Natural Capital Accounting based on the example of "fast-track" forest accounts in the Kyrgyz Republic

International Conference on Natural Capital for the Transition to a Green Economy
National Statistical Committee of the Kyrgyz Republic

Content

I. Political framework
II. NCA and SEEA
III. Results of "fast-track" forest accounts
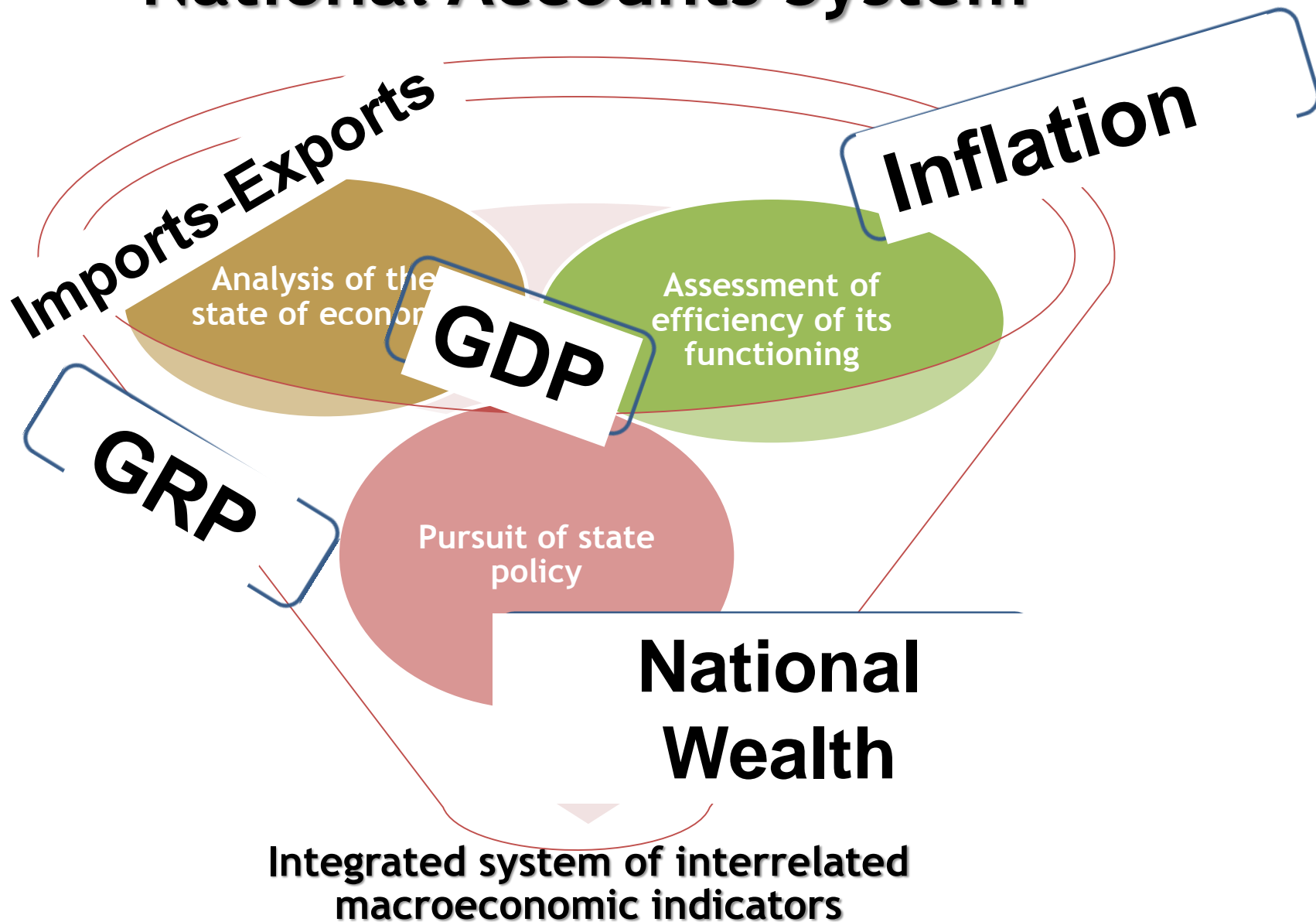IV. Achievements
V. Problems and challenges
VI. Next steps

