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### **Permanent Forum on Indigenous Issues**

#### **Ninth Session**

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Item 3 and 7 of the provisional agenda\*

Discussion on the special theme for the year, "Indigenous peoples: development with culture and identity: articles 3 and 32 of the United Nations Declaration on the Rights of Indigenous Peoples Future Work of the Permanent Forum, including issues of the Economic and Social Council and emerging issues

### **Study on the impact of climate change adaptation and mitigation measures on reindeer herding\***

**Submitted by Lars-Anders Baer, Special Rapporteur**

#### *Summary*

At its eighth session in May 2009, the Permanent Forum appointed Lars-Anders Baer, Member of the Permanent Forum, as Special Rapporteur to prepare a study on the matter of impact of climate change adaptation and mitigation measures on reindeer herding and requested the report be submitted to the Permanent Forum's ninth session in April 2010.

This Study on the impact of climate change adaptation and mitigation measures on reindeer herding is a synthesis of a more extended paper.

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\* E/C.19/2010/1

\* The submission of this document was delayed due to the co-operative and comparative nature of the Study.

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## **I. Introduction**

1. At its eighth session in May 18-29 2009, the Permanent Forum on Indigenous Issues (PF) carried out a half-day discussion on the Arctic. Based on this discussion the Permanent Forum adopted several recommendations<sup>1</sup> on the Arctic and climate change. Climate change has an impact on all aspects of life in the Arctic region, from traditional subsistence activities, including hunting, fishing, reindeer husbandry, farming, gathering and food sovereignty, to community health. It has also been underlined that climate change and environmental degradation related to natural resource extraction, such as mining and forestry, already constitute great threats to the traditional lifestyles and cultures of indigenous peoples of the Arctic.
2. Discussions held within United Nations Permanent Forum sessions and in the various Convention on Biological Diversity frameworks, as well as other UN agencies such as International Fund for Agriculture Development<sup>2</sup>, Food and Agriculture Organization<sup>3</sup>, United Nations Development Programme<sup>4</sup> United Nations Environment Programme<sup>5</sup> and United Nations Education, Scientific and Cultural Organization<sup>6</sup> have recently considered some of the challenges faced by pastoralist, in an effort to improve working relations with different pastoralists, mainly in Africa and Asia.

## **II. International Framework**

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<sup>1</sup> Permanent Forum on Indigenous Issues. Report on the eighth session (18-29 May 2009) ECOSOC official record 2009, supplement No.23

<sup>2</sup> IFAD Policy on Engagement with Indigenous Peoples. [www.ifad.org/operations/policy/policydocs.htm](http://www.ifad.org/operations/policy/policydocs.htm) (2010-01-20)

<sup>3</sup> Pastoralism in the new millennium, [www.fao.org/docrep/005/Y2647E/y2647e13.htm](http://www.fao.org/docrep/005/Y2647E/y2647e13.htm) (2010-01-20)

<sup>4</sup> United Nation Development Group Guidelines on Indigenous Peoples Issues. [www.undp.org/partners/civil\\_society/publications/UNDG](http://www.undp.org/partners/civil_society/publications/UNDG) (2010-01-20)

<sup>5</sup> UNEP (2004) Arctic environment: European perspective – why should Europe care. UNEP and European Environment Agency, Environmental issue report No9 38, EEA, Copenhagen, 58p.

<sup>6</sup> Carino, Joji, Poverty and Well-being. State of the World Indigenous Peoples, UN 2009

3. Animal-herding (pastoralism) is a subsistence strategy that is practiced by peoples and populations of low-producing ecosystems worldwide. It has been estimated that pastoralism is practiced on 25 per cent of the global land area, providing 10 per cent of the world's meat production. In the Arctic reindeer is primary livestock production. Increasingly, it is slowly vanishing due to land pressure, ecological degradation and climate change, particularly in the developing countries. Due to dynamic developments in international law regarding indigenous peoples in the recent decade, specific challenges and problems faced by the indigenous pastoralists have been partly addressed in national, regional and international standard setting.

#### **A. United Nations Declaration on the Rights of Indigenous Peoples**

4. The Declaration includes several Articles of relevance to rights of indigenous pastoralists to natural resources. The Declaration also expresses more specific rules on rights to natural resources. Art.26 (2) establishes the right for indigenous peoples to own, use, develop and control “lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use”. For indigenous peoples, many of whom are pastoralists, Article 36 has special relevance:

*1. Indigenous peoples, in particular those divided by international borders, have the right to maintain and develop contacts, relations and cooperation, including activities for spiritual, cultural, political, economic and social purposes, with their own members as well as other peoples across borders.*

*2. States, in consultation and cooperation with indigenous peoples, shall take effective measures to facilitate the exercise and ensure the implementation of this right.*

## **B. Article 27, International Covenant on Civil and Political Rights (ICCPR)**

5. Article 27 is the core clause in the ICCPR concerning minorities and reads as follows:<sup>7</sup>

*In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language.*

6. The Covenant has repeatedly been interpreted such that, especially in the case of indigenous peoples, “culture” covers traditional or otherwise typical means of subsistence that are based on land and its resources. If this concept is understood to include the material – i.e. economic and physical – bases of the culture of an ethnic minority, then the provision will encompass the use of resources and rights to land and water, such as reindeer herding<sup>8</sup>. For many indigenous pastoralists it is indeed the material basis of the culture concerned.

