



Extended Producer Responsibility in Kazakhstan

Review
and
recommendations

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Abbreviations and acronyms

EEE	Electrical and electronic equipment
ELV	End-of-life vehicle
EPR	Extended producer responsibility
EU	European Union
KZT	Kazakhstan tenge (currency)
MSW	Municipal solid waste
OECD	Organisation for Economic Co-operation and Development
PRO	Producer responsibility organisation
USD	United States dollars (currency)
WEEE	Waste electrical and electronic equipment

Executive summary

Kazakhstan has adopted a very comprehensive and ambitious framework for implementing extended producer responsibility (EPR). In less than three years, it has been extended from its initial scope (motor vehicles and their components) to packaging and waste electrical and electronic equipment (WEEE), and there are plans for further extensions in 2019.

The EPR framework means that producers must “ensure the collection, transportation, processing, decontamination, recycling and/or disposal of waste products and packaging”, either through a contract with the EPR operator, or through their own individual system. The EPR operator is a private, not-for-profit company, appointed by the public authorities to collect fees from producers and to use them to finance various programmes for waste collection and recycling.

This report analyses the current legal framework and operational set-up for EPR in Kazakhstan, and draws on feedback from stakeholders and international experience on EPR to make recommendations for strengthening and improving the current system further:

- **Secure financing for packaging and WEEE collection and recycling:** although the EPR operator has launched collection and recycling programmes for packaging and WEEE, it is not collecting fees from producers. Collecting fees should be a priority, ensuring that the fees cover the full net costs of waste management, as well as the true costs (i.e. they should reflect product characteristics influencing waste management costs – weight, composition, recyclability).
- **Ensure transparency over cost coverage and expenditure:** the EPR operator currently finances various programmes for different waste flows (end-of-life vehicles, packaging, WEEE, organic waste, etc.), as well as programmes not directly related to waste management (e.g. electric car charging stations). To facilitate producers’ acceptance of the system, greater transparency is needed over the EPR operator’s expenditures. This could be achieved through disclosing separate budgets for different product/waste categories, clearly distinguishing between end-of-life management programmes and other programmes (with a clear budget allocation for these programmes, which should represent only a minor share of expenditure).
- **Strengthen the legal framework:** stakeholder confidence would be increased if some good practices adopted by the EPR operator were enshrined in the legal framework. Clear and unambiguous recycling targets, shared governance and regular dialogue, and the procurement rules for choosing waste management operators, among others, should become legally binding.
- **Progressively remove barriers to alternative compliance systems:** The single producer responsibility organisation (PRO) approach seems justified in Kazakhstan currently, where EPR, and waste recycling in general, are still in the early stages. Opening up to multiple systems and governance too quickly would probably be too complex to monitor and control. However, the risks of a single PRO approach should not be underestimated, and measures to mitigate these risks should be adopted progressively. Individual compliance should only be facilitated if a secure framework for reporting, control and enforcement is developed. All compliance

schemes must be strictly subject to the same objectives, in terms of performance, quality, and reporting, in order to avoid any distortions or loopholes.

- **Explore complementary policy approaches:** EPR is never a stand-alone waste management policy; it should be supported by complementary approaches. These include a strengthened legal framework for waste management in general, and for the role of municipalities in particular; fiscal measures (such as landfill and incineration taxes); public procurement; and the promotion of eco-design.

1. Introduction

1.1. Extended producer responsibility in OECD countries

Extended Producer Responsibility (EPR) is a key policy tool for promoting a circular economy, and has been supported by the OECD since the early 1990s. Its adoption around the world (more than 400 EPR schemes exist today) demonstrates the high interest of policy makers, and the benefits of this approach. EPR covers a wide range of products and waste categories (end of life vehicles, packaging, electronic waste, tyres, batteries and accumulators, etc.), through a variety of implementation models.

This wide development of EPR, with many countries having more than 20 years of experience in implementing this type of policy tool, provides unprecedented feedback on the ways to design and implement EPR for better results. The OECD provides a platform for countries to exchange experience. It published a first guidance manual in 2001, providing general guiding principles, outlining possible options, and analysing some of their pros and cons. Building on this first guidance, and in view of the developments and lessons learnt since, the OECD Guidance Manual was updated in 2016 (OECD, 2016^[1]).¹

1.2. Background

In March 2018, Kazakhstan launched the ambitious process of amending its 2007 Environmental Code, underpinned by a multi-stakeholder working group chaired by the Committee on Environmental Regulation and Control of the Ministry of Energy . The process of drafting the amendments started in September 2018 and is expected to be completed by September 2019, aiming for parliamentary approval by December 2019.

As part of this process, the Government of Kazakhstan has asked for the OECD's support to accelerate the transformation of its system of environmental payments to become a more effective economic mechanism for environmental pollution management.

In order to bring the recommended reforms in line with the benchmark OECD approach, a joint OECD-Kazakhstan project "Reform of the system of environmental payments. Analysis of compliance with the Polluter Pays Principle (PPP) in Kazakhstan" was signed in July 2018. The Committee on Environmental Regulation and Control of the Ministry of Energy and the OECD agreed, during a meeting on 27 June 2018, to focus first and foremost on reforming environmental taxes, dealing with non-compliance responses, and calculating monetary fines for damage by industrial air pollutants. The discussion highlighted that the payments related to waste management would also be reviewed, in particular with regard to the management of selected waste streams under the extended producer responsibility systems launched in 2016.

This report thus describes and analyses the EPR system in Kazakhstan, in light of international experience on EPR, and in particular the OECD Guidance Manual.

The report begins by describing the context of EPR in Kazakhstan, including the legal and regulatory framework, and the organisation, activities and performance of EPR schemes. It then draws on these observations, exchanges with the EPR operator, as well as interviews with key stakeholders to provide recommendations for improving the system further.

It is not a compliance exercise; nor does it aim at validating design features of the EPR system, or criticising choices that were made. Instead it aims to build on international experience in order to identify relevant areas for improvement and to help the EPR legal and operational set-up become more effective and efficient.

2. Context

2.1. Legal framework

The legal framework for extended producer responsibility (EPR) in Kazakhstan is provided in Chapter 41-1 of the Environmental Code, entitled “Extended Obligations of Producers and Importers.”²

It includes the following provisions:

- Article 285-1. Requirements for the execution of EPR
- Article 285-2. Areas of activity of the EPR operator
- Article 285-3. Legal status of the EPR operator
- Article 285-4. Powers of the EPR operator
- Article 285-5. Responsibilities of EPR participants
- Article 285-6. Ensuring the transparency of the EPR
- Article 285-7. Fulfilment of EPR obligations.

