



Convention on Migratory Species
United Nations Environment Programme

CMS Infrastructure Guidelines: Addressing Infrastructure Threats to Migratory Species across Central Asia

26 August 2015

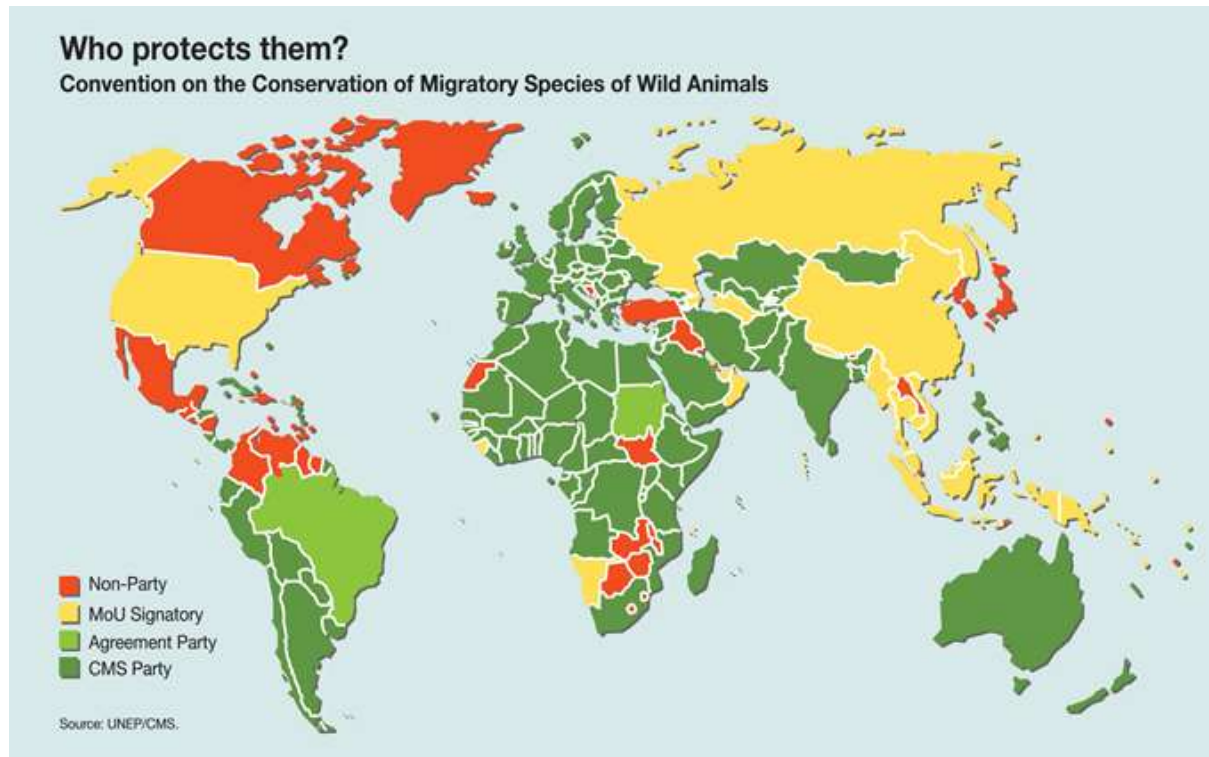
Bert Lenten

Deputy Executive Secretary, CMS Secretariat



Role and objectives of CMS

- International biodiversity treaty concluded under the aegis of UNEP, with its Secretariat based in Bonn, Germany
- Aim: conservation of wildlife beyond national borders
- Global scope, 121 Parties
- Primary legal tools: species listings (Appendix I, II), global/regional Agreements, Action Plans and Guidelines



