

REPORTING
PERIOD: 2024

EHPMI Workshop in
Hanoi

**Projects of ESCM:
achievements and
future plans**
Erdene, chairman

CONTENT

Current activities

- Sustainable Plastic Recycling in Mongolia Project
- Pollution Reduction
- Participation in the national level policy dialogues

Future plans

- Initiation of clean up action in chromium polluted areas in Ulaanbaatar city
- Active participation in EHPMI various activities

SUSTANABLE PLASTIC RECYCLING IN MONGLLIA PROJECT:

- Waste management is a key issue in Mongolia due to urbanization, industrialization, and increasing consumption of packaged products.
- Mongolia is one of ten countries with highest per capita consumption of plastics in the world.
- Plastic waste is a particularly serious issue as it is causing widespread pollution and is also often dumped illegally, both by citizens and companies.
- 5.2% of total plastic waste produced in Mongolia is recycled annually.
- Recycling private companies lack plastic waste resources and collection of plastic waste is expensive due to inefficient collection system.



SUSTANABLE PLASTIC RECYCLING IN MONGLLIA PROJECT:

ESCM is implementing the project “Sustainable Plastic Recycling in Mongolia” (05/2020 – 04/2024), funded by the European Union (SWITCH-Asia program), along with four project partners: Caritas Czech Republic, EcoSoum, Mongolian Sustainable Development Bridge, and T.G. Masaryk Water Research Institute.

- it is extended from May – December 2024

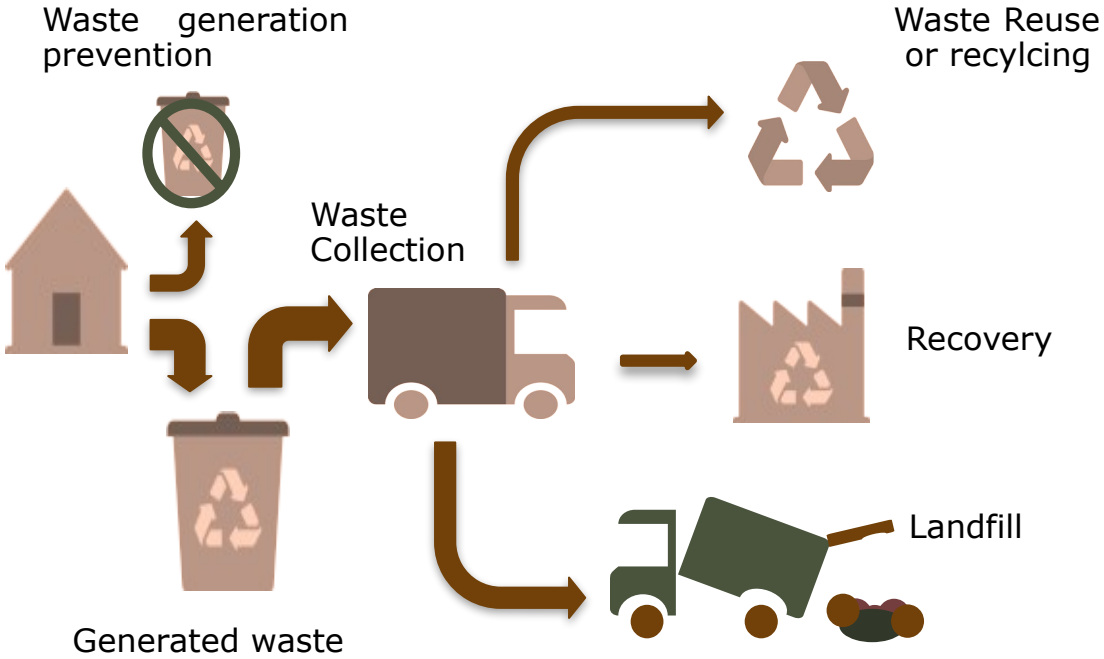
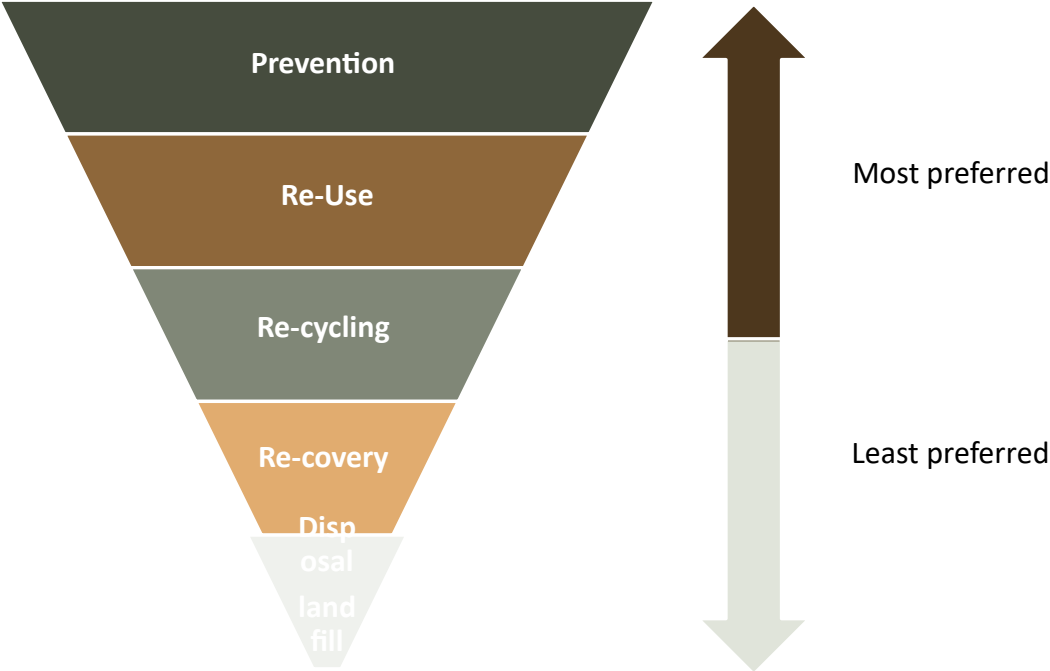
- Current implementers: Caritas Czech Republic and ESCM

