Prospective ESFs are encouraged to spend two-to-three months at Post during the winter 2012 period up to February 2013. Mandarin language skills are ideal but not required. ESFs will receive support and guidance from ESTHOffs and possibly other relevant sections and will be supervised by the E/P Section Chief. Specific work projects will be finalized based on post priorities and the candidate's experience and expertise. A security clearance is not/not required; however, ESFs must, at a minimum, undergo a National Agency Check with Local Agency Check (NACLAC).

Proposal Description 1: Innovation Capacity and Policy

3. (U) As China attempts to move up the value chain and away from heavy manufacturing and exports, cultivation and development of "indigenous innovation" has become a national priority. Understanding China's "innovation capacity" is critical to understanding China's future development trajectory and its competitive status in the global economy. Guangdong, China's richest and most populous province, has taken the lead in this area by promulgating the nation's first province-level innovation policy. While these policies are designed to support domestic R&D capabilities, they could also have a strong impact on U.S. firms in terms of regulations on technology transfers and the development of new standards.
4. (SBU) Consistent with OES/STC's stated priority in **enhancing science, technology, and innovation cooperation**, Post requests the Department identify an ESF that could help the Mission better understand China's budding "innovation capacity." Prospective candidates may be drawn from the National Institute of Standards and Technology, the National Science Foundation, the Department of Energy, among other relevant agencies. The ESF would work with local science and technology bureaus, research institutions like the Shenzhen Institute of

Advanced Technology, prominent research universities like Sun-Yatsen University, and companies to better understand how innovation is being cultivated and developed in south China. Proposed projects include:

- Researching Guangdong's innovation policy and its implementation to see how it compares to international best practices and standards.
- Determining how research laboratories and universities interact with the private sector to bring new technologies to market.
- Assessing the state of China's science education system (undergraduate, graduate, vocational) to determine whether it meets the needs of business and government.
- Examining innovation policies related to technology transfers in different sectors.
- Assessing whether emerging standards for new technologies are creating significant trade barriers or market access issues for U.S. firms.

Proposal Description 2: Water Resources

5. (U) On the surface south China's plentiful rainfall would seem to indicate the region needs little assistance in a country which has been struggling to find reliable water, but a deeper look reveals a region still grappling with an enormous challenge. Pollution, overuse by industrial sources, and weak monitoring and management systems threaten access to clean water for a region with a population of 220 million. Large quantities of heavy metal contaminants have been found by Greenpeace and other organizations in local waterways and many of the region's rivers are not suitable even for industrial use. Official documents reveal that "the contradictions between water resource supply and demand are becoming more prominent by the day."

6. (SBU) Consistent with OES/STC's stated priority in **managing oceans, environmental, and natural resources**, Post requests that the Department identify an ESF to assess risks to water quality and supply in south China, work with local government officials to more effectively monitor water pollution and utilization, and identify opportunities for U.S. technology and consulting services. The ESF would work to further strengthen our relationships with government officials and corporate leaders responsible for managing water resources including the Water Resources Bureau, the Environmental Protection Bureau, and the Water Investment Group, Inc. The specialist would also work with universities such as Sun Yat-Sen University and NGOs working on water issues such as Businesses for Social Responsibility. Proposed projects include:

- Assess existing and potential threats to regional water supply as well as the impact of current water construction projects and industrial use on the environment.
- Work with local authorities to develop comprehensive water testing criteria, methodologies, and safeguards.
- Work toward supporting sub-national cooperation on water management between the Guangdong Environmental Protection Department and the USEPA.
- Create recommendations to improve water management and distribution, including more rational pricing of water resources and of fines for pollution.
- Promote the use of U.S. technology and services in improving access to clean water and limit environmental degradation.

Proposal Description 3: Infectious Diseases

7. (U) South China is a hot-spot for emerging infectious diseases. SARS originated here and influenza outbreaks are frequent. Because of the large population and close proximity with poultry and swine, many experts believe that the potential is high for the next human influenza pandemic to begin in south China. Provincial and municipal health officials take the threat of a pandemic outbreak seriously and have mobilized significant resources to monitor and prevent outbreaks of emerging infectious diseases. Their willingness to engage international partners in cooperative efforts has grown dramatically since the SARS outbreak. However, China's ability to deal with the threat of infectious diseases is still deficient, and a lack of transparency in this area persists. There is much more to learn about this constantly changing situation, and the potential impact for U.S. interests is immense.

