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### Current Status and Recent Developments of Non-Discriminatory Principle in the 1986 UN Principles on Remote Sensing

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The theme of this paper is to explore the international law on remote sensing activities. Considering the rules and principles of remote sensing activities, so-called Non-Discriminatory Principle is essential; the sensed States shall have access to the primary data, the processed data and the available analysed information “on a non-discriminatory basis and on reasonable cost terms.” Obviously the major objective of the principle is to protect and to promote the rights and interests of sensed States. It was stipulated in the 1986 UN Principles on Remote Sensing and it has influenced laws and policies worldwide. In this paper, recent remote sensing laws and policies are enumerated and the current status and recent developments of Non-Discriminatory Principle are pointed out. In conclusion, the applications of the term “non-discriminatory” are now generally broader than the original Non-Discriminatory Principle. It also points out that the term “non-discriminatory” may no longer be used in a context of sensed States, but in a context of “needs and interests of the developing countries.”

#### I. INTRODUCTION

Remote sensing plays an important role, since the data help users achieve their goals in various fields: natural resource management, environmental protection, confidence building, etc. The legal implications of remote sensing were discussed from 1970’s in the United Nations Committee on the Peaceful Uses of Outer Space (hereinafter COPUOS).<sup>1</sup> Through arduous discussions, the resolution “Principles relating to remote sensing of the Earth from outer space”<sup>2</sup> (the 1986 Principles) was eventually adopted by the General Assembly.

Although it included imprecise expressions and omitted several issues, the 1986 Principles provided a conclusion for the key issue “access.” Principle XII (Non-Discriminatory Principle) stipulates that

“As soon as the primary data and the processed data concerning the territory under its jurisdiction are produced, the sensed State shall have access to them on a non-discriminatory basis and on

reasonable cost terms. The sensed State shall also have access to the available analysed information concerning the territory under its jurisdiction in the possession of any State participating in remote sensing activities on the same basis and terms, taking particularly into account the needs and interests of the developing countries.”<sup>3</sup>

The sensed State has a right of access to the data concerning its territory “inasmuch as they relate to natural resource management, land use and environmental protection.”<sup>4</sup> Even today, this principle is deemed important (and controversial) as distinguished scholars center their attention on it during the space law sessions in the International Law Association.<sup>5</sup>

In this paper, the current status and recent developments of Non-Discriminatory Principle are examined. How do nations handle this principle today? Were there any endorsement or challenges? The present author touches these questions, analyzing

today's remote sensing laws and policies. In Chapter II, the drafting work and professional opinions on Non-Discriminatory Principle are mentioned to clarify the original thoughts. In Chapter III, in contrast, recent remote sensing laws and policies are described. In Chapter IV, it concludes the discussion.

## II. THE ORIGINAL THOUGHTS

### II.I Drafting Process in COPUOS

The prototype of Non-Discriminatory Principle appeared in 1977. The chairman of working group stated that "It was [thereby] able to ascertain a common element, namely that sensed States should have access to data obtained by remote sensing from outer space pertaining to their territories on reasonable terms."<sup>6</sup> Then, the draft principle XI provided

"A sensed State [shall] [should] have timely and non-discriminatory access to data obtained by remote sensing [of the natural resources of the earth] [and its environment] from outer space, pertaining to its territory on reasonable terms [to be mutually agreed upon with the sensing State] and to the extent feasible and practicable, [shall] [should] be provided with such data on such terms [on a continuous and priority basis] [and in any case no later than any third State]."<sup>7</sup>

The concept of non-discriminatory access had already been expressed, although it was still under consideration. Furthermore, a relative problem 'dissemination to third States' was discussed together, i.e., whether the timely access by sensed States before any third States should be appropriate or not.

In 1980, the work was advanced and the classification of data was introduced.<sup>8</sup> Opinions were divided as to necessity of reasonable terms being agreed upon between the sensing and the sensed States and as to the time element involved.<sup>9</sup>

In 1985, based on the French working

paper, the working group prepared the draft principle XII, which closely resembled the final text. The draft principle XII provided

"As soon as the primary data and the processed data concerning the territory under its jurisdiction are produced, the sensed State shall have access to them on a non-discriminatory basis and on reasonable cost terms. The sensed State shall also have access to the available analysed information on the same basis and terms."<sup>10</sup>

It is remarkable that the issue "dissemination to third States" was deliberately removed. In 1986, the second sentence was rectified as today's format and the working group had finally reached consensus.

