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Deep Connections between Myanmar's Department of Technical and Vocational Education and Department of Atomic Energy

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Summary

Through internet searches, ISIS identified extensive links and associations between Myanmar's Department of Technical and Vocational Education (DTVE) and Department of Atomic Energy (DAE), under the greater Ministry of Science and Technology. In particular, the Director General of the DAE, Dr. Ko Ko Oo was also at one point director of DTVE. In addition, directors and deputy directors of the DTVE have appeared regularly at nuclear conferences together, despite the lack of organizational justification for the DTVE's apparent interest in nuclear energy. Significant personnel links exist within the Myanmar Ministry of Science and Technology between these two agencies. Internet searches establish that Dr. Oo was director of the DTVE as recently as 2004. Dr. Oo was Director General of the Ministry of Science and Technology as recently as 2006, a post that he may still hold. He often appears at conferences with different administrative titles, and therefore it is difficult to track changes in career position precisely. The DTVE and DAE also at one point shared an address, phone number, and fax number until the Department of Atomic Energy relocated to the new capital of Naypyidaw. The DTVE is also now located in Naypyidaw, but no current address can be found.

DTVE under the Ministry of Science and Technology

Bureaucracy & Activities

The Department of Technical and Vocational Education (DTVE) administers technical educational programs in Myanmar, which include those relating to materials science, metallurgy, and engineering. It procures machine tools for the various laboratories and institutes that it oversees. It appears to have an ongoing interest in energy and sustainable resources.

Within the Ministry of Science and Technology, the DTVE oversees 26 technical universities, 4 government technical colleges, 11 government technical institutes, and the Myanmar Aerospace and Aeronautical Engineering University.¹

According to the Asian Pacific Chamber of Commerce (APACC), "DTVE is responsible for the production of technicians, skilled and semi-skilled tradesmen." DTVE also offers... "Engineering Technology Evening Classes (ETEC). ... intended for the employees of state organization (in technical

¹ http://www.most.gov.mm/index.php?option=com_content&task=view&id=108

positions) who want to upgrade their theoretical knowledge in the respective engineering technologies. According to a country report from a conference at the Korea University of Technology and Education, written by a professor from the Myanmar Materials Science and Materials Engineering Research Center, the DTVE bought and installed “for the practical works of the technological students, modern advanced workshop machines including the Computer Numerical Control (CNC) machines, such as CNC Lathe, CNC Milling Machine, and CNC Machining Centre....”²

Technical and Vocational Educational Training (TVET) in Myanmar is run by the Ministry of Labor, the Myanmar Industrial Development Committee, and the Ministry of Science and Technology, which also oversees the Department of Atomic Energy and the Department of Technical and Vocational Education. TVET is a government-run effort to train workers, in part, for technology and engineering jobs.

Ministry of Science and Technology-administered universities, colleges, and institutes that cover engineering are divided by academic departments. Two departments of interest are the Department of Metallurgical Engineering and Materials Science and the Department of Nuclear Technology.³ The former has a laboratory that procures heavy metallurgy tools: “... a number of new and modern equipments were purchased. The facilities available for metallography laboratory are specimen cutting, grinding, polishing, etching and subsequent microscopic examination. Hardness testers are also available for mechanical property determination. An instrument for carbon and sulphur determination in cast iron and steel is available. ... Oil-fired crucible furnace for melting and muffle furnaces for heat treatment of ferrous and nonferrous alloys are available. Size reduction units such as crushers, grinders, sieve shaker and series of sieves and flotation units comprise the mineral processing laboratory.”

DTVE-DAE Personnel & Associations

Mr. U Thaug, the Minister of Science and Technology, and creator of the ministry in 1997 and the Department of Atomic Energy in 2001,⁴ has been noted in various news reports to favor the development of nuclear energy. He is reportedly an extreme nationalist, has training in the armed services, and is close to the leader of the State Peace and Development Council (the Myanmar junta), General Than Shwe. He signed the agreement with Russia to purchase Myanmar’s first nuclear reactor, and is reportedly behind efforts to send Myanmar students abroad for training in nuclear engineering.⁵

Dr. Ko Ko Oo, the Director General of the Department of Atomic Energy⁶, was Director of the Department of Technical and Vocational Education, as indicated in a conference report and a photo caption in a compilation of photographs from a 2004 Confederation of Asia-Pacific Chambers of

