

United States Institute of Peace
Association for Diplomatic Studies and Training
Iraq Experience Project

ALEX DEHGAN
EXECUTIVE SUMMARY

Interviewed by: Arma Jane Karaer
Initial interview date: August 13, 2004
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Dr. Alexander Dehgan is a 34-year-old American Association for the Advancement of Science (AAAS) Fellow on two-year assignment to the Regional Office of the State Department's Near East Bureau. Dehgan has a bachelor's degree in Zoology and International Relations from Duke University, a law degree from the University of California at San Francisco, and a PhD in Ecology and Evolution from the University of Chicago. Following the end of the Cold War, he helped re-write environmental law for the Russian Federation. He has also worked on projects re-directing Soviet weapons scientists into civil science. Dehgan served six months in Iraq from January to June, 2004, as Special Advisor to the CPA for Non-Proliferation.

Dehgan's main task was to promote non-proliferation and close down the remnants of Iraqi weapons programs. To accomplish this goal, he and his team directly created and renovated multiple organizations, and drafted agreements with several others.

The Iraq International Center for Science and Industry was renovated to locate re-employment opportunities for former weapons scientists and integrate them into civilian science. These scientists and other related technicians were offered as research teams to civilian government ministries. Dehgan describes how candidates were recruited and how the center was rehabilitated, equipped and operated. Dehgan did most of his work outside the Green Zone, taking the same risks that those scientists he recruited did in agreeing to work with a Coalition-identified institution.

To further rehabilitate the Iraqi science and research capability, a venture capital program was set up. The program's aim was to help train and encourage scientists who wished to use their skills in private business or to rebuild the country's decimated laboratories and universities. A website was also created to put scientists back in touch with one another and the rest of the scientific world. A travel program that allowed Iraqi scientists to attend international scientific meetings was also set up.

Dehgan's team also worked with the Iraqi Ministry of the Interior to create an Export Control and Border Security Program to establish standards to prevent trans-shipment of weapons-related technology through Iraq and to prevent the export of any WMD materials still in the country. Dehgan also negotiated agreements with the Iraqi Transitional Government to accede to the Chemical Weapons Convention and the protocols of the Non-Proliferation Treaty.

Dehgan notes that two new institutions, the Iraq Non-Proliferation Programs Foundation – similar to the National Science Foundation – and the Iraq Radiation Source Regulatory Authority were created to control legitimate uses of radioactive materials in Iraq.

As a personal project, Dehgan obtained scientific books and journals to update the library at the Baghdad Natural History Museum.

Although the non-proliferation funds Dehgan used were not subject to the financial controls which slowed other Coalition projects, he still was able to get multiple bids, keep clear records, and earn approval from the State Department's financial inspectors.

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Q: Today is August 13, 2004. This is an interview with Alexander Dehgan being done on behalf of the U.S. Institute of Peace and the Association for Diplomatic Studies and Training as part of the Iraq Experience project. I am Arma Jane Karaer. Mr. Dehgan, could you tell us what your assignment was in Iraq and describe the work you did there.

DEHGAN: My title in Iraq was the Special Advisor to the Coalition Provisional Authority for Non-Proliferation, and I handled non-proliferation activities on behalf of the U.S. Department of State. That involved working with five different programs.

The first of those programs was the redirection of weapons of mass destruction scientists; to integrate weapons scientists back into civilian science. To do that I helped recruit a staff and built something, from ground up, called the Iraq International Center for Science and Industry, which was located outside of the Green Zone. This institute is to be the vehicle to run the programs I developed to redirect Iraqi scientists.

The second program was the creation of something called the Iraq Non-Proliferation Programs Foundation. That uses DFI (Development Fund for Iraq) funds, which were Oil for Food funds, and essentially Iraqi money, to establish an Iraqi institution, headed by Iraqis, which is similar to the National Science Foundation in the United States. In the first few years, it is supposed be used to focus on non-proliferation activities, to help scientists reintegrate into the greater scientific world. This also meant we had to support science in general, because there really wasn't a sector in Iraq, outside of the military sector, for science to integrate into Iraqi economic life.

So half of our work involved working with weapons scientists. The other half worked with building the science sector in general. That was important for reconstruction of the economy, and it was important for security as well.

The third program was to establish an independent agency called the Iraq Radiation Source Regulatory Authority (IRSRA). It is akin to the Nuclear Regulatory Authority in the United States. The IRSRA is necessary because the Iraqis need to use radioactive sources in their country for medicine, for science and even for oil prospecting. We needed to bring Iraq back into the International Atomic Energy Commission's guidelines on safety, health and security standards for dealing with radioactive sources, because Iraq has had a difficult history with weapons of mass destruction.

The fourth program was called the Export Control and Border Security Program which was to work with the Ministry of Interior to establish standards to prevent trans-shipment of weapons-related goods through Iraq to countries that we did not want to have technology that could be used to create weapons. It is also intended to create border security to prevent a loss of radioactive materials or chemical weapons or biological substances that are still in the country and which we needed to secure.

Finally (fifth), I had to work with the Iraqi government, both the Iraq Governing Council and the subsequent transitional administration, to get the Iraqi government to agree to sign the Chemical Weapons Convention and the additional protocol of the Non-Proliferation Treaty.

Another thing I did, which was more of a side project than anything else but closer to my own heart, was building up the Baghdad Natural History Museum as the Center for Ecology Evolution Behavior in the country. And since environment was used as a weapon in Iraq for 30 years against its own people, it will be the way that we will be able to protect, bring back and try to save unique habitats that are there.

Q: How did you identify the scientists that you would recruit?

DEHGAN: This was exceedingly difficult initially because there is another force in Iraq called the Iraq Survey Group (ISG), made up of the intelligence community, which did not want to cooperate with us. Later after a lot of hard work, we were able to start working together.

