

Implementing Arrangement #1

Title: Develop and Conduct a Workshop on the Canada - India Spatial Data Infrastructures (hereinafter referred to as the "Project")

Section 1.0 Authority:

This is an Implementing Arrangement (hereinafter referred to as "Annex") to the Memorandum of Understanding ("MOU") signed at New Delhi on November 11th, 2002, between the Ministry of Science and Technology ("MoST"), Republic of India, represented by the Department of Science & Technology (hereinafter referred to as "DST"), and the Department of Natural Resources ("NRCAN"), Canada, represented by the Earth Sciences Sector (hereinafter referred to as "ESS"), hereinafter jointly referred to as the "Parties". This Annex is developed in accordance with Article Two of the MOU.

Section 2.0 Project Coordination:

For ESS:

Responsible Senior Manager: Irwin Itzkovitch
Assistant Deputy Minister, Earth Sciences Sector
Department of Natural Resources, Canada

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For the DST:

Responsible Senior Manager: Y.P. Kumar
Head, International Division
Department of Science and Technology
Ministry of Science and Technology, India

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Section 3.0 Background:

During a visit to the Republic of India in April/May 2002, ESS and the Geomatics Industry Association of Canada (GIAC) held meetings with senior officials of DST who are responsible for the new Indian National Spatial Data Infrastructure initiative. During these meetings, both Parties expressed a desire to learn from one another their experiences in regards to developing National Spatial Data Infrastructures ("NSDI"). DST, in particular, was interested in hearing about Canada's experience through the Canadian Geospatial Data Infrastructure (CGDI) and GeoConnections programs. Through this Project, NRCAN (in partnership with GIAC and GeoConnections) has agreed to organize a three day workshop to highlight both Canada's and India's NSDI experience. The focus from a Canadian perspective will be on the CGDI and GeoConnections programs.

Section 4.0 Work Plan:

The goals of this Project are as follows:

1. To introduce the Indian participants to Canada's CGDI/GeoConnections program;
2. To introduce the Canadian participants to India's National Spatial Data Infrastructure program;
3. To explore interest in further exchanges of NSDI information, knowledge and technologies;
4. To identify further potential collaboration in regards to industry and government partnering opportunities.

A preliminary agenda for the workshop is attached as Appendix "A" to this Annex.

Section 5.0 Financial Arrangements:

- Unless otherwise indicated in this Annex, both Parties (as well as those other Canadian participants identified as workshop presenters in Appendix "A") will be responsible for their own expenses incurred as a result of this Project.
- DST will pay all costs relating to local workshop organization in India (including workshop facilities, hand-out materials and audio-visual services).
- No cost incurred by one Party shall be assumed by the other Party unless otherwise agreed to in writing.

Section 6.0 Intellectual Property:

The Parties shall retain ownership of their existing Intellectual Property that they bring to the Project. For the purposes of this Project, Intellectual Property refers to all rights in any information including, without limitation, data, techniques, methods, processes, know-how, inventions, designs, formulae, photographs, drawings, plans, specifications, reports, studies, technical and procedural manuals and computer programs, and all patents, copyrights, trademarks, and industrial designs arising therefrom.

Section 7.0 Title to Property:

Any property or equipment of whatever nature or kind furnished by any Party in connection with work under this Project is and will remain the property of the Party furnishing such property or equipment.

Section 8.0 Indemnification and Liability:

- Both Parties shall indemnify and save harmless each other and their Ministers, officers, employees and agents from and against all claims, demands, losses, costs including lawyers fees, damages, actions, suits or proceedings, that are in any manner based upon, arising out of, or attributable to any acts or conduct of their employees and agents.
- The services provided by the Parties are provided on an "as is" basis and neither Party makes any guarantees, representations or warranties respecting these services, either expressed or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy, or fitness for a particular purpose.
- Neither Party shall be liable in any way for loss of profits or contracts, or any other consequential loss of any kind relating to the Project.

Section 9.0 Dispute Resolution:

Any disputes regarding the interpretation or implementation of this Annex will be resolved only by consultation among the Parties and will not be referred to a national tribunal or other third party for settlement.

Section 10.0 Duration and Termination:

- This Annex will remain in effect until December 1st, 2002. It may be amended at any time with the mutual written consent of the Parties and may be terminated immediately upon the written consent of both Parties.
- Each Party shall immediately upon early termination, return the other Party's papers, materials, or other property held for the purpose of carrying out the Project.

Section 11.0 Responsible Authorities and Effective Date:

This Annex becomes effective upon the signing below by both designated responsible authorities representing the MoST and NRCan.