2.1.1. Scope

1. Any individual or legal entity engaged in producing or importing into the territory of Kazakhstan goods covered by the regulations (Table 2.1) are subject to EPR obligations.

Table 2.1. EPR scope: product categories covered

2016	2017	2019 ¹
Vehicles Vehicle components: tyres, batteries, oil and speciality fluids	Packaging: plastic, metal, paper & board, glass, beverage cartons EEE: household appliances, electronics Batteries & accumulators Mercurial lamps	Agricultural equipment Cabling and wiring products

Note: ¹Planned but not yet approved by the government.

Source: (Ministry of Energy, 2015^[1])

2.1.2. Exclusions

The Environmental Code permits the following to be excluded from the list of goods and products subject to EPR obligations:

- oil, packaging and batteries, provided that the production process incorporates at least 30% of used oil, packaging and batteries, recycled and used in Kazakhstan
- products and goods produced in or imported in Kazakhstan but sold outside its borders

- plastic, glass, paper and/or cardboard packaging or packaging from combined materials produced in or imported into Kazakhstan, which are used for goods and products sold outside its borders
- goods and products, other than motor vehicles, imported by individuals in quantities within the quota of “duty free” importation of personal goods
- plastic, glass, paper and/or cardboard packaging or packaging from combined materials produced in or imported into Kazakhstan, in which socially important food products are packaged, the list of which is approved by the Government of Kazakhstan
- polymer packaging produced from preforms for which a fee has been paid for organising the collection, transportation, processing, disposal, use and (or) recycling of waste
- polymer, glass, paper, cardboard and/or metal packaging, or packaging made from composite materials imported into Kazakhstan, in which imported products are used as fixed assets, materials, raw materials, spare parts in the manufacture of products, performance of works, provision of services, for general business needs and not intended for sale
- polymer, glass, paper, cardboard and/or metal packages in which goods imported as foreign free aid are packed in accordance with the procedure established by the legislation of Kazakhstan.

The first exclusion (the recycled content of product) is not applied in practice, as no company currently complies (or reports) the minimum level of 30%.

2.1.3. Obligations

Under Chapter 41-1, “extended obligation of producers and importers” (hereafter “EPR obligations”) means they are obliged to ensure the collection, transportation, processing, decontamination, recycling and/or disposal of waste products and packaging.

Article 285-1 of the Environmental Code provides for two options for complying with the EPR obligations:

1. Using their own system for fulfilling the EPR obligations, as long as it meets the requirements established by the competent environmental authority (The Committee on Environmental Regulations and Control). This option does not apply to manufacturers or importers of motor vehicles.
2. Contracting the EPR operator (see below) to organise the collection, transport, processing, decontamination, recycling and/or disposal of waste products and packaging, for an agreed fee established in accordance with the method for fee calculation (Ministry of Energy, 2015^[3]).

2.1.4. The EPR operator

Designation

The EPR operator is a legal entity designated through a government resolution to implement the EPR activities. The company EPR Operator Limited Liability Partnership was designated as the sole operator in 2015.³

Roles and activities

The EPR operator has the exclusive right to be paid to organise the collection, transportation, processing, decontamination, recycling and/or disposal of waste products and packaging. It must dispose of and manage these payments in the manner prescribed by the code and other legislative acts.

The EPR operator's areas of activity are defined in the Environmental Code (Article 285-2):

- providing financial support to compensate for the costs of separate collection and recycling of waste within the scope of EPR
- stimulating the production of environmentally friendly road vehicles and their components in Kazakhstan by:
 - financing manufacturers in the following areas: maintaining jobs; promoting research and development in renewable energy; testing related to production and warranty support
 - financing the discount provided by the manufacturer to individuals and legal entities when they purchase an environmentally friendly vehicle in Kazakhstan that has been produced in the country. The rules for establishing this discount are set through:
 - drafting a standard contract between car manufacturers of environmentally friendly road vehicles and the EPR operator
 - reporting forms for the production of environmentally friendly motor vehicles to the EPR operator
 - setting out requirements for manufacturers of environmentally friendly road vehicles
 - outlining the conditions, procedure and documentation necessary to deliver the discount.
- organising the collection, transportation, processing, recycling or disposal of waste in Kazakhstan within the scope of EPR
- organising the collection, transfer for disposal, processing, recycling or disposal of waste outside Kazakhstan, within the scope of EPR, when there are no processing facilities within the borders
- providing organisational, technical and information support to the waste management system, and financing promotional activities, education and marketing research in the field of waste management and secondary resources
- organising and maintaining an information system using satellite navigation systems for tracking the movement of vehicles engaged in exporting solid household waste
- financing experiments, design and research in the field of waste management
- introducing new technologies for the collection and use of waste as secondary raw materials, constructing sorting and recycling plants, improving the material and technical base of organisations engaged in waste management, and creating and developing a network of charging stations for electrical vehicles.

- financing activities for the EPR operator to implement their functions
- carrying out other activities determined by the authorised environmental protection body and the legislation of Kazakhstan.

In order to perform these activities, the Environmental Code gives the EPR operator the following “powers” (Article 285-4):

- drawing up a standard agreement (see Section 2.2.3) with producers subject to EPR
- collecting fees from producers (defined in the above agreement)
- checking the calculation, completeness and timeliness of payment by producers, including refunds and/or offset of overpayments; and checking the accuracy of documents by producers of socially important food products to receive compensation for a part of the fees paid for disposing of their packaging;
- submitting a report to the authorised environmental protection body on EPR implementation
- setting up and maintaining a register of producers subject to EPR (except for manufacturers and importers of motor vehicles)⁴
- developing and approving the rules for compiling and maintaining the register of producers (except for manufacturers and importers of motor vehicles)
- interacting with government bodies, including in the field of customs and tax legislation, on issues relating to EPR
- introducing new technologies for the use of waste as secondary raw materials and constructing sorting and recycling plants
- identifying evidences of non-compliance with regulations, and transferring them to the competent environmental protection body
- demanding data from the authorised environmental protection body for calculating the fees for implementing EPR services: documents confirming the delivery of an outdated vehicle for recycling, including the discount certificate; developing and approving rules and conditions for issuing documents confirming the delivery of an outdated vehicle for disposal; and sending money to his bank account to pay for organising the collection, transportation, processing, disposal, use and/or disposal of waste, in accordance with the directions provided for in Article 285-2 of the code
- performing other actions determined by the authorised environmental protection body.