Through another colleague of mine, Dr. Carl Phillips, who is also a science fellow and Assistant Vice President for Research at Texas Tech, we agreed with the Iraq Survey Group, that we would start off on something called the National Monitoring Directorate Lists which were lists of people that the Iraqis had identified who had worked on weapons of mass destruction. Those lists were very incomplete. We weren't getting information from ISG, so we started by using a survey that Carl had done six months earlier. We had surveyed publications over the last 40-50 years by Iraqi scientists, and used our backgrounds as scientists to identify who had worked on fields that might have applications to weapons systems.

In setting up the redirection program, it was very important to establish trust with the Iraqi scientists. We had to take the same risks they would have to take. So I spent every day outside of the Green Zone without protection or (body)armor. We also had to make sure that the institute that we had set up was run transparently, with clear, fair rules and where people were treated equally. Once we started doing that, people start coming to us. And when people came to us, we would get their CVs and we would ask them for information on people they would recommend. That way we were able to make connections and figure out which people we needed to target.

We would then spend a couple of hours talking to the scientists who came to us, because some people didn't really have direct connections to the weapons programs. They had

been within what was called the Military Industrial Commission (MIC), which was a group of state companies that produced weapons of mass destruction. The MIC had 40,000 employees. Out of those, we figured that there were probably 500 scientists that we wanted to target. I initially hired 50 to work as consultants to other parts of the Iraqi government as advisers on science.

Q: If you found someone who was a genuine scientist and now had no job, but wasn't related to weapons, what happened to that person?

DEHGAN: That is a more difficult, because the money we had received for our project was from the Non-Proliferation and Disarmament Fund. That meant that we had to specifically work on weapons scientists. However, most of the really good scientists in the country, starting from the Iran/Iraq War, were weapons scientists because of the militarization of the entire country from that time. So most people actually had some connection to weapons. Either they worked on weapons systems or they worked on an applicable field, like delivery systems, which is something that the Iraqis had made a lot of progress on in terms of building missiles.

So, we were able to include most scientists we identified in that manner. Also, since we were also trying to support science in general, we would encourage weapons scientists and non-weapons scientists to work together. I think that's fundamental to the integration of weapons scientists; to have them re-enter the normal scientific world and benefit from the democratic institutions that exist in science.

Q: Can you give me an idea of how you actually went about your work? How did you handle the language issue?

DEHGAN: I'll start with the second question first because it's the easier question. Iraqi scientists are incredibly intelligent, well educated people. Most of whom were trained in the West. They all spoke English fluently. I started learning Arabic when I was there, because I speak Farsi. Iraqi Arabic is actually very close to Persian Farsi, and the two cultures, despite their recent enmity, are much closer to one another than Iraq is to the Gulf States. One of the mistakes that people who don't work on the Middle East make, I think, is to assume that Arab people are very similar, when there's a huge amount of diversity across the region.

In terms of getting around Baghdad, I had to ask for special permission (to move freely in and out of the Green Zone.) Because this was an inter-agency process in which the National Security Council was highly interested, I got permission from Washington, from the Bureau of Non-Proliferation, from the National Security Council and then from high level individuals within the CPA (Coalition Provisional Authority) to enter and exit the Green Zone freely.

I had \$2 million from the Non-Proliferation and Disarmament Fund to start up these programs, of which I spent very little of (for my own arrangements). I was trying to save as much money for the Iraqi scientists as possible. We bought a beat up Iraqi car and

decorated it with Qur'an citations and fog lamps (because the more fog lamps, the more likely it's to be an Iraqi car). This car actually looked like a potential car bomb itself, so most people stayed away from it. With that I drove myself around Baghdad. I think the hardest part was learning how to drive Baghdadi style, because at that point there were no traffic lights, no traffic regulations, and people drove on both sides of the street in both directions. I think my main risk was dying in a car accident rather from anything else. I also learned how to drive a stick shift, a manual transmission, outside of the Green Zone, which you learn very fast under those circumstances.

To start up the Center, I had to identify a house and complete a contract for the house. One of the problems we had was our (the Department of State's) legal division (L). L was balking at signing anything. And I think to this day they still haven't come up with a final answer on whether we could have signed any of the 70 contracts we signed out there. But I had the parent authority given to me by the Secretary (of State) to be able to spend this money as we saw fit in support of this program.

Q: Please give us an idea of what kind of permission you had and how you used it.

DEHGAN: We did try to go through the contracting process, and we still haven't received the computers we ordered through that process. Fortunately, as a special fund that is set up for fast action in situations like these, the Non-Proliferation and Disarmament Fund is actually free of many of those contracting restrictions. However, and this was the hardest part, there was no way to transfer money into the country at that time. Ours was the first State Department stand-alone organization operating in the country since the invasion. All the other (reconstruction) money went through DOD, because our funds were exclusively State funds, they could be spent in this flexible manner.

I originally just started carrying large amounts of cash across the border. We were fully audited and we have receipts on everything we did, but to get the cash into Iraq, we had to fly into Kuwait and then come back with it. Eventually, I was able to arrange to have money transferred from the State Department to the National Bank of Kuwait, which had just bought a controlling interest in the Credit Bank of Iraq. There is no mechanism to transfer money into Iraq, but the National Bank of Kuwait was able to transfer money on its books to the (books of the) Credit Bank of Iraq. So we opened up one of the first State Department accounts at the Credit Bank of Iraq. The Embassy was very, very nervous of how we had set this up, at first, but this is now the official mechanism that the Embassy itself uses to get money.

Next, we needed to get personnel and staff. I'm a tropical biologist. When we do field work, we usually fly into some remote area, find a local person based on someone's recommendation, and rely on them to find everything else we need. In Iraq, we had friends that were journalists with the Christian Science Monitor and the New York Times. They had a "fixer," a local person who just does everything for you. We hired him. His name is Hussein, and he's now the chief of staff for the Science Center. He is phenomenal. He worked incredibly hard. For example, Hussein helped me buy the car.

