



БЮРО НАЦИОНАЛЬНОЙ СТАТИСТИКИ  
АГЕНТСТВА ПО СТРАТЕГИЧЕСКОМУ  
ПЛАНИРОВАНИЮ И РЕФОРМАМ РЕСПУБЛИКИ  
КАЗАХСТАН

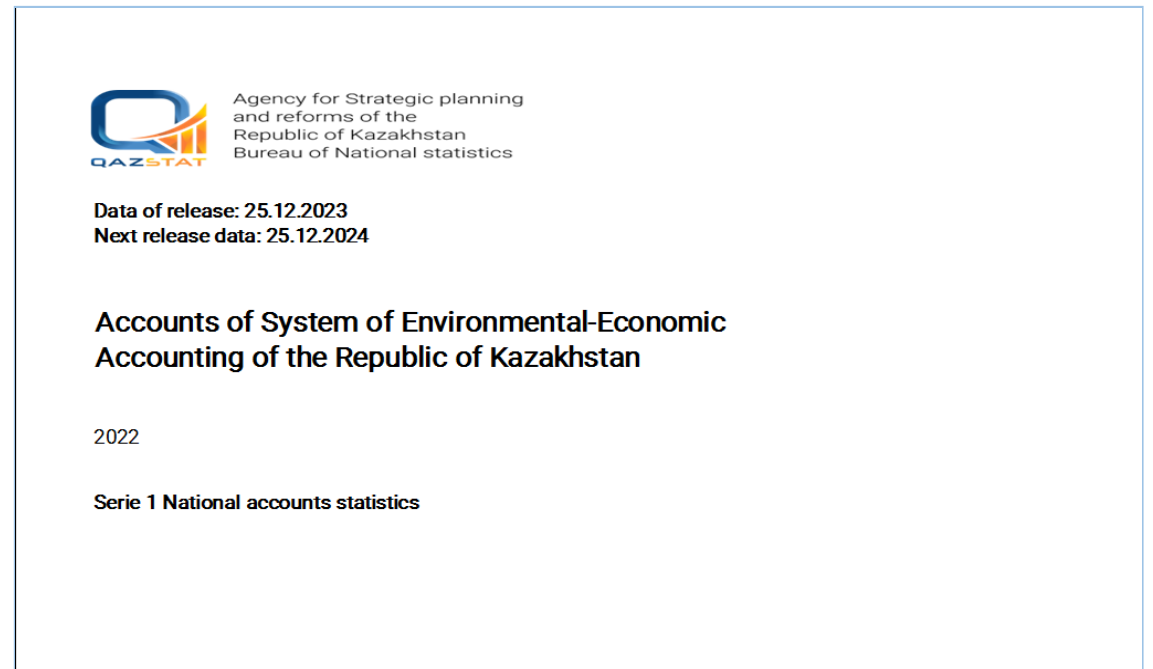
# Current practice of compiling SEEA accounts in Kazakhstan

Togzhan Bekturova  
Head of the Division of Accumulation accounts  
and Satellite accounts  
Department of National Accounts  
Bureau of National Statistics  
Agency for Strategic Planning  
and Reforms of the Republic of Kazakhstan

Bishkek 2024

As part of the official statistical information, the Bureau annually publishes the following accounts of the SEEA:

- Air emissions account;
- Environmental protection expenditure account;
- Environmental taxes account.



According to the  
Statistical work  
plan

# Air emissions account for 2022 year

tonnes								
<i>Type of substance</i>	Supply table for air emissions					Use table for air emissions		
	Generation of emissions					Total supply of emissions	Flows to the environment	Total use of emissions
	Industries*						Emissions released to the environment	
	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Transportation and storage	Other			
<b>Solids</b>	<b>13 853,520</b>	<b>80 150,018</b>	<b>139 981,865</b>	<b>6 392,524</b>	<b>205 934,727</b>	<b>446 312,654</b>	<b>446 312,654</b>	<b>446 312,654</b>
including:								
diameter 10 microns	260,922	1 318,085	346,385	368,580	1 191,706	3 485,678	3 485,678	3 485,678
diameter 2,5 microns	54,363	25,789	101,857	11,004	200,370	393,383	393,383	393,383
<b>Gaseous and liquid substances:</b>	<b>15 741,806</b>	<b>270 473,614</b>	<b>604 741,404</b>	<b>100 883,562</b>	<b>876 619,241</b>	<b>1 868 459,627</b>	<b>1 868 459,627</b>	<b>1 868 459,627</b>
sulfurous anhydride (SO <sub>2</sub> )	2 186,292	99 844,798	234 889,519	1 440,980	483 279,191	821 640,780	821 640,780	821 640,780
hydrogen sulfide (H <sub>2</sub> S)	511,035	480,955	526,358	39,778	149,341	1 707,467	1 707,467	1 707,467
carbon monoxide (CO)	8 016,422	74 305,219	261 093,102	12 131,738	92 331,642	447 878,123	447 878,123	447 878,123
nitrogen oxides (in terms of NO <sub>2</sub> )	1 135,842	37 011,800	67 321,749	8 646,481	197 504,417	311 620,289	311 620,289	311 620,289
ammonia	1 001,084	66,776	1 089,243	2,174	367,563	2 526,840	2 526,840	2 526,840
Hydrocarbons (without volatile compound forms)	2 465,221	6 424,798	5 678,405	43 288,224	76 167,873	134 024,521	134 024,521	134 024,521
Volatile compound forms (VCF)	552,262	52 990,851	34 401,582	41 482,901	27 374,508	156 802,104	156 802,104	156 802,104
<b>Total</b>	<b>29 595,326</b>	<b>350 623,632</b>	<b>744 723,269</b>	<b>107 276,086</b>	<b>1 082 553,968</b>	<b>2 314 772,281</b>	<b>2 314 772,281</b>	<b>2 314 772,281</b>