8. (SBU) Consistent with OES/STC's stated priority in **promoting health systems and preparedness**, Post requests that the Department identify an ESF that would work to expand and deepen our outreach to government health agencies, including the provincial and municipal Bureaus of Health and local offices of China's Center for Disease Control and Prevention, as well as health care institutions, on preventing emerging infectious diseases and anti-biotic resistant varieties of well known diseases. He or she will work with these bodies to expand south China's capacity to prevent and manage outbreaks of emerging infectious diseases, and look for ways to expand U.S. government cooperative programs on this issue. The ESF would also work with local researchers at institutions such as the Guangzhou Institute of Biomedicine and Health and the Guangzhou Institute of Respiratory Diseases. Proposed projects include:

- Enhance our relationship with contacts in government, academia and the medical industry.

- Develop a program to improve south China's capacity to monitor, prevent and cope with outbreaks of infectious diseases.
- Determine the extent to which antibiotic resistance is growing in the region and create a program for physician education to reduce overprescribing of antibiotics.
- Make recommendations on how the USG can support China's efforts to build capacity in these areas.

Proposal Description 4: Biodiversity and Climate Change

9. (U) South China is both uniquely vulnerable to climate change impacts and enjoys one of the world's most complex regions for biodiversity. Much of China's economic infrastructure, including expanding nuclear power facilities, reside in low-lying coastal regions like the Pearl River Delta where increased severe weather and flooding could have a devastating impact. Dynamic ecosystems, on the other hand, provide natural resources as well as important ecosystem services like water filtration, climate regulation, waste decomposition, and soil formation. Biodiversity also has a strong, mutual connection with climate change. Rapid loss of biodiversity not only can be symptomatic of climate change but also reinforce these same trends. Better understanding of this relationship would provide a strong foundation for policymakers to pursue climate change adaptation strategies and contribute to global scientific efforts to preserve and protect biodiversity.

10. (SBU) Consistent with OES/STC's stated priorities in **addressing climate change and managing oceans, environmental, and natural resources**, Post requests that the Department identify an ESF that would work to promote scientific cooperation on biodiversity research and explore ways south China is pursuing climate change adaptation strategies. The ESF would work with provincial Development and Reform Commissions, Forestry bureaus, Environmental Protection Bureaus, disaster preparedness authorities, universities and research institutes to gauge how biodiversity is changing in south China and how climate change is factoring in local decision-making and research agendas. Wetland protection efforts, in particular, have been emphasized under the China Biodiversity Partnership and Framework for Action (CBPF).

Proposed projects include:

- Determine drivers of biodiversity loss in south China and calculate estimated impact on local economic development.
- Evaluate disaster preparedness for severe weather events in terms of infrastructure, flood control, and coastal sea defenses.
- Liaison with local researchers and civil society groups that are engaged in biodiversity research, wildlife conservation, or habitat preservation.

- Work to build collaborative U.S.-China partnerships on biodiversity and climate change research.

Administrative Support

11. (U) Post can provide appropriate housing and office space up to February 2013 and will arrange necessary logistical support for the ESF as described in reftel. Funding for in-country travel will be provided pending future funding availability.

Regional Security Office (RSO) Concurrence

12. (U) ConGen Guangzhou is a two year assignment with a 20 percent hardship differential. RSO clears this message.

MRN: 12 Vientiane 480

Subject: Embassy Science Fellows Program 2012 (Vientiane, Laos)

1. Subject of Proposal and General Information

Topic: Climate change assessments and/or environmental impact assessments for tributary dams.

Host institution: Mekong River Commission Secretariat

Time Frame: Request Embassy Science Fellow to work two months beginning in fall 2012, in Vientiane, with possible travel to Viet Nam and Cambodia.

Additional Skills: A medical clearance is required for fellowships of more than 59 days.