7. Article 27 of the ICCPR<sup>9</sup> on the rights of persons belonging to ethnic, religious and linguistic minorities promotes the rights of individuals, at the same time taking into account the collective dimension of these rights (“in community with the other members

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<sup>7</sup> General Comment No. 23: The rights of minorities (Art. 27) : . 08/04/94. CCPR/C/21/Rev.1/Add.5, General Comment No. 23. (General Comments)

<sup>8</sup> See for example *Bernard Ominayak, Chief of the Lubicon Lake Band vs. Canada*, Report of the Human Rights Committee, 45 UN GAOR Supp. (No. 43), UN Doc. A/45/40, vol. 2 (1990), *Kitok vs. Sweden*, Report of the Human Rights Committee, 43 UN GAOR Supp. (No. 40) UN Doc. A/43/40 and *I. Länsman et al vs. Finland* (Communication No. 511/1992), CCPR/C/52/511/1992, General Comment No. 23 (50) (art 27), adopted by the Human Rights Committee at its 1314<sup>th</sup> meeting (15<sup>th</sup> Session) and Concluding observations of the Human Rights Committee: Australia 28/07/2000, CCPR/CO/69/AUS. (Concluding Observations/Comments), para. 10 and 11.<sup>8</sup> See Case 7964 (Nicaragua), Inter-Am. C.H.R., Report on the Situation of the Nicaraguan Population of Miskito Origin, OEA/Ser. L/V/II.62, doc. 10 rev. 3, at 76-78, 81 (1983).

<sup>9</sup> Åhrén, Mattias, Martin Scheinin, John B. The Nordic Saami Convention: International Human Rights, Self-Determination and other Central Provisions. Journal of Indigenous Peoples Rights No. 3/2007

of their group”). Article 1 of the ICCPR on peoples’ right to self-determination<sup>10</sup>, in turn, states that the right is a purely collective one, which, according to the interpretation of the Human Rights Committee, cannot as such be an object of an individual’s complaint, although it can affect the interpretation of decisions made by the Committee on the complaints of individuals based on the rights safeguarded by the Covenant.

8. As an example, the Human Right Committee has expressed its concern about de facto discrimination against the Saami in Sweden in legal disputes, since the burden of proof for land ownership has been placed wholly on Saami claimants. The Committee also notes that, although legal aid may be granted to individuals who are parties in civil disputes, no such possibility exists for Saami villages, which are the only legal entities empowered to act as litigants in land disputes in respect of Saami lands and grazing rights (Articles 1, 2, 14, 26 and 27 of the Covenant). It recommended in this context:

*The State party should grant adequate legal aid to Saami villages in court disputes concerning land and grazing rights and introduce legislation providing for a flexible burden of proof in cases regarding Saami land and grazing rights, especially where other parties possess relevant information. The State party is also encouraged to consider other means of settling land disputes, such as mediation.*<sup>11</sup>

9. In Norway the Saami reindeer herding communities also faced the same problem, but in the 1990s the Norwegian Parliament made an adjustment in the reindeer herding legislation and balanced the burden of proof concerning reindeer greasing disputes and

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<sup>10</sup> Henriksen, John.B. Sámi self-determination –scope and implementation. Journal of Indigenous Peoples Rights No. 2/2008

<sup>11</sup> The Committee considered the sixth periodic report of Sweden (CCPR/C/SWE/6) at its 2612nd and 2613rd meetings (CCPR/C/SR.2612 and 2613), held on 25 March 2009, and adopted the following concluding observations at its 2625th meeting (CCPR/C/SR.2625), held on 2 April 2009.

between landowners and the reindeer herding communities. Moreover, the Norwegian Government has also guaranteed legal aid to the reindeer herding communities in case of disputes in courts.

### **C. Jurisprudence – Taxed Lapp Mountain Case**

10. In Sweden the Supreme Court Case NJA 1981 s<sup>12</sup>. acknowledged that Saami traditional land use, i.e. fishing hunting and reindeer herding can give rise to legal title thereto was confirmed by the Swedish Supreme Court in Taxed Lapp Mountain Case. The Saami Villages (Samebyar) in the southern part of the traditional Saami territory on the Swedish side claimed e.g. ownership right to its traditional land. In that case, the Swedish crown made the claim that the traditional Saami territory was “terra nullius”. The Tax Lapp Mountain Case is comparable with the Mabo-case in Australia. Even though the Supreme Court found in favour of the Swedish Government, it made some important remarks in support of the Saami cause. First, the Supreme Court stated that the Saami people’s right to pursue reindeer husbandry on its traditional land is a usufruct right not depending on legislation, which the government claimed. Secondly, the Supreme Court noted that it was likely that the Saami people have ownership rights to other parts of its traditional land, in particular further north in traditional Saami territory<sup>13</sup>.

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<sup>12</sup> NJA 1981 s 1

<sup>13</sup> Another unique judicial case in Sweden is transfer of Saami traditional land to a government owned Energy Company. The company applied to be registered as the owner of three separate land-areas within the traditional Saami territory. In all three cases, the Saami parties concerned challenged the application, arguing that company cannot be registered as owner since it has not been sufficiently demonstrated that the land belonged to the state in the first place. In June 2000, a Swedish Court of Appeals held that Energy Company could be registered as owner, more or less indirectly arguing that it would not be reasonable that Sweden’s largest water dam is situated on Saami traditional land. A comparison can be made with a recent ruling in the part of Saami territory that is today Norway. In the so called “Svartskog Case” (Rt 2001 the Norwegian Supreme Court tried who were the rightful owner of the Mandalen valley in Nord-Troms County - the local Saami community or the state. The Supreme Court found in favour of the Saami parties, holding that the Saami community had acquired ownership to the land through collective utilization since time immemorial.

#### **D. International Labour Organization Convention No.169**

11. International Labour Organization (ILO) Convention No. 169 concerning indigenous and tribal peoples in independent countries includes several provisions relevant to indigenous pastoral people's rights. Article 32 concerning contacts and co-operation across borders have a special relevance for many pastoralists in Africa and in Northern Europe:

*Governments shall take appropriate measures, including by means of international agreements, to facilitate contacts and co-operation between indigenous and tribal peoples across borders, including activities in the economic, social, cultural, spiritual and environmental fields.*

12. Among the twenty countries that have ratified ILO Convention No. 169, only two countries have pastoralist communities, namely Nepal and Norway. In Norway the reindeer legislation has been adjusted concerning adequate legal aid to reindeer herders in court disputes and introduces legislation providing for a flexible burden of proof in cases regarding Saami land and grazing rights.