It was this terrible, terrible car that had everything wrong with it, but because it had so many things wrong with it, it couldn't ever be identified as Coalition vehicle. No Iraqi would have thought a Coalition person would actually drive in that car. Buying the car was pretty funny. Most Iraqis didn't have cars under Saddam Hussein and it wasn't very easy to get cars before (or learn to drive). At the car sales area, you have all these people who have never driven before test driving cars. We actually got into three accidents in the course of 200 meters because people kept running into Hussein's car.

Then we needed to get a house. We found a house that was located sort of in the center of all science. Two universities and the Ministry of Science and Technology were within walking distance of this house, which we called "The House of Wisdom" in Arabic. Actually, hundreds of years ago in Baghdad, there was such a house that translated scientific text from around the world. Iraq is one of the great historical centers for science. So we gave our house that name, to appeal to the Iraqis; to show that we recognize their tremendous role in science and that we respected them for it. I think that demonstration of respect was really important to attract the scientists to us.

We then started working on renovating and furnishing the house. I've never worked with a contractor, and trying to find a contractor in a war zone was a really important challenge. We rebuilt the house and got furniture, computers, and satellite Internet. We hired staff and hired and trained security. Fortunately, I had a very good working relationship with Diplomatic Security and with the U.S. military. Many of those people became very close friends of mine. I sort of played the role of Radar on M.A.S.H. We would do favors to help each other. Someone needed a mirror, so I would go into the Red Zone, which is what I called the area outside of the Green Zone, and I would get a mirror for this person. This person, in turn, would make sure all my security staff were trained by Diplomatic Security, and teach them how to look for a car bomb. The Institute was supposed to be independent (of Coalition protection), so we had to have a very low-profile because of the risk of car bombs. But it (independence) was great because our staff really started believing in what the Center stood for; to help them rebuild their country.

They also understood the other side of the coin, that we wanted to protect our Iraqi staff and the scientists we were recruiting. Many of these scientists could be taken to countries where their knowledge could be used against Iraq. The Iraqis were tired of war. They've been through three wars since 1980 and the scientists didn't want war anymore, the local people didn't want war anymore. And so it was a really easy sell to set up this program and it was great to get people's trust.

Q: How did you vet the people that you hired for security? Was de-Baathification an issue?

DEHGAN: I'll start with the second question. De-Baathification was a huge issue. I had the advantage of holding a joint role as a State Department person and as a CPA official. I would play those two institutions against each other to be able to move policy forward. It was the only way sometimes. Because we had funding that was not from the CPA, we

could pay people who were high level Baathists. That was absolutely necessary because some of the most important scientists who were sitting at home without a salary, who were being approached by Iranians and by insurgents, (had been members of the Party). Baghdad was filled with Iranians. I would eat in the restaurants in Baghdad and would hear Farsi all the time. So the Iranians were clearly there, and the scientists told me that they were approached by them.

We discussed the issue of Baath Party membership with Washington. I argued that de-Baathification should not be applicable to our program, which people (in Washington) seemed to clearly agree with. We floated a memo through the CPA, which argued the same point. Then I went to the Iraqi Government. I was meeting with the Minister of Science and Technology on a weekly basis. And the Ministry Administrator himself took me to the de-Baathification Committee. We explained that we needed to work with people whose knowledge is very, very important, (regardless of their previous political affiliations.) For me, finding stockpiles of weapons was not the critical issue. The critical issue was co-opting people with knowledge. Take the expression, "If you give a man a fish, he eats for a day, if you teach a man to fish, he eats for a lifetime". Well, these are the people who teach people how to fish, these are people whose knowledge is in high demand and can be very valuable, but, at the same time, people who were not getting salaries.

It was not our intention to reward people who were Baath party members for their work under the previous regime, but getting to these people was the core of our program. There was also an interesting ethical question in this for me, because I'm a Persian American and I used to teach scientific ethics at the University Chicago. Many of the people I wanted to recruit for my program had worked on chemical weapons that had killed 500,000 Persians and had killed people within Iraq. But working under a law-abiding regime and international controls, these scientists are not dangerous. They are normal, ordinary people.

This is a bit of a digression, but I think the Green Zone had trouble understanding Iraq because many of the people who worked there didn't get out of the Green Zone and because there was this idea that Baghdad was a chaotic war zone. Actually, it was a city of 4-5 million people that had to live a normal life day by day. These are people who had already lived through three wars and understand the importance of normalcy. I found that if you fit into that normalcy, you actually have a cloak of security. When you separate from that normalcy, by driving in two white, new, shiny Suburban cars with four shooters all wearing flack jackets, you become a target. None of those CPA cars were armored. The main threat were people who used improvised explosive devices to disable your car and who then came out and attacked you with AK47s. The military gave us flack jackets that didn't protect us against AK47 fire. So it didn't really make any sense to even wear those jackets. There was some protection against shrapnel, but wearing the jackets just seemed to make us a bigger target.

I should mention that an integral part of our security also was an Iraqi street dog that we adopted. Her name is Shusha. Shusha became the best protection measure because she wasn't used to being treated nicely and now guards the house extremely well.

For the most part, Baghdad was a normal city and a city that was getting better in many ways while I was there. One of the things that really impressed me was the growth of satellite dishes all over the city. People weren't allowed to have satellite dishes under Saddam. I'd ride down this one major shopping street and just see a pile two stories high of satellite dishes.

The other thing that gave me a lot of hope was this perfect éclair shop that I found. It was a brand new store. It could have been in Soho, New York. They made the best éclairs in the world. The owner was a cook for the United Nations and decided to invest a lot of money and a lot of effort into opening up a trendy, new, little pastry shop. And you don't open up a pastry shop in a war zone unless you think, one, people have disposable incomes to spend on éclairs, and, two, you see things getting better.