Central Asia: a top priority for CMS

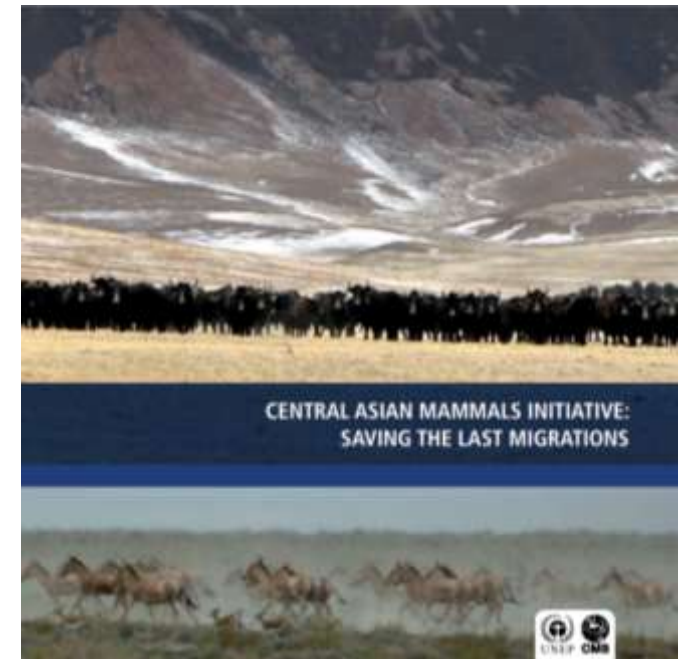


- Largest global expanse of grassland and mountain ranges
- Remarkable diversity of ecosystems
- One of the world's last migration hotspots



New legal framework for Central Asia: CAMI

- COP11 (Nov 2014) adopted CAMI (Central Asian Mammals Initiative)
- CAMI Coordinator based at CMS Secretariat since 2015



CMS



CONVENTION ON
MIGRATORY
SPECIES

Distribution: General

UNEP/CMS/Resolution 11.24

Original: English

THE CENTRAL ASIAN MAMMALS INITIATIVE

Adopted by the Conference of the Parties at its 11th Meeting (Quito, 4-9 November 2014)

Central Asian Mammals Initiative (CAMI)



Single species activities/MOUs



Threats & Conservation Needs



Species designated for Concerted & Cooperative Action



Coherent framework for coordinated conservation action on migratory mammals in Central Asia

What is Linear Infrastructure?

- Roads
- Railway lines
- Power & communication lines
- Oil, gas & water pipelines
- Fencing
- Canals & irrigation ditches
- Artificial ridges