- Project implementation in the three administrative areas:

- Capital City of Ulaanbaatar;
- Province - Bulgan and
- County- Khishig-Undur



MAIN PRINCIPLE IN WASTE MANAGEMENT



PROJECT BRIEF INFO

BETTER ACCESS TO WASTE; IMPROVED PLASTIC WASTE COLLECTION, SORTING AND CLASSIFICATION SYSTEM

- 1 Identify constraints on efficient collection of plastic waste in Ulaanbaatar, Bulgan Aimag and Khishig-Undur Soum
- 2 Design plastic waste collection schemes suitable for urban and rural environment
- 3 Organize training sessions for public authorities on plastic waste separation, collection and classification
- 4 Form network of communities and CSOs to focus on raising consumers' awareness of plastic waste separation and collection
- 5 Organize activities at kindergartens, primary and high schools, universities, state and public institutions to raise awareness on waste collection and sorting
- 6 Provide guidance and create working plan to make a more enabling legal environment for plastic recycling

PLASTIC RECYCLING COMPANIES HAVE ACCESS TO ADVANCED EQUIPMENT AND TECHNOLOGIES

- 1 Propose innovations and investments after identifying the technology gaps of the plastic recycling companies
- 2 Organize seminar to introduce the technology innovations to the companies, explaining their economic feasibility
- 3 Conduct analysis of constraints regarding access to finance faced by plastic recycling companies
- 4 Based on the analysis, facilitate interactions between plastic recycling companies and finance service providers (banks, development funds, etc.)
- 5 Organize on-the-job training sessions abroad for key workers of plastic recycling companies
- 6 Identify and design new waste-based products from recycled plastic waste
- 7 Cooperate with soum and aimag authorities to facilitate the trial plastic waste recycling solutions for rural areas