² http://74.125.95.132/search?q=cache:XE94G8kxZNwJ:www.apacc4hrd.org/conf_workshop/apacc07/cr/CountryReport_Myanmar.doc+for+the+practical+works+of+the+technological+students,+modern+advanced+workshop+machines+including+the&cd=1&hl=en&ct=clnk&gl=us&client=firefox-a

³ http://www.most.gov.mm/techuni/index.php?option=com_content&task=view&id=44

⁴ http://news.xinhuanet.com/english/2007-11/29/content_7170787.htm

⁵ <http://www.zeenews.com/news548819.html#> ; <http://www.bangkokpost.com/news/investigation/21765/the-history-of-burma-s-nuclear-ambitions>

⁶ <http://www.iaea.or.at/About/Policy/GC/GC51/participants.pdf>

Commerce and Industry (CACCI) delegation visit to Myanmar.⁷ No other information was found using open source searches regarding his past DTVE title. Dr. Oo was also Director General of the Ministry of Science and Technology as recently as 2006, and may retain this post, in addition to heading the DAE.⁸ He represents the DAE Department of Radiation Protection, as indicated by the IAEA's Directory of National Regulatory Bodies for the Control of Radiation Sources.⁹ Dr. Oo represents Myanmar at various nuclear, science, and technology cooperation forums.

Dr. Thant Zin Myo is the current Deputy Director of the Department of Atomic Energy.¹⁰ He appeared with Dr. Oo at the 2007 51st General Conference of the IAEA.

Dr. Tun Tun Win was the Director of the Department of Atomic Energy as recently as 2000, as indicated by a Regional Cooperative Agreement (RCA) General Conference document. This conference hosted representatives from Asian governments' nuclear and environmental agencies.¹¹

Dr. Khin Maung Aye is the current Director General of DTVE. He served as recently as April 2009 on the ASEAN Sub-Committee on Non-Conventional Energy Research.¹² The subcommittee seeks to enhance the capabilities of member states in "natural gas utilization technology, biomass/biogas technology, clean coal technology, solar/wind/micro-hydro energy technology and energy efficiency technology" and to "undertake R&D technology transfer and commercialization of various non-conventional and alternative energy sources." He also appeared as the Director General of the Directorate of Myanmar Industrial Planning in a 2004 Confederation of Asia-Pacific Chambers of Commerce and Industry (CACCI) delegation visit to Myanmar.¹³

Dr. Kyaw Soe, the Director General of DTVE in 2003, is listed as the other conference participant representing Myanmar alongside the Department of Atomic Energy and Dr. Oo at the 32nd Annual Regional Cooperative Agreement (RCA) General Conference in 2003.¹⁴ The RCA promotes the "research, development, and training related to nuclear science and technology for Asia and the Pacific" and is endorsed by the IAEA. Mr. Soe is also listed as a delegate alongside Dr. Oo to the 2003 IAEA General Conference. He is named as the Director-General for Technology Promotion and Co-operation of the Ministry of Science and Technology.¹⁵ In 1999, according to a NSG export controls conference document, Dr. Soe was the Deputy Director of the Ministry of Science and Technology.¹⁶

Dr./Ms. Theingi Maunz/g Maung is the current Deputy Director General of the DTVE and was at one time affiliated with the DAE, possibly as an employee of the DAE Department of Radiation Protection. Dr. Theingi appears alongside Dr. Oo of the Department of Atomic Energy as one of the 2009 editor

⁷ <http://www.cacci.org.tw/CACCI%20Profile/2004%20June/04june-MyanmarVisitReport.pdf> ; and last photo:

<http://www.cacci.org.tw/CACCI%20Profile/2004%20July/Photo%20-%20Myanmar.pdf>

⁸ <http://www.astnet.org/index.php?name=Main&file=content&cid=23>

⁹ http://www.sujb.cz/docs/Regulatory_Authority_Directory.pdf

¹⁰ <http://www.iaea.or.at/About/Policy/GC/GC51/participants.pdf>

¹¹ http://www.rca.iaea.org/members/Meeting_Conference/GC/29th_GC/a1.pdf

¹² <http://www.astnet.org/index.php?name=Main&file=content&cid=93>

¹³ <http://www.cacci.org.tw/CACCI%20Profile/2004%20June/04june-MyanmarVisitReport.pdf> ;