Security Clearance Requirements: Possession of a security clearance is not required.

2. Proposal Description

Embassy Vientiane requests a science fellow with expertise in the field of climate change assessments or environmental impact assessments for tributary dams to work directly with scientists and experts at the Mekong River Commission Secretariat (MRCS) in Vientiane, Laos. The environmental impact of proposed hydropower projects, along with efforts to develop more sustainable uses of the Mekong River and its tributaries, are primary concerns for Secretary Clinton. Throughout the fellowship, the participant will strengthen capacity of MRC staff through mentoring and ongoing exchanges in expertise and methodologies. In addition, the fellow will strengthen the relationship and collaboration between the MRC and the USG. There may be additional opportunities for the fellow to travel to Phnom Penh, Cambodia to further collaborate with experts working in the second office of the MRCS and to Can Tho, Vietnam to meet with Forecast Mekong representatives. The additional travel would be subject to the availability of housing and/or travel funds at the other Embassies once the dates are specified.

Host-institution background:

The Mekong River Commission (MRC) started in 1995 as an official intergovernmental body and multilateral organization that serves as information clearinghouse and coordinator among the lower Mekong countries of Laos, Thailand, Vietnam, and Cambodia. Governments in the Mekong Basin are facing complex decisions regarding

basin development. To help inform Lower Mekong Basin governments, the MRC has developed several tools, such as the Basin Development Plan, to help policy makers analyze economic, environmental and social trade-offs to reach balanced decisions. While not a donor to the MRC, the USG has supported exchanges to the U.S. for MRC staff, funded an independent assessment of the MRC's analytical and planning efforts to strengthen overall planning, provided USGS expertise, and continues to explore ways to assist the MRC through the Lower Mekong Initiative (LMI).

Specific work assignments:

Climate Change and Environmental Impact Assessments

The ESF would be instrumental in providing technical assistance to the Environment Division in one or more of the following areas:

- Climate Change impact assessment and climate change scenarios assessment
- Climate change adaptation and resilience
- Trans-boundary environmental impact assessment for emerging development projects
- Strategic environmental assessment for potential development sectors
- Biodiversity conservation and ecosystem services
- Environmental economics and valuation

Based on the profile of the candidate, the Environment Division can propose a specific study to be realized by the fellow in accordance to the needs of the Division.

Negative Impact Mitigation Measures for Tributary Dams

The ESF would play an important role in working with experts in the Initiative on Sustainable Hydropower Division of the MRC (ISH), which is due to complete an assessment of impact mitigation measures for existing and proposed Lower Mekong Basin tributary dams by 2013 using a generic approach. As of today, there are 120 tributary hydropower projects in the current MRC hydropower database. The fellow will put forward guidance and recommendations to ISH and produce an initial scoping assessment of mitigation measures for existing and proposed Lower Mekong Basin tributary.

Development of Regional Approaches in the Lower Mekong

In line with the LMI objective, the fellow will also promote the development of regional approaches to transnational challenges in the lower Mekong sub-region by enhancing collaboration and by building capacity within the four Southeast Asian partnered nations, which are the same four MRC member states of Laos, Thailand, Vietnam, and Cambodia. The fellow will help advance the LMI goal of strengthening local and regional capabilities and human resources in several of the LMI areas, or "pillars," of education,

environment, health, and infrastructure through mutual cooperation and the sharing of relevant technical expertise, resources, and comparative advantages.

3. **Administrative Support**

Post is fully committed to providing housing (during the months of September and October), supplemental office support (in addition to office space provided by the host agency-Mekong River Commission), in-country travel arrangements, and other support as necessary.

4. **RSO Concurrence**

While Embassy Vientiane is a two year assignment with a 25 percent hardship differential, the RSO has cleared. Post MGT and EXEC have also cleared.

12 Vilnius 332

SUBJECT: Embassy Science Fellows Program 2012 (Lithuania)

1. (U) Embassy Vilnius submits two proposals for Embassy Science Fellows (ESF).

(U) Proposal One: Energy Security Fellow

2. (U) TOPIC: Assist the Energy Security Center to implement energy efficiency projects in military applications.