\* By the NACE Rev.2



Мемлекеттік статистика органдары құпиялылығына кепілдік береді  
Confidentiality is guaranteed by the organs of state statistics

Жалпы мемлекеттік статистикалық байқаудың статистикалық нысаны  
Statistical form of the general state statistical observation

Қазақстан Республикасы Стратегиялық жоспарлау және реформалар агенттігінің Ұлттық статистика бюросының басшысы  
2022 жылғы 16 қыркүйектегі № 25 бұйрығына 5-қосымша  
Приложение 5 к приказу  
Руководитель Бюро национальной статистики Агентства по стратегическому планированию и реформам Республики Казахстан  
от 16 сентября 2022 года № 25

## Атмосфералық ауаны қорғау туралы есеп

Отчет об охране атмосферного воздуха

Индексі Индекс	2-ТП (ауа) 2-ТП (воздух)	Жылдық Годовая	Есепті кезең Отчетный период	жыл год

Шығарындардың құрамында 1 және (немесе) 2 қауіптілік сыныбының ластаушы заттары болған жағдайда жылына 0,999 тоннадан астам және (немесе) 0,500-ден 0,999 тоннаға дейін қоса алғанда атмосфералық ауаға шығаруға рұқсат етілген немесе декларацияланатын ластаушы заттардың көлемімен ауаны ластайтын тұрақты көздері бар заңды тұлғалар және (немесе) олардың құрылымдық және окшауланған бөлімшелері, дара кәсіпкерлер ұсынады

Представляют юридические лица и (или) их структурные и обособленные подразделения, индивидуальные предприниматели, имеющие стационарные источники загрязнения воздуха, с объемами загрязняющих веществ, разрешенных или декларируемых к выбросу в атмосферный воздух более 0,999 тонн в год и (или) от 0,500 до 0,999 тонн включительно при наличии в составе выбросов загрязняющих веществ 1 и (или) 2 класса опасности.

Тапсыру мерзімі – есепті кезеңнен кейінгі 10 сәуірге (қоса алғанда) дейін

Срок представления – до 10 апреля (включительно) после отчетного периода

БСН коды  
код БИН

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

ЖСН коды  
код ИИН

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## 2-ТП (air) Air quality report

periodicity

annual

# Environmental protection expenditure account for 2022

th. tenge

economy activities	environmental protection activities									
	Total	atmospheric air protection and climate change problems	sewage treatment	waste management	protection and rehabilitation of soil, groundwater and surface water	reduction of noise and vibration impact	conservation of biodiversity and landscapes	radiation safety	scientific research and developments in the field of environmental protection	other areas of environmental protection activities
Agriculture, forestry and fisheries	742 642	126 095	76 701	293 722	169 808	1 582	2 807	20	5 160	66 747
Industry	412 400 698	126 351 389	107 638 998	99 754 741	19 332 716	157 345	1 085 383	612 223	3 123 731	54 344 172
Mining and quarrying	162 570 158	34 895 913	51 961 192	53 823 738	14 566 210	101 539	654 599	336 319	2 246 627	3 984 021
Manufacturing industry	159 811 677	78 063 035	37 864 789	33 849 282	2 496 074	54 489	262 546	268 523	775 397	6 177 542
Supply of electricity, gas, steam, hot water and air conditioning	66 019 686	12 897 869	3 856 301	3 295 518	1 662 157	1 013	159 112	5 221	46 307	44 096 188
Water supply; collection, treatment and disposal of waste, activities for the elimination of pollution	23 999 177	494 572	13 956 716	8 786 203	608 275	304	9 126	2 160	55 400	86 421
Construction	13 372 167	535 665	574 074	2 172 411	41 086	2 673	650	2 832	37 355	10 005 421
Wholesale and retail trade; car and motorcycle repair	754 666	99 790	226 956	310 631	17 106	135	x	928	2 692	95 928
Transport and warehousing	4 897 381	578 057	1 709 398	2 061 834	212 404	1 286	92 562	86 759	45 637	109 444
Provision of accommodation and food services	287 621	6 561	97 710	182 000	-	-	-	-	1 050	x
Information and communication	141 017	17 757	6 048	115 008	-	-	-	-	-	x
Financial and insurance activities	37 998	4 546	9 697	23 755	-	-	-	-	-	-
Operations with real estate	405 721	9 539	21 096	351 348	482	-	x	-	6 073	17 138
Professional, scientific and technical activities	1 269 133	152 639	180 014	578 379	51 070	923	4 152	19 144	203 966	78 846
Administrative and support services activities	225 103	36 721	9 169	152 424	8 871	-	x	396	3 044	4 478
Public administration and defense; compulsory social security	8 409 893	22 575	2 097 312	334 717	3 860 040	-	1 933 178	156 120	-	5 951
Education	494 107	16 253	189 775	181 419	433	-	-	-	50 712	55 515
Healthcare and social services for the population	838 255	19 643	254 989	555 051	140	-	-	1 830	-	6 602
Arts, entertainment and recreation	224 771	13 187	4 070	25 387	1 235	-	178 481	-	10	2 401
Provision of other types of services	13 096	5 409	303	3 692	200	-	-	-	-	3 492
<b>Total</b>	<b>444 514 269</b>	<b>127 995 826</b>	<b>113 096 310</b>	<b>107 096 519</b>	<b>23 695 591</b>	<b>163 944</b>	<b>3 307 758</b>	<b>880 252</b>	<b>3 479 430</b>	<b>64 798 639</b>