#### **E. Regional frameworks**

13. The European Convention on Human Rights focuses on the protection of private and family life. The provision of Article 8 of the European Convention on Human Rights on the right to the protection of private and family life also provides a legal basis for claims that arise from the present conditions of indigenous peoples and concern the safeguarding of a distinct way of life and its material basis. One case against Sweden concerning

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Saami rights was declared admissible 2009 before the European Court of Human Rights (Handölsdalen Saami village and Others v. Sweden, appl no: 39013/04) as a consequence of the findings of the Swedish courts that five Saami villages in Härjedalen in northern Sweden have no existing right to reindeer grazing on properties belonging to 571 private landowners. The applicants claim that their right to winter grazing – constituting a possession within the meaning of Article 1 of Protocol 1 of the Convention – has been violated.

14. The Russian State Duma approved Protocol 14 to the European Convention on Human Rights on January 15th 2010<sup>14</sup>. This is a significant decision by the State Duma, and will be of importance for the whole of Europe. The Protocol will help the Court to deal with its backlog of cases and reinforce its vital role in defending the human rights of individual citizens throughout Europe. The approval of the ratification is a part of the modernisation of the Russian judicial system and will also address rights of indigenous peoples in general, including the pastoral indigenous peoples.

15. The Framework Convention for the Protection of National Minorities also addresses matters related to indigenous peoples as minorities. One recent example is the issue<sup>15</sup> of disputes over land rights in the Saami Homeland in Finland which have become increasingly acute as the delays in finding solutions to the open issues have continued in spite of recent efforts to introduce pertinent legislation.

16. Finland's and Sweden's ascending treaty to the European Union 1995 contains Protocol No. 3. For Sweden, Protocol No. 3 was hence necessary to preserve reindeer husbandry as a sole right of the Saami. For Finland, Protocol No. 3 was not a necessity. The fact that Finland still became a party to Protocol No. 3 could therefore be viewed as

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<sup>14</sup>.Protocol No. 14 to the Convention for the Protection of Human Rights and Fundamental Freedoms, amending the control system of the Convention. [www.coe.int/NewsSearch/Default.asp?p=nwz&id=12714&lmLangue=1](http://www.coe.int/NewsSearch/Default.asp?p=nwz&id=12714&lmLangue=1) (2010-01-20)

<sup>15</sup> Resolution CM/ResCMN(2007)1 on the implementation of the Framework Convention for the Protection of National Minorities by Finland (Adopted by the Committee of Ministers on 31 January 2007 at the 985th meeting of the Ministers' Deputies)

a sign of Finland's intention to render reindeer husbandry a sole right of the Saami sometime in the future. Protocol No. 3 grants Finland and Sweden an exception from the European Union (EU) competition rules for the purposes of protecting Saami reindeer husbandry.

17. Arctic indigenous peoples in the EU are protected by special provisions under European Community Law<sup>16</sup>. A key principle of the Joint Statement on EU development policy<sup>17</sup> is the full participation and free, informed consent of indigenous peoples. EU regional policy and cross-border programmes also benefit indigenous peoples, whose organisations participate in the Northern Dimension. Rights of indigenous peoples are a thematic priority under the European Initiative for Democracy and Human Rights. In the EU Arctic policy, climate change is a focus and this was communicated to relevant EU bodies November 11<sup>th</sup> 2008<sup>18</sup>. The European Union committees engage with Arctic indigenous peoples in a regular dialogue and support in particular, the organisations and activities of the Saami and of other peoples of the European Arctic, inter alia under regional and cross-border programmes and promote Northern European know-how in reindeer husbandry.

### **III. Reindeer pastoralism – Subsistence strategy<sup>19</sup>**

18. Reindeer pastoralism, ancient in origin in all its forms, represents models in the sustainable exploitation and management of northern terrestrial ecosystems that are based on generations of experience accumulated, conserved, developed and adapted to the climatic and political/economic systems of the north. Reindeers have major cultural and economic significance for indigenous peoples of the North. The human-ecological

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<sup>16</sup> Protocol no 3 to the Act of Accession of Sweden and Finland.

<sup>17</sup> Adopted by the European Council, Parliament and the Commission 2005.

<sup>18</sup> *The European Union and the Arctic region*. Communication from the Commission to the European Parliament and the Council. Brussels 20.11.2008, COM(2008) 763 Final

<sup>19</sup> Ealát, Reindeer herders' voice: Reindeer herding, traditional knowledge and adaptation to climate change and loss of grazing land. Editors: Anders Oskal, Johan Mathis Turi, Svein D.Mathisen and Philip Burgess. Report nr 2.2009

systems in the North, like reindeer pastoralism, are sensitive to climate change, perhaps more than in virtually any other region of the globe, due in part to the variability of the Arctic climate and the characteristic ways of life of indigenous Arctic peoples. Understanding and measuring vulnerability requires assessment of systems' ability to adapt to impact and the extent to which freedom to adapt is constrained.

19. Circumpolar reindeer husbandry has a long history in the north. Reindeer husbandry is practiced in Norway, Sweden, Finland, Russia, Mongolia, China, Alaska, Canada and Greenland. It involves some 100,000 herders and 2.5 million semi-domesticated reindeers. There are over 20 indigenous peoples involved in reindeer husbandry today. World reindeer herders, owing to their experience, traditional knowledge and skills, have developed unique management strategies for protection of pastures, observation of changes and rational use of the natural resources which should be recognized and supported.

20. Archaeological remains and cave paintings in France and Spain from the end of the Pleistocene, 11,000-17,000 years ago have led some to call that period the Age of the Reindeer. Today in the Arctic, the age of the reindeer (*Rangifer tarandus*) continues. There are as many as three million wild and two million domesticated reindeer around the North and for many indigenous peoples, reindeers are their cultural, economic, social and spiritual foundation wherever it is found.

21. The domestication of wild reindeer is a process that defies easy explanation. Certainly, people followed migrating reindeers as the ice retreated northwards and used decoys to hunt them. Some archaeological evidence (cave paintings) seems to suggest that domestication emerged from the Sayan mountains between Russia and Mongolia, perhaps 2,000-3,000 years ago. Another theory holds that Tungus (the ancestors of today's Evenki and Eveny) domesticated reindeer independently in the East of Lake

Baikal and that instead of a single site origin, reindeer husbandry originated in multiple sites simultaneously. New evidence is continually backdating this relationship. Reindeer peoples have their own stories and theories about domestication and the relationship between wild and domestic reindeer.