<http://www.cacci.org.tw/CACCI%20Profile/2004%20July/Photo%20-%20Myanmar.pdf>

¹⁴ http://www.rca.iaea.org/members/Meeting_Conference/GC/32nd_GC/Annex1.pdf

¹⁵ http://www.iaea.org/About/Policy/GC/GC47/GC47InfDocuments/English/gc47inf-14-rev1_en.pdf

¹⁶ <http://www.nuclearsuppliersgroup.org/Leng/PDF/SeminarControl2.pdf>

representatives from Myanmar of the ASEAN Journal of Science and Technology Development.¹⁷ Dr. Theingi also appears alongside Dr. Oo as a member of the 2009 Experts' Committee for the Implementation of the ASEAN Plan of Action on Science and Technology (ABAPAST).¹⁸ She appears as the RCA senior officer, just below Dr. Oo as RCA coordinator in a RCARO workshop plan. Dr. Theingi is named as a contact person in a 2006 IAEA Directory of National Regulatory Bodies for the Control of Radiation Sources, where Dr. Oo is listed as the primary contact from the "Department of Radiation Protection, Department of Atomic Energy."¹⁹ Dr. Theingi is also named in a 2006 Regional Asia and the Pacific National Liaison Officers Consultations on TC Regional Project Proposals for 2007-2008 document as a delegate from the Department of Atomic Energy.

Dr./Mr. Myo Khine was the Deputy Director General of the DTVE as recently as 2002. He appeared with Dr. Oo at the 2002 46th General Conference of the IAEA.²⁰

Location of DAE and DTVE

The Department of Atomic Energy and the Department of Technical and Vocational Education shared an address, fax number, and phone number as recently as 2003, as evidenced by a Regional Cooperative Agreement (RCA) conference participant document²¹:

Mr. Kyaw SOE
Department of Technical and Vocational Education
Ministry of Science and Technology
No. 6, Kaba Aye Phaya Road
Yankin Township
Tel: +95 1 664233
Fax: +95 1 650685

Mr. Ko Ko OO
Deputy Director*
Department of Atomic Energy
6 Kaba Aye Pagoda Road
Yangon
Tel: +95 1 664233
Fax: +95 1 650685

*Dr. Oo since became the Director General of the Department of Atomic Energy.

However, shared contact information and location may not be a significant connection in a poor country like Myanmar, where entire ministries may share administrative resources.

¹⁷<http://74.125.95.132/search?q=cache:i4oSCs2DFYcJ:www.astnet.org/index.php%3Fname%3DMain%26file%3Dcontent%26cid%3D23+%22Technical+and+Vocational+Education%22+%22Ko+Ko+Oo%22&cd=2&hl=en&ct=clnk&gl=us&client=firefox-a>

¹⁸<http://www.astnet.org/index.php?name=Main&file=content&cid=40>

¹⁹http://www.sujb.cz/docs/Regulatory_Authority_Directory.pdf

²⁰http://www.iaea.org/About/Policy/GC/GC46/GC46InfDocuments/English/gc46inf-8_en.pdf

²¹http://www.rca.iaea.org/members/Meeting_Conference/GC/32nd_GC/Annex1.pdf

Ministry of Industry-2

H.E. General Saw Lwin was the former minister of the Ministry of Industry-2, an agency recently cited as the procuring entity of controlled cylindrical grinding equipment from Japan.²² This equipment reportedly had applications in missile control systems and centrifuges. The ministry oversees heavy industrial and machining projects in Myanmar. General Lwin attended a 2004 Confederation of Asia-Pacific Chambers of Commerce and Industry (CACCI) delegation visit to Myanmar where Dr. Oo and Mr. Khin Maung were in attendance.²³ CACCI promotes regional Asian economic cooperation and is composed of national chambers of commerce.

²² <http://burmadigest.info/2009/07/25/news-headlines-july-26-2009/>

²³ <http://www.cacci.org.tw/CACCI%20Profile/2004%20June/04june-MyanmarVisitReport.pdf> ; and last photo: <http://www.cacci.org.tw/CACCI%20Profile/2004%20July/Photo%20-%20Myanmar.pdf>