# Current environmental expenditures for 2022

th. tenge

economy activities	environmental protection activities									
	Total	atmospheric air protection and climate change problems	sewage treatment	waste management	protection and rehabilitation of soil, groundwater and surface water	reduction of noise and vibration impact	conservation of biodiversity and landscapes	radiation safety	scientific research and developments in the field of environmental protection	other areas of environmental protection activities
Agriculture, forestry and fisheries	733 090	125 442	x	290 175	169 808	1 582	2 807	20	5 160	x
Industry	272 319 614	88 254 669	67 101 115	91 857 107	11 900 304	157 345	1 009 818	508 056	3 039 327	8 491 873
Mining and quarrying	111 608 756	25 480 099	17 936 247	53 177 446	7 898 849	101 539	x	x	x	3 819 585
Manufacturing industry	123 084 410	57 637 073	31 895 395	27 867 318	2 386 584	54 489	262 546	x	x	2 084 610
Supply of electricity, gas, steam, hot water and air conditioning	14 140 639	4 642 925	x	2 027 116	1 006 596	1 013	x	5 221	46 307	2 501 257
Water supply; collection, treatment and disposal of waste, activities for the elimination of pollution	23 485 809	494 572	13 444 324	8 785 227	608 275	304	9 126	2 160	55 400	86 421
Construction	3 475 223	535 665	574 074	x	41 086	2 673	650	2 832	37 355	x
Wholesale and retail trade; car and motorcycle repair	754 666	99 790	226 956	310 631	17 106	135	x	928	2 692	95 928
Transport and warehousing	x	578 057	x	x	212 404	1 286	92 562	86 759	45 637	109 444
Provision of accommodation and food services	287 621	6 561	97 710	182 000	-	-	-	-	1 050	x
Information and communication	141 017	17 757	6 048	115 008	-	-	-	-	-	x
Financial and insurance activities	37 998	4 546	9 697	23 755	-	-	-	-	-	-
Operations with real estate	x	9 539	21 096	x	482	-	x	-	6 073	17 138
Professional, scientific and technical activities	1 254 559	151 215	180 014	578 379	51 070	923	4 152	19 144	203 966	65 696
Administrative and support services activities	225 103	36 721	9 169	152 424	8 871	-	x	396	3 044	4 478
Public administration and defense; compulsory social security	290 729	22 575	128 177	110 162	-	-	23 864	-	-	5 951
Education	494 107	16 253	189 775	181 419	433	-	-	-	50 712	55 515
Healthcare and social services for the population	838 255	19 643	254 989	555 051	140	-	-	1 830	-	6 602
Arts, entertainment and recreation	224 771	13 187	4 070	25 387	1 235	-	178 481	-	10	2 401
Provision of other types of services	13 096	5 409	303	3 692	200	-	-	-	-	3 492
<b>Total</b>	<b>284 853 377</b>	<b>89 897 029</b>	<b>69 640 426</b>	<b>98 376 788</b>	<b>12 403 139</b>	<b>163 944</b>	<b>1 322 879</b>	<b>619 965</b>	<b>3 395 026</b>	<b>9 034 181</b>




# Investment environmental expenditures for 2022

th. tenge

economy activities	environmental protection activities									
	Total	atmospheric air protection and climate change problems	sewage treatment	waste management	protection and rehabilitation of soil, groundwater and surface water	reduction of noise and vibration impact	conservation of biodiversity and landscapes	radiation safety	scientific research and developments in the field of environmental protection	other areas of environmental protection activities
Agriculture, forestry and fisheries	9 552	653	x	3 547	-	-	-	-	-	x
Industry	140 081 084	38 096 720	40 537 883	7 897 634	7 432 412	-	75 565	104 167	84 404	45 852 299
Mining and quarrying	50 961 402	9 415 814	34 024 945	646 292	6 667 361	-	x	x	x	164 436
Manufacturing industry	36 727 267	20 425 962	5 969 394	5 981 964	109 490	-	-	x	x	4 092 932
Supply of electricity, gas, steam, hot water and air conditioning	51 879 047	8 254 944	x	1 268 402	655 561	-	x	-	-	41 594 931
Water supply; collection, treatment and disposal of waste, activities for the elimination of pollution	513 368	-	512 392	976	-	-	-	-	-	-
Construction	9 896 944	-	-	x	-	-	-	-	-	x
Wholesale and retail trade; car and motorcycle repair	-	-	-	-	-	-	-	-	-	-
Transport and warehousing	x	-	x	x	-	-	-	-	-	-
Provision of accommodation and food services	-	-	-	-	-	-	-	-	-	-
Information and communication	-	-	-	-	-	-	-	-	-	-
Financial and insurance activities	-	-	-	-	-	-	-	-	-	-
Operations with real estate	x	-	-	x	-	-	-	-	-	-
Professional, scientific and technical activities	14 574	1 424	-	-	-	-	-	-	-	13 150
Administrative and support services activities	-	-	-	-	-	-	-	-	-	-
Public administration and defense; compulsory social security	8 119 164	-	1 969 135	224 555	3 860 040	-	1 909 314	156 120	-	-
Education	-	-	-	-	-	-	-	-	-	-
Healthcare and social services for the population	-	-	-	-	-	-	-	-	-	-
Arts, entertainment and recreation	-	-	-	-	-	-	-	-	-	-
Provision of other types of services	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>159 660 892</b>	<b>38 098 797</b>	<b>43 455 884</b>	<b>8 719 731</b>	<b>11 292 452</b>	<b>-</b>	<b>1 984 879</b>	<b>260 287</b>	<b>84 404</b>	<b>55 764 458</b>

