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# **Fifth Regional Review Meeting on Radioactive Source Security**

## **Global Partnership Program**

**Raphaël Duguay**

Nuclear Security Division

Canadian Nuclear Safety Commission (CNSC)

July 25 to 28, 2016

Penang, Malaysia

# Canada's Global Partnership Program

- More than \$1.2B spent since 2002, with \$73.4M allocated per year (from 2013 to 2018)
- Projects that reduce WMD threats and related CBRN materials, with a focus on priority geographic areas
- GPP portfolios include:
  1. Nuclear and Radiological Security
  2. Biological Security
  3. UNSCR 1540 Implementation
  4. Chemical Weapons Destruction

# GPP's Radiological Security Programming

- Since 2002, the GPP has contributed over \$11M to enhance security of radioactive sources
- GPP cooperates closely with partners (e.g., US DoE, IAEA) to enhance security solutions in other regions, including Southeast Asia
- Provides financial and technical support

# Canada Hosted an IAEA IPPAS Mission in 2015

*The IPPAS team recognized that Canada's Nuclear Security Program is underpinned by a robust and comprehensive security infrastructure and that the CNSC assures compliance with regulatory standards.*

- The CNSC hosted the IPPAS mission
- Report was made public in April 2016 on the CNSC website
- Module 4 on security of radioactive materials
- CNSC action plan and follow-up activities



*Dr. Michael Binder, President and Chief Executive Officer of the CNSC, and IPPAS team leader Nancy Fragoyannis, from the United States Nuclear Regulatory Commission.*

# Canada's Nuclear Security Summit (NSS) Commitments

- Canada's 2016 NSS National Progress Report
- NSS action plans and “gift baskets”



Justin Trudeau, Canada's Prime Minister, stated: *“Countries like Canada have to continue to lead by example. Canada will continue to invest in its world-class nuclear security regime and share our expertise in this field with others.”*

# GPP Assistance Provided Since May 2014

## Radiological source security in the Americas

- **Objective:** To secure and/or remove disused high activity sources of Canadian origin and support the mobilization of a “hot cell” (shielded nuclear radiation containment chamber) to collect the radiological sources as well as package and re-seal them in preparation for transport for recycling.

Brazil	Colombia
<ul style="list-style-type: none"><li>• Trilateral initiative (Canada, US, Brazil)</li><li>• CAD\$1.15M</li><li>• Secure significant disused sources formerly used in medical teletherapy; package and re-seal them in preparation for transport.</li></ul>	<ul style="list-style-type: none"><li>• Facilitated via the IAEA</li><li>• CAD\$1.75M</li><li>• Removal of cobalt-60 sources (formerly used in medical teletherapy devices or blood irradiators); place them in long-term secure storage or remove from Colombia for recycling.</li></ul>

# GPP Assistance Provided Since May 2014

## Radiological source security in the Middle East

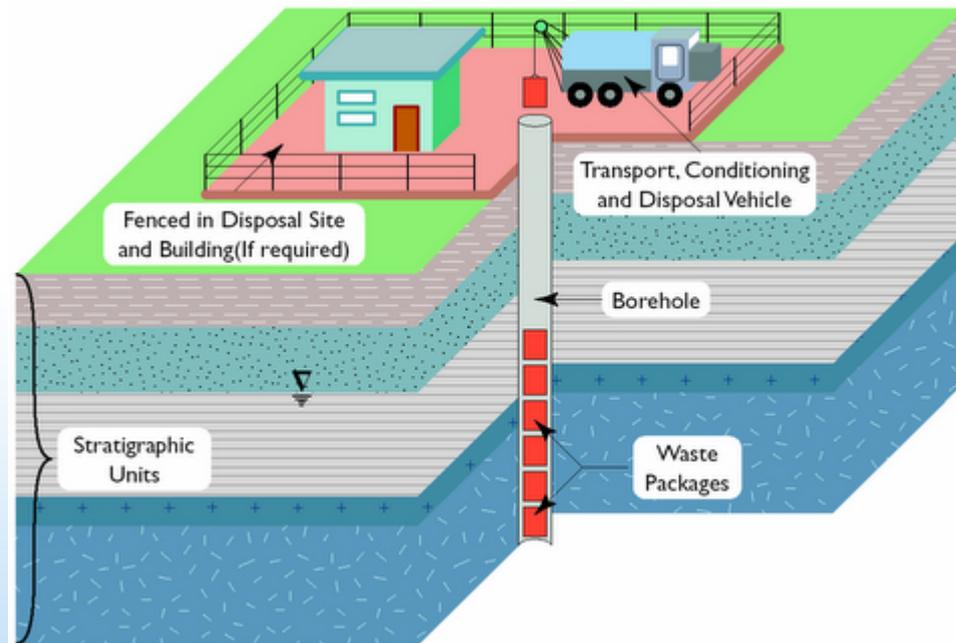
- **Objective:** To secure and/or remove Canadian-origin high activity sources

Lebanon	Yemen/Algeria
<ul style="list-style-type: none"><li>• Facilitated via the IAEA</li><li>• CAD\$960K</li><li>• Secure three disused sources formerly used in medical teletherapy; package and re-seal them in preparation for transport.</li></ul>	<ul style="list-style-type: none"><li>• Under consideration should the security environment become permissible</li><li>• Facilitated via the IAEA</li><li>• Yemen: PP upgrades at facilities housing Canadian-origin sources</li><li>• Algeria: Capacity building to lead regional training</li></ul>

# GPP Assistance Provided Since May 2014

## Borehole disposal of radioactive sources

- Ghana and Philippines (CAD\$3.22M)
- Facilitated via the IAEA
- Sustainable disposal technology for high- and low-level radioactive sources
- The initial pilot project in Ghana is underway



# Radioactive Security Training and Research

- Facilitated through the IAEA
- Support for the development of radioactive guidance material/training for Latin American States
- Support for Member State participation at the May 2016 Code of Conduct Meeting
- Support for the IAEA's Coordinated Research Program with the objective of improving computer security capabilities for improved security and safety of nuclear facilities (CAD\$900K)



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# Canada's Global Partnership Program

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