But most of the people who were stuck in the Green Zone never saw these things and were very paranoid about what was going on. When our convoy started being attacked and we started rationing food, people (in the Green Zone) were getting worried that they were going to starve. I really didn't understand that, since three minutes outside of one of the Green Zone gates was a supermarket that was filled with food. But I think that's one of the mentalities.

Ultimately we got permission from all the relevant parties who agreed that it was necessary for us to recruit even former Baathists. These were actually some of the best, most educated scientists that could play a leadership role.

Q: How did you vet your employees for security?

DEHGAN: The United States Government had no good vetting procedure. I worked in the Office of National Security Affairs and my best friend was a person who was in charge of developing vetting procedures. And there were no reliable methods to vet people. So, when we hired Hussein, we asked him to identify people that he trusted and had known for 20 years. And it was through that circle of people, who knew each others families and backgrounds, that we recruited employees. We tried to get diversity. We had Christians and we had Shia and Sunnis and Kurds and Arabs all working for us. I think it's important to have a team that represents a kind of composite of Iraq. But they are also all people who are connected to at least a couple of members of our staff in multiple ways. Because there were no other reliable vetting procedures, we had to use the endemic vetting procedure, which was recruiting someone's cousin's father's sister. When I worked on the Soviet Union, it worked the same way because of the fear that otherwise someone might be a KGB officer. But if you were within that network of people that someone knew and recommended, you were always safe.

Q: Once you found the scientists and you brought them into the program, what work did they do? What are they doing now?

DEHGAN: The three programs (for employing scientists) that we have implemented have just gotten underway recently and are operated through the Science Center..

Our goal with the Science Center is similar to the Science Centers in Russia except the circumstances are entirely different. To clarify the Center's legal status, in January I suggested setting up the Center as an intergovernmental organization, as a partnership between the United States, the Iraqis, the British, and a number of other entities. The biggest challenges I faced pursuing this course of action were legal ones. I am a lawyer myself, and I worked closely with the General Counsel's Office of the CPA which was made up of world class lawyers, people that clerked at the Supreme Court. But the biggest problems we faced were with the legal division (L) of the Department of State, which actually set us back, I think, for years in terms of just terrible, terrible legal advice. Sometimes we bring incredible lawyers into L, but there's something about that culture that makes them unwilling to take any risk, even when not taking a risk is a bigger threat to our security than anything else.

We had suggested creating an intergovernmental organization between the United States, the British, the American, and the CPA and to extend to that intergovernmental organization the rights and privileges of an international organization. At that point it would be separate from the United States, making it less of a target, more of an international effort. Once the Iraqis became sovereign, they could join the intergovernmental organization as an equal partner. This is what we've set up in Russia. The redirection effort was entirely voluntary. It was really important that we show very good intentions. But L decided that this was too risky. They said that we should just create an organization under the CPA. But the CPA could not create a private entity under its organization. In the end, after six months of delay, L then said the best way was to create an intergovernmental organization! But time had run out and the CPA had dissolved. This put us in a worse legal situation, because if the intergovernmental organization had been signing the contracts, the liability would only run to the intergovernmental organization. Under L's proposal, the USG had to sign individual contracts for all these individuals and programs and was liable because of it. It was some of the worst lawyering I think I've ever seen. At some points I wanted to go home because I was so frustrated. The war zone wasn't a problem, the Iraqi scientists weren't a problem, but working with L was a big problem. What was worse, the CPA's General Counsel's office was fully supportive of what we were proposing and was working with us to find solutions. But every one of those solutions would be shot down by the legal division of the State Department.

Getting back to your original question about what the scientists we recruited were actually doing. First, after hiring the scientists, who worked in interdisciplinary teams, I wrote a letter in which Bremer informed all the ministers that we had teams of scientists, whose salaries we were paying, who would be able to work on solving any scientific and technical problems the ministers had. Our teams weren't just scientists. They were

engineers and technicians too. One of the things that people don't realize about WMD (Weapons of Mass Destruction) scientists is when you become senior enough, you don't actually operate the equipment anymore. You run the laboratory and write the grants. Some of the lab technicians actually have knowledge that is more applicable to creating a weapon than some of the senior guys. So the mix of people we had included those who may have only had a bachelor's degree in engineering or in day-to-day production of certain types of weapons, or engineering certain types of weapons, or materials used in the production of these weapons. They were all people that had useful contributions to make to the reconstruction of the economy.

The second program is a venture capital program, which we're still working on. Pre-war in Iraq, all science came from the state. There was no scientific activity other than what the state directed people to work on. The universities were a little bit similar to western universities, but their science programs became much more militarily oriented, because the research funding came from the state for that purpose. Consequently, we wanted to help build up the private sector, which would have the effect of stabilizing the economy and providing employment. So one thing we wanted to do was have the Iraqi scientists use some of their knowledge and their skills to create private companies.

There was always a concern about use and development of dual use materials that could be later militarized. But I think the more significant thing is to stabilize the country and to build the economy. And so we are willing to take those risks. One of the things I'd like to see this program develop into is joint ventures between western firms or we can help subsidize some of their risks with these Iraqi scientists.

The Iraqis are really smart. They have a lot of ideas for things they want to produce for the whole Middle East such as desalinization equipment, such as solar panel technology like thin films. That would be useful in turning Iraq back into a center of science for the Middle East and can promote technologies to deal with environmental problems and production problems that this region has already.

The third program was closest to the Science Centers we have built in the Soviet Union. This is a traditional grant program to help rebuild all the laboratories. Most of the laboratories in Iraq were destroyed during the first Gulf War in 1990. They were rebuilt, and although some of them were targeted in the second Gulf War, they were in poor condition because economic sanctions prevented new equipment from coming in.