# Environmental protection expenditure account: data sources



Мемлекеттік статистика органдары құпиялылығына кепілдік береді  
Confidentiality is guaranteed by the state statistical organs

Жалпы мемлекеттік статистикалық байқаудың статистикалық нысаны  
Statistical form of the all-Union statistical observation

Қазақстан Республикасы  
Ұлттық экономика министрінің  
Статистика комитеті төрағасының  
2020 жылғы «21» ақпандағы  
№ 24 бұйрығына 19-қосымша

Приложение 19 к приказу  
Председателя Комитета по статистике  
Министерства национальной экономики  
Республики Казахстан  
от «21» февраля 2020 года № 24

Қазақстан Республикасы Ұлттық экономика министрінің Статистика комитеті төрағасының 2020 жылғы 4 ақпандағы № 16 бұйрығына 3-қосымша

Приложение 3 к приказу  
Председателя Комитета по статистике  
Министерства  
национальной экономики Республики Казахстан  
от 4 февраля 2020 года № 16


**Қоршаған ортаны қорғауға жұмсалған шығындар туралы есеп**  
Отчет о затратах на охрану окружающей среды

Индекс Индекс	<b>4-OC</b>	жылдық годовая	есепті кезең отчетный период	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	жыл год
------------------	-------------	-------------------	---------------------------------	---	------------

Табиғи ресурстарды пайдаланатын, ластаушы заттар мен өндірістік және тұтыну қалдықтардың шығарылымы мен төгінділерінің тұрақты көздері бар және табиғат қорғау шараларын жүзеге асыратын заңды тұлғалар және (немесе) олардың құрылымдық және оқшауланған бөлімшелері, дара кәсіпкерлер ұсынады  
Представляют юридические лица и (или) их структурные и обособленные подразделения, индивидуальные предприниматели, использующие природные ресурсы, имеющие стационарные источники выбросов и сбросов загрязняющих веществ, отходы производства, потребления и осуществляющие природоохранную деятельность

Ұсыну мерзімі – есепті кезеңнен кейінгі 15 сәуірге (қоса алғанда) дейін  
Срок представления – до 15 апреля (включительно) после отчетного периода

БСН коды код БИН	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ЖСН коды код ИИН	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Мемлекеттік статистика органдары құпиялылығына кепілдік береді  
Confidentiality is guaranteed by the state statistical organs

Жалпы мемлекеттік статистикалық байқаудың статистикалық нысаны  
Statistical form of the all-Union statistical observation

Қазақстан Республикасы Ұлттық экономика министрінің Статистика комитеті төрағасының 2020 жылғы «21» ақпандағы № 24 бұйрығына 19-қосымша

Приложение 19 к приказу  
Председателя Комитета по статистике  
Министерства национальной экономики  
Республики Казахстан  
от «21» февраля 2020 года № 24

Қазақстан Республикасы Ұлттық экономика министрінің Статистика комитеті төрағасының 2020 жылғы 4 ақпандағы № 16 бұйрығына 3-қосымша

Приложение 3 к приказу  
Председателя Комитета по статистике  
Министерства  
национальной экономики Республики Казахстан  
от 4 февраля 2020 года № 16

**Негізгі капиталға салынған инвестициялар туралы есеп**  
Отчет об инвестициях в основной капитал

Индекс Индекс	<b>1-инвест</b>	жылдық годовая	есепті кезең отчетный период	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	жыл год
------------------	-----------------	-------------------	---------------------------------	---	------------

Жұмыс істейтіндердің санына қарамастан, инвестициялық қызметті іске асыратын заңды тұлғалар және (немесе) олардың құрылымдық және оқшауланған бөлімшелері ұсынады  
Представляют юридические лица и (или) их структурные и обособленные подразделения, осуществляющие инвестиционную деятельность, независимо от численности работающих

Ұсыну мерзімі – есепті кезеңнен кейінгі 15 сәуірге (қоса алғанда) дейін  
Срок представления – до 15 апреля (включительно) после отчетного периода

БСН коды код БИН	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
---------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

**4-OC**  
Environmental protection expenditure report

periodicity	annual
-------------	--------

**1-инвест**  
Report on investments in fixed assets

periodicity	annual
-------------	--------



# Environmental taxes account

th. tenge

Type of environmental taxes	Total taxes	Type of tax					
		Taxes on products (D21)	Other taxes on production (D29)	Taxes on income (D51)	Other current taxes (D59)	Capital taxes (D91)	Other tax revenues
Energy taxes	<b>2 742 055 473,5</b>	2 742 055 473,5	0,0	0,0	0,0	0,0	0,0
Transport taxes	<b>87 760 624,3</b>	6 011 403,9	81 749 220,4	0,0	0,0	0,0	0,0
Polution taxes	<b>98 604 623,9</b>	0,0	98 604 623,9	0,0	0,0	0,0	0,0
Resource taxes	<b>586 621 414,1</b>	2 003 183,5	0,0	0,0	0,0	0,0	584 618 230,6
<b>Total environmental taxes</b>	<b>3 515 042 135,8</b>	<b>2 750 070 060,9</b>	<b>180 353 844,3</b>	<b>0,0</b>	<b>0,0</b>	<b>0,0</b>	<b>584 618 230,6</b>
Taxes not related to environmental	22 829 814 776,8	5 029 338 488,2	1 324 457 957,2	7 851 087 349,0	87 522 234,0	0,0	8 537 408 748,4
<b>Total taxes</b>	<b>26 344 856 912,6</b>	<b>7 779 408 549,1</b>	<b>1 504 811 801,5</b>	<b>7 851 087 349,0</b>	<b>87 522 234,0</b>	<b>0,0</b>	<b>9 122 026 979,0</b>