Global political framework

✓ Sustainable Development Goals

✓ UN DESA, UNEP, UNDP, OECD Green Growth/ Green Economy initiatives

✓ Beyond GDP

✓ World Bank Natural Capital Accounting / Wealth Accounting and Valuation of Ecosystem Services (WAVES)

✓CBD Aichi Strategic Plan Goals 2011-2020 (e.g., Goal 2: **By 2020**, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into **national accounting, as appropriate, and reporting systems**.)
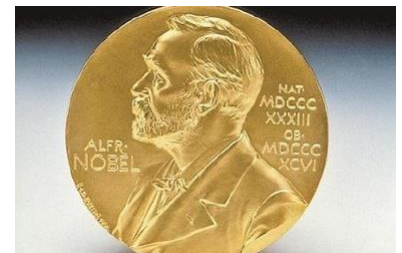
National political framework

✓ **National Sustainable Development Strategy of the Kyrgyz Republic 2013-2017**

✓ **Program for Transition to Sustainable Development 2013-2017** *(as approved by the Kyrgyz Parliament)*

✓ **Matrix of Indicators of Transition to Sustainable Development** *(as approved by the Kyrgyz Government and based on the OECD Green Growth methodology)*

✓ **Biodiversity Conservation Strategy and Plan of Activities** *(as approved by a Resolution of the Kyrgyz Government)*

✓ **State Statistics System Improvement and Development Program till 2019** *(as approved by a Resolution of the Kyrgyz Government)*