The EPR operator is obliged to spend the fees received from producers in accordance with Article 285-2 of the code and with the development strategy, in co-ordination with the authorised environmental protection body.

These provisions are complemented by the Rules for EPR Implementation, approved by Decree No. 28 of the Government of Kazakhstan of 27 January 2016, which mandate the EPR operator to develop and approve rules for compiling and maintaining the register of producers, with the exception of manufacturers and importers of motor vehicles.

Individual compliance

Individual compliance systems (i.e. a system for fulfilling EPR obligations, which is owned by the relevant producer/importer of waste) have separate requirements, approved by Order of the Minister of Energy of Kazakhstan No. 761 of 25 December 2015.

To date, only four companies have adopted individual systems (one for accumulator batteries, one for oil, and two for tyres). To apply for an individual system the responsible company must own the necessary waste management infrastructure (for collection, treatment, recycling and disposal).

Companies who adopt an individual system have the following obligations:

- they must ensure the collection, transport, processing, and disposal of waste and packaging from their products including recycling
- they must dispose at least 30% of the waste they put on the market
- they must report to the EPR operator the quantities of waste collected, processed and disposed of.

Companies with individual compliance systems report to the EPR operator.

Liability

The EPR operator bears responsibility in the case of inappropriate use of producers' fees, failure to perform or the improper performance of duties and functions assigned to it, and failure to use and (or) improper use of opportunities to implement EPR (Article 285-5 of the Environmental Code).

Producers bear responsibility in the case of failure to enter into an agreement with the EPR operator; failure to pay the EPR fee; or, for those with their own individual system, for inadequate fulfilment of the individual system requirements.

Recycling fee

The recycling fee is determined by a methodology published by an Order of the Ministry of Energy (Ministry of Energy, 2015^[1]). Currently the recycling fee is only paid by producers of vehicles and their components (to date no fee has been collected on other products subject to EPR – i.e. packaging and electronic appliances).

The method for calculating fees takes into account the costs of the EPR operator's activities: investments in infrastructure, recycling operations, logistics, and administrative costs, as well as issuing discount certificates for the delivery of decommissioned vehicles for recycling.

2.2. Organisation, activities and performance

2.2.1. Governance and dialogue

The EPR operator, a non-profit private company,⁵ is the central organisation for implementing EPR policy in Kazakhstan. It is designated, authorised and controlled by the government. Until recently, the Ministry of Energy was the competent authority for enforcing EPR (developing rules, approving the list of products covered by the EPR, approving the methods for calculating fees, etc.).

The EPR operator has established a supervisory board that includes representatives of the business sector (“Atameken”, the national chamber of entrepreneurs of Kazakhstan), as well as representatives of public and environmental associations (the Association of Environmental Organizations of Kazakhstan). Board members participate in controlling the activities of the executive authority (liaising with the audit commission, determining priority activities, verifying the annual financial statements).

Stakeholder consultation takes place through:

- Working groups at the Ministry of Energy (to approve the EPR operator’s Development Strategy and Investment Policy; to develop and submit proposals to optimise laws)
- Consultative industry committees who review, analyse and monitor issues related to EPR and make recommendations.

2.2.2. *General objectives and principles for action*

The performance objectives are set by the EPR operator and communicated to public authorities (Table 2.2).

Table 2.2. EPR operator’s corporate objectives (annual recycling targets) for 2021

End of life vehicles	Packaging waste	WEEE	Used oils, used antifreeze	Used tires	Used batteries
50,000 pieces/year	30%	30%	50%	50%	65%

Source: EPR operator.

Waste recycling is defined as waste that has undergone “treatment” and “re-use”:

- Treatment: “physical, chemical or biological processes, including sorting, aimed at extracting raw materials and (or) other materials from waste, used later in the production (manufacturing) of goods or other products, as well as at changing the properties of the waste to facilitate handling them, reducing their volume or hazardous properties”;
- Re-use: “Use of waste as secondary material or energy”.⁶

The EPR operator supports the development of waste collection and recycling through several programmes, which are defined in its development strategy and endorsed by the Ministry of Energy. Each programme is designed and adapted to the specific issues and needs of the various product and waste streams, as detailed below (Section 2.2.6).

As a general principle, the EPR operator does not own or operate waste collection and management activities directly. Instead it supports the development of a network of collectors and processors, recruited through public competitive tenders (see Section 2.2.4).

2.2.3. Relationships with producers

Standard agreement

Producers with EPR obligations must sign an agreement with the EPR operator unless they set up an individual system. This is based on a standard agreement, defined in a governmental decree.⁷ This agreement states that the producer's EPR liabilities are considered to have been fulfilled the moment the EPR operator receives payment of their recycling fee (see Section 2.1.4).

Free-riders

The EPR operator is in charge of identifying potential free-riders (producers who ignore their responsibilities). Each quarter, the state authorities (the Tax Department) provide the EPR operator with information regarding goods put on the market. These data are cross-checked with the EPR database. Two measures are taken if free-riders are identified:

- a list of free-riders is sent by the EPR operator to the Ministry of Energy who can impose administrative sanctions
- the EPR operator files lawsuits for each free-rider.

2.2.4. General procurement rules and relationship with waste management operators

Procurement rules

The procurement rules for the EPR operator are set out in a document approved by the board of directors and shareholders, with the agreement of the supervisory board. These procurement rules are based on the rules and regulations for public procurement, as well as on the procurement rules of the National Welfare fund, Samruk Kazyna. In particular, waste management operators are selected through an open tender procedure (with the tender published on the EPR operator's website).

Agreements with waste management operators

The operators selected for the collection, transportation and treatment of waste enter into a six-month to three-year contract⁸ with the EPR operator. This contract contains:

- the cost of the services rendered, at a fixed rate expressed in tenge/kg of waste
- technical specifications, including administrative and legal obligations, rules for reporting and control, etc.

The EPR operator carries out site visits to recyclers in order to observe their activities, equipment, and incoming and outgoing capacity, and to perform chronometry of electricity consumption in the running facility and to check the workforce timesheet in order to cross-check with their proof documents which are submitted. The EPR operator is also entitled to install a video surveillance system on the waste operator's premises.