## Data sources:

- *Budget execution report of the Ministry of Finance of the Republic of Kazakhstan*

From 2024 (December), it is also planned to publish by types of economic activity

In order to further implement natural-economic accounting, the Bureau has prepared new accounts for pilot publication:

- Material flows account;
- Mineral and Energy Resources Account;
- The Forest Resources Account.

### *Why MFA is important?*

- Due to the depletion of the planet's resources, the issue of material consumption is becoming increasingly relevant.



- Growing global demand for quality data to monitor SDGS. Material flow account accounting is an important element is measuring progress towards the SDGs.



- Provide information on indicators of economic activity, material extraction and waste and emissions generation which, in turn, are linked to decision-making in the area of socio-economic and environmental interactions.

## Main indicators:

tonnes

Description	2021
Domestic extraction (DE)	744 076 961
Imports of materials	7 677 497
Exports of materials	127 989 414
Domestic material input (DMI)	751 754 458
Domestic material consumption (DMC)	623 765 043
Physical trade balance (PTB)	-120 311 917
Domestic processed output (DPO)	346 877 410
Net additions to stock (NAS)	177 667 758

SDGs indicator 8.4.2 «Domestic material consumption»

$$DMC = DE + Im - Ex$$

DE – domestic extraction;

Im – imports of materials;

Ex – exports of materials.

## Domestic extraction

Material category	Description	tonnes
<b>1</b>	<b>BIOMASS</b>	
1.1	Crops	
1.2	Crop residues (used), fodder crops, grazed biomass	
1.3	Wood	
1.4	Wild harvest n.e.c.	
<b>2</b>	<b>METAL ORES</b>	
2.1	Iron ores	
2.2	Aluminium ores	
2.3	Other metal ores	
	X ores metal content, where X is a specific metallic element other than iron or aluminium	
2.x	(memo item)	
<b>3</b>	<b>NON-METALLIC MINERALS</b>	
3.1	Ornamental or building stone	
3.2	Carbonate minerals important in cement	
3.4	Chemical and fertilizer minerals	
3.5	Salt	
3.6	Gypsum	
3.7	Clays	
3.8	Sand and gravel	
3.9	Other non-metallic minerals n.e.c.	
<b>4</b>	<b>FOSSIL FUELS</b>	
4.1	Coal and peat	
4.2	Crude oil, natural gas and natural gas liquids	
4.3	Oil shale and tar sands	
	<b>TOTAL DOMESTIC EXTRACTION</b>	

### Data sources:

- *industry statistics data*

# Material flows account

## Import/Export:

Material category	Description	tonnes	
		Import	Export
<b>1</b>	<b>BIOMASS</b>		
1.1	Crops, raw and processed		
1.2	Crop residues (used) and fodder crops		
1.3	Wood and wood products		
1.4	Wild fish, aquatic animals and plants		
1.5	Live animals and products (excluding wild fish, aquatic animals and plants)		
1.compound	Mixed / compounded products mainly from biomass		
<b>2</b>	<b>METAL ORES</b>		
2.Fe	Iron ores and concentrates, iron and steel, products dominated by iron content		
2.Al	Aluminium ores and concentrates, aluminium metal, products dominated by aluminium content		
2.x	X ores and concentrates, X metal, products dominated by X (where X is a specific metallic element other than iron or aluminium)		
2.compound	Mixed / compounded products mainly from metal		
<b>3</b>	<b>NON-METALLIC MINERALS</b>		
3.1	Ornamental or building stone		
3.2	Carbonate minerals important in cement		
3.4	Chemical and fertilizer minerals		
3.5	Salt		
3.6	Gypsum and its products		
3.7	Clays		
3.8	Sand and gravel		
3.9	Other non-metallic minerals n.e.c.		
3.compound	Mixed / compounded products mainly from non-metallic mineral		
<b>4</b>	<b>FOSSIL FUELS/ Ископаемое, твердое топливо</b>		
4.1	Coal and peat		
4.2	Conventional petroleum and gas		
4.compound	Mixed / compounded products mainly from fossil fuels		
<b>5</b>	<b>MIXED / COMPLEX PRODUCTS n.e.c.</b>		
<b>6</b>	<b>WASTE FOR FINAL TREATMENT AND DISPOSAL</b>		
	<b>TOTAL IMPORTS OF MATERIALS</b>		

## Data sources:

- data from SRC Ministry of Finance of the RK data (customs statistics);
- data from Ministry of Ecology and natural resources of the RK.