### II.II Opinions of International Lawyers

In this section, opinions of four international lawyers are briefly explained.

Prof. Cheng incisively differentiated the data concerning areas outside the territorial jurisdiction of any state from the data concerning sensed State.<sup>11</sup> He said, "Perhaps all that Principle XII amounts to now is that a State taking part in the remote sensing of the territory under the jurisdiction of another State should not withhold from that State any of the primary or processed data, or any of the available analysed information that is in its possession, concerning that State."<sup>12</sup>

Prof. Christol mentioned that "Principle XII effected an accommodation between the sovereign rights of a sensed State and the sovereign rights of a sensing State. . . . This provision acknowledges the sovereign right of the sensed State to such data."<sup>13</sup>

Prof. Diederiks-Verschoor pointed out, with regard to "non-discriminatory basis" and "reasonable cost terms," "this is an important shift in favour of the developing states."<sup>14</sup>

Prof. Goldman noted that "Principle XII and XIV answered the debate over the availability of data to sensed states. Simply,

the Third World lost on prior consent, but won on access to data. . . . Many developing countries had jettisoned their demands for prior consent remote sensing in return for a regime that emphasized international cooperation and consultation and a contractual agreement based on “equitable and mutually acceptable terms.”<sup>15</sup>

It was incontrovertible that Non-Discriminatory Principle was made for sensed States, and it was derived from the consideration of territorial sovereignty. Moreover, it should be paid attention that the issue “dissemination to third States” and the issue concerning data outside the territorial jurisdiction were dropped out, in a spirit of compromise.

### III. RECENT LAWS AND POLICIES

In this chapter, remote sensing laws and policies are examined. It consists of two sections; the former is on national space laws and policies, and the latter is on rules and principles adopted in international organizations/regimes.

#### III.1 States

##### United States

The main concern of U.S. remote sensing laws and policies was the commercialization of Landsat system. The Congress passed Land Remote-Sensing Commercialization Act of 1984<sup>16</sup> (Commercialization Act) and Land Remote Sensing Policy Act of 1992<sup>17</sup> (Policy Act). In addition, the President issued many Presidential Directives which dealt with remote sensing activities.<sup>18</sup>

These U.S. remote sensing laws and policies have consistently endorsed Non-Discriminatory Principle,<sup>19</sup> and Commercialization Act supported even broader application. It stipulated that

“It shall be the policy of the United States that civilian unenhanced remote sensing data be made available to all potential users on a nondiscriminatory

basis and in a manner consistent with applicable antitrust laws.”<sup>20</sup>

EOSAT, the ex-Landsat contractor, was bound by this broad nondiscriminatory access policy, which required making the data available to all who requested it.<sup>21</sup> On the contrary, it is interesting that in Policy Act private companies are only required to make unenhanced data available to the governments of sensed States.<sup>22</sup>

It was also notable that U.S. prepared an exception to Non-Discriminatory Principle on the basis of national security, foreign policy or international obligations (so-called shutter control).<sup>23</sup>

##### India

India has launched the most remote sensing satellites among spacefaring nations. Through Antrix Corporation Limited, which is owned by Government of India, the data of Indian Remote Sensing (IRS) satellites system are sold in the world market. There is no legislation concerning remote sensing but a data policy was made for Indian Space Research Organization (ISRO) in 2001. This data policy stipulated that

“All data of resolution up to 5.8 m shall be distributed on a non-discriminatory basis and on “as requested basis” . . . With a view to protect national security interests, all data of 5.8 m and better than 5.8 m resolution images will be screened by the appropriate agency before distribution so that images of sensitive areas are excluded.”<sup>24</sup>

It is distinctive to articulate a specific resolution 5.8 m as a criterion, and to decide whether its “non-discriminatory basis” and “requested basis” should be applied. Its “non-discriminatory basis” may not only apply to sensed States but also third States. In this sense, India has adopted broader

application of the access policy rather than the original Non-Discriminatory Principle.