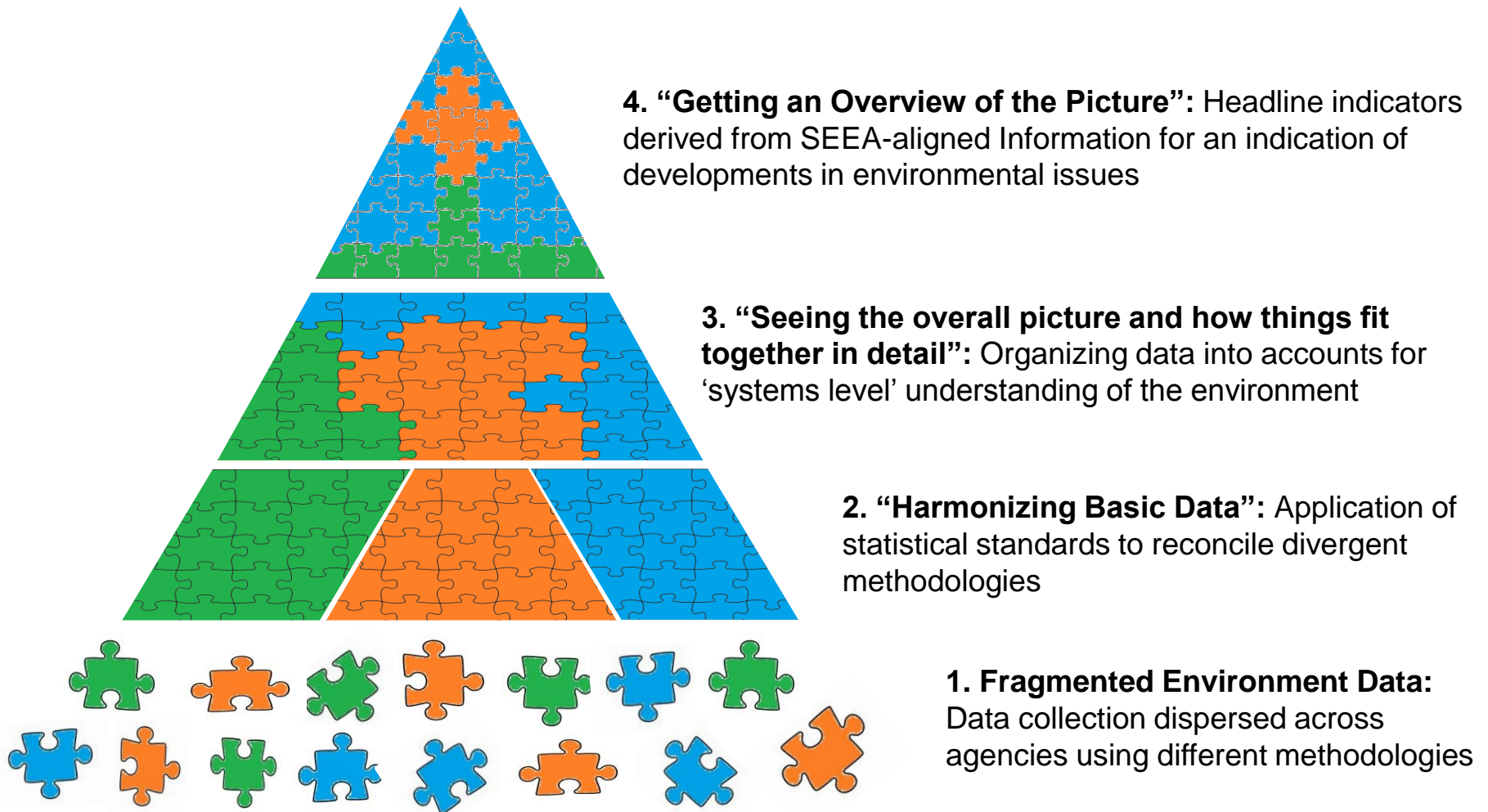# National Accounts System

Imports-Exports

Inflation

Analysis of the state of economy

Assessment of efficiency of its functioning

GDP

GRP

Pursuit of state policy

National Wealth

Integrated system of interrelated macroeconomic indicators

"**Gross Domestic Product**, the leading economic measurement, is **outdated** and misleading. Long the standard scorecard for any national economy, GDP has become deficient as a measure of long-term economic health in our resource-driven, globalizing world. Think about it. It's like grading a corporation based on one day's cash flow and forgetting to depreciate assets and other costs."

J. Stiglitz, a Recipient of the Nobel Memorial Prize in Economic Sciences

System of Environmental-Economic Accounts (SEEA): Conceptual Framework

4. "Getting an Overview of the Picture": Headline indicators derived from SEEA-aligned Information for an indication of developments in environmental issues

3. "Seeing the overall picture and how things fit together in detail": Organizing data into accounts for 'systems level' understanding of the environment

2. "Harmonizing Basic Data": Application of statistical standards to reconcile divergent methodologies

1. Fragmented Environment Data: Data collection dispersed across agencies using different methodologies

System of Environmental-Economic Acocunts: What is it?

The System of Envionmental-Economic Accounts (SEEA) provides a framework for converting industry accounts/data into integrated, policy-relevant information:

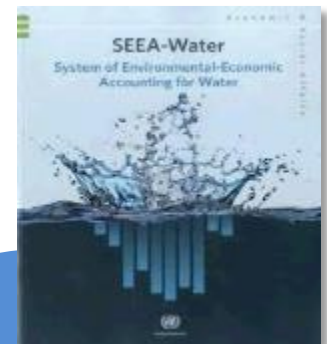*Industry accounts*   *Integrated information*
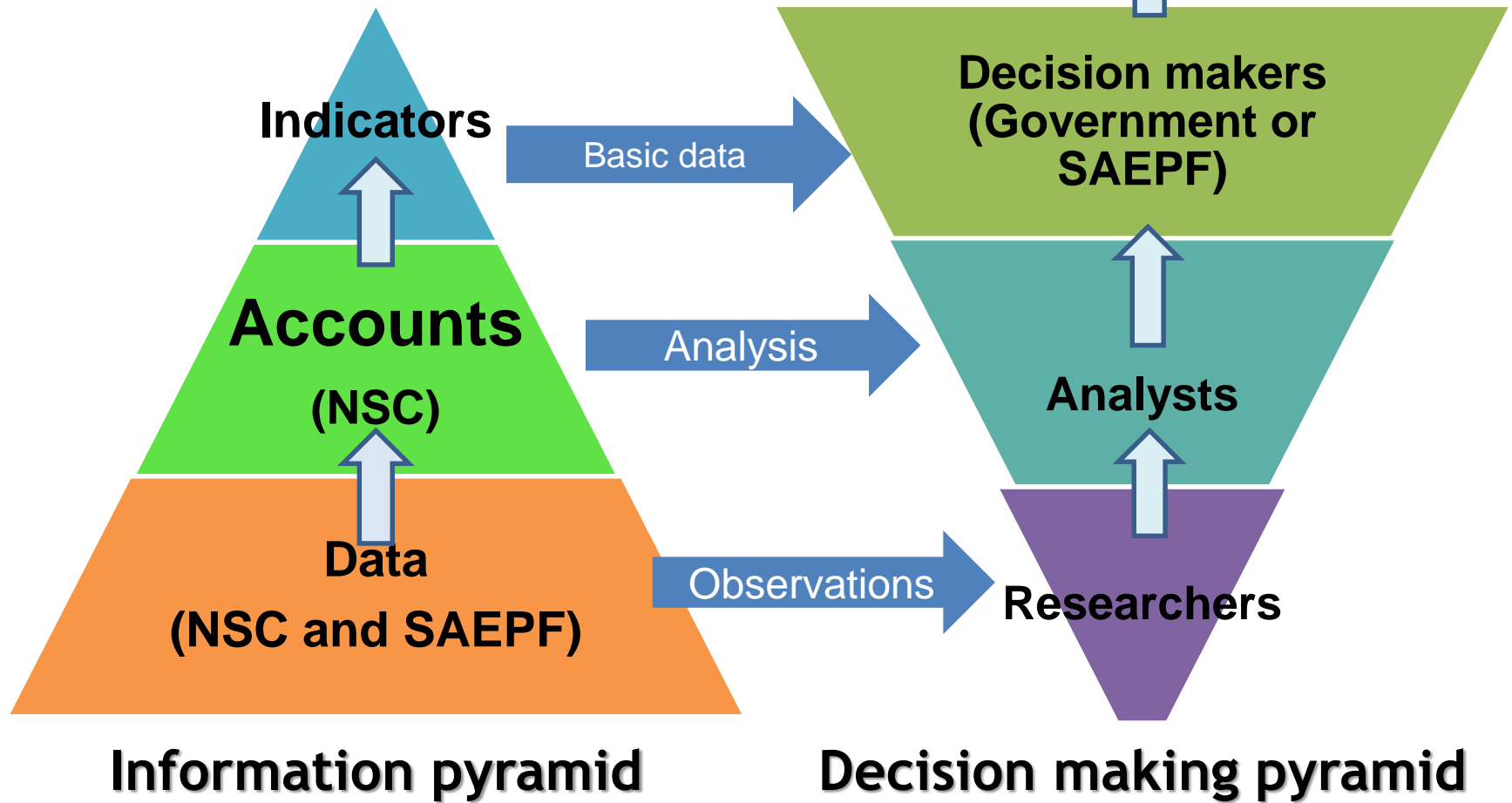
Environmental accounts

SEEA

Natural Capital Accounting

Types of environmental accounts

Energy accounts

Forest accounts

System of Environmental-Economic Accounting 2012 Central Framework

System of Environmental-Economic Accounting 2012 Applications and Extensions

System of Environmental-Economic Accounting 2012 Experimental Ecosystem Accounting

SEEA-Water System of Environmental-Economic Accounting for Water

Experimental Ecosystem Accounts

Water accounts

Land accounts

Who uses what information?

Information pyramid

Indicators → Basic data → **Decision makers (Government or SAEPF)**

Accounts (NSC) → Analysis → **Analysts**

Data (NSC and SAEPF) → Observations → **Researchers**

Policy

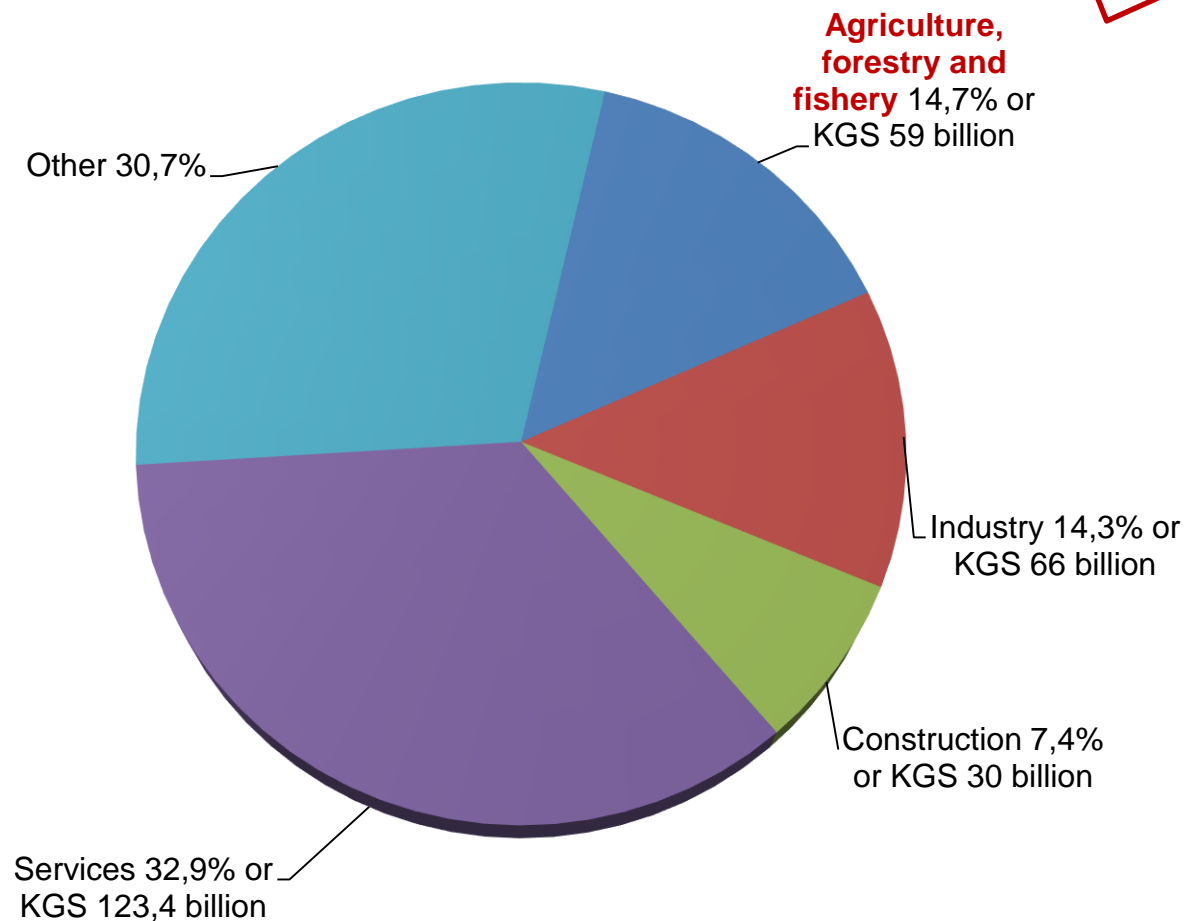Decision making pyramid

Kyrgyzstan 2014 GDP structure

- Agriculture - 99,9% or KGS 58,4 billion
- **Forestry - 0,05% or KGS 0,3 billion**

Agriculture, forestry and fishery 14,7% or KGS 59 billion

Other 30,7%

Industry 14,3% or KGS 66 billion

Construction 7,4% or KGS 30 billion

Services 32,9% or KGS 123,4 billion

Forest accounts in the 2014 GDP structure

	Before		After		
	TOTAL	**Including Forests**	**TOTAL**	**Including Forests**	**Delta**
Share of agriculture, forestry and fishery in GDP	14,70%	0,05%	15,9%	1,24%	25 times
Gross output, KGS million	195 304,6	268,6	196 135,4	830,4	561,8
Interim consumption (current expenditures)	136 568,0	74,2	136 669,8	110,8	27,6
Gross Added Value	58 736,0	194,4	59 464,5	728,5	534,1

Gross output

Provisioning services

1,2% 0,05%

Ecosystem goods and services
KGS 830,4 million

Wild apples KGS 40 M	X
Fuel wood KGS 17,6 M	X
Timber KGS 80 M	X
Nuts KGS 295,3 M	KGS 6,1 M
Plantings KGS 323,3 M	KGS 13,9 M
Pastures KGS 6,6 M