22. The 1600's are said to mark a transformation of indigenous reindeer economies as competing nation states began a process of colonising indigenous peoples, encroaching on their lands and utilizing their resources. For some this represented an opportunity – and herds grew to feed growing markets. Russian expansion into the vastness of Siberia in search of fur was enabled by reindeers – for both food and transportation. The late 19th and early 20th century saw the expansion of reindeer husbandry into North America as attempts were made to graft Saami reindeer husbandry onto the Inupiat and Yupik peoples of the Seward Peninsula, Alaska and later the McKenzie Delta in northern Canada. In the 1950's a similar venture was attempted in Greenland. Although of mixed success, these experiments have persisted to this day.

#### **IV. An overview of reindeer herding peoples<sup>20</sup>**

23. Today we can broadly differentiate between tundra and taiga reindeer husbandry. 'Tundra' refers to long migrations in the summer to coastal or mountain areas to flee insects and access better pastures. Winter marks a return inland to shelter, a more stable climate and a change in diet. Herds tend to be large, up to several thousand and migration routes are long, often many hundreds of kilometres. With a focus on meat production, this type is mainly practiced by Saami, Nenets, Komi, Eveny, Chukchi and Koryak. Taiga reindeer husbandry practiced by Chuvans, Evenki, Eveny, Khets, Khanty, Mansi, Enets, Dolgans, Negidals, Tofalars, Soyots, Tozha-Tuvans, Dukhas/ Tsataans, Uil'ta and

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<sup>20</sup> *ibid*

Yukagir is geographically widespread, is characterized by smaller herds, by the riding the animals, and much shorter migration routes in forested or mountainous areas. Animals are primarily used for transportation and milk production. In tundra and taiga reindeer husbandry, reindeer provide food, clothing, shelter and transportation. The production of handicrafts is increasingly important for reindeer peoples and there is a relatively new market for soft antlers (for pantocrine) in the Far East.

### **A. Russian Federation**

24. About two-thirds of the world's reindeer husbandry can be found within the Russian Federation today, and it is the only nation that has all the different ethnic groups of indigenous reindeer herders within its borders. Reindeer herding is practiced in 20 regions of Russia. The main reindeer herding regions include Yamal, Nenets, Sakha (Yakutia) and Chukotka. In Russia the tundra reindeer herding is dominating in size. The Nenets peoples form the largest indigenous group of the Russian North and are one of the world's great reindeer herding peoples who have come to personify large scale tundra reindeer husbandry. The bulk of Nenets reindeer husbandry is situated on the Yamal Peninsula which is the world's largest area of reindeer husbandry.

Reindeer are central to the social, cultural, spiritual and economic life of the reindeer herding peoples in Russia. Reindeer are used for meat production, traditional handicraft production, transportation and milking. Today herds could comprise both collectively and privately owned animals, although this varies a lot from region to region. In Yamal for instance there has been a trend of increase in the share of privately owned reindeer the latest decades, while the picture is the opposite in Chukotka. Reindeer husbandry is typically administered by enterprises that date back to Soviet times, though family based units are central to the internal organization of the livelihood. The number of people

choosing reindeer husbandry as a livelihood is variable from region to region, as is private reindeer ownership within the collective herds.

25. Many of the reindeer herding peoples in the taiga region are under heavy pressure. As one example the Soyot of the Buryat Republic used reindeer for riding, transportation and for hunting, like other peoples in the taiga zone. The 1930's however were a very challenging time for the Soyot. They were lumped together as a people with Buryat, and their reindeer were collectivised. In the 1960's reindeer husbandry was claimed to be unprofitable and disbanded and they lost all their reindeers. Currently, there would appear to be approximately 20 people left practicing traditional reindeer husbandry with perhaps 30 – 50 reindeers. As with the Tofalar and other peoples in taiga reindeer husbandry, it seems likely that the Soyot will completely lose their connection with reindeers without a sustained program of support.

## **B. Mongolia**

26. The Dukha/Tsataan are nomadic peoples whose traditional migration patterns have been disrupted by border closures in the 1920's and are present day Mongolia's only reindeer herders. Currently just over 200 Tsataan<sup>21</sup> live in the Mongolian taiga and their family based herding system comprises of herds of between 7 and 160 reindeers. The number of reindeers has been in flux over the last two decades and has fallen from over 2,000 in the late 1970's to approximately 700 in 2006. Reindeers are used for milk production, transportation and more recently, antlers for handicrafts. Meat production is not a significant part of Tsataan reindeer husbandry. The Tsataan move with their

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<sup>21</sup> Jernsletten, Johnny-Leo. L., and Konstantin Klovov. Sustainable Reindeer Husbandry. Project of the Sustainable Development Working Group, Arctic Council. Norway: Centre for Sami Studies, University of Tromsø. 2002. [www.reindeer-husbandry.uit.no](http://www.reindeer-husbandry.uit.no).

reindeer in the Eastern Sayan mountains that mark the border between Mongolia and Siberia over an area of ca. 20,000 km<sup>2</sup> at elevations of between 1850 and 2100 metres. The Tsataan people mark the southerly boundary of indigenous reindeer husbandry and animals are adapted to high (40oC) summer temperatures.

### **C. China**

27. Evenki reindeer husbandry in China is limited to a small region in the North East of the country, between 50o and 53o north. There are currently 234 Evenki engaged in reindeer husbandry among 20 families herding approximately 1000 reindeer. These reindeer-herding Evenki are the surviving members of what had been a larger Evenki population of hunters that moved freely across the Russian-Chinese border. After the Russian-Chinese border conflict in the 1960s, the migration over the borders was closed and the reindeer were collectivized in 1967. Their herding is consistent with other south-Siberian reindeer-herding peoples: small numbers of clan-owned reindeer were milked and they were also used for transport. Soft antler production for the Asian pharmaceuticals market is the main cash crop and there are efforts underway to develop small scale tourist activities in the clans closest to the largest city of the region, Genhe<sup>22</sup>.