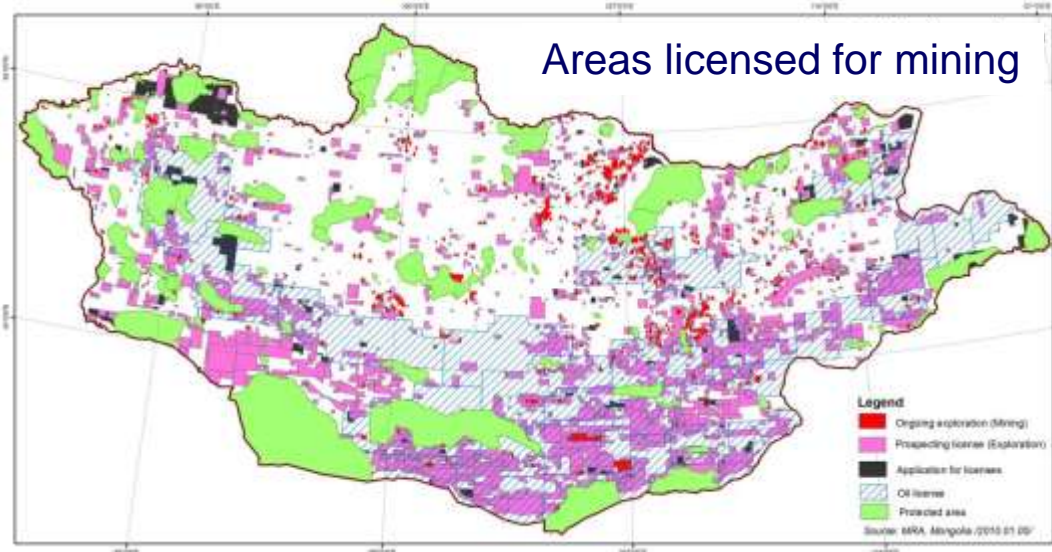
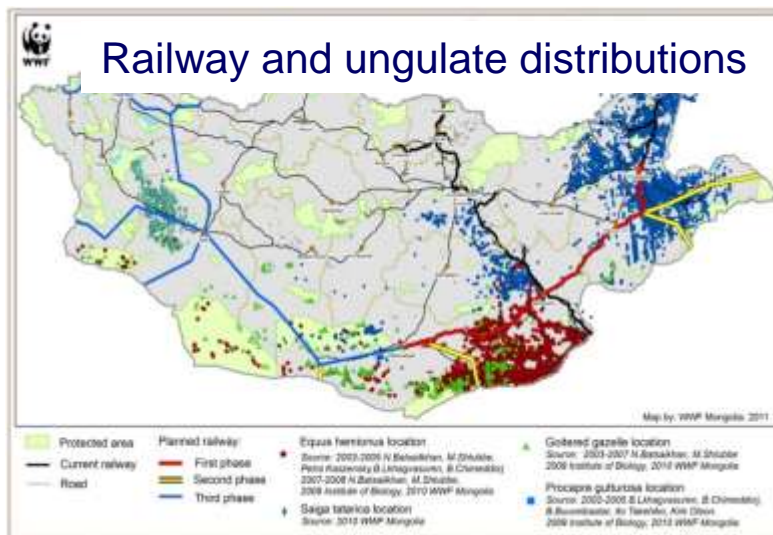
Why can infrastructure be a problem for wildlife?

- Habitat fragmentation
- Easy access for poachers (e.g. new roads)
- Collisions
- Entanglement in fencing
- Introduction of invasive species & diseases
- Alteration of natural processes
- Increased disturbance & human population



Scientific Council: case study on the effect of infrastructure in 2011

- CMS Scientific Councillor for Mongolia has been leading debate on advancing CMS policy on wildlife-friendly infrastructure, with a focus on Central Asia
- Case study includes:
 - Current barrier effect for ungulates
 - Mapping extractives exploration with species distributions
 - Impacts of planned transcontinental train and road network