Then because of the looting after the war, all universities, all laboratories were stripped of their equipment. For the same reasons, Iraq lost a generation of science students and scientists. So one of our goals was to help rebuild the science programs. What was important was not to build lists of equipment, but to actually have the scientists promote programs and centers that involve weapons scientists, non-weapons scientists, graduate training of students, and equipment to allow them to work on things in support of economic reconstruction. Our only restriction was that the activity couldn't have a significant dual use. It had to be in support of reconstruction.

We're running two programs with a contractor and NGO called the Civilian Research and Development Foundation in Rosslyn. First, We want to help Iraqi scientists understand how economics works on a fundamental level, because generally people in Iraq went to work for the civil service or they started off their own small business and there was no interaction between the two groups. Our program is called Adam Smith 101. And I think it was important to encourage the development of science sectors. Second, we're also working on bringing scientists to the United States. We have a group coming at the end of August to meet American scientists and to integrate with their counterparts, other American scientists, and to work on joint projects.

Also, we want to set up a web site, which is really important, because the Science Center itself will have a grant foundation library that we're currently working on building where you can build grants and where scientists can go and do research on where to find funding, just like American scientists do. But even more important, I thought, was to have a website where scientists can go without having to leave the safety of their homes, or to look up information on how to write a proposal, how to write a business plan, where to get funding internationally, where to get support for certain projects, how to meet other scientists in fields that they like.

Finally, we have a travel grant program to allow scientists to go to international conventions which they haven't been able to attend for 15 years. For example, one scientist came up to me and asked me to explain what had happened in ecological mathematical modeling in the last 15 years. A great deal has happened, and I wouldn't have been able to do justice to it in the course of a conversation. To be able to update their knowledge in my field, ecology, I got journals for the Baghdad Natural History Museum. It hadn't received any new journals, scientific journals or books in 15 years. And so, as a private matter, I used my APO address and my contacts with the University of Chicago Press, the National Academy of Sciences and scientists, including a lot of scientists at the University of Minnesota, who came through and collected books and journals covering the last 15 years and shipped them all out to me at their own expense to Baghdad.

Q: We here at home keep hearing about how there's hardly any electricity in Baghdad and I understand from other people I talk to that there were problems with using the Internet, may still be. Did you find some way to protect your organizations against those shortages?

DEHGAN: Well, we had to. Something I knew nothing about were generators. And I had to learn as much as possible about buying a generator. Everything we did, I'll just say for the record, I made sure I had three bids for. Even though it wasn't going through the contracting office, I was trying to make sure that everything was above board. We surveyed the market to determine the lowest price for whatever we were buying as a matter of course. And when we had a financial review by the non-proliferation and disarmament fund, they were incredibly happy with what they saw, because we were able to turn in three bids for everything, and find the cheapest bid.

The consequences of working outside the CPA purchasing system like this produced a funny story. We had to put Mylar on all our windows. When we went to the dealer, they quoted us two prices. One was the official contracting rate for the CPA and one was the market price. When I asked what the difference was, they said the official rate for the CPA was twice as expensive as the normal market price. And so I said our Center was semi-autonomous, that we had nothing to do with the CPA, and we were able to save half our costs that way.

The electricity was a problem. It was on and off all day long. We had to get a generator and then we also had to create a safe room and get a back up generator and an automatic switching system. Knowing nothing about this, I had to do research, deal with the questions of noise and how you get diesel connected without it being a security threat, someone blowing up a diesel truck next to your center, how you protect the generator against dust. While I was there it never rained, it only rained dirt. But it was a huge problem for the people in Baghdad. The Iraqi International Center For Science and Industry put together a scientific advisory council of the best scientists in the country which identified what they thought were the scientific priorities for reconstruction. One of those priorities was provision of electricity. One of the things we'd like to do, is use some of this money from the Iraqi Non-Proliferations Programs Foundation, which is an Iraqi organization funded through Iraqi funds, to work with our Center and our scientists to take on this problem of electricity.

I think the Iraqis have to solve their own problems, and I think they can do it. They have the technical expertise to do these things. We can use the huge amount of money we have for building that sector, fine, but we haven't really spent very much money of the \$18 billion that has been allocated, and I wonder how much of it will actually get to the Iraqis. The Iraqis already have in their own funds and technical expertise which could be used to rebuild the electrical sector. I think the best solutions will be the solutions that the Iraqis themselves will come up with, because they are people who have been incredibly flexible dealing with the circumstances that they've found themselves in.

One of the best insights I got (into the dynamic between the helper and the helped) was at a meeting of the scientific advisory council. I would ask them to prioritize what they thought were the important problems in the country. Instead, people kept giving me their own research proposals and I'd tell them, I'm not going to fund that.

And finally I realized at the third meeting that the problem was me, the fact that I was sitting with them and that they really weren't doing the argumentation and the discussion among themselves. And so I told them, I'm going to leave. So I went out and played with the Center's dog. When I came back to the Council they had broken themselves into working groups by discipline, identified what the priorities were and came up with a great list. And then I realized that I got what I wanted by me leaving and the Iraqis coming up with this by themselves. And I think that is where the future of the country will lie until the Iraqis take security into their own hands.

Q: Can you elaborate on that a little bit? Why did they hesitate to do what they eventually did just because you were in the room?

DEHGAN: I don't know if it was as much their problem as much as it was my problem. My problem was thinking that I was necessary to lead them to certain conclusions. But really what was necessary was for them to come up with the conclusions themselves. And I think whatever leadership role I was taking in that meeting prevented them from getting the job done.

It was a great revelation to me to understand that I was completely irrelevant and actually detrimental to that process. And I think that was a very, very good thing to understand. I've made these mistakes before, because I worked with the Soviet Union when they were in their transition in '92, rewriting their environmental laws. And one of the things we presuppose is that there's always one good way to do things. But (we should consider) that maybe that there are many different ways that people have developed over the 5,000 years, the 30,000 years people have been in Iraq, and that it might work just as well. And so there was a learning curve on my part that I needed to take and this is despite being sensitive to their culture. And I think that was a good lesson for me. So I don't think the problem was theirs, I think the problem was mine.