### **D. Alaska, USA, Northwest Territories, Canada and Greenland.**

28. Reindeer Husbandry in Alaska has its roots in the purchase of 1280 reindeer from the Chukchi region in Russia as part of a USA Government plan to provide a source of economic development and meat for the indigenous inhabitants, the Inupiaq. In 1894, Saami herders were brought to the Seward Peninsula in 1894, which brought increased commercialization and a large increase in numbers (over 600,000 by 1932). The

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<sup>22</sup> Association of World Reindeer Herders (WRH) next 5<sup>th</sup> Congress is going to take place in Genhe, year 2013.

depression, protectionism in the lower 48 states, confusion over ownership, predation and loss of reindeer to caribou saw a sharp decline in the ensuing decades. Saami involvement ended in this period. Currently there are approximately 10,000 reindeers managed by 21 herders who are members of the Kawerak Reindeer Herders Association who practice an extensive management style of herding.

29. The Canadian Government initiated their Reindeer Project in the 1920's, and by mid-1930s, reindeers had been brought from Alaska to the Mackenzie Delta. Saami families from Norway were brought in to provide training on herding practices and to this day, Inuvialuit and Saami descendents of the Reindeer Project, herd approximately 2,000 – 3,000 reindeer near Inuvik locally owned and managed by the Kunnek Resource Development Corporation.

30. In the 1950's a similar venture was attempted in Greenland and small scale reindeer herding is still around in southern Greenland.

#### **E. Finland, Norway, Sweden, and Russian Federation (Kola Peninsula)**

31. The traditional areas of Saami reindeer husbandry were divided between the borders of four nation states – Norway, Sweden, Finland and Russia (Kola Peninsula) in the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Centuries, the effect of which has meant a major disruption in traditional herding practices. Reindeer herding is still partly a cross-border<sup>23</sup> activity, especially in the borders between Sweden and Norway, which is based on the border treaty since 1751. An addendum to the border-treaty known as *Lappkodicillen* proclaimed that the Saami should continuously be allowed to use such grazing areas on each side of the borders that

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<sup>23</sup> These migrations over the border have since 1751 been regulated in different so called reindeer grazing conventions (renbeteskonventioner) between Norway and Sweden. The last convention was negotiated 1972 and was in force until 2005. Sweden and Norway are negotiating on a new convention.

they had customary utilized.<sup>24</sup> In Finland, Norway and Sweden the reindeer herding framework is founded on customary law and reindeer herding legislation. Approximately 6,500 Saami peoples work as reindeer herders in the Saami area. Reindeer husbandry in the Saami region is characterised by larger herds and a relatively high degree of mechanisation in all regions. Reindeers are primarily used for the meat production, though hides, bones and antlers are an important source of material for clothing and handicrafts. All animals in the Saami area, excluding Russia, are privately owned though many aspects of herding are practiced collectively.

32. Only Saami peoples may herd reindeer in Norway and Sweden in traditional Saami territory. Reindeer herding is also carried out in southern Norway and the Torne valley, which marks the border between Sweden and Finland in special ‘concession areas’, where Norwegians and Swedes also can herd reindeers. In Finland, reindeer husbandry is not ethnically restricted to Saami and the livelihood is open to any individual from the European Union. On the Russian side reindeer husbandry is practiced primarily by the Komi people. Saami make up the rest with some Russians and Ukrainians also herding. The reindeer husbandry area covers 40 per cent of the entire surface area of Finland, Norway and Sweden and the number of reindeers is over 700,000.

## **V. Initiatives**

### **A. Association of World Reindeer Herders (WRH)**

33. Since the establishment of Association of World Reindeer Herders in 1997 questions related to loss of grazing land and climate change have been main matters in the

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<sup>24</sup> Lapp kodicillen proclaimed several other rights of the Saami people, declared that the states should respect the Saami people's customary laws, and referred to the Saami as a Saami nation. Lapp kodicillen is thus a very important document to the Saami. It is sometimes referred to as the Magna Carta of the Saami.

Association's agenda. The Kautokeino Declaration<sup>25</sup> adopted by the 4<sup>th</sup> World Reindeer Herders' Congress Kautokeino, Norway, March 30<sup>th</sup> - April 3<sup>rd</sup> 2009 the world reindeer herders shared the concerns of the Standing Committee of Parliamentarians of the Arctic Region (SCPAR) that climate change is a matter of urgency, that it already has a strong impact on the living conditions of Arctic indigenous peoples, that there might be an explosion of human activity in the Arctic as a result of climate change, and that there is a need to find ways to regulate this activity and be ahead of the development, as expressed by Chair Mrs. Hill-Marta Solberg in her speech at the 5<sup>th</sup> Arctic Council Ministerial Meeting in Salekhard, Russia, 26 October 2006<sup>26</sup>. Furthermore, the Kautokeino Declaration also note the concern that the situation on loss of grazing land has become worse since the 3<sup>rd</sup> World Reindeer Herders' Congress in Yakutsk, 2005, and support the establishment of an international committee to investigate reindeer herders' loss of grazing land, and develop a mechanism to involve UN in this work to support sustainable reindeer husbandry. Another initiative linked to WRH is the United Nations Environment Programme (UNEP) project *Impacts of Land-Use Change and Climate Change on Nomadic Herders*, endorsed under UNEP's work on ecosystem-based adaptation. This initiative will assess the impacts of land-use change and climate change on nomadic pastoralist and their adaptation options and opportunities, focusing on taiga reindeer herding in Russia, Mongolia and China and yak herding in the Himalayas. The project is a collaboration between WRH, International Centre for Reindeer Husbandry, UNEP GRID and others.