# Material flows account

## Emission of materials, raw materials and gases:

Material category	Description	tonnes
<b>1</b>	<b>EMISSIONS TO AIR</b>	
1.1	Carbon dioxide (CO <sub>2</sub> )	
1.1.1	Carbon dioxide (CO <sub>2</sub> ) from biomass combustion	
1.1.2	Carbon dioxide (CO <sub>2</sub> ) excluding biomass combustion	
1.2	Methane (CH <sub>4</sub> )	
1.3	Dinitrogen oxide (N <sub>2</sub> O)	
1.4	Nitrous oxides (NO <sub>x</sub> )	
1.5	Hydrofluorocarbons (HFCs)	
1.6	Perfluorocarbons (PFCs)	
1.7	Sulphur hexafluoride (SF <sub>6</sub> )	
1.8	Carbon monoxide (CO)	
1.9	Non-methane volatile organic compounds (NMVOC)	
1.10	Sulfur dioxide (SO <sub>2</sub> )	
1.11	Ammonia (NH <sub>3</sub> )	
1.12	Heavy metals	
1.13	Persistent organic pollutants (POPs)	
1.14	Particles (e.g. PM <sub>10</sub> , Dust)	
1.15	Other emissions to air	
<b>2</b>	<b>WASTE LANDFILLED (UNCONTROLLED)</b>	
2.1	Municipal waste (uncontrolled)	
2.2	Industrial waste (uncontrolled)	
	<i>Waste disposal to controlled landfills (memo item)</i>	
<b>3</b>	<b>EMISSIONS TO WATER</b>	
<b>4</b>	<b>DISSIPATIVE USE OF PRODUCTS</b>	
	<b>DISSIPATIVE LOSSES (e.g. abrasion from tires, friction products, buildings and infrastructure)</b>	
<b>5</b>	<b>DOMESTIC PROCESSED OUTPUT</b>	

## Data sources:

- data from Zhasyl Damu;
- data from Ministry of Ecology and natural resources of the RK;
- data from Ministry of Agriculture of the RK.

## *Next steps:*

- Work on improving the quality of the obtained estimates and indicators (for example, dissipative losses from tire wear, friction products, dissipative use of pesticides in the total mass);
- Evaluation of the second SDG indicator, formed within the framework of the MFA:
- *8.4.1:Material footprint, material footprint per capita, and material footprint per GDP (duplicates 12.2.1 indicator);*

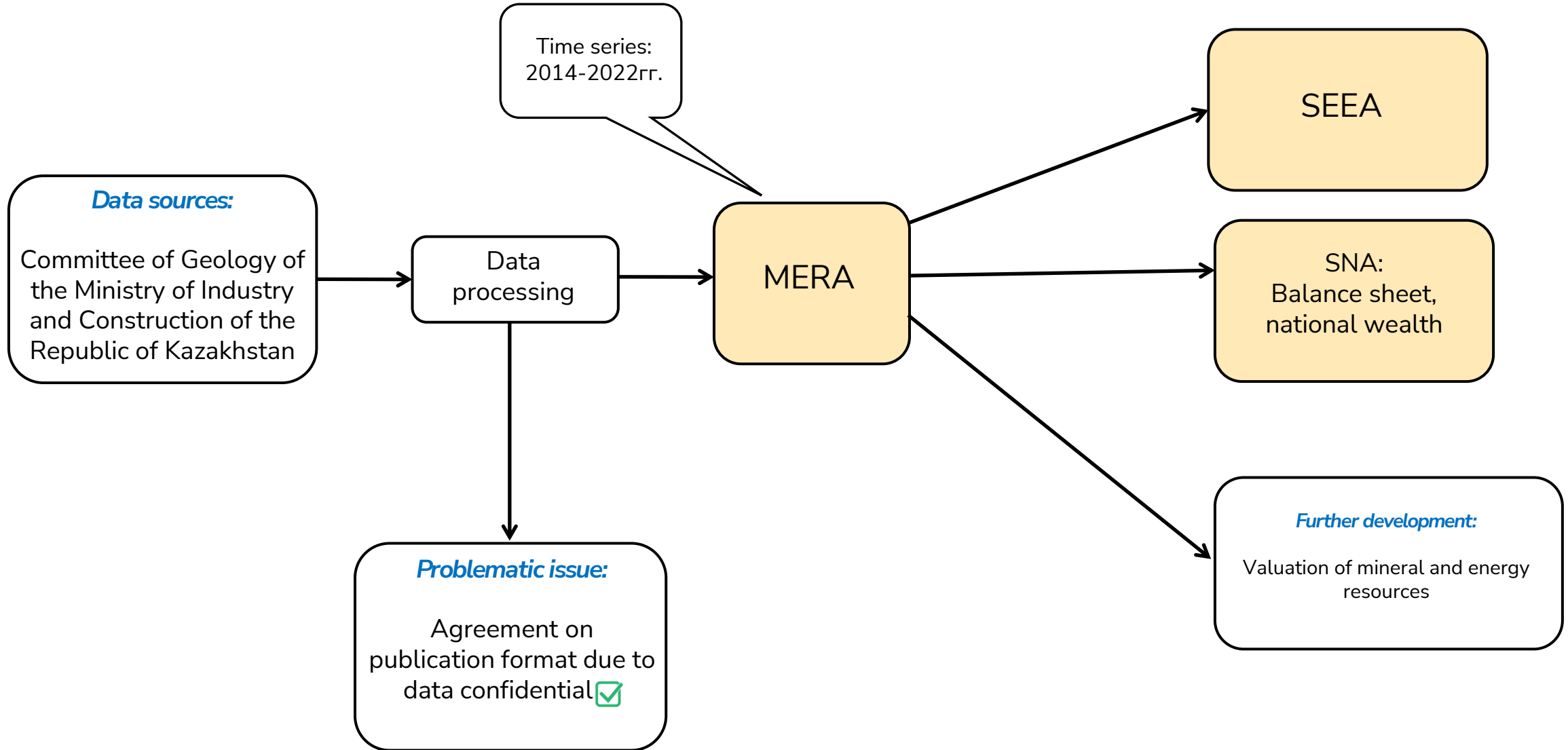
The high importance of the raw materials factor in the economy of Kazakhstan makes the issues of accounting and assessment of natural resource reserves particularly relevant.