Signed in New Delhi this 11th day of November, 2002.

Representing NRCan:

Representing MoST:

Irwin Itzkovitch _____
Assistant Deputy Minister
Earth Sciences Sector
Department of natural Resources, Canada

Y.P. Kumar _____
Head, International Division
Department of Science and Technology
Ministry of Science and Technology, India

Appendix “A”

Preliminary Agenda

Workshop on Spatial Data Infrastructure: Indo-Canadian Collaboration

18-19 November 2002

Location: Conference Hall No. 2 Indian International Centre, Lodi Road, New Delhi

Organised by: Centre for Spatial Database Management and Solutions (CSDMS)

Under the Aegis of:

Earth Sciences Sector, Natural Resources Canada

Geomatics Industry Association of Canada

Department of Science and Technology, India

18th November

10:00 – 11:00 hrs **Opening Ceremony**

10:00	<i>Welcome Address</i>	<i>M P Narayanan, President, CSDMS</i>
10:10	<i>Introductory Remarks</i>	<i>Ed Kennedy, President, GIAC, Canada</i>
10:25	<i>Inaugural Address</i>	<i>Irwin Itzkovitch, Assistant Deputy Minister Earth Sciences Sector, Natural Resources Canada</i>
10:40	<i>Presidential Remarks</i>	<i>Bachi Singh Rawat, Minister of State for Science and Technology, Government of India</i>
10:55	<i>Vote of Thanks</i>	<i>Ravi Gupta, Director, CSDMS</i>

11:00 – 11:30 hrs Tea and Networking Break

11:30 – 13:00 hrs Technical Session 1

11:30 – 12:00 **Introduction to India’s National Spatial Data Infrastructure (NSDI) Program**
Amitabha Pande, Joint Secretary, Dept. of Science and Technology

12:00 – 12:30 **Introduction to GeoConnections/Canadian Geospatial Data
Infrastructure (CGDI) Program**

*Dr. Bob O’Neil, Director, GeoAccess Division, Canada Centre for Remote Sensing, Earth
Sciences Sector, Natural Resources Canada*

12:30 – 13:00 **NSDI Initiative: Global Experience**
Ravi Gupta, Director CSDMS

13:00 – 14:30 Lunch and Networking Break

14:00 – 16:00 Technical Session 2

14:00 – 15:00 **Canada’s GeoConnections/CGDI Program Details**

- CGDI Architecture
- GeoAccess
- Framework and Thematic Data
- GeoInnovations
- Partnering Models
- Sustainable Communities
- Policy and Institutional Matters
- Skills Development

*Dr. Bob O'Neil, Director, GeoAccess Division, Canada Centre for Remote Sensing,
Earth Sciences Sector, Natural Resources Canada*

15:00 – 16:00 **India's National Spatial Data Infrastructure Program Details**

Mukund Rao, Deputy Director, Earth Observation Systems

Indian Space Research Organisation

16:00 – 17:00 Tea Break

19th November

10:00 – 11:00 Technical Session 3

10:00 – 10:30 **An Overview of SDI Architecture and Standards**

Ron Lake, President, Galdos Systems Inc.

10:30 – 11:00 **An Overview of SDI Component Services and Applications**

Edric Keighan, President, CubeWerx

11:00 – 11:45 Refreshment and Networking Break

11:45 – 13:15 Technical Session 4

11:45 – 12:15 **SKE's Experience in Information Publishing in Canada and**

Internationally

Darko Poletto, President, Spatial Knowledge Engineering Inc.

12:15 – 12:45 **MDA's Spatial Data Infrastructure Development and Operations
Experience in Canada**

Tom Hughes, Sales Manager, South Asia, MacDonald Dettwiler and Associates

12:45 – 13:15 **DVP Geomatics' Technologies for Spatial Data Production**

Rene Jean, Executive Vice President, DVP Geomatics Systems Inc.

13:15 – 14:00 Lunch and Networking Break

14:00 – 14:30 **Powering the GeoWeb – Components for Spatial Data**

Infrastructure

Ron Lake, President, Galdos Systems Inc.

14:30 – 15:00 **CubeWerx Core Technologies for Spatial Data Infrastructure**

Edric Keighan, President, CubeWerx

15:00 – 16:30 Panel Discussion: Indo-Canadian Collaboration for NSDI Initiatives

Panellists:

Amitabha Pande

Bob O'Neil

Ed Kennedy

Ravi Gupta

Pak Chagarlamudi

16:30 – 17:30 Tea Break and Networking