## **B. Arctic Council**

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<sup>25</sup>[http://icr.arcticportal.org/images/stories/documents/wrh/declar\\_statem/kautokeino\\_declaration\\_2009\\_english1.doc](http://icr.arcticportal.org/images/stories/documents/wrh/declar_statem/kautokeino_declaration_2009_english1.doc) (2010)

<sup>26</sup>[http://arctic-council.npolar.no/Meetings/Ministeral/2006/Speech\\_Solberg\\_Salekhard.pdf](http://arctic-council.npolar.no/Meetings/Ministeral/2006/Speech_Solberg_Salekhard.pdf) (2010-01-20)

34. In the Arctic Council framework the major future challenges for reindeer herding and the reindeer industry have been analysed in two reports from the Arctic Council, *Sustainable Reindeer Husbandry (2002)* and *Family-based Reindeer Herding and Hunting Economies*, and the *Status and Management of Wild Reindeer/Caribou populations (2004)*. There is also an ongoing Arctic Council project *EALÁT-Information: Reindeer Herding, Traditional Knowledge and Adaptation to Climate Change and Loss of Pastures* (see below). The Sixth Ministerial Meeting of the Arctic Council, 29 of April, 2009, Tromsø, Norway acknowledged that indigenous peoples in the Arctic are taking a leading role to use best available traditional and scientific knowledge to help understand and adapt to challenges related to climate change and other challenges in their societies, and welcome initiatives to build the capacity of indigenous peoples,<sup>27</sup>

### **C. IPY EALÁT - Reindeer Herders Vulnerability Network Study**

35. As a follow up to the Arctic Climate Impact Assessment (ACIA)<sup>28</sup> the International Polar Year (IPY) initiative was undertaken by EALÁT - Reindeer Herders Vulnerability Network Study, which focus on understanding the adaptive capacity of reindeer pastoralism to climate variability and change. The EALÁT study has been initiated by Association of World Reindeer Herders (WRH)<sup>29</sup>, and is being co-managed by a former Chairman of the Permanent Forum Professor Ole Henrik Magga at Sámi University College (SUC), along with Professor Svein D Mathiesen and Executive Director Anders Oskal at International Centre for Reindeer Husbandry (ICR). The coordinating institution for research in IPY EALÁT is the Sámi University College (SUC)<sup>30</sup>, while information, outreach and Arctic Council components of EALÁT are operated by International Centre

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<sup>27</sup> [http://arctic-council.org/filearchive/Tromsøe%20Declaration-1\\_.pdf](http://arctic-council.org/filearchive/Tromsøe%20Declaration-1_.pdf) (2010-01-20)

<sup>28</sup> Arctic Climate Assessment 2005, <http://www.ampa.no/acia> (2010-01-20)

<sup>29</sup> [www.reindeerportal.org](http://www.reindeerportal.org) (2010-01-20)

<sup>30</sup> [www.samiskhs.no](http://www.samiskhs.no) (2010-01-20)

for Reindeer Husbandry (ICR)<sup>31</sup> in close cooperation with Association of World Reindeer Herders. ICR has been established by the Norwegian Government in 2005 to maintain and develop a sustainable reindeer husbandry in the circumpolar north, to strengthen the cooperation between the indigenous herding communities and peoples, to disseminate information about reindeer husbandry and to document reindeer herders' traditional knowledge. ICR is a member of the University of the Arctic<sup>32</sup>. A wide number of other knowledge, research and educational institutions are also involved in the project, also including indigenous NGOs such as Saami Council and Raipon.

#### **D. A Case study<sup>32</sup>**

36. A case study concerning reindeer herding and effect of climate change was conducted in the Sámi areas in Finland in the beginning of the new millennium.. This case study indicated that the weather is changing, and there is rain in the winter and other extreme weather events. Weather fluctuations, in particular rain and mild weather during the winter season often prevents reindeers from accessing lichen, which is vital for their survival. In some years, this has caused massive loss of reindeers. The Report provides information about unusual rain during the winter that encapsulates the ground below the snow in ice, preventing animals from reaching sources of food. This has forced many Sámi communities to feed the reindeers with hay and fodder whenever the lichen becomes trapped in ice, due to winter rain. In some instances, this seriously affects the possibility to travel in the snow and ice, and thinner ice makes it more dangerous to cross rivers and lakes. There are reports about the disappearance of certain birds, especially

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<sup>31</sup> [www.reindeercentre.org](http://www.reindeercentre.org) (2010-01-10)

<sup>32</sup> [www.uarctic.org](http://www.uarctic.org) (2010-01-20)

<sup>32</sup> This case study come from a project carried out as part of the Snow Change program organized by the Environmental Engineering Department at Tampere Polytechnical in Finland<sup>33</sup> Arctic Climate Impact Assessment, Chapter 3, pages 84-86.

ground birds. Many Sámi used to hunt birds while herding reindeer, which is not an option any longer in many areas. Some Sámi Elders state that traditional weather reading skills cannot be trusted anymore due to the climate change. The Sámi normally combine various natural resource-based economic activities, including reindeer herding, fishing, hunting, trapping and berry picking.

#### **E. An integrated climate and energy policy**

37. In the last 50 years, around 25 % of the reindeer pastures of the Euro-Arctic Barents Region have in effect been lost due to human development.<sup>33</sup> This challenge is also particularly relevant today, as the Arctic is said to hold around 25 % of the world's remaining undeveloped petroleum resources, large deposits of minerals and unexploited forest. . After the COP 15<sup>34</sup> meeting in Copenhagen in December 2009 it is expected that efforts to mitigate climate change by increased use of renewable resources such as wind-mills and hydro-electric dams will intensify pressure on greasing lands never seen before. In the North of Sweden a Swedish/German joint venture in planning the construction of a wind-mill park within the reindeer grazing lands of Östra Kikkejaure Saami community. This is so far the biggest wind-mill park ever planned to be built and the Swedish Government will soon give the go ahead to the project. This project will have a mainly negative effect on reindeer husbandry in the concerned Saami community.