### Mineral and Energy Resources Account

Since mineral and energy resources are not renewable, there is a special interest in understanding the levels of extraction and rates of depletion of these assets, the availability of assets and the sustainability of the industries that exploit them.

### The Forest Resources Account

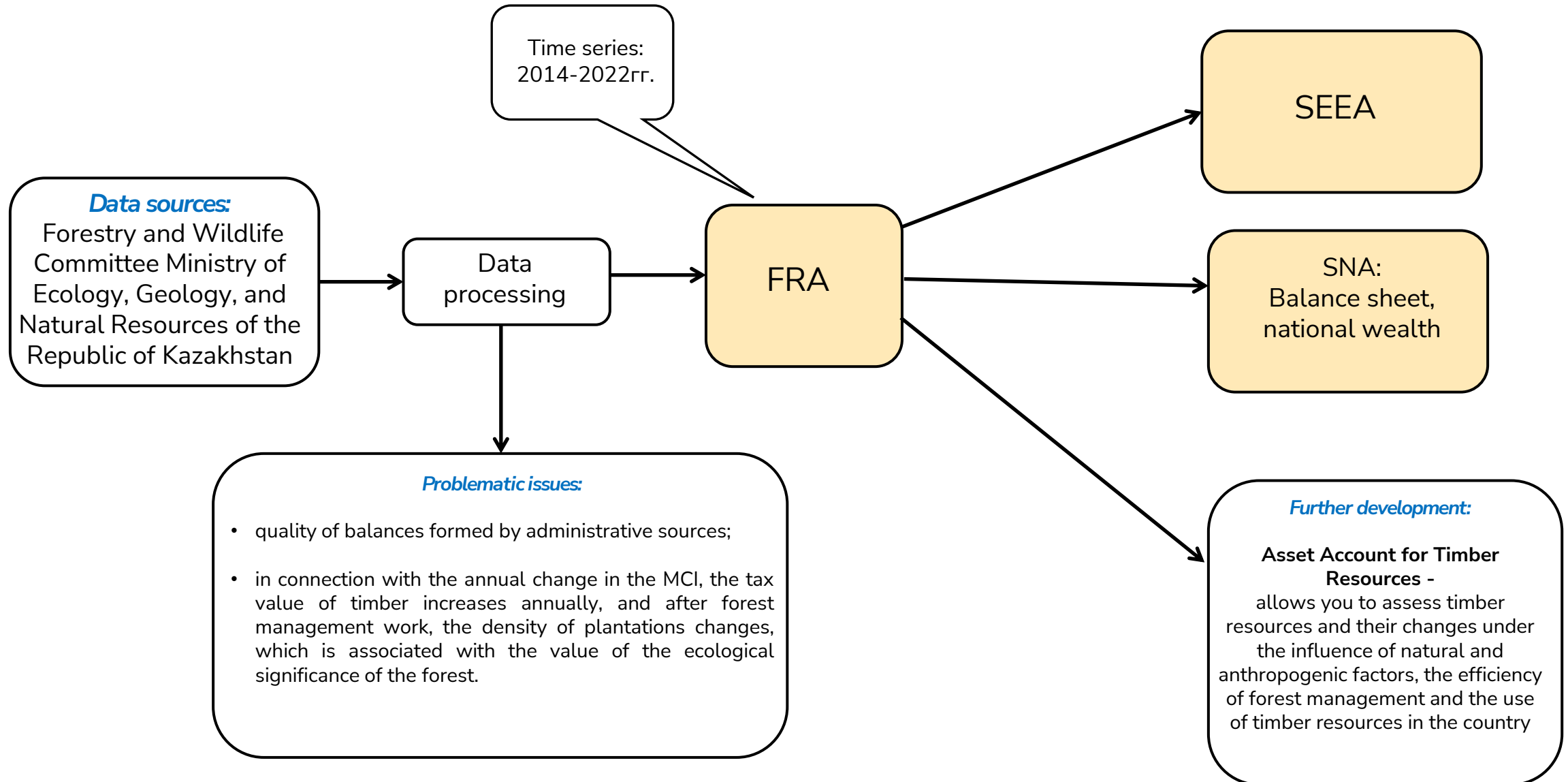
- reflects the area of forest lands at the beginning and end of the reporting period, as well as its change during the year;
- information on flows: reasons for the addition and disposal of forest resources (the area of forests, ecosystems increases or decreases).