These audits should, in the future, be outsourced to an independent auditor. In 2019, the EPR operator signed a contract with Deloitte TCF LLP for independent audits of recyclers. Under this contract, Deloitte will carry out all the above inspection activities and compile reports.

As there is still a need to build up infrastructure for separate waste collection, in some cases, the EPR operator makes advance payments (30% to 40% of the contract value) to waste operators to enable them to upgrade their technical resources (containers, vehicles, etc.)

2.2.5. Relationships with local authorities

Local authorities (Akimats) are closely involved in the activities of the EPR operator. For example, they issue permits for conducting waste management activities.

In 2017 a memorandum of co-operation was signed between the Akimats of Astana city and Almaty region, the Ministry of Energy, the Association of Environmental Organisations of Kazakhstan, and the EPR operator. This memorandum defines common actions in waste management, including the separate collection of municipal solid waste (MSW). This decision led to the programme on MSW management in Astana (described in Section 2.2.6).

Waste management operators who need to install collection points (separate collection containers, civic amenity sites, etc.) must have their plans approved by the Akimat's environmental administration before submitting their bid to the EPR operator.

2.2.6. Specific EPR activities

End-of-life vehicles

Motor vehicles were the first product category to be included when EPR was introduced in 2016. At that time, 4 million vehicles were registered in Kazakhstan, 58% of which had been manufactured at least 20 years previously. Without action, this share was anticipated to rise to 73% by 2020. The environmental impact of this outdated fleet of vehicles, during their use and their disposal, was therefore a priority issue when designing the EPR system.

As a result, the EPR operator prioritised encouraging the return of old vehicles, with the double objective of replacing them with environmentally efficient vehicles and ensuring their sound disposal.

Measures to encourage the return of end-of-life vehicles were implemented through two main programmes:

- the buy-back of old cars, involving a cash payment of KZT 48 000 to 150 000 (USD 130 to 410) to owners who return their vehicles, depending on the configuration of the vehicle
- discount certificates for acquiring new eco-friendly vehicles for owners who return their end-of-life vehicles. This discount ranges from KZT 315 000 to 650 000 (USD 860 to 1 780), depending on the category of vehicle returned.

End-of-life vehicle (ELV) collection programmes were launched in 2016. In 2017 a total of 41 461 vehicles were collected (34 222 through the buy-back programme, and 7 239 through the discount certificates programme), almost meeting the annual target of 50 000 vehicles

ELVs are returned to one of the collection points under contract with the EPR operator. There are 17 collection points (one in each major city of Kazakhstan), reflecting the objective of wide geographical coverage. The collection operators prepare the vehicles for recycling: removing batteries, discharging technical fluids, and pressing them for transportation to a recycling facility. Collection points are selected through the procurement

procedure described above and compensated for each vehicle collected. Mobile collection events are also organised to reach areas that are not covered by the fixed collection points, and to support vulnerable communities which do not have the possibility to transport ELVs to collection points.

The blocks are then delivered to the only car recycling plant in Kazakhstan, where the materials are processed and recycled. This operator was selected through the procurement procedures adopted by the EPR operator.

The agreement between the EPR operator and the recycling plant includes:

- Financial support paid by the EPR operator for each vehicle recycled. The amount was specified in the procurement tender and reviewed by an independent expert commission.
- A minimum recycling target of 90% of the components of each vehicle.
- Other technical requirements, such as equipment, capacity (50 000 vehicles/year), emission control/filtering systems, optimal location, permits and certifications, etc.

In addition, the EPR operator supports the development of a network of electric vehicles charging stations, by giving financial support for procuring and installing these charging stations within the framework of a pilot project in the capital city of Astana. The funds allocated by the EPR operator are reviewed and approved by public authorities.

Vehicle components

Vehicle components (tyres, oil, batteries and anti-freeze) are separated at vehicle collection points and can also be collected separately by specialised companies. Companies involved in the collection and recycling of vehicle components are compensated by the EPR operator, with the amount depending on the amount of waste collected and recycled. Table 2.3 shows the performance of the vehicle components programme in 2017 and 2018.

Table 2.3. Vehicle components performance

Tonnes

Product/waste	Quantities put on the market (tonnes)	2017		2018	
		Target indicators	Collected and recycled	Target indicators	Collected and recycled
Tyres	60 000	20 000	20 047	27 000	26 461
Oil	70 000	10 000	4 198	15 000	11 252
Batteries	35 000	12 000	20 347	12 500	20 000
Anti-freeze	14 000	3 000	2 300	6 000	3 400

Source: EPR operator.

A total of KZT 3.2 billion (USD 8.8 million) was paid in compensation to vehicle component collectors and recyclers over 2016-2018, for a total of 100 553 tonnes collected.

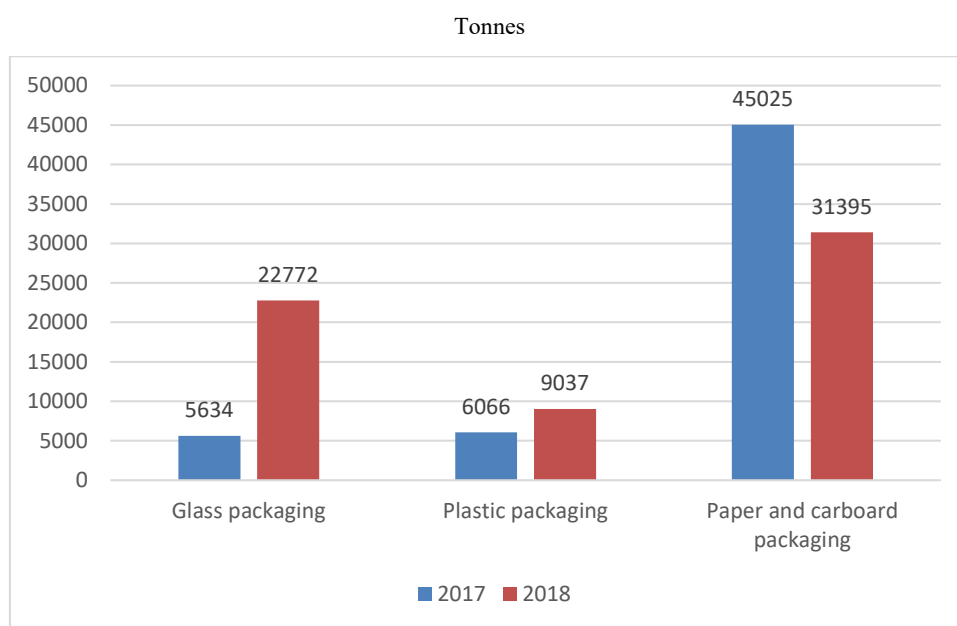
Packaging

In January 2017, EPR was extended to packaging (paper, cardboard, plastic, metal). However, to date no fee has been collected from packaging producers. The EPR operator

has nonetheless launched programmes in several regions to develop the collection of packaging waste through door-to-door collection and civic amenity sites.