PLASTIC RECYCLING COMPANIES HAVE MORE CUSTOMERS

PLASTIC RECYCLING COMPANIES HAVE MORE CUSTOMERS

- 1 Build marketing capacities of plastic recycling MSMEs
- 2 Develop health, safety and quality standards for products made of recycled plastic
- 3 Organize seminars, workshops and exhibitions to promote recycled products
- 4 Organize study tour abroad for recycling companies to familiarize them with promotion and marketing of recycled products

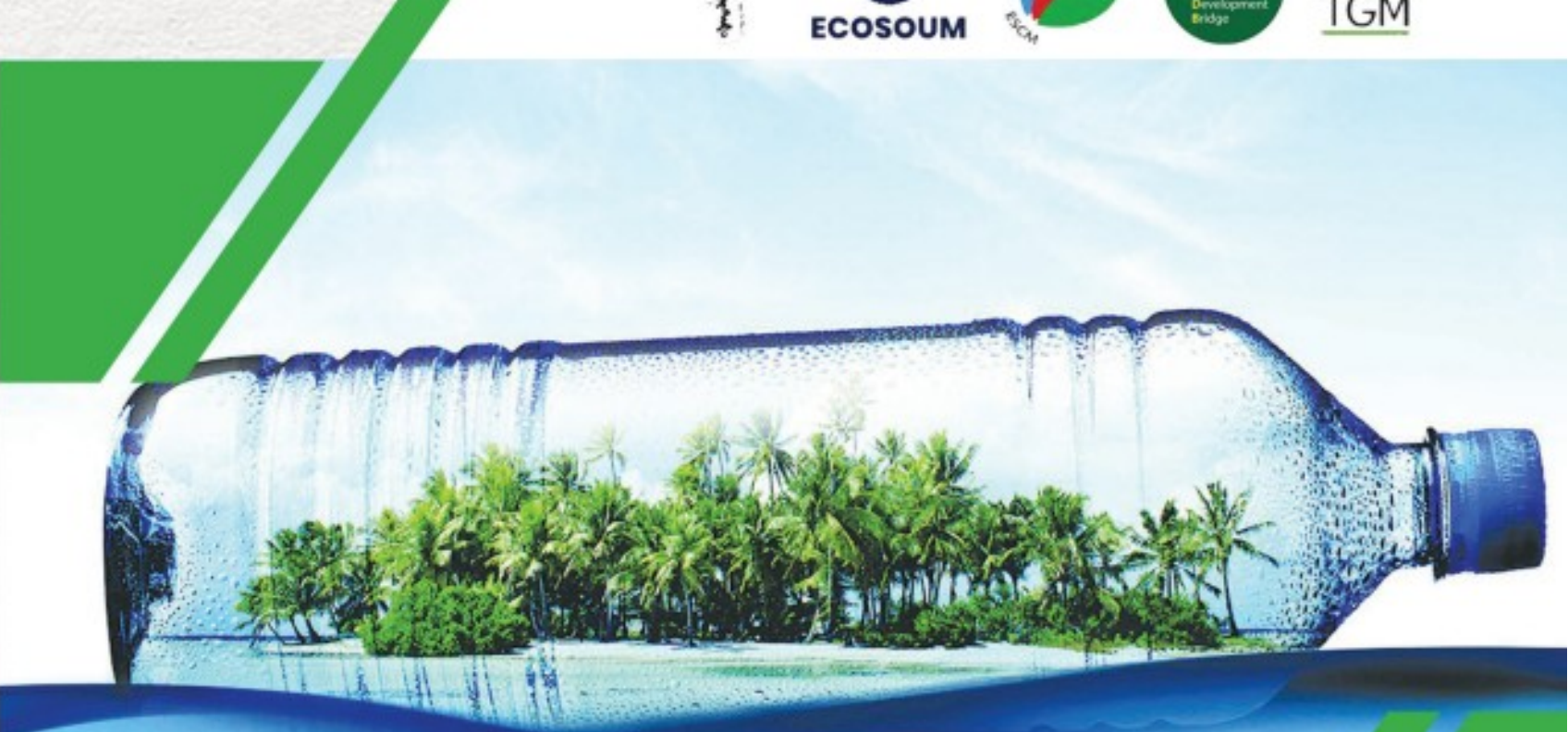
PROJECT OUTCOME IS EASILY REPLICATED IN OTHER SOUMS AND PROVINCE

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- 1 Organize events to involve decision-makers in follow-up activities aimed at replication and scale-up of results achieved by the project
- 2 Establish a cluster of local and international waste management experts who will participate in further replication actions
- 3 Develop and disseminate replication packages containing findings, recommendations, solutions and best practices produced by the project

ESCM Task

- q Review existing legal and regulatory framework and propose guidance and working plan to make the legal environment for the recycling of plastics more enabling
 - q Conducted assessment of existing regulations, laws, codes and norms shaping the legal and regulatory framework related to plastic recycling in Mongolia, identified the gaps and shortcomings and compared them to the European best practices
 - q Studied EU legal best practices through learning most recent legal documents issued by European parliament and European Commission on solid waste management including policies towards plastic waste
 - q Prepared report on existing legal and regulatory framework in Mongolian and English and published 300 copies in Mongolian and distributed to key stakeholders and members of working groups established for further review of related legislation for improvement.
 - q ESCM team has organized the several working group meetings and introduced the legal review results to members of the working group for future working plan to improve the legal environment that encourage recycling of plastic waste



ХУВАНЦАР ХАЯГДЛЫН
ЗОХИЦУУЛАЛТЫГ САЮЖРУУЛАХ
ӨНӨӨГҮЙН ЭРХЗҮЙН
ОРЧНЫ СУДАЛГАА

ESCM Tasks

- q In cooperation with SMEs, conduct analysis and testing to identify and design new waste-based products from recycled plastic waste
 - q Through a bidding and ESCM has selected a research team of the Institute of Physics and Technology of MAS for conducting a testing of new plastic waste-based products and reportin