HOST INSTITUTION: Energy Security Center, Vilnius, Lithuania

TIME FRAME: up to 90 days in 2012 (September to December) is preferred.

SKILLS: The Science Fellow should have experience as a hands-on energy policy advisor, along with expertise in the field of energy security at military bases, energy supplies and infrastructure protection, and energy efficiency in military applications.

Security clearance: Not required.

3. (U) PROPOSAL DESCRIPTION

A Science Fellow is expected to enhance Lithuania's energy security by offering strategic and practical advice on energy-related issues. The Fellow would work with the National Energy Security Center (ESC), a new institution that was established in Vilnius, Lithuania in January, 2011. The goal of the ESC is to assist the Government of Lithuania implement national energy security strategies and strengthen the energy security positions of NATO. The Energy Security Center is expected to receive accreditation as a NATO Center of Excellence later this year. Following accreditation, the center will advise NATO on energy security, energy supplies, infrastructure protection, and energy efficiency. The center will also organize exercises and training and act as a conduit for cooperation among Lithuanian academic institutions and business establishments.

The ESC especially needs assistance with initiating, conducting and supporting research and development projects on applying energy innovations in military applications. It also needs assistance in developing strategies to engage the public on various ways to strengthen the world's energy security. In November 2012 the ESC will host the Allied Command Transformation Concept Development & Experimentation Conference and Energy Security Workshop. Also, by the end of this year the ESC plans to publish a study on "Energy Management in the Expeditionary Environment: Front-End Analysis and Proposed Solutions". These and other projects need expert advice and assistance.

4. (U) ADMINISTRATIVE SUPPORT

The Fellow will work closely with the ESC and officers from Embassy Vilnius' Pol/Econ section who are responsible for the energy and ESTH portfolios. The Embassy will provide housing (most likely in shared TDY apartments) and, if needed, a work space for the Science Fellow, although the ESC may be able to assist with both. We expect the ESC to provide local transportation support. Post is willing to provide logistical support where possible.

5. (U) CONCURRENCE: RSO, DAO and Management have cleared on this proposal.

(U) Proposal Two: Tuberculosis Fellow

7. (U) TOPIC: Assist Association "Stop TB" to create an advocacy strategy for improving public involvement in tuberculosis (TB) care and prevention in Lithuania.

HOST INSTITUTION: Association Stop TB

TIME FRAME: up to 90 days (September 2012 to March 2013) is preferred.

SKILLS: The Fellow should have an advanced degree in public health, social sciences, communication or equivalent. Experience or advanced training in advocacy, communication or social mobilization (theory and practice) and experience in planning and implementing of community-based and country-level ACSM (Advocacy, Communications and Social Mobilization) programs is preferred.

Desired specific competencies, skills and knowledge:

- Good analytical skills;
- Understanding of how ACSM contributes to TB prevention and control;
- Understanding of how ACSM should be applied in different countries and target audiences;
- Understanding of the full cycle of ACSM from research and planning to implementation.

Security clearance: Not required.

8. (U) PROPOSAL DESCRIPTION

The Science Fellow will assist the Association Stop TB in creating an effective advocacy strategy for improving the community's involvement in TB care and prevention in Lithuania. The Fellow will select a specific problem or policy issue they wish to address, analyze and research the problem and develop specific objectives and an action plan for stop TB advocacy work. The Fellow will also help Stop TB to identify internal and external resources for the implementation of the advocacy action plan.

9. (U) ADMINISTRATIVE SUPPORT

The Fellow will work closely with Stop TB and officers from Embassy Vilnius' Pol/Econ section who are responsible for the ESTH portfolio. The Embassy will provide housing (most likely in shared TDY apartments) and, if needed, a work space for the Science Fellow and local transportation support. Post is willing to provide logistical support where possible.

10. (U) CONCURRENCE: RSO has Management have cleared on this proposal. Vilnius is a three year assignment with a 5 percent hardship differential.

MRN: 12 Wellington 232

SUBJECT: New Zealand: Embassy Science Fellows Program 2012

Subject of Proposal

1. (U) Post proposes placement of a fellow from the Embassy Science Fellow Program (ESFP) to assist the U.S. Mission to New Zealand.