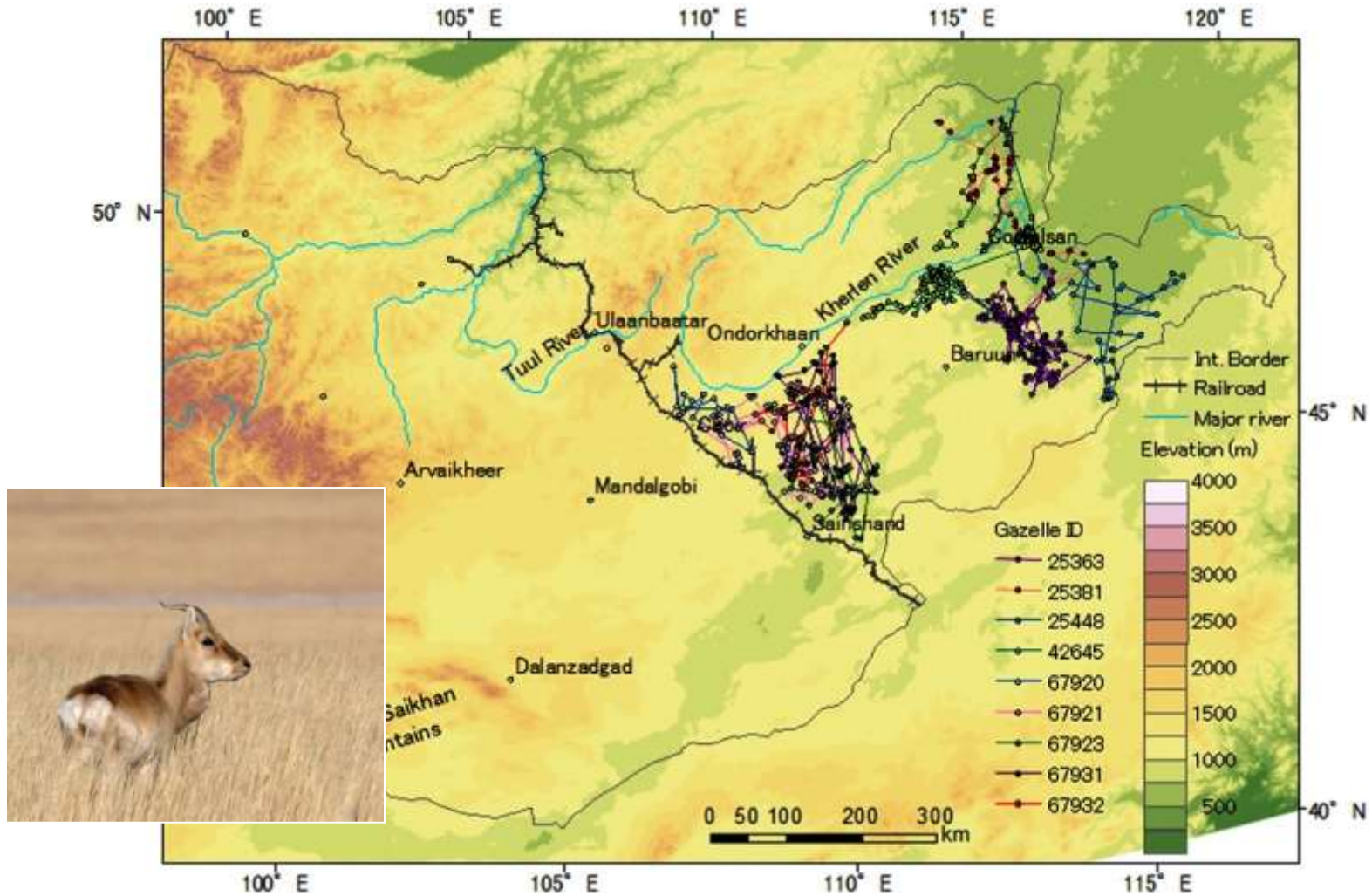


General Impacts of Linear Infrastructure

Potential Impact	Roads	Rail Lines	Pipelines	Fencing ⁶
Wildlife strikes	High	Medium	Low	Not applicable
Entanglement/trap mortality	Not applicable	Not applicable	Low	High
Habitat fragmentation	High	High	Low	High
Altering behaviour	High	High	Low	High
Barrier to movement	High	High	Low	High
Altering use of habitat	High	High	Low	High
Increased human presence	High	Medium	Medium	Not applicable
Increased hunting	High	Low	Low	Not applicable
Conduits for invasive alien species	High	High	Low	Not applicable
Effects on population genetics	High	High	Low	High
Air pollution	High	Low	Not applicable	Not applicable
Altering natural processes	Low	Low	Low	High
Changed discharges in water bodies	High	High	Medium	Not applicable

Relationship rating: high - ■ medium - ■ low - ■ not applicable - ■

UB-Beijing Railway blocking Mongolian gazelle movement



Takehiko *et al.* (2013)

Guideline Principles

Mitigation



Planning and design



Assessments

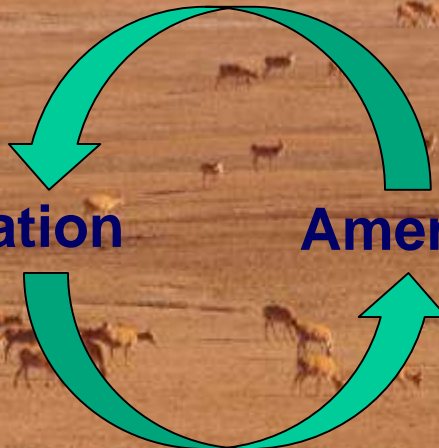


Construction standards
& solutions



Monitoring and Evaluation

Amend construction?