A call for tender was launched in 2017 to choose companies to organise the collection, sorting and recycling of packaging waste. The chosen companies are compensated according to the amount of packaging waste they collect and recycle, and a total of KZT 1.9 billion (USD 5.2 million) was allocated to packaging recycling in 2017. The 2017 recycling performance, and the 2018 targets, are presented in Figure 2.1.

Figure 2.1. Packaging recycling, 2017 and 2018 (target)



Source: EPR operator.

Waste electrical and electronic equipment

The estimated amount of WEEE generated in Kazakhstan is around 136 000 tonnes a year. In 2017, EPR was extended to WEEE. To date no fee has been collected from producers, but the EPR operator has nonetheless launched a programme for the collection and recycling of WEEE. A competitive call for tender was launched in August 2017, and a total of 2 467 tonnes were collected, rising to 4 561 tonnes in 2018. The total programme cost in 2017 was KZT 82 million (USD 224 000).

In addition, the EPR operator supports the collection and treatment of lamps containing mercury and chemical power sources, in particular through the development of containers for separate collection. In partnership with the Akimats, disposal containers were installed in populated areas. This programme is now under the responsibility of the Akimats,⁹ who select operators for collection and treatment themselves. According to data provided by the Akimats, in the first three quarters of 2018, 846 963 mercury-containing lamps and 2 884 kg of batteries were collected and processed.

Municipal solid waste and organic waste

The EPR operator has launched in 2018, jointly with the City of Astana, a pilot project to develop the separate collections of packaging and treatment of the organic part of municipal solid waste (MSW).

According to the Instructions of the President of Kazakhstan of 5 April 2018, the Akimat of Astana City should introduce a system for the separate collection of municipal solid waste (MSW) and achieve a 75% recycling rate for MSW by 1 December 2019.

3. Analysis and recommendations

Kazakhstan has adopted a very comprehensive and ambitious framework for implementing extended producer responsibility. In less than three years, it has been extended from its initial scope (motor vehicles and their components) to packaging and WEEE, and further extensions are planned in 2019. The system has been delivering results through its very pragmatic approach, even if not all the legal provisions have been implemented: for example, the collection and recycling of packaging and WEEE have been launched, but no fees have been collected from producers yet.

Drawing on the feedback from stakeholders, the main challenges today are to continue the fast-paced development of waste collection and recycling, while securing sources of financing by introducing a fee for packaging and electrical and electronic producers, adjusting the general governance of the existing schemes, refining and strengthening performance objectives and indicators, ensuring equal treatment of producers and waste management operators, raising awareness and promoting complementary policy approaches.

3.1. Stakeholder feedback

As part of this project, interviews were conducted with the main stakeholders, representing producers, recyclers and public authorities (see Annex A). Overall, the stakeholders were positive out the EPR system, stressing the results achieved in a short time, and the good relationships with the EPR operator. According to most stakeholders interviewed, the system has allowed for the rapid development of the waste management and recycling sector in Kazakhstan, and they appreciate the level of dialogue as well as the expertise involved.

However, they did raise the following concerns and areas for improvement:

- Some producers suggested that the 30% recycled content threshold (which allows an exclusion from EPR obligations) could be lowered. They also mentioned the burden of reporting requirements (which are quarterly, and involve a lot of paperwork).
- Regulatory objectives should be clarified in order to facilitate discussions and implementation.
- As EPR has been implemented only recently, the level of awareness is still very low.
- Greater transparency by the EPR operator, in particular over finances, would be appreciated.
- The scope of products could be extended (e.g. food waste).
- The fact that Akimats have no legal obligations to develop a separated waste collection system is an obstacle.
- Waste disposal fees are very low, which does not encourage separated collection and recycling.

3.2. Securing financing for packaging waste and WEEE collection and recycling

3.2.1. Cost-coverage principles

In order to reach the national target of 30% recycling of packaging waste and WEEE by 2021, it will be essential to start charging a fee to packaging and EEE producers and importers to cover the costs of collection and recycling. When designing this fee (and in general, when designing fees paid by producers), two key principles must be considered:

- **Cost coverage:** the fee paid by producers must be designed to cover the costs of separated collection and recycling.
- **Eco-design:** the level of the fee should, as far as possible, reflect the individual characteristics of the products put on the market, and their impact on the waste management system, in order to encourage products that are more easily recycled.

Although there is broad consensus around these two principles, their implementation in practice may lead to different approaches. According to the OECD EPR guidance (2016^[1]), “Ultimately, the most adequate approach depends on who is best positioned to influence end-of-life management, and, hence, should receive an incentive to do so”.

In most cases in Kazakhstan the EPR operator bears full operational responsibility for the separate collection and treatment of waste falling under the scope of EPR. In this case, the fees paid cover the full cost of waste management; thus the system complies with the full cost-coverage principle. However, an exception to this rule is when operational responsibility is transferred to local authorities (Akimats), as is the case for the separate collection of mercury-containing lamps and batteries. In this case the EPR operator provides financial and technical support to local authorities. The financial support should be designed to cover the full net costs (i.e. taking into account revenues from the sale of recycled material) borne by the Akimats, in order to encourage them to achieve the recycling targets and comply with the quality standards for waste treatment and recycling.

Two questions arise in ensuring costs are covered:

- **The (detailed) level of cost coverage.** As mentioned above, a sound general principle is to ensure full coverage, at least for the net costs of separate collection and treatment necessary to reach the national target. Costs beyond this (additional costs when exceeding the target, costs for waste not collected separately, etc.) need to be considered and clear rules for their coverage set.
- **The “reference costs”.** When operational responsibility is transferred to local authorities, the producer responsibility organisation (the EPR operator) does not usually just “pay the bills”. In order to encourage local authorities to meet the recycling target in a cost-efficient way, financial support should be based on a “reference cost” (Box 3.1), which provides a benchmark or limit to the financial support based on what is deemed to be “acceptable” or “cost-efficient”.