Q: You did a tremendous amount of stuff in just a few months. Were you working from some kind of prepared template on setting up this sort of a thing. On what did you and your colleagues draw to do this?

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DEHGAN: We really didn't have a template in terms of how we did these programs. And that was because the programs that we were running in the Soviet Union dealt with entirely different facts and an entirely different context. In the Soviet Union, they had all the laboratories in tact, they had a much higher level of science, they had 10,000 scientists, they had these entire self-sustained cities that were cities for production of weapons. It was a different context in Iraq, which was a war zone, which we had invaded by force and which lost everything through looting and through economic sanctions and the destruction.

In Iraq we had to create things on the fly. We had a great team made up of Dr. Carl Phillips, who is the Assistant Vice President for Research at Texas Tech and a Foster Fellow at the Department of State, Anna Harrington who has been working with the Russian Science Centers for 20 years and is deputy director of the State Department's Bureau of Non-Proliferation, Office of Proliferation Threat Reduction, and then Rich Jarvis who is in the same office and works as the program manager.

I am an American Association for the Advancement of Science Diplomacy Fellow in the Bureau of Near Eastern Affairs. I had volunteered to go to Iraq and the Deputy Science Advisor to the Secretary of State recommended me to this group.

As it turns out, Carl is a mammologist and I'm a mammologist, and he knew my advisor who is the President of the American Society of Mammology. So he knew that I was a good scientist, and I was invited to go out there and given this incredible responsibility.

We had to develop things on the ground as they came up. Everything was new. And because of the flexibility to be able to leave the Green Zone, we were able to understand what the situation was on the ground and we were able to deal with the scientists and work with the scientists to develop plans that were successful.

Q: You said that you had difficulty getting some of these programs off the ground because of rivalry within in the CPA, between the Department of Defense Office and the State Department Office. Could you give an example of the nature of this rivalry and how your group resolved it?

DEHGAN: There are a lot of rivalries. There are rivalries with the Iraq Survey Group which initially refused to provide us with information. And actually at one point, we were warned to back off of some of the scientists we were dealing with, one of whom we actually hired as our science advisor. And that was because the Iraq Survey Group wanted control over all these (non-proliferation) things. Our goal had nothing to do with the past. It had to do with the future of the country. And this is very much in line with the Future of Iraq report that discarded by the Department of Defense in their planning. There are elements within the Department of Defense that were very much against our role, because there are a lot of resources involved and because this was a very high profile project.

One area where we had problems was with some of the people within the office that supported the senior advisor to the Ministry of Science and Technology. He was an Iraqi nuclear scientist that had defected to the United States and worked for the Libyans. We had very serious concerns about whether he actually wanted to help work on redirection or whether he would support a continuation of those (weapons) programs. And so we placed ourselves within the Office of National Security Affairs within the CPA in order to insure that our program was the only working on non-proliferation materials. Nevertheless, we still had people from the Senior Advisor's office in the Ministry of Science and Technology trying to contact weapons scientists that were in detention, trying to undo what we had done. In the end, I really had to argue that all these things should come to an end and we should all work together because we had so little time. We also dealt with the situation by putting ourselves outside of the CPA by claiming this was a State Department Program, working with the CPA's Office of National Security Affairs and using that office to avoid some of the games that were being played. I worked really hard to try to bring all the different parties together, which is why we were ultimately successful. But initially everyone was looking after their own interests.

Q: You said that you worked frequently with the Minister for Science and Technology. Can you tell me who he was, how he got chosen and whether he's still in the government?

DEHGAN: Rashad Omar was an engineer who left Iraq and worked in, I think Dubai for many years. He was an opponent of the Saddam Hussein regime. He was Minister under the Iraq Governing Council and was one of, I think, only two ministers to stay on into the transitional government. He was chosen partly because the Department of Defense saw him as a person who would support some of their initiatives, but also because he is a very intelligent person. He is an interesting person to negotiate with to say the least. And I think he's a person who wants to see Iraq become a strong country again.

Nevertheless, we had trouble working with him when there was a conflict between his desire to build his own power base, versus maybe what was in the best interest of the country. Establishing an independent Iraq Radiation Source Regulatory Authority was an example. I spent four hours negotiating with him over the independence of that authority, which was to regulate the use of radioactive materials in the country, including those within his Ministry. He didn't want that authority to be independent.

Q: You were telling me before about how you learned something about the best way to get results out of these groups of scientists. Could you tell me that story again on the tape?

DEHGAN: Sure. The purpose behind what we were doing was to protect the security of the United States. But we couldn't sell our program to the Iraqis on that basis. The participation of the scientists had to be voluntary. The other consequence of our program was the reintegration of weapons scientists into civil science. We had to convince them that we wanted them to partake in the reconstruction of their country. The Iraqis did not have a strong sense of patriotism under Saddam Hussein, but now they did have a new country that they could be proud of; a country that they could play an important hand in helping rebuild.

People who participated in the programs took a very serious risk working with Americans. From the point of view of the insurgents, cooperation was death sentence for these scientists, and many, many scientists have been killed in Iraq. But by convincing them that they could do something to end the 25 years of war that they had been through, to end the militarization of their country, to help create a new Iraq, we were able to get those scientists to participate.

Also, we had to make whatever we were doing fair, transparent, and just in how we chose those who partook in our programs and who worked with us. We involved the Iraqis in these decisions. I think it was very important to work with the Iraqis on what was the best solution rather than to dictate to them.