# Mineral and Energy Resources Account

	Main types of mineral or energy resource																		
	Coal (million tons)	Oil (million tons)	Gas (billion m <sup>3</sup> )	Condensate (million tons)	Gold (tons)	Copper (million tons)	Lead (million tons)	Zinc (million tons)	Nickel (million tons)	Bauxite (million tons)	Chrome ores (million tons)	Iron ores (million tons)	Manganese ores (million tons)	Uranium (thousand tons)	Phosphorites - R <sub>2</sub> O <sub>5</sub> (million tons)	Silver (thousand tons)	Cobalt (thousand tons)	Molybdenum (thousand tons)	Tin (thousand tons)
<b>Reserves of mineral and energy resources at the beginning of the period</b>																			
<b>Adding to inventory</b>																			
Discovery of new reserves																			
Revaluation upward																			
Change category																			
<b>Disposal from inventories</b>																			
Production																			
Extraordinary losses																			
Downward revaluation																			
Change category																			
<b>Reserves of mineral and energy resources at the end of the period</b>																			

# The Forest Resources Account



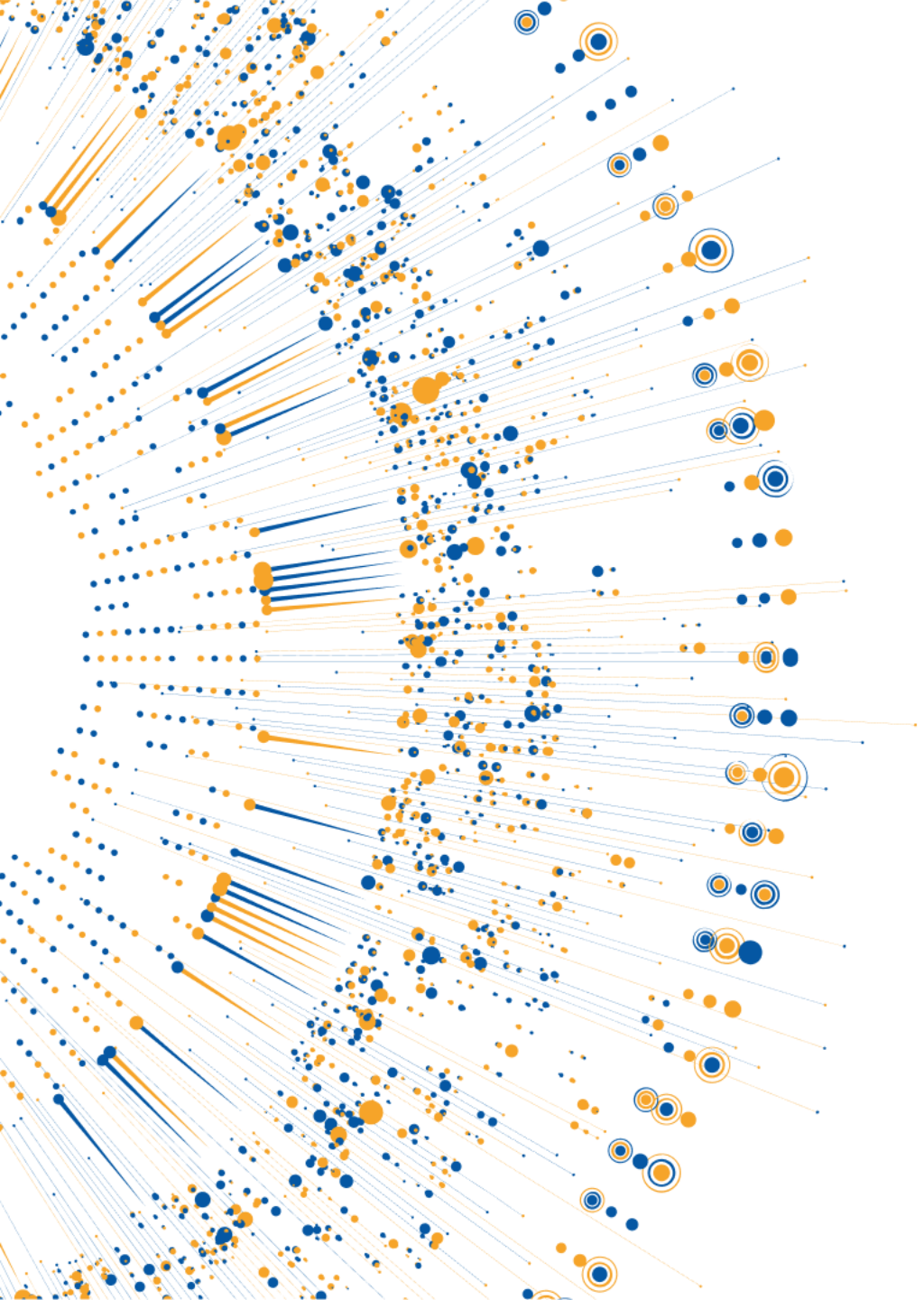


# The Forest Resources Account

	Types of forests and other wooded land								Total	
	Virgin forests		Other naturally renewed forests		Forest plantations		Other wooded land			
	Hectares	mln. Tenge	Hectares	mln. Tenge	Hectares	mln. Tenge	Hectares	mln. Tenge	Hectares	mln. Tenge
<b>Forest resources at the beginning of the period</b>										
<b>Additions to stocks</b>										
Afforestation										
Natural expansion of the area										
<b>Disposals from stocks</b>										
Deforestation										
A significant reduction in the area										
Cost revaluation										
<b>Forest resources at the end of the period</b>										



- Energy flows account (based on the new IEA format);
- Water resources account.



**БЮРО НАЦИОНАЛЬНОЙ СТАТИСТИКИ**  
АГЕНТСТВА ПО СТРАТЕГИЧЕСКОМУ  
ПЛАНИРОВАНИЮ И РЕФОРМАМ РЕСПУБЛИКИ  
КАЗАХСТАН

**Thank you for your attention!**