When the EPR operator’s responsibility goes beyond the scope of products covered by EPR (such as organic waste management), the level of ambition and the budget dedicated to these complementary projects should be clear and distinguished from the budget specifically for EPR. For example, some countries have set specific targets or a percentage of the EPR budget that should be allocated to these complementary projects (e.g. litter management, contribution to national communication or R&D, etc.). In addition, these complementary projects should not become a major share of the budget, which should

remain focused on financing the collection and recycling of products falling under the EPR scope.

Finally, when calculating the fee for packaging and WEEE, the criteria should, as far as possible, be related to the actual waste management cost. For example, for packaging, most EPR systems worldwide use a weight-based fee, differentiated by material (e.g. plastics, metals, glass, paper and cardboard). Increasingly they are introducing a system of “modulation” (Box 3.2), taking into account additional recyclability criteria (e.g. penalties for packaging that disrupts recycling processes).

Box 3.1. Reference costs

Where operational responsibility for waste management lies with local authorities (e.g. municipalities), the producer responsibility organisation (PRO) still holds financial responsibility. This situation can be found in many countries where EPR is implemented, particularly for household packaging waste.

In order to tackle any problems that may arise from this situation (e.g. disagreements between the PRO and local authorities over what costs should be covered, and the level of cost coverage), some countries have introduced a “reference cost” for municipal services which provide a benchmark or limit regarding what constitutes reasonable costs. The OECD has identified a variety of ways in which this is helpful:

- the municipality can be reimbursed according to the quantity or percentage of designated materials collected
- reimbursements can be adjusted to reflect the quality of material collected (i.e. level of residues)
- a standard cost for individual elements of municipal activities can be defined
- a standard level of service beyond which reimbursement is not provided or limited can be defined
- bonuses can be paid for additional services (e.g. public outreach).

This approach increases transparency and acceptability and provides incentives for local authorities. However, its implementation requires an independent evaluation of costs (which can be based both on observations and modelling), as well as open discussions and negotiations involving all stakeholders (particularly producers and local authorities).

Source: (OECD, 2016_[1]).

Box 3.2. On-going work on fee modulation in the European Union

In 2018, the European Union introduced mandatory requirements for EPR, including the principle of fee modulation: “In the case of collective fulfilment of extended producer responsibility obligations, fees are modulated, where possible, for individual products or groups of similar products, notably by taking into account their durability, reparability, re-usability and recyclability and the presence of hazardous substances, thereby taking a life-cycle approach”.

Although few Member States have introduced such modulations in practice, work is in progress to develop a harmonised approach and provide Member States with detailed guidance on how to implement this principle. Kazakhstan would surely benefit from this work, which could be a source of inspiration.

Source: (EU, 2008^[2]).

3.2.2. Transparency principles

In order to best involve producers in the system, they need to understand why they are paying a fee, and how it contributes to increasing the recycling rates of the products they put on the market. Transparency is key to increasing acceptability and involvement by all stakeholders, especially where a single PRO operates, and where options for complying through individual systems are limited.

According to stakeholder feedback (Section 3.1), the following improvements in transparency seem to be necessary:

- **Greater transparency over the calculation of fees paid by producers:** the publication of the fee structure reassures producers that they are paying their “fair share”. This practice is very common, except in certain countries where several PROs compete. In Kazakhstan, the EPR operator publishes on its website the methodology for calculating the fees and the detailed fee tables (for vehicles only, since no fee is collected for packaging or WEEE). The methodology is approved by a government decree and provides the general principles for setting the fees. The fee is calculated based on the expenses and incomes generated by waste management activities. It takes into consideration both current expense / income and investments costs. Although the basic principles seem sound, the description of the methodology is quite basic, and the calculation of fees could be more detailed and refined, in order to further improve transparency. In particular, the inputs used to calculate the actual fees (average costs, average income, investments, amortisation time, etc.) could also be disclosed.
- **Greater transparency over expenditure:** producers need to be reassured that the fees they pay are actually directed towards cost-effective programmes for recycling their products. Many countries require an annual report from PROs, including a detailed financial statement. For example, the EPR operator in Kazakhstan is involved in many different programmes – a separate budget for each product category, as well as for programmes not directly related to EPR (organic waste management, electric car charging stations) – could help clarify how the fees

collected for each product category are used. The practice of financing programmes not directly related to the collection and recycling of waste under the scope of the EPR could be maintained, but would gain from being clarified and dissociated from the core activities (for example, a small fraction of the fee paid by producers could be earmarked for cross-cutting programmes, with the main share being spent on collection and recycling). Governance is also important: a single organisation responsible for implementing EPR for all product categories can bring benefits in terms of efficiency, ease of monitoring and implementation, and seems to be a sound approach in the context of Kazakhstan. However, following the principles above (see Section 3.2.1) could imply creating separate budgets and governance for each product category.

3.3. Adjusting the general governance of the schemes

Kazakhstan has chosen to appoint a single, private, not-for-profit organisation to implement its EPR schemes. Single producer responsibility organisations are not uncommon, and this approach presents several advantages (economies of scale, easier monitoring and control, etc.). However, according to OECD recommendations (OECD, 2016^[11]), this should not be the default configuration, and the arguments for a single system should be critically assessed, and restrictions preventing new entry should be phased out in time. In many countries with a single PRO, competition issues have appeared: abuse of dominant position, unequal treatment of producers, barriers to entry in the waste management and recycling market, etc., sometimes leading to legal battles and profound revision of the system (e.g. in Germany for packaging waste).

In Kazakhstan's context the single PRO approach seems justified at present: EPR, and waste recycling in general, are still in their early stages of development. Opening up to multiple systems and governance too quickly would probably be too complex to monitor and control. However, the risks of a single PRO approach should not be underestimated, and measures to mitigate these risks should be adopted progressively. Kazakhstan has already adopted some positive measures, including:

- Shared governance and dialogue, through the supervisory board and Industry Committees. This approach should be encouraged, and attention should be paid to the representativeness of all stakeholders (including smaller producers).
- Procurement of waste management services: the EPR operator has adopted good practices for selecting its waste management service providers, including open tendering procedures based on public procurement rules.