### Canada

Canada issued “Canadian Access Control Policy”<sup>25</sup> in 1999, “Operation of Commercial Remote Sensing Satellite Systems”<sup>26</sup> (a treaty with U.S.) in 2000, “Remote Sensing Systems Act”<sup>27</sup> in 2005, and “Remote Sensing Systems Regulations”<sup>28</sup> in 2007. Article 8 (4) (c) of Remote Sensing Systems Act stipulated

“[R]aw data and remote sensing products from the system about the territory of any country — but not including data or products that have been enhanced or to which some value has been added — be made available to the government of that country within a reasonable time, on reasonable terms and for so long as the data or products have not been disposed of, . . .”<sup>29</sup>

Thus Canada may exactly abide by Non-Discriminatory Principle, although the laws and policies include exceptions of national security and foreign affairs interests.<sup>30</sup>

### Germany

Germany enacted legislation on the distribution of remote sensing satellite data in 2007, responding to the launch of TerraSAR-X.<sup>31</sup> This Act aimed to safeguard Germany’s national security or foreign policy interests, which could be endangered by the distribution of high resolution data. Dr. Gerhard from German Aerospace Center mentioned, “This Act restricts the distribution of some sort of data, i.e. high resolution data. . . . Therefore it is not evident to call for an additional right of access for the sensed State within such legislation.”<sup>32</sup> He also explained that this restriction follows generally accepted rules of international law in analogy to export control.<sup>33</sup>

### France

France has operated SPOT satellites, and Spot Image Corporation has distributed the data. The 2008 Act, concerning space activities, deals with data in its Article 23 to 25.<sup>34</sup> Under the Act, remote sensing activities which ought to harm fundamental interests, national security, foreign policy and international obligations are restricted.<sup>35</sup>

## III.II International Organizations/Regimes

The issue “access” appears not only in domestic legislation and policies, but also in rules and principles of international organizations/regimes. In this section, five international organizations/regimes are enumerated for further consideration.

### CEOS

There are 29 Members and 20 Associate Members in the CEOS (Committee on Earth Observation Satellites). Taking a “best efforts” approach, CEOS coordinates civil space-borne observations of the Earth. At the Plenary, two resolutions were adopted in 1991 and 1994.<sup>36</sup> In the 1994 one, in the preamble, it said,

“REAFFIRMING the commitment of CEOS Members to the general principle of non-discriminatory access to data; . . .”<sup>37</sup>

There is no mention to sensed States, and the “non-discriminatory access” may be broader than Non-Discriminatory Principle.

### World Meteorological Organization

WMO, a specialized agency of UN, has a membership of 189 Member States and Territories. All Members shall do their utmost to implement the decisions of the Congress, the supreme body of the organization.<sup>38</sup> In 1995, the Congress adopted that

“. . . WMO commits itself to broadening and enhancing the free and

*unrestricted international exchange of meteorological and related data and products; . . .*<sup>39</sup>

The “free and unrestricted” was defined as “non-discriminatory and without charge” by the Congress itself.<sup>40</sup> The data policy may be broader than Non-Discriminatory Principle.

#### EUMETSAT

EUMETSAT (European Organization for the Exploitation of Meteorological Satellites) currently operates five meteorological satellites and has 26 Member States and 6 Cooperating States. “EUMETSAT Principles on Data Policy” was adopted in 1998. Its Article IV stated that

“A set of data, products and services to be determined by Council will be available on a free and unrestricted basis as “Essential” data and products in accordance with WMO Resolution 40 (Cg-XII).”<sup>41</sup>

EUMETSAT apparently endorsed the WMO data exchange policy above, but there was no mention to sensed States.

#### European Space Agency (ESA)

ESA, having 18 Member States, is involved with many Earth observation missions. In 2000, the ESA Council adopted ENVISAT Data Policy. It stated the 1986 Principles as follows.

“ENVISAT data shall be available in an open and non-discriminatory way, and distribution of the data shall be consistent with United Nations Resolution 41/65 dated 3 December 1986 on Principles relating to Remote Sensing of the Earth from Space.”<sup>42</sup>

It is incontrovertible that ESA precisely follows Non-Discriminatory Principle.