38. The final report from the Swedish Commission on *Climate and Vulnerability*<sup>35</sup>, 2007, concluded that the conditions for reindeer herding in Sweden will be significantly

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<sup>33</sup> Tyler et. al. (2007). N.J.C. Tyler et. al. Saami reindeer pastoralism under climate change: Applying a generalized framework for vulnerability studies to a sub-arctic social-ecological system. *Global Environmental Change*, Volume 17, Issue 2, May 2007, Pages 191-206. [www.elsevier.com/locate/gloenvcha/](http://www.elsevier.com/locate/gloenvcha/)

<sup>34</sup> Copenhagen Accord of 18 December 2009. Decision -/CP.15 The Conference of the Parties,

<sup>35</sup>Sweden facing climate change – threats and opportunities *Final report from the Swedish Commission on Climate and Vulnerability Stockholm 2007* (SOU 2007:60).

affected by climate change. The report points to factors that would likely be relevant to other reindeer herding regions as well. Vegetation period will be prolonged and plant production during summer grazing will increase. Insect harassment may be exacerbated. Areas of bare mountain are expected to decrease in extent and pressure on coastal winter grazing may increase as snow conditions become more difficult inland and in the mountains, which may lead to more conflicts of interest with other sectors of industry. The most serious consequence will be a threat to Saami culture if conditions for reindeer herding worsen.

39. The Swedish Commission on Climate and Vulnerability points to two positive effects of the climate change. These have been demonstrated by plant production when there is no snow on the ground (summer grazing), which can increase by 20–40 percent and also the growing season can be extended by around a month. The lengthening of the time with no snow on the ground and the shorter winters are positive for reindeers. Also, snow-free grazing is more nutritious than winter grazing.

40. The Swedish Commission also foresees that forestry is probably the industry that most affects the conditions for conducting reindeer husbandry. In a future climate, the opportunities for conducting forestry will probably move northwards and higher into the mountains, while forest growth will also increase throughout the reindeer herding region. This ought to promote more intensive forestry and a desire to expand forestry into areas where it is currently not possible to carry out such operations. At the same time, climate change may encourage an increased concentration of reindeers in certain areas, particularly near to the coast, during difficult grazing years. As a result, there will be an increased risk of conflicts of interest between forestry and reindeer herding.

41. The Swedish Commission also predicts a risk of conflict regarding land use between reindeer herding infrastructure, mining, wind power, space operations and military

exercises. A warmer climate that favours agriculture in northern Sweden may also become a source of increased land usage conflicts.

42. There is a need to investigate how reindeer herding and conditions for the Saami will be affected by climate change. The development of further analysis on methods and modelling of grazing biotopes is required in order better to estimate future access to pasture in summer and winter. This is an example of further research that could make things easier for reindeer herding in a changed climate.

43. The Swedish Commission suggests among others measures and proposals, the following:

- The Swedish Forest Agency should be commissioned, in consultation with the Saami Parliament, to propose further measures, including changes to current regulations, to ensure that forestry shows greater consideration in the reindeer husbandry area, as well as identify essential winter grazing areas where, for example, considerate land preparation should be employed.
- The Swedish Environmental Protection Agency, the National Board of Housing, Building and Planning, and the Saami Parliament, should be commissioned to propose how the effects of climate change on reindeer herding can be taken into account in Environmental Impact Assessments and Strategic Environmental Assessments.

44. The Swedish Government bill *An integrated climate and energy policy* (Bill 2008/09:162) based on The Swedish Commission on Climate and Vulnerability was adopted by the Swedish Parliament 2009. The Saami Parliament<sup>36</sup> will receive from 2010, about 4.1 million US dollars under a three-year period in order to meet the changed conditions for the reindeer industry caused by the climate change. The Saami Parliament

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<sup>36</sup> The Saami Parliament's Living Environment Program EALLINBIRAS. <http://www.sametinget.se/1179> (2010-01-20)

is involved in close co-operation with the EALÁT project concerning matters related to reindeer herding and climate change.

## **VI. Concluding observations**

45. Reindeer herding communities around the world has have throughout the history managed to adapt to dramatic changes as e.g. the process of colonisation, introduction of Christianity, inclusion of the traditional pastoral territories territory to different nations states, industrialisation, communism, market economy and modernisation<sup>37</sup>.

Globalisation has also introduced a new reality for many reindeer herding communities. The cumulative effects of land fragmentation, natural resource exploitation, dwindling access to land (and rights) together with multiple effects of climate change on ecosystems in the Arctic have put hard pressure on the reindeer herding communities in the world. . The mainstream approach to solve “the problem” is to look for ways to stop these symptoms from becoming even worse. If solutions are to be found, it is important to start looking at causes for climate change such as: Energy consumption, globalization, landscape fragmentation, exploitation of natural resources, unlimited economic growth, questions of consumption and life style, etc.

46. The situation of reindeer herding communities is complex and due to limitations of the framework of this study, further studies should be undertaken , strategies and program should be develop and implemented, based on the principles in United Nations Declaration on the Rights of Indigenous Peoples. The recent development in Russia gives an example of the complexity. According to new federal land code entering into force from 1 of January, 2010, reindeer herders and their communities has to buy or rent their

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<sup>37</sup> Carino,Joji, Poverty and Well-being. State of the World Indigenous Peoples, UN 2009

traditional grazing lands. The Kautokeino Declaration<sup>38</sup> adopted by the 4<sup>th</sup> World Reindeer Herders' Congress Kautokeino, Norway, 2009, express explicitly the need for a Federal Law in Russia on reindeer husbandry addressing reindeer herding rights, protection of pastures and ownership of reindeers. The reindeer husbandry legislation in the Scandinavian countries is an example of such legislation.