 - q The research team has worked for 6 months to test the following plastic waste-based products:
 - a plywood made from recycled plastics.
 - pavement blocks made from recycled plastics
 - Concrete pavement blocks from plastic aggregates
 - Pavement blocks made from PET plastic
 - q Currently a public dissemination material is being prepared based on the results of new product testing report for recycling SMEs and public for promoting more plastic waste - based products



Стандартын үр ашгийг хэн хүртэх вэ?

Дахин боловсруулсан болон анхдагч хуванцрыг түүхий эд болгон ашигладаг үйлдвэрлэгчид болон хэрэглэгчид



ESCM Tasks

Report on health, safety and quality standards. Develop health, safety and quality standards for recycled products: two ISO standards were adopted as MNS and approved by Mongolian National Standardization Center:

- Plastics - Guidelines for the recovery and recycling of plastic waste MNS ISO 15270:2024
- Plastics - assessment of the effectiveness of fungistatic compounds in plastics formulations MNS ISO 16869:2024

MNS ISO 15270:2024
Хуванцар хог хаягдлыг дахин боловсруулах болон сэргээн ашиглах заавар

Стандартыг хэн хэрэгжүүлэх вэ?

Хуванцар болон хуванцар хог хаягдлыг дахин боловсруулах үйлдвэрүүд

Стандартын үр ашгийг хэн хүртэх вэ?

Үйлдвэрлэгчид болон стандартаар баталгаажсан дахин боловсруулагдсан бүтээгдэхүүн хэрэглэгчид



ESCM Tasks

- q Conduct a feasibility study to assess the practicality of the proposed systems in each of the three contexts
 - q Within this activity ESCM team has announced a consultancy bidding among local consultant communities to select a team to perform a feasibility study to assess the practicality of proposed schemes for plastic waste collections at three levels of administrations (County, Province and capital city UB)
 - q Currently review of bidding materials is underway for selecting a best bidder



ESCM Task: Support Small and Medium Enterprises with equipment

- Provision of plastic waste compactors for collection and compaction of plastics making it suitable for transporting to recycling companies located in the cities
- Installing and safe operational training of local staff
- Organization of bidding on a plastic smelter technology for Bulgan Recycling Center
- Procurement of smelter technology
- Installment and operation of plastic smelter for production of plastic waste based products in the territories of Bulgan Province.





ESCM Task: Procurement of plastic type scanner to increase recycling effectiveness

ESCM Task: Awareness raising, training & info dissemination



ESCM Task: A County Level Waste Sorting Model



**Environmental Baseline study on and
around the newly established used lead
battery recycling factory**

ELECTROCEM MONGOLIA LLC

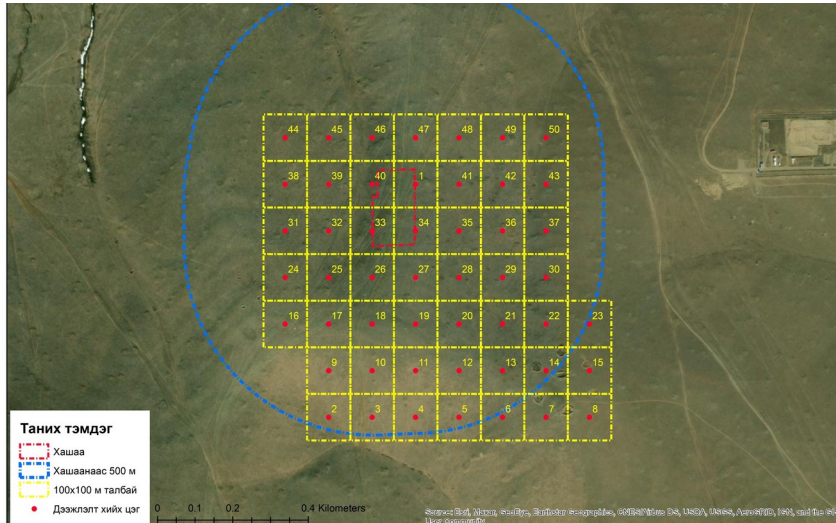
ELECTROCEM MONGOLIA LLC in consultation with International Lead Association (ILA) has selected and installed a ecologically clean used acid battery recycling factory in 2023 and it became operational in 2024.

Requested ESCM to conduct an environmental study to establish a baseline database on environmental pollution: - air quality; water quality and heavy metal contents in the soil in and around the factory.

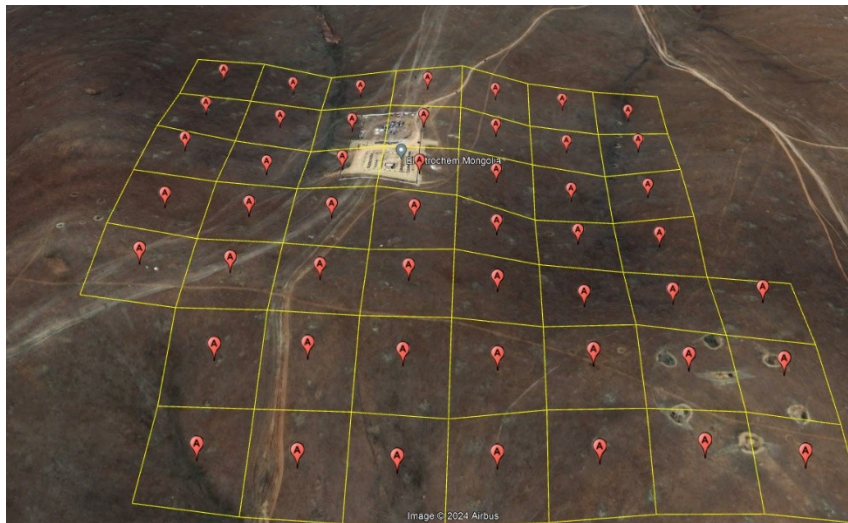
The data to be used by the factory for management of its pollution level in air, soil and water and take necessary actions in case if pollution occurs and exceeds the acceptable levels.



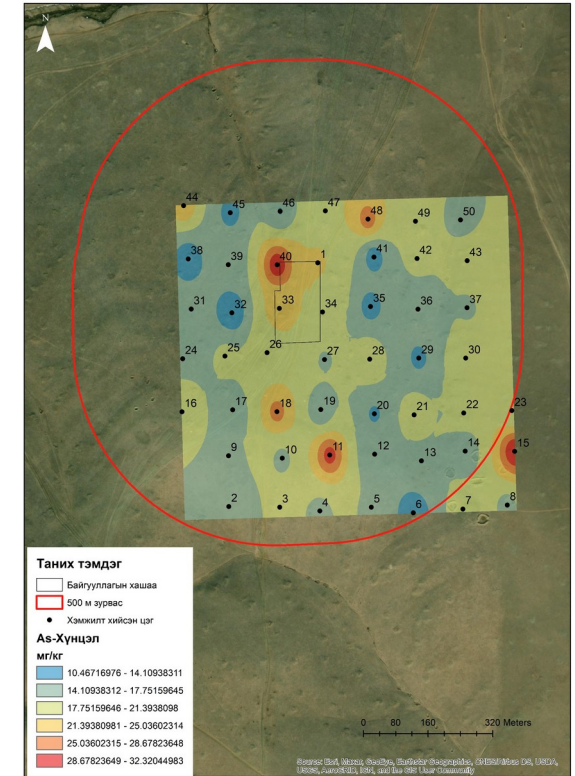
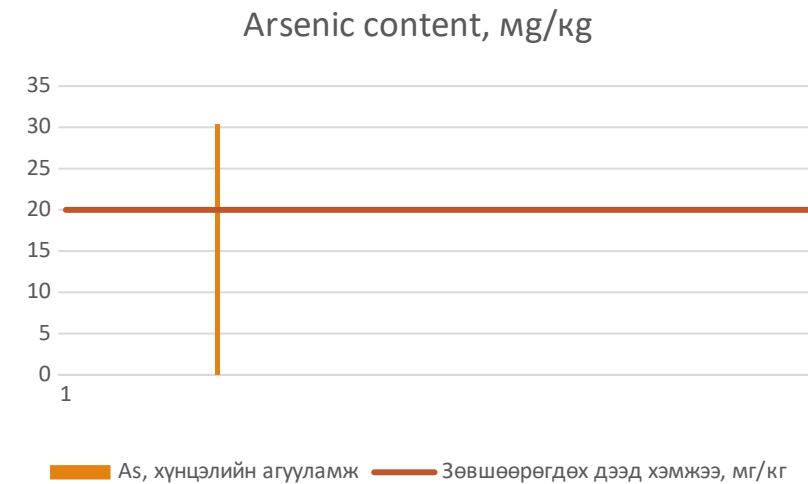
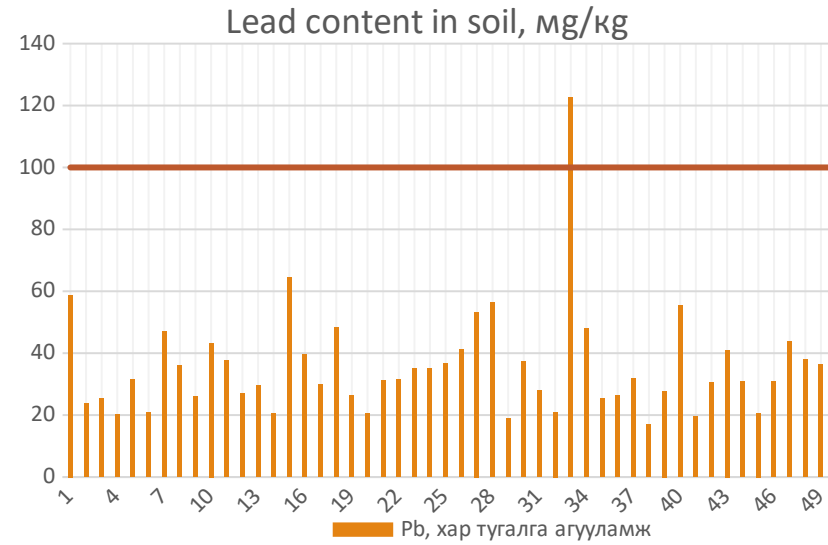
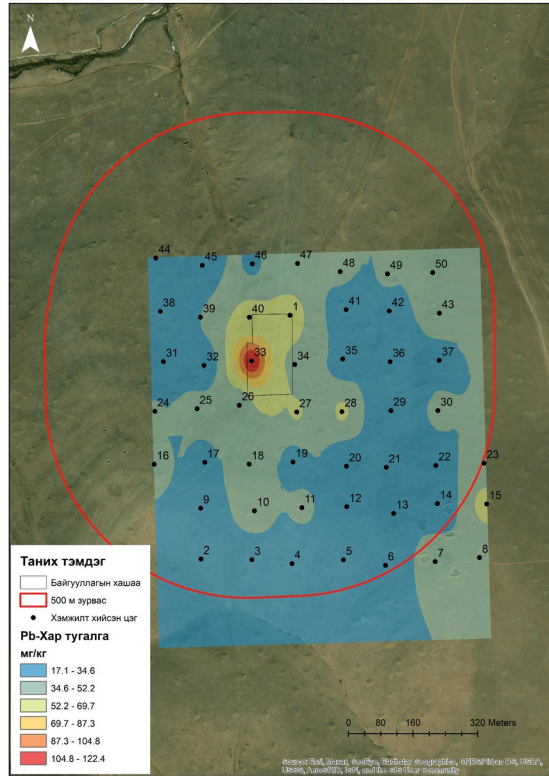
Baseline data collection