Finally, scientists are very prestigious individuals in that society. You cannot just pay them to sit at home, because they are used to being people who have power, who make contributions to the society. To show we recognized this, we helped support and fund the

new Iraqi National Academy of Sciences, which a nuclear scientist by the name of Shahrastani was helping to build. He was one of the people who was considered as a possible future Prime Minister. But we also wanted to introduce a science ethics program. We funded the new Iraqi Academy of Sciences, in part, as a vehicle for an ethics program for Iraqi scientists. Shahrastani was a nuclear scientist who was in prison for not partaking in the production of weapons of mass destruction, not partaking in Saddam's nuclear program, so he is the perfect person I think to develop this ethics program. He has very high standards for himself and for the country.

Q: Now you've left and you said that a new director hasn't been appointed yet. Who's running these institutions and what do you anticipate for the future of the institution?

DEHGAN: I'm hopeful for the future. The people who are running it are the staff that I hired. The current deputy director of our Center is a former Iraqi diplomat who wasn't a Baath member. He was the economic attaché in London and head of the Military Industrial Commission. He is not a scientist, he is an MBA, a manager, but his connections with the scientists are pretty strong. And he is a consummate diplomat, which is one of the reasons we brought him on. He is a person who understands the scientific community, wasn't sullied by participation within the Baath Party and is a diplomat. And that is the kind of person we need. He used to run an organization of 40,000 people.

Hussein, the Center's Chief of Staff, is the first person I hired. His morals, his ethics, his sense of responsibility, and the work he does is tremendous.

Our staff works every single day from 7 AM until 11 o'clock at night sometimes of their own volition. When something is wrong with the Center, they all come to the Center and fix it. And so I have unbelievable trust in them. We've been communicating via email. I'm no longer with the project, but I still write to them and if they have problems I try to provide advice and council. We became really close at the end, because they work really hard for us. I think they've done a really good job, and I'm hoping they stay on. If I return to Iraq, I want to return in an area that's closer to my own competence in environment and ecology but I still hope to be an outside advisor to the Science Center.

The person chosen to be the new director is a mammologist from the University of Richmond who is currently an AAAAS Fellow in Congress for Senator Lieberman. And he has the perfect temperament to lead it. He should be out there at the end of August. I think it's bad though that from June until August we haven't had someone out there actively working on our programs. Those programs took up all my time when I was out there. It was a lot of hard work, and I don't want to let any of the scientists down.

Q: How much are these scientists paid for the work that they do?

DEHGAN: I can't get into the details of the exact amount. But they're not paid very much. The amount of money that they are offered by insurgents or by other forces, not to mention the threats against their families for participating in our programs, is far greater

than what they make with us, although they are paid more than the CPA was paying their staff. Because we are working with Non-Proliferation and Disarmament Funds, we could pay off the CPA scales. They are getting paid more money than they made under the Saddam Hussein government. But that government provided lots of perks. It provided houses and cars to people, something I don't ever want to get into. But they are being paid enough now to allow them to live comfortably. The pay is well below what they would make in the West. By Iraqi standards it's a decent living wage.

Q: Are these scientists involved in any way in university education? What's the status of university education in the sciences?

DEHGAN: The status is terrible, because they haven't had any new books, equipment, or any opportunities for training in the West for the last 15 years. The quality of the students has gone down dramatically and that is one of the main concerns of our scientists that are on the Scientific Advisory Council. The Council is made up of scientists from the Military Industrial Commission, the Ministry of Science and Technology, and from all the major universities in Iraq.

Q: Can you tell me something about your personal living conditions while you were there?

DEHGAN: Carl and I shared a trailer like everyone else did. When we first got there, actually the very first place we stayed was in Saddam Hussein's pool house, which was, I guess, the VIP residence, but it didn't feel very VIP-ish. But then when we moved into the master bedroom which was the large room where everyone slept together, I learned a lot about the diversity.

Q: What do you mean everyone slept together?

DEHGAN: Well, we had a large room with maybe 300 to 400 bunks, double bunks. And when you first got to Baghdad, that's where you stayed. Originally it was co-ed, but that was eventually changed. Lights would be off about 11 or 12:30 and then come back on at 4 AM. I slept in a top bunk at first. So most of the time there was a light in your face. And then there was this diversity of snoring and every other bodily noise you could imagine. So that made for a rich experience as a biologist, to recognize the diversity of phenotypes that we have.

Q: And how long did that go on for you?

DEHGAN: That went on for two weeks. I originally went to Iraq for two weeks, came back to the US for a week, and then returned to Iraq for the rest of my assignment.. I think they wanted to see if I would survive the experience, to give me a test run and introduce me to people. When I got back, we had a trailer ready for us which was great. The Science Center we built actually has facilities for a director, and when the security situation allows it, the director will stay there. And it's nice. They have satellite TV with 300 something channels. The director has his own room. I actually moved windows in

the Science Center to protect against potential car bombs. For some reason, Iraqis love fluorescent lighting, and I had to replace it all with nice recessed lighting. Halliburton food is edible at best, so I took whatever chance I could to try to eat outside, because there are very nice restaurants in Baghdad.

Most of my day was spent outside of the Green Zone just because the Green Zone wasn't a very fun place to be. When I was in the Green Zone, I was usually working in my office and then I would go back to the trailer. Television in the Green Zone had some of the strangest TV channels. We had two fashion channels out of maybe 10-15 channels. Another showed Germans playing video games all night after 11 o'clock. But we also had Discovery Channel and the History Channel, thank God and CNN. Other than that, you could go running, so I ran some which was necessary to offset the fat content in the Halliburton food. Another thing that I didn't really understand was that we had Muslims from Pakistan serving us food and we were in a country which was a Muslim country, but it seemed like 75 percent of the entrees were pork, or pork based. Pork rings, pork chops, pork shaped fish, fish shaped pork I guess. Pork in our salads, pork stew. We had Iraqi staff working with us and they would feed us great quantities of pork. I think Halliburton must have gotten a great deal on pork somewhere.

Q: It doesn't sound like you had a lot of time for socializing but who did you find yourself socializing with?

