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**CONSIDERATION OF NEW NEASPEC PROJECT**  
(Item (6) of the provisional agenda)

**Establishment of Demonstration Project for Dust and Sandstorm monitoring  
and assessment capabilities (DSS Early Warning System) in source areas,  
with special reference to desertification issues**

*Submitted by Ministry of Nature and Environment, Mongolia*

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## **BACKGROUND**

Dust and sandstorms (DSS) is a transboundary issue of a non-point origin, which has raised serious concern in Northeast Asia. The occurrence of DSS is built upon two prerequisites: (i) dry and loose surface and (ii) strong and persistent wind. Understanding a DSS event would entail the study of meteorological conditions and soil surface properties and how these interface with each other. DSS in Northeast Asia mainly originates from the mid-latitude Desert Zone (N 40-45°, E 90-120°). Driven by the East Asia winter monsoon, DSS generated from the areas above moves southeast and then to the east parallel along N 40°, passing the Korean Peninsula and Japan to the northern areas of the Pacific Ocean.

The Master Plan for the Prevention of Dust and Sandstorms in North-East Asia (the RETA 6068 project) has included an Investment Strategy for strengthening mitigation measures to address the root cause of DSS in source areas. This Investment Strategy, which was developed under the guidance and supervision of a technical committee chaired by UNESCAP, focused on: (i) the selection of sites for nine demonstration projects (four in China and four in Mongolia and a subregional demonstration site that straddles the border of both countries), (ii) the identification of best practices for the demonstration projects for DSS prevention and control, and (iii) the development of an investment strategy including recommendations on sustainable financing mechanisms for the promotion and dissemination of best practices in addressing the causes of dust and sandstorms.

This project seeks to develop and establish the institutional capabilities of monitoring and assessment of natural resources, introducing advanced techniques and technology. In the source areas of DSS, drought that covers 50 percent of the total territory occurs in every 2-3 years. Recently drought is observed in every year. Dry summers, mining industry with lack of restoration, overgrazing, and recent impacts of climate change in the fragile eco-system of Mongolia have encouraged and deteriorated grassland productivity and reduces pasture regenerative. Therefore Dust and sandstorms Early Warning System is must be developed in order to prevent the negative impacts of DSS in the region.

## **OBJECTIVES**

1. To gradually expand the institutional & technical capabilities to monitor and assess conditions and evolutionary trends in land and water resources.
2. To promote DSS Early monitoring system in source areas
3. To correlate the activities of proposed project into ADB and GEF funded Regional project from NEAC
4. To respond the desertification process of source areas at much larger scale
5. To establish two demonstration sites, one in Erlianhot, the other in Zamin Uud and other source areas , for addressing land degradation and desertification, including (i) a re-vegetation programme in marginal and degraded land for stabilizing the movement of sands under strong winds using a variety of suitable plant species and re-vegetation techniques; (ii) sustainable grassland management, including rehabilitation of degraded grassland; and (iii) community-based greening programme, especially at source areas, so as to prevent and control the development of DSS originated from these areas;

6. To build or strengthen human and institutional capacity in sustainable land management and integrated water resources management, including training and public awareness at community level;
7. To this end, training facility and programmes for the demonstration sites within the project cycles and beyond, as well as for the border region, will be developed. As China is more experienced in combating land degradation and desertification, the training programmes would facilitate technology transfer from China to Mongolia;
8. To develop ecotourism as appropriate, so as to enhance the livelihoods of the local communities in source areas. The improved landscapes and biodiversity and better air quality as a result of the re-vegetation programmes are likely to attract more tourists to the areas.

## **ACTIVITIES**

This project is to be considered a further step to cover the country nation-wide with a monitoring system using R.S. and G.I.S. According to the outcomes it can be extended.

Administrative units of source areas should cover the major ecological zones and be spread evenly over the country. Other criteria for selection of source areas are:

- Presence of other projects so that there may be a mutual benefit
- Ecosystem conditions of the source areas: If there is already question of serious degradation or not
- The presence of a research station covering the ecological zone
- Frequency of observation & DSS

The central project office should be with the TPN5, headed by a Mongolian director, assisted by two international experts, with expertise in management, training and use of modern technologies like R.S. and G.I.S. Each expert will equally have a Mongolian counterpart with background in R.S. techniques, to be trained on the job by his or her international partner.

The following activities are likely to be included:

- Installation of drought monitoring equipment, including R.S. and G.I.S.
- Staff training in use of equipment and selected methodology, as well as the processes leading to land degradation and desertification
- Monitoring of selected indicators of land-, water- and vegetation quality.
- Monitoring of selected natural and anthropogenic parameters that are known to be of crucial importance for the long-term quality and sustainability of uses of renewable natural resources.
- Analysis of ongoing trends.
- Communication and reporting.

## **BENEFICIARIES**

- Technical staff at the source areas charged with environmental monitoring tasks.
- Administrative authorities at the source areas, in charge with a sound and balanced development of the area under their jurisdiction.
- To a lesser extent this also applies to both technical and administrative staff at the central level.

## DURATION

2 years.

## PROJECT BUDGET

Items	Amount (USD)
International Personnel	20.000
Mongolian staff	30.000
Local Travel	15.000
Int. Travel	10.000
Training	15.000
Equipment	100.000
Reporting	5.000
Miscellaneous	10.000
Unforeseen	10.000
<b>TOTAL</b>	<b>215.000</b>

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