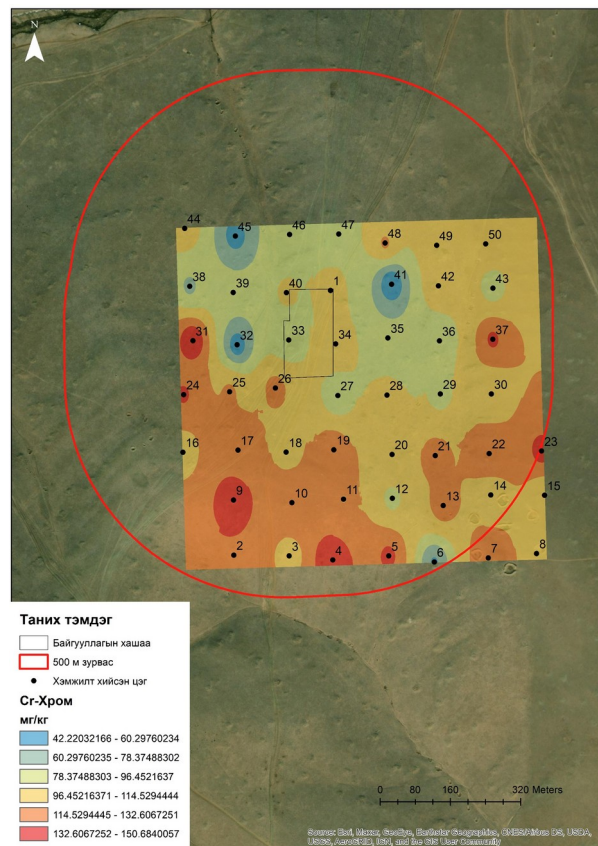
- We created a 50 m X 50 m fish net for identifying soil heavy metal level at 50 points
- Prevailing wind direction was considered for shaping the distribution of measurement points
- XRF was used to identify the ranges of soil heavy metals and XRF readings were compared to a national standard requirements on soil heavy metals
- Two additional soil samplings were taken for laboratory analysis to compare with XRF readings
- Water samplings were taken from the wells located in the territory of the factory



Study Results



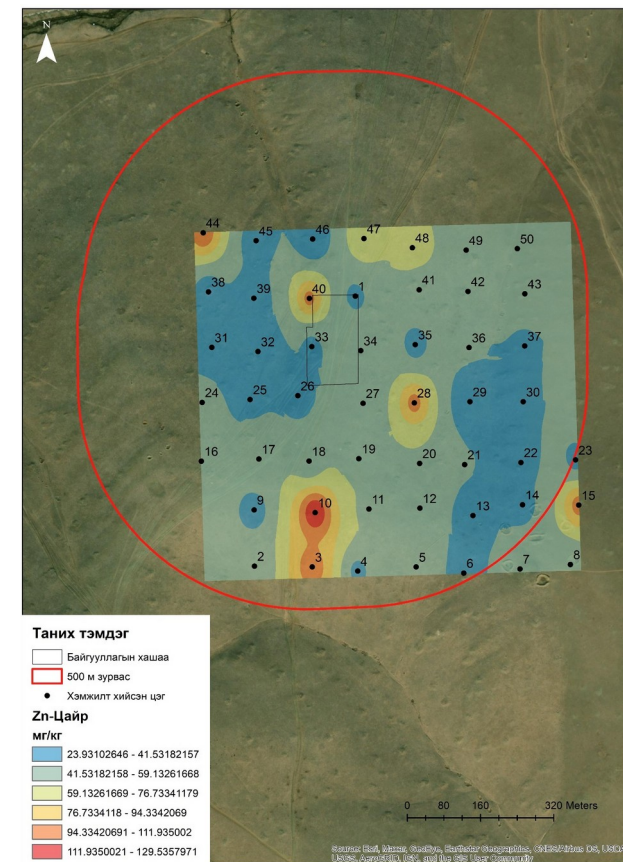
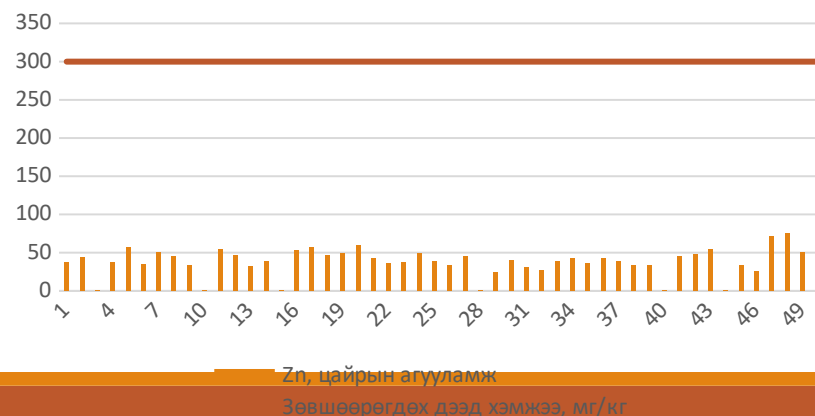
Study Results



Chromium content in soil, мг/кг



Zinc content in soil, мг/кг



Zn, цайрын агууламж
Зөвшөөрөгдөх дээд хэмжээ, мг/кг



Participation in the national level pollution policy dialogues

- ❑ National Council on Waste Management since 2018: serve as member and attend the technical meetings (in each season)
- ❑ Member of task force on Amendment of Waste Management Law since October 2024
- ❑ WHO and GoM public health vis environmental pollution dialogue
- ❑ Member of Mongolian Environmental Civil Network since 2016

A Future plan

- ❑ Continuation of heavy metal pollution study, information dissemination and awareness raising of decision makers and communities
- ❑ Initiation of clean up action in chromium polluted areas in Ulaanbaatar city
- ❑ Active participation in EHPMI various activities

A PROPOSAL on EHPMI status

- ❑ introduce an annual membership fee to support EHPMI, especially on supporting proposal writers
- ❑ Fundraising activity in Mongolia for ESCM/EHPM

Thank you for your attention