#### Group on Earth Observations (GEO)

GEO was established to carry out “The Global Earth Observation System of Systems (GEOSS) 10-Year Implementation Plan.” GEO currently has 81 Members, 58 Participating Organizations and 6 observers. GEO calls itself intergovernmental group, however it is virtually intergovernmental organization.<sup>43</sup> The plan prescribes its data sharing as follows.

“There will be full and open exchange of data, metadata, and products shared within GEOSS, recognizing relevant international instruments and national policies and legislation.”<sup>44</sup>

This data sharing principle does not mention sensed States. It may be certain that the range of “full and open exchange” is larger than that of Non-Discriminatory Principle.

#### IV. CONCLUSION

Non-Discriminatory Principle still lives today. There is no states or international organizations/regimes which pursue to confront the principle, although spacefaring nations have started to prepare the exceptions on the basis of national security, foreign policy or international obligations.

However, no confrontation does not mean that remote sensing activities are always operated in consideration of sensed States and their territorial sovereignty.<sup>45</sup> Actually, in recent laws and policies, the applications of the term “non-discriminatory” are generally broader than the original Non-Discriminatory Principle.<sup>46</sup> The differences between them may be the third States and the data outside the territorial jurisdiction, which were removed from the original one. Even though the 1986 Principles does not mention these issues at all, its Non-Discriminatory Principle might have influenced them, as a relative and authoritative text.

Furthermore, in the present author’s view, the term “non-discriminatory” is no longer

used in a context of sensed States. Rather, it is used in a context of “needs and interests of the developing countries,” which was hastily added to the second sentence of Principle XII in 1986. In other words, it seems that the major objective of Non-Discriminatory Principle has changed from the protection of rights and interests of sensed States to the protection of “common interests.” This idea may well explain the current situation of international cooperation.

International Space Law has cultivated the

rich soil of “common interests.” For instance, there are well-known concepts as “province of mankind”<sup>47</sup> and “common heritage of mankind.”<sup>48</sup> The 1986 Principles also repeatedly mentions the relevant issues of “common interests.”<sup>49</sup> Indeed, international cooperation on remote sensing activities is in bloom. The change of the context in which the term ‘non-discriminatory’ is used might merely reflect the development of international law.

<sup>1</sup> The remote sensing working group was established in the legal sub-committee in 1975. See COPUOS, *Report of the Legal Sub-Committee on the Work of its Fourteenth Session*, ¶ 7(b), U.N. Doc. A/AC.105/147 (March 11, 1975).

<sup>2</sup> Principles relating to remote sensing of the Earth from outer space, G.A. Res. 41/65, 115, U.N. GAOR, 41st Sess., Supp. No. 53 (December 3, 1986).

<sup>3</sup> *Id.* Principle XII.

<sup>4</sup> P.P.C. HAANAPPEL, *THE LAW AND POLICY OF AIR SPACE AND OUTER SPACE* 160 (Kluwer Law International 2003).

<sup>5</sup> *E.g.*, INTERNATIONAL LAW ASSOCIATION [ILA], *REPORT OF THE SEVENTY FIRST CONFERENCE*, TRONT 706 (International Law Association 2006) (comments by the committee chair).

<sup>6</sup> COPUOS, *Report of the Legal Sub-Committee on the Work of Its Sixteenth Session (14 March-8 April 1977)*, ¶ 12, U.N. Doc. A/AC.105/196/AnnexIII.

<sup>7</sup> *Id.* at 6.

<sup>8</sup> COPUOS, *Report of the Legal Sub-Committee on the Work of Its Nineteenth Session (10 March-3 April 1980)*, at 10, U.N. Doc. A/AC.105/271/AnnexII.

<sup>9</sup> COPUOS, *Report of the Legal Sub-Committee on the Work of Its Twentieth Session (16 March-10 April 1981)*, ¶ 11, U.N. Doc. A/AC.105/288/AnnexI.