Topic: The fellow (ESFPer) would participate in one of three overall topics (in priority order):

- a) *Resilient cities (to natural hazards)* – working with GNS Science (Geology, Geophysics, and Nuclear Science);
- b) *Water quality and availability* – working with the National Institute of Water & Atmospheric Research (NIWA); or
- c) *Marine and coastal conservation* – working with the Department of Conservation.

Preferred time frame and length of fellowship: Post envisions the fellowship to last three months (a minimum of one month) and prefers a timeline of September through November 2012.

Desired skills: Post requests ESFPer to have expertise in seismic engineering/risk modeling, water quality, or coastal and marine ecosystems management. Post would prefer ESFPers additionally have a good sense of economic issues.

Medical and security clearance: A medical clearance is required, and although a security clearance of “SECRET” level or higher is not required for work, it is welcome.

Proposal Descriptions

2. (U) Due to the 7.1 magnitude earthquake in September 2010, the 6.3 earthquake in February 2011 and the 6.0 earthquake in June 2011, New Zealand’s second largest city in Christchurch was nearly destroyed with over 33% of the buildings in the central business district alone, needing demolition. Several regions are still vulnerable to large earthquakes. The New Zealand Government has prioritized community, organizational, and infrastructural resilience to natural hazard events. Post believes an ESFPer would be a great fit to assist ongoing in the preparedness for future hazards. The ESFPer would work closely with GNS Science, a Crown Research Institute entity, to coordinate resilient buildings and infrastructure construction and/or develop risk models. The ESFPer’s work would be coordinated through the Natural Hazards Research Platform (NHRP). Post requests the ESFPer have expertise in seismic engineering or risk modeling.

3. (U) Agriculture is the dominant use of land in New Zealand and has had the most widespread impact on water quality. The agriculture sector accounts for over half of New Zealand’s greenhouse gas emissions. Due to the sector’s increasing levels of production (particularly in dairy farming), New Zealand has been linked to increases in water pollution which has affected lakes, rivers, caves and bays. Many waterways such as the Waikato and Manuwatu River are now unsafe for swimming. Post envisions ESFPer to work closely with the National Institute of Water & Atmospheric Research (NIWA), a Crown Research Institute established by the Government of New Zealand (GNZ), to undertake scientific research and to improve the

ecological health of New Zealand's freshwater environment. A possible project for the ESFPer would be to enhance management of the riparian areas, ephemeral streams and or salt marshes to restore local and downstream habitats. Post would request the ESFPer to have expertise in water quality and availability.

4. (U) The New Zealand Department of Conservation (DOC) monitors the effect and implementation of Regional Coastal Plans (RCPs). RCPs are plans prepared by regional councils and unitary authorities for the coastal marine area of a region. The DOC's purpose is to assist these councils in achieving the sustainable management of their coastal environment which include objectives, policies and rules that govern what activities the councils will allow, control or prohibit in the coastal environment. The plans are a tool used to manage any actual or potential effects from the use, development, or protection of the coastal marine area. Post foresees ESFPer assisting DOC in this process or another related project within the DOC with a marine ecosystem or marine energy deployment focus. Post would request the ESFPer to have expertise in marine ecosystems management or marine energy generation.

Wellington Declaration

5. (U) On November 4, 2010 Secretary Clinton signed the "Wellington Declaration" with New Zealand Foreign Minister Murray McCully during her visit to New Zealand. The Declaration reaffirmed close ties between the two countries, and outlined future practical cooperation in a number of specific areas as well as promotion of political dialogue. The ESFP, if granted, would represent the mission's commitment to the declaration and the overall improvement of the bilateral relationship.

Administrative Support & RSO Concurrence

6. (U) Post assures that it is committed to providing the following assistance necessary for the incoming fellow: housing, office support, and in-country travel arrangements (if applicable), and any other logistical support information. Post has cleared potential fellowship through the front office and Management sections.

7. (U) The posting to Wellington is 3 years. RSO has cleared the following proposal and holds no objections.

MRN: 12 Suva 336

Subject: Embassy Science Fellow 2012 Proposal (Suva, Fiji)

1. Subject of Proposal and General Information: This project seeks to improve the Pacific's food security and resilience to climate change, promoting scientific exchange and relationships, while strengthening the region's only gene bank and a major element of its intellectual infrastructure.

Title: Improved screening methods for badna viruses of yam (*Diocorea* spp).

Host Organization: Secretariat of the Pacific Community, Centre for Pacific Crops and Trees

Preferred timeframe and length of fellowship: a three-month fellowship will have the greatest likelihood of success. Post accommodations are available during the period July through early September.

Language: English

Security clearance: Not required

2. Background Information: The Fellow will work at the Centre for Pacific Crops and Trees (CePaCT) in Suva, Fiji to improve screening methods for badna viruses of yam (*Diocorea* spp). CePaCT of the Secretariat of the Pacific Community (SPC) has 266 accessions of the eight species in its yam collection, originated from eight Pacific island countries. It conserves the largest *in vitro* collection of unique Pacific yam varieties. CePaCT is a key element of the Pacific's food security, and integral to addressing the region's climate change adaptation challenges. The two yam species in particular, *D. alata* and *D. esculenta*, have climatic tolerant traits to drought and high temperature. However, the presence of integrated badna viruses has made distribution of these accessions in the field impossible. Building the technical capacity of CePaCT staff in virus diagnostics is integral to sustainability of its virus indexing facility, would allow staff to effectively index its collection and ensure safe distribution of its genetic resources. Additional detailed science background will be provided via separate email message.

3. Objectives of the Science Fellow at CePaCT are:

A. To explore, establish and continue linkages and collaboration with international research institutes on the development of effective virus diagnostic methodologies.

B. To develop effective screening and cleaning methods for removing viruses from infected plant material

C. To build capacity of CePaCT staff (virus diagnostic officer and technician) on relevant virus detection methods, primer designing and sequence analysis.

D. To properly document and store protocol descriptions in appropriate CePaCT database folders for backup and future references.

4. Areas of Specific Expertise: The Fellow should be a virologist with extensive experience in molecular virology with emphasis on badna viruses, sequence analysis and primer designing. Expertise in virus detection and elimination methods for badna viruses is also desirable.

5. Administrative Support: Embassy Suva will provide administrative support necessary for the Fellow including housing from within Post's housing pool during the period July through early September.

6. RSO Concurrence: Embassy Suva is a three year assignment with a 20 percent hardship differential. RSO has no objection to hosting an Embassy Science Fellow for a period not to exceed 90 days.

MRN: 12 Lisbon 446

Subject: Lisbon, Portugal Embassy Science Fellow 2012 Request

General Information

1) (U) In support of Post's Mission Strategic Resource Plan, U.S. Embassy Lisbon requests an Embassy Science Fellow for Fiscal Year 2013. The Fellow should focus on marine science and or energy security. An Embassy Science Fellow in Lisbon would enhance the activities of the Energy, Environment, Science and Technology Committee of the U.S.-Portugal Bilateral Commission as well as the Mission's relationships with the Government of Portugal (GOP) and Portuguese research institutions.

Proposal Description

2) (U) Post seeks a fellow with a research specialty associated with marine science and or energy security, as these areas are shared priorities for both the USG and GOP. While not an exhaustive list, Post suggests that the fellow have expertise in one of the following areas:

a. Marine science and water resource management

In 2005, Portugal announced a National Maritime Affairs Strategy, which outlined the country's maritime goals until 2016. As a country with an extensive maritime history, Portugal is involved in marine robotics, marine biology, maritime modeling, fish stock management, and the management of its coastal and estuarial zones. Additionally, the GOP devotes resources to reclaiming its continental shelf; to designating and regulating marine protected areas; and to contributing to the EU Marine Strategy Framework Directive. The fellow should expect to spend a significant portion of the fellowship partnering with host country institutions in the Azores and may spend the majority of the fellowship at the University of the Azores in Faial, Horta.

b. Renewable energy technology

As part of its energy security efforts, Portugal hopes to produce 60% of its electricity from renewable energy sources by 2020. In the past, Portugal has subsidized programs for wind, wave, and solar energy innovation.

c. Other associated specialties.

3) (U) Post will work with candidates to define a program that combines the fellow's research specialty and interests with Post goals. Science fellows will participate in public outreach as a part of their program. Past Science Fellows in Portugal have conducted their work in a variety of ways, and Post is flexible to take best advantage of each fellow's background and qualifications.

Administrative Support

4) (U) Post can accommodate a fellow at any time of the year except for the months of August and December. Post will arrange in-country housing and travel, office space, and other logistical

support as outlined in Reftel and its attachments. The fellow should have a medical clearance valid for the duration of his or her stay. While not required, a security clearance is desirable.

5) (U) The assignment to Portugal is three years. This cable has been cleared by Post's Regional Security and Management Sections.

MRN: 12 REYKJAVIK 232

SUBJECT: REYKJAVIK, ICELAND, 2012 EMBASSY SCIENCE FELLOW PROPOSAL

1. (U) Post requests an Embassy Science Fellow to enhance the bilateral science research ties with Iceland in the key Mission Strategic Plan priority of the Arctic. Iceland has similarly prioritized Arctic issues as a key element of its foreign policy. The presence of an Embassy Science fellow would assist the Embassy with encouraging and facilitating increased cooperation in this important area.

Host Institution: The Fellow will work primarily with the Stefansson Arctic Institute.

Time Frame: Preferably, the fellowship would take place in September and October for approximately eight weeks. No medical clearance is requested, and a fellow staying less than 90 days does not need a visa. A security clearance is not required and no foreign language skills are necessary.

Skills Required: Knowledge of USG priorities related to the Arctic social sciences and familiarity with Icelandic research opportunities.

Security Clearance: None.

2. (U) Project Description: The Stefansson Arctic Institute (SAI) was established in 1998 and operates under the auspices of the Icelandic Ministry for the Environment. It is located in Akureyri in Northern Iceland and bears the name of explorer and anthropologist Vilhjálmur Stefánsson (1879-1962). The staff at the Stefansson Arctic Institute includes scientists with broad interdisciplinary research background and experience. The role of SAI includes a multi-disciplinary research cooperative forum and promote sustainable development in northern areas, facilitate and co-ordinate international Arctic research in Iceland. SAI is committed to provide facilities for scholars who pursue research relevant to Institute's agenda.

We request the assignment of an Embassy Science Fellow to Iceland for approximately eight weeks to advance Mission objectives and to work with the SAI on the following initiatives:

- As part of the Embassy representation, provide information about Arctic science and U.S. funding agencies to the Parliamentarians of the Arctic, who will hold their meeting Sept. 5-7th this year in Akureyri.
- Participate in the Arctic Councils Sustainable Development Working Group (SDWG) in Akureyri, hosted by the Ministry of Foreign Affairs.
- Assist with updating the Arctic Human Development Report, a preeminent Arctic social science research project.

- Develop U.S.-Iceland-Greenland connections and collaborations, possibly through the Cooperative Committee on Arctic Affairs “Iceland and Greenland Science Days” in Nuuk, Greenland in late September where scientists will be talking about current and future research.
- Arrange, in collaboration with other NSF programs, an international workshop to promote interdisciplinary research in the Lake Myvatn area. Myvatn is a very rich ecological and cultural system where many scientists have been working for decades. This workshop would bring together these researchers to discuss the potential for more collaboration internationally and across disciplines in order to gain a more complete understanding of coupled human and natural systems under conditions of change.
- Give lectures about U.S. scientific developments, particularly concerning the Arctic.
- Public outreach in support of the Embassy’s goals of highlighting U.S. research collaborations in Iceland.

3. (U) Administrative Support: The Fellow will work closely with SAI on the project. Thus, SAI has pledged to provide housing and work space for the Science Fellow. Access to transportation support from SAI is also likely. Post is willing to provide transportation, work space and logistical support where possible. The Fellow will work closely with the representatives from the Economic and Commercial Section responsible for the Energy and ESTH portfolios.

4. (U) RSO Concurrence: RSO has cleared on this proposal. Reykjavik is a two year assignment with a 10 percent hardship differential. RSO has no objection to the mission hosting a fellow for a period not to exceed 59 days.