The following further adjustments could be made to strengthen this approach:

- Make the current good practices (e.g. on shared governance, public-private dialogue, procurement rules) legally binding. This would increase confidence in the system, as it would render these principles enforceable by public authorities if contested.
- Clearly separate the various programmes financed by the EPR operator (e.g. analytical accounting, separate budget, specific governance bodies; see Section 3.2.2).
- Progressively lift barriers to individual compliance. The requirement that in order to have its own compliance system, a company must own the waste collection and treatment infrastructure, introduces dissymmetry between the obligations of the

collective scheme (EPR operator) and the individual schemes. Furthermore, it seems to be an argument for some producers that are reluctant to participate in the EPR system. However, individual compliance should only be facilitated if a secure framework for reporting, control and enforcement is developed. Collective and individual schemes must be strictly subject to the same rules, in terms of performance, quality, and reporting, in order to avoid any distortions or loopholes. At the moment, according to the interviews conducted with the EPR operator as part of the project, facilitation of an individual system can create a risk of free-riding, fraud, cheating considering that there is, at the moment, a lack of certification, licensing and self-regulation for waste collection and recycling companies by government authorities.

3.4. Refining and strengthening performance objectives and indicators

Setting clear, unambiguous performance objectives and indicators is key to an effective system. Recycling rates are the most common indicator used to monitor an EPR system, and have been chosen by the EPR operator in Kazakhstan as a key performance indicator. Introducing recycling targets for each product category in the legal framework would ensure that all compliance options (collective or individual) follow an equal level of ambition. In order to do this, clear definitions need to be adopted, in particular: How is the recycling rate calculated? How are the recycled quantities (numerator) reported and controlled? How are the quantities put on the market or waste generated (denominator) reported and controlled (see Box 3.3)?

Box 3.3. New definitions of recycling and reporting rules in the EU

The European Union has recently harmonised and clarified its definition of recycling. Quite large discrepancies in reporting procedures had been observed amongst Member States under the previous definition, which left too much room for interpretation. For example, what should be accounted for as recycled: the waste that is separately collected and oriented towards sorting/preparation for recycling? The sorted waste that enters a recycling process? The recycled material that actually goes back into the manufacturing of new products? As each step of the collection, treatment and recycling process is not 100% efficient, the definitions and reporting methods can have a very significant impact on the recycling rate calculated.

The new definition adopted by the EU clarifies this: the weight of waste recycled should be calculated as “the weight of waste which, having undergone all necessary checking, sorting and other preliminary operations to remove waste materials that are not targeted by the subsequent reprocessing and to ensure high-quality recycling, enters the recycling operation whereby waste materials are actually reprocessed into products, materials or substances”.

Source: (EU, 2008^[1]).

3.5. Ensuring equal treatment of producers

The publication of the methodology for calculating the fees by the EPR operator is a good practice to ensure equal treatment of producers. Such as it is planned for the audit and control of waste management service providers, this could be reinforced by the introduction of an independent audit of the reporting and fees paid by producers.

In addition, attention should be paid on ensuring equal treatment of producers, without placing a disproportionate regulatory or administrative burden on them. This is of particular importance for small and medium size companies, or companies placing very small quantities of product on the market, for which regulatory compliance and reporting may represent a relatively larger burden. Simplified reporting and payment could be considered to address these cases.

Kazakhstan has implemented consistent and credible means to fight free-riding: systematic data transmission between State authorities and the EPR operator, administrative sanctions and lawsuits for free-riders. However, the exclusion from the scope of EPR of products incorporating recycled material may create an unnecessary risk of free-riding. Instead, they could be included in the scope but pay a reduced fee (if this is justified in the context of the objectives set by the regulator). This would be sufficient to stimulate the use of secondary raw materials, while avoiding a potential loophole. From this perspective, feedback from certain producers, requesting an increase of this threshold, does not seem relevant. In addition, incorporation of recycled material in food-contact products or packaging requires effective quality control of recycled material.

3.6. Furthering equal treatment of waste management operators

3.6.1. Procurement procedures

As mentioned above, the adoption of public tendering procedures by the EPR operator is a good step towards the equal treatment of waste management service providers, and towards the competitive development of this sector. Continuous dialogue with the waste management sector (including the informal sector, see below) should be pursued to progressively improve and adapt these procedures, and ensure the environmental, but also social and economic, performance of the system.

3.6.2. Informal sector

In every country, and especially in middle-income countries with limited waste management systems, OECD Guidance (2016^[1]) highlighted that it is important to explore policy alternatives to tap into the potential economic and social benefits from the informal sector while managing environmental impacts. Not only can the introduction of a national EPR scheme disrupt the pre-existing informal sector, but the latter is also a source of “leakage” (i.e. waste collected and treated through the informal sector is not accounted for in the official statistics, and often not handled according to environmental quality standards).

This issue is not specific to middle-income countries. Even high-income countries with a developed waste management infrastructure experience this. For example, most countries in the EU have observed important “leakages” in their WEEE flows due to illegal (or unreported) treatment and export (even after several years of implementing the WEEE directive). This is closely related to the high value of certain waste materials. Metal scrap,

for example, has an economic value that has been exploited for centuries by thousands of scrap dealers, scavengers, ragmen, etc.

According to international experience, the most effective strategy to tackle this issue is inclusiveness. This approach is developed in the OECD Guidance through a series of principles that are summarised below:

- **Recognition, competence and participation:** the role of the informal sector should be documented and recognised, as it can contribute to a significant part of waste management; its experience can be very useful in the modernisation and capacity building for waste management and recycling, and it should be encouraged to be represented and participate in the dialogue and policy-making process, particularly around EPR.
- **Safety, dignity, and no child labour:** in parallel, the informal sector should be encouraged to professionalise its activities, and achieve adequate environmental, health and safety working conditions. From this perspective, it seems that an inclusive approach brings better results, rather than a purely coercive strategy.

3.7. Raising awareness

Participation is key to the success of any EPR programme: source separation involves households and municipalities, eco-design involves all actors along the supply chains (material producers, manufacturers, retailers). High participation results from a good understanding of the objectives and benefits of the system: how does it work? Where does the waste go? How is it beneficial for the environment, the economy and health?

Several stakeholders stressed that awareness about EPR programmes was still lacking in Kazakhstan. This is unsurprising since the system is very recent, but efforts should now be focused on this area. Media campaigns have already been designed and broadcast by the EPR operator, and all stakeholders should be encouraged to participate. Local authorities should play a central role in informing and raising awareness among their populations. In some countries, municipalities receive specific communication support from the PRO (both financial and in the design and implementation of communication campaigns). Labels on products that are subject to EPR and/or that need to be collected separately is also a common approach to make consumers aware of the schemes and help them to separate such products at source.