CMS: several guidelines available for wildlife-friendly fence design

Saiga Crossing Options

Guidelines and Recommendations to Mitigate Barrier Effects of Border Fencing and Railroad Corridors on Saiga Antelope in Kazakhstan.



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Overpasses and underpasses



X. Lin

INTERNATIONAL LEVEL: Lender Standards & International Agreements

- International Finance Corporation (IFC) **Performance Standards***
- World Bank (WB) **EIA Policy**
- European Bank for Reconstruction and Development (EBRD) **Environmental and Social Policy**
- Asian Development Bank (ADB) **Safeguard Policy Statement**
- KfW Development Bank **Apply several guidelines, including IFC, Equator principles**
- Mongolian Banking Association (MBA) **Apply several guidelines**
- Espoo Convention
- Kiev Protocol
- European Agreement on Main International Traffic Arteries



NATIONAL LEVEL: SEAs and EIAs as tools for planning

These instruments examine potential impacts caused by proposed actions and ensure enough data and analysis are available to support sound decision-making.

Strategic environmental assessments: require the review of ‘strategic’ processes such as policies, plans, and programs.

Environmental impact assessments: most common legally mandated tool for reviewing **individual projects** and identifying mitigation measures. Entirely process-oriented, and not outcome-oriented.



Key Considerations from the Guidelines

HIGHLY RECOMMENDED STEPS:

- Early use of mitigation hierarchy
- High level of understanding of species affected
- All forms of impact taken into account
- Same alignment for more than one linear infrastructure plans
- Engagement of all relevant stakeholders
- Use of geospatial information to determine location of wildlife crossing structures

PROHIBIT LINEAR INFRASTRUCTURE WHEN:

- Alternative locations have not been explored or considered in the design and planning process
- Wildlife-friendly designs are not incorporated
- Mitigation and compensation plans are not well considered

New Standard of Mongolia: fastest national implementation of international policy

- COP11 (November 2014) passed CMS wildlife-friendly infrastructure Guidelines for Central Asia
- Mid-2015: Mongolia has passed new Standard for roads and railways for steppe and Gobi region

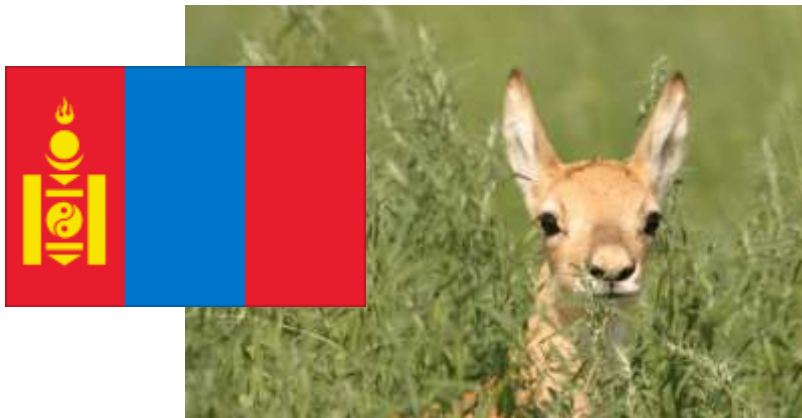


STANDARD OF MONGOLIA

Passage for wild animals along auto and rail roads in steppe and Gobi region. General requirements

MNS : 2015

Official edition



Thank you and Баярлалаа!

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For questions/further information,
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