47. In the scientific community the impact of climate change adaptation and mitigation measures on reindeer herding has been a major discourse since the end of 1990. The matter was brought up on the agenda in regional and International forums and organisations in the beginning of the new millennium. On the national level very few governments have addressed this matter. Questions addressing reindeer pastoralists' vulnerability, adaptation to climate change ,mitigation strategies and understanding of the concept of resilience need both to be more explored and made more operative by the scientific community, UN agencies, regional organisations and concerned governments. This must self-evidently be done in partnership with concerned indigenous reindeer herders and with necessary resources allocated in accordance with United Nations Declaration on the Rights of Indigenous Peoples

48. **Vulnerability**<sup>39</sup> framework to assess the degree to which reindeer pastoralist are likely to experience harm as a result of exposure to multiple and interacting forces of change: Future studies should include questions like: How can the vulnerability of Arctic human-ecological systems to societal-natural perturbations be effectively characterised?, Which perturbations (at local, regional, and/or global scales) pose the greatest risks? How do reindeer pastoralists respond to perturbations in the societal and

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<sup>38</sup> [http://icr.arcticportal.org/images/stories/documents/wrh/declar\\_statem/kautokeino\\_declaration\\_2009\\_english1.doc](http://icr.arcticportal.org/images/stories/documents/wrh/declar_statem/kautokeino_declaration_2009_english1.doc) (2010)

<sup>39</sup> State of the World Indigenous Peoples, UN 2009. <http://www.un.org/esa/socdev/unpfi/en/sowip.html>  
[http://www.un.org/esa/socdev/unpfi/documents/SOWIP\\_Press\\_package.pdf](http://www.un.org/esa/socdev/unpfi/documents/SOWIP_Press_package.pdf) (2010-01-20)

the natural environments? What determines adaptive capacity and how can it be quantified? What impacts result when ability to adapt to perturbations is constrained? What mitigation and adaptive strategies at local, regional, and global scales reduce unfavourable impacts and how might promising strategies be facilitated? How do different reindeer herding communities assess risks associated with different vulnerabilities? How can herders' traditional knowledge be used to identify, develop and implement local strategies?

49. **Adaptation**<sup>40</sup>: The potential impact of climate variation and change on the productivity of herds can be ameliorated by tactical and strategic changes in herding practice. Herders' responses (feedback) represent coping at both individual and institutional levels. The model proposes that responses may be triggered at two levels. Ultimately, the herders respond to climate-induced changes in the performance of their animals. They also respond directly to the kinds of weather conditions that they recognise as important for successful herding. The model makes no assumptions about the extent or effectiveness of herders' ability to cope or about the magnitude of the influence of climate change on the system. This means we need to learn about our past, contemporary adaptive capacity, understand the institutional and legal barriers as well as the governance of adaptation.

50. **Resilience**<sup>41</sup>: refers often to “the capacity to lead a continued existence by incorporating changes”. Resilience (both social and ecological) is a crucial aspect of the sustainability of local livelihoods and resource utilisation, and we need a better understanding of how societies build adaptive capacity in the face of climate change. In

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<sup>40</sup> UNDG Guidelines on Indigenous Peoples' Issues Highlight Climate Change Impacts. [http://www.un.org/esa/socdev/unpfii/documents/UNDG\\_guidelines\\_EN.pdf](http://www.un.org/esa/socdev/unpfii/documents/UNDG_guidelines_EN.pdf) (2010-0120).

<sup>41</sup> Folke, C. 2006. "Resilience: The emergence of a perspective for social-ecological systems analyses". Global Environmental Change, vol. 16, pp. 253-267.

the scientific discourse it is argued that in coupled social-ecological systems resilience is embedded in four key factors: learning to live with change and uncertainty, nurturing diversity for reorganisation and renewal, combining different types of knowledge for learning, and opportunities for self-organisation. The fourth factor, 'opportunities for self-organisation' refers to the need for central management systems to allow coupled social-ecological systems the freedom to self-organise. This is thus a factor which is not in direct control of pastoralists, but depends on the actions of governmental authorities. Resilience studies of coupled social-ecological systems as reindeer herding require recognition of the inseparability of the social and natural spheres. Resilience of coupled social-ecological systems operating in a natural setting where change and not stability is the norm requires, therefore, the ability to cope-with and adapt to changes without degrading options for future adaptability. Of these, the first three factors are directly relevant for investigating resilience embedded in the social organisation of reindeer pastoralism. The fourth factor, opportunities for self-organisation, refers to the degree to which central management facilitates the opportunities for social-ecological systems to self-organise. This factor is thus not under direct control of pastoralists. The opportunity to self-organise will, thus, be studied through investigating the impacts of institutional constraints and opportunities.

51. The extent of vulnerability and resilience to climate change not only depends on cultural aspects and ecosystem diversity, but on the political, legal and institutional rules which govern social-economic systems and social-ecological systems. Therefore, since adaptation to climate change is something that takes place on the local level, it is important that indigenous peoples and local societies themselves define the risks related to rapid change. Reindeer herding peoples have to prepare themselves, their society and management authorities for change, and reduce their vulnerability to effects of climatic

change. Building competence locally, and planning for warming in local Arctic societies, must therefore be priorities for Arctic national states and indigenous people's institutions and organizations.

52. The adaptation to climate change demands training of local, regional and national arctic leadership in long term sustainable thinking and developing **mitigation** strategies<sup>41</sup> based on the best available adaptation knowledge, both scientific and experience-based traditional and local knowledge. The national adaptation strategies must recognize indigenous pastoral peoples' traditional knowledge and cultural and linguistics rights based on a human rights approach.

53. As there might be an explosion of human activity in the Arctic as a result of climate change, there is a need to find ways to regulate this activity and be ahead of the development<sup>42</sup>. Natural resource development, transport and tourism represent some of the drivers in the development. Against this background there is a need to develop and implement integrated management plans for reindeer pastures in the Arctic, on national levels, to secure future sustainability of indigenous herding communities and cultures in the face of climate change and land use change in the Arctic region.

54. There is an urgent need to facilitate investigation and studies within the UN framework on changes of grazing land in the reindeer herding areas in the circumpolar north, to establish a holistic and integrated understanding of the ongoing rapid changes in reindeer herding communities partly driven by climate change and globalisation, in order

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<sup>41</sup> *Making Protected Areas Relevant: A guide to integrating protected areas into wider landscapes, seascapes and sectoral plans and strategies.* CBD Technical Series No. 44

<sup>42</sup> Statement of Chair Mrs Hill-Marta Solberg of the Standing Committee of Arctic Parliamentarians at the Arctic Council Ministerial Meeting in Salekhard, 2006.

to maintain the sustainability and resilience of indigenous reindeer herding societies and cultures in the future.

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