3.8. Promoting complementary policy approaches

According to international experience, and as stressed in the OECD Guidance, the effective implementation of an EPR policy can be enhanced by complementing it with other policy instruments. The following tools could offer particular potential in Kazakhstan:

- **Provide or improve the legal framework for the role of municipalities in waste management.** Municipalities play a key role in the development of source separation on their territory, whether or not they take on the operational responsibility for collecting and treating the separated material. How MSW collection is organised, how it is financed, how it is charged to households, etc. are key parameters that influence the design and effectiveness of any EPR scheme. Local authorities can be encouraged to improve their practices through well-designed financial incentives (e.g. financial support from the PRO) and/or through

legal obligations. For example, they could be encouraged to develop pay-as-you-throw schemes, or a minimum level of separate collection.

- **Strengthen the waste management legal framework and enforcement in general.** This could include higher sanctions and penalties for violating waste management law, and implementing graduated notification procedures or licensing of activities for waste collection organisations. Other measures include developing a national waste management programme, including mechanisms for interdepartmental co-ordination; and creating an action plan for the creation and development of comprehensive infrastructure for waste management.
- **Introduce fiscal measures, such as landfill and incineration taxes.** These instruments can contribute greatly to the relative competitiveness of recycling. They are usually introduced progressively, and it has been observed that high landfill taxes generally correlate with high recycling rates. The fees collected could be allocated to a special purpose fund dedicated to the improvement of recycling in Kazakhstan.
- **Promote eco-design.** The adoption of life-cycle approaches in the design of products (e.g. through labels) or the removal of certain restrictions for the safe use of recycled materials for food packaging, in line with international practices, can facilitate the use of recycled materials in packaging.
- **Use green public procurement as a catalyst.** The purchasing power of public authorities can help orientate markets towards “greener” products, and some criteria can support the recycling strategy, for example criteria for the recycled content or recyclability of products purchased through public procurement.

References

- EU (2008), *Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, (Waste Framework Directive)*, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008L0098>. [4]
- Ministry of Energy (2015), *Resolution 695 of 4 December 2015 on the list of products subject to EPR*. [2]
- Ministry of Energy (2015), *Resolution 762 of 25 December 2015 on the methodology for the calculation of fees for organizing collection, transportation, processing, neutralization, use and/or recycling of wastes*. [3]
- OECD (2016), *Extended Producer Responsibility: Updated Guidance for Efficient Waste Management*, OECD Publishing, <https://doi.org/10.1787/9789264256385-en>. [1]

Notes

¹ Keeping in mind the diversity of EPR systems, and the difficulty of establishing an objective benchmark to address their respective effectiveness and efficiency, the EPR guidance is not a prescriptive document, but instead aims at providing policy makers with general guidance and a set of options to consider and adapt to their local situation.

² Code of the Republic of Kazakhstan No. 212-III “Environmental Code of the Republic of Kazakhstan” (the “Environmental Code”) dated 09 January 2007.

³ Decree of the Government of Kazakhstan No. 1137 of 30 December 2015 on the Selection of the Operator for Extended Obligations of Producers (Importers).

⁴ There is already a register of vehicle manufacturers, held by the Ministry of Industry and Infrastructural Development, which is used by the EPR operator. As for importers, there are thousands of individuals importing individual motor vehicles; according to the EPR operator, it is not worth compiling a registry for them.

⁵ The major shareholder of the EPR operator is Eco Waste Solutions LLP.

⁶ Energy recovery (incineration) is not authorised by the EPR operator, and therefore only material recovery is included in the recycling targets.

⁷ Decree of 30 July 2018.

⁸ A sample contract was provided by the EPR operator: *Contract on procurement of services for organizing the collection and transportation of waste resulting from the loss of consumer properties of other chemical products (including hydraulic brake fluids and other prepared liquids for hydraulic transmissions, antifreeze and anti-icing fluids), and ensure their recycling, use and / or disposal, in the second half of 2018.*

⁹ Under Law № 541-IV “on energy saving and energy efficiency” of 13 January 2012.

Annex A. List of stakeholders interviewed

Table A. Interview completed (period 1 October 2018 - 30 January 2019)

Company	Activity	Main contact person
EPR operator	Producer responsibility organisation	Anuar Satbayev, EPR Implementation Department Manager
KAMA Center LLP	Rubber resin, resin and respective products (tyres)	Tatyana Ravdel, CEO
AKAB – Kazakhstan Association of Autobusiness	Non-profit organisation representing the automobile sector	Kairat Yelamanov, State Regulation Director
Eurocrystal	Producer of glass packaging	
Ecoshina	Used tyres and rubber waste processing	Baurzhan Aigenzheyev CEO
Recycling company	End-of-life vehicle recycling	Alexander Ryabinin Director General
Raduga	Plastic recycling & production	Dauren Katranov Deputy Director General on Domestic Production Development and Promotion
Ecoline Tabigat	Electronic waste processing	Daniyar Arystanov Manager
KazRecycleServices	Waste recycling	
Solid Waste Management Department Ministry of Energy	National public authority	Bizara Dosmakova Deputy Director
Environmental Department Kostanay Waste Management Division	Local public authority	Amangeldi Ismailov Head of Division
Environmental Department Astana Environmental Projects and Planning Division	Local public authority	Ainour Soltangulova Expert
Environmental Organizations Association	Non-government organisation	Aigul Solovyova Chair of the Board

Extended Producer Responsibility in Kazakhstan: Review and recommendations

The Republic of Kazakhstan had adopted a very comprehensive and ambitious framework for the implementation of Extended Producer Responsibility (EPR). In less than three years since its adoption, it has been extended from its initial scope (motor vehicles and its components) to packaging and Waste Electrical and Electronic Equipment (WEEE) and is planned to be further extended in 2019.

Based on a description and analysis of the current legal framework and operational set-up, stakeholders' feedback, and international experience on EPR, this report provides a set of recommendation to strengthen and further improve the current system.

Further reading:

OECD (2019), *Addressing Industrial Air Pollution in Kazakhstan: Reforming Environmental Payments Policy Guidelines*, OECD Green Growth Studies, OECD Publishing, Paris, <https://doi.org/10.1787/0e04ea86-en>

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