MRN: 12 Majuro 92

SUBJECT: Embassy Science Fellows Program (Majuro, Republic of the Marshall Islands)

Subject of Proposal and General Information

1. (U) Subject: Coastal and Marine Ecosystems Management

Host Organization: Republic of the Marshall Islands Environmental Protection Authority (RMIEPA)

Preferred Time and Length of Fellowship: The preferred length is 2-3 months. The time frame is flexible but would begin no earlier than January 2013.

Additional Skills: Expertise in Geographic Information Systems is strongly preferred.

Security Clearance: Not required

Proposal Description

2. (U) Background Information: The Republic of the Marshall Islands (RMI) is an isolated collection of atolls and islands surrounded by some of the most beautiful coral reefs in the North Pacific. This nation is both immense and minute, 70 square miles of land dispersed over 750,000 square miles of ocean. To put this in perspective, the entire RMI is the size of Mexico with land only the size of Washington, D.C. Since the atolls and islands of the Marshall Islands are such small land masses to subsist on, even the slightest erosion or sea level change is significant and threatens the very survival of the RMI.

3. (U) Today, the extent to which the RMI is being disturbed by climate changes, coastal development and pollution remains unknown. A lack of RMI coastal mapping specialists, in addition to an outdated Coastal Resource Inventory (the last inventory was completed in 2004), leaves the RMI uninformed about the current environment and vulnerable to further damage.

4. (U) The Republic of the Marshall Islands Environmental Protection Authority (RMIEPA) has been the primary environmental agency of the RMI for the past 28 years. The EPA, managed by the Coastal and Land Management Division, uses the Geographic information System (GIS) and Global Positioning System (GPS) to collect spatial data including current land use, vegetation, coastal development, water quality and potential pollution sources. However, these methods are not the most cutting-edge technologies to display the current coastal environment.

5. (U) The Coastal Resources Inventory System (CRIS), on the other hand, is the ideal modern technology for the RMI because it has the ability to display trends using graphs and tables, as well as possessing the capability to predict environmental changes, and manage coastal

resources, using satellite imagery and RADAR. Rather than creating an inventory that then leaves the RMI in a defensive, reactionary position, an updated CRIS will allow the RMIEPA to be a more proactive agency, anticipating environmental issues before major crises.

6. (U) The RMI currently lacks Coastal Resource Mapping Specialists and other personnel with the skills to utilize the CRIS as a decision-making tool, but the RMIEPA does have the necessary equipment to conduct a pilot inventory. Such tools at EPA's disposal include ArcMap and GPS Pathfinder software, NOMAD handheld computers, and surveying equipment.

7. (U) Specific Work Project and Post Objective: The Embassy Science Fellow, with the full support of the RMIEPA, will spearhead a new national coastal resource inventory for the RMI, tracking the environmental changes that have occurred over the past decade. Specifically, the RMIEPA wants to focus on environmental degradation resulting from an influx in infrastructure development on Majuro Atoll.

8. (U) As an entirely coastal nation, local RMI construction companies use raw materials within RMI's coastal environment to count as fill material. Companies that sell sand for instance, end up dredging quarries to supply the demand. The EPA wants to protect the environment from being the casualty of infrastructure and economic development in the RMI. The EPA is therefore planning to utilize the Science Fellow's research to develop new policies for developers, aiming to minimize the degradation of the RMI environment. Due to the RMIEPA's status within the RMI government, the science fellow's inventory will be at the disposal of high-ranking officials who can use this mapping system to better target development assistance and to brief government officials on the current environmental situation.

Administrative Support

10. (U) For the duration of the fellowship, the fellow will occupy the guest apartment located under the Chief of Mission Residence (CMR) on Majuro lagoon. RMIEPA will supply a workstation and computer access in their main office building. Transportation will also be provided by RMIEPA when needed in coordination with other division's timetables (carpooling is encouraged due to limited number of vehicles).

RSO Concurrence

11. (U) Majuro is a two year posting with a 20 percent hardship differential. The RSO is in concurrence with this proposal.