<sup>10</sup> COPUOS, *Report of the Legal Sub-Committee on the Work of Its Twenty-Fourth Session (18 March-4 April 1985)*, at 23, U.N. Doc. A/AC.105/352.

<sup>11</sup> BIN CHENG, *STUDIES IN INTERNATIONAL SPACE LAW* 593 (Clarendon Press 1997).

<sup>12</sup> *Id.* at 593-594.

<sup>13</sup> CARL Q. CHRISTOL, *SPACE LAW* 76-77 (Kluwer Law and Taxation Publishers 1991).

<sup>14</sup> I.H.PH. DIEDERIKS-VERSCHOOR, *AN INTRODUCTION TO SPACE LAW* 82 (2nd ed. 1999).

<sup>15</sup> NATHAN C. GOLDMAN, *AMERICAN SPACE LAW* 104-105 (Iowa State University Press 1988).

<sup>16</sup> Land Remote-Sensing Commercialization Act of 1984, Pub. L. No. 98-365, 98 Stat. 451 (1984).

<sup>17</sup> Land Remote Sensing Policy Act of 1992, Pub. L. No. 102-555, 106 Stat. 4163 (1992).

<sup>18</sup> See U.S. National Space Policy, NSPD-49 (Aug. 31, 2006), <http://www.fas.org/irp/offdocs/nspd/space.pdf> (George W. Bush Administration); National Space Policy, PDD/NSTC-8 (Sep. 19, 1996), <http://www.fas.org/spp/military/docops/national/nstc-8.htm> (Clinton Administration); National Space Policy, NSPD-1 (Nov. 2, 1989), <http://www.fas.org/spp/military/docops/national/nspd1.htm> (Bush Administration); National Space Policy, NSDD-293 (Jan.

5, 1988), <http://www.fas.org/spp/military/docops/national/policy88.htm> (second Reagan Administration space policy); National Space Policy, NSDD-42 (July 4, 1982), <http://www.fas.org/irp/offdocs/nsdd/nsdd-42.pdf> (first Reagan Administration space policy); Civil Operational Remote Sensing, PD/NSC-54 (Nov. 16, 1979), <http://www.fas.org/irp/offdocs/pd/pd54.pdf> (Carter Administration).

<sup>19</sup> *E.g.*, *supra* note 17 § 202(b)(2).

<sup>20</sup> *See supra* note 26 § 103(b).

<sup>21</sup> Joanne Irene Gabrynowicz, *The Perils of Landsat from Grassroots to Globalization: A Comprehensive Review of US Remote Sensing Law with a Few Thoughts for the Future*, 6 Chi. J. Int'l L. 45, 54 (2005) (This policy led to the stagnancy of the commercialization of Landsat).

<sup>22</sup> Joanne Irene Gabrynowicz, *The promise and problems of the Land Remote Sensing Policy Act of 1992*, 9 Space Policy 319, 321 (1993).

<sup>23</sup> 15 C.F.R. § 960.11(10) (2009); 15 C.F.R. § 960.12 (2009); U.S. Commercial Remote Sensing Space Policy, NSPD-27, art. IV (Apr. 25, 2003), <http://www.fas.org/irp/offdocs/nsdp/remsens.html> (George W. Bush Administration).

<sup>24</sup> Remote Sensing Data Policy, ISRO:EOS:POLICY-01:2001, art. 4 (2001), <http://www.nrsc.gov.in/Policy.Pdf>.

<sup>25</sup> Canadian Access Control Policy (June 9, 1999), *as reprinted in* Operation of Commercial Remote Sensing Satellite Systems, U.S.-Can., Annex I, June 16, 2000, 2000 U.S.T. LEXIS 43.

<sup>26</sup> Operation of Commercial Remote Sensing Satellite Systems, U.S.-Can., June 16, 2000, 2000 U.S.T. LEXIS 43.

<sup>27</sup> Remote Sensing Space Systems Act, 2005 S.C., c. 45 (Can.).

<sup>28</sup> Remote Sensing Space Systems Regulations, SOR/2007-66 (Can.).

<sup>29</sup> *See supra* note 27, art. 8(4)(c).

<sup>30</sup> *E.g.*, *supra* note 25, art. 12.