DEHGAN: Well, Carl and I hung out together a lot. When you're in the office until 11 o'clock at night, you socialize with those people in the office, because that's who is there. The Office of National Security Affairs was great because it was made up of Czechs, Romanians, Americans of course, Australians, English and so these people became very good friends. I have huge amount of respect for these people. I have a couple of very good friends who are British and there is a British bar.

The British were really smart about housing. We had these very thin skinned trailers and even celebratory fire would come through the roof of the trailers. They were protected by sand-filled polyurethane bags which disintegrate after direct exposure to the sun for a period of 48 hours. You could touch the bags and they would start to fall into powder. It was like the flak jackets I mentioned before that don't protect you against AK47 fire, and AK47's are the only thing people use over there. A lot of thought didn't go into those arrangements. On the other hand, the British used shipping containers, which are actually really sturdy, for housing, and they put them in an underground parking lot protected by Gurkhas. And within that housing area, they created a really nice bar. The alternative was a terrible disco in the Al Rasheed, which, I think was mainly staffed with intoxicated security contractors. I went there once and spent about 15 minutes and that wasn't too good, especially if you were a single guy. There were maybe 400 intoxicated men and three women in the middle of it.

The Brits and I started the Baghdad Green Zone First Annual International Film Festival. where we started showing films. The first film we showed was The Battle of Algiers, which was very applicable to what we were doing. So there were ways to have fun.

Q: Tell me about the Natural History Museum.

DEHGAN: The Natural History Museum is the Center for Ecology Evolution and Conservation Biology in the country. It is the people who do wildlife biodiversity inventories. It is the people who understand the natural history of the country. This museum is also the center for training for graduate students in this field. They have a library in the Museum which is as good as any ecology evolution biology library in the country United States, except for the fact they haven't received books for 15 years. It's not too far from Sadr City, so it's a little dangerous going out there. But I went there because having worked in a natural history museum, I wanted to use my connections in the West to help them out

What I saw was devastating. One of the things natural history museums have are collections. The looters had taken all the drawers that the skins, skulls and skeletons are kept in. These things (must) be kept together. You cannot mix the skeletons because there's information on the skeletons that explain to you something about the species. You decipher the species based on these elements. You decipher something about the biogeography of the area based on these skeletal characteristics and where they are found. You cannot separate them from each other. But they had taken these drawers that were filled with skeletons and they had stolen the drawers and then dumped all the skeletons and skulls and skins together on the ground. And so the whole record of what was found in that country was lost.

I am hoping to go to work with the British Field Museum, which has an extensive collection (from the area) and try to reconstruct the history of the museum. That's what I'm doing now. They also had these beautiful dioramas in the museum, similar to dioramas you would find in the West. And looters wrecked them. There used to be lions that roamed in Iraq. They had a stuffed lion (in one of the dioramas), and someone ripped off the head of a lion. And these curators made a paper mache head of a lion that they stuck on this stuffed lion. It's heartbreaking. One curator had 20 years of ectoparasite collections destroyed. The looters smashed each vial one by one.

I told him, "My heart breaks to see this." And he said, "I not just my heart is broken but they've ripped it out of my body and stomped on it a few times." And so I decided that I wanted to do something for him.

The first step was rebuilding the books, as I mentioned before. I have a great picture of these students, male and female, pouring over the books excitedly as they were laid out. I'm now trying to work on getting a grant for training of the curators and students and to restart a natural history by diversity inventory.

But I sort of felt that it was the best thing I did in Iraq. Even though I did a lot of other really good things, the gratitude I got from these curators and the students (was wonderful) I had a security detail. One new member of our security detail who was a former Republican Guard, was so moved by it. We were taking pictures and he was like,

well, I want a picture with you so I can always remember what you have done and that we were together. And that really touched me.

Q: One other thing, I ask everybody. You mentioned a number of things you worked on and that you were happy with the way they turned out, but can you tell me what you thought your best success was and what you think was a failure of your program while you were there?

DEHGAN: The failure was not creating the intergovernmental organizations. The success of the program was creating the Center itself, even though it wasn't an intergovernmental organization, and, at the end, having scientists walk in the door because they wanted to work with us. We can't force anyone to work with us. ISG forces people to work with them. We don't force anyone to do anything. We entirely depend on the good will we generate and I think that's our success.

Another success was how it all came down to the last minute and it all worked. Bremer signed the right orders and signed the right memos and all the people that were working against us started working with us. The Iraqis decided they wanted to sign and they were intending to abide by the Chemical Weapons Convention. For an Iranian American, that was a great thing. They decided they were going to sign the additional protocols to the Nuclear Non-Proliferation Treaty. And what's really funny is those two initiatives were given to me in my last three weeks in Baghdad by David Kopper (ph), a former member of the National Security Council and the Senior Advisor on Security. I'm a lemur biologist. I had no idea how you find the right Iraqi and ask him please sign this treaty.

There was an additional problem that Iraqis didn't have the authority to sign these treaties. So I did some legal research and I found out that the U.N. Security Council Resolutions required the Iraqis to meet all these obligations. And I realized that the Iraqis could actually rid themselves of those obligations by signing on to these conventions. That's how I explained it to the Iraqis and that's why they decided to buy into it. They have to elect a parliament to ratify the treaty, but they have agreed that they are going to be bound by these conventions and sign them. I think that was the other big success, especially because I had no idea what I was doing.

Q: So, it's expected that whatever government is elected eventually in Iraq will accept whatever the transitional government agreed to?

DEHGAN: Exactly. I briefed the Iraqi Governing Council, the Ministerial Group on National Security and the sub-ministry group on national security of the Transitional Government.. I thought it was really strange that we spent a year and a half working with an Iraqi government to train them to be a government and then at the last minute we replaced everyone with new people, but I'm a biologist and I think too much.

Q: Thank you very much.

DEHGAN: Thank you very much.

[END INTERVIEW]