<sup>31</sup> Gesetz zum Schutz vor Gefährdung der Sicherheit der Bundesrepublik Deutschland durch das Verbreiten von hochwertigen Erdfernerkundungsdaten [Satellitendatensicherheitsgesetz], Nov. 28, 2007, BGBl. I at 2590 (F.R.G.).

<sup>32</sup> Michael Gerhard & Bernhard Schmidt-Tedd, *Germany Enacts Legislation on the Distribution of Remote Sensing Satellite Data*, 50 Proc. Coll. L. Outer Space 411, 417 (2008).

<sup>33</sup> *Id.*

<sup>34</sup> Law No. 2008-518 of June 3, 2008, Journal Officiel de la République Française [J.O.] [Official Gazette of France], June 4, 2008, at 1.

<sup>35</sup> *Id.* art. 24.

<sup>36</sup> CEOS, Resolution on Principles of Satellite Data Provision in Support of Operational Environmental Use for the Public Benefit (Sep. 1994); CEOS, Resolution on Satellite Data Exchange Principles in Support of Global Change Research (Dec. 1991) (revised Dec. 1992), *both available at* <http://www.ceos.org/images/wgiss/ceosdataxchangerinciples1994.pdf>.

<sup>37</sup> CEOS, Resolution on Principles of Satellite Data Provision in Support of Operational Environmental Use for the Public Benefit, Preamble, Preamble, para. 12 (Sep. 1994).

<sup>38</sup> Convention of the World Meteorological Organization, art. 6, 8, Oct. 11, 1947, 1 U.S.T. 281, 77 U.N.T.S. 142.

<sup>39</sup> WMO, WMO Policy and Practice for the Exchange of Meteorological and Related Data and Products including Guidelines on Relations in Commercial Meteorological Activities, Res. 40 (Cg-XII), *compiled in* ABRIDGED FINAL REPORT OR TWELFTH CONGRESS 126

(1995), [ftp://ftp.wmo.int/Documents/PublicWeb/mainweb/meetings/cbodies/governance/congress\\_reports/english/pdf/827\\_E.pdf](ftp://ftp.wmo.int/Documents/PublicWeb/mainweb/meetings/cbodies/governance/congress_reports/english/pdf/827_E.pdf).

<sup>40</sup> *Id.*

<sup>41</sup> EUMETSAT, Council Resolution, Resolution on EUMETSAT Principles on Data Policy, art. IV, EUM/C/98/Res.IV (July 1998), [http://www.eumetsat.int/idcplg?IdcService=GET\\_FILE&dDocName=PDF\\_LEG\\_DATA\\_POLICY&RevisionSelectionMethod=LatestReleased](http://www.eumetsat.int/idcplg?IdcService=GET_FILE&dDocName=PDF_LEG_DATA_POLICY&RevisionSelectionMethod=LatestReleased) (Principle II was amended in 2005).

<sup>42</sup> ESA, The Envisat Data Policy, [http://eopi.esa.int/doc/download/envisat\\_data.pdf](http://eopi.esa.int/doc/download/envisat_data.pdf) (last visited Aug. 27, 2010).

<sup>43</sup> SETSUOKO AOKI, NIHON NO UCHUU SENRYAKU [JAPAN SPACE STRATEGY] 309 (Keio University Press 2006) (Japan).

<sup>44</sup> GEO, The Global Earth Observation System of Systems (GEOSS) 10-Year Implementation Plan, art. 5.4 (Feb. 16, 2005), <http://www.earthobservations.org/documents/10-Year%20Implementation%20Plan.pdf>.

<sup>45</sup> *See supra* note 5, at 700 (“The Principles per se, might not always be considered by some states when embarking on activities of the kind.” (Dr. Williams)).

<sup>46</sup> The Indian data policy, the CEOS data exchange principles and the GEOSS data sharing principles are good examples.

<sup>47</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies art. 1, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205.

<sup>48</sup> Agreement Governing the Activities of States on the Moon and Other Celestial Bodies art. 11(2), Dec. 18, 1979, 1363 U.N.T.S. 3.

<sup>49</sup> *E.g.*, *supra* note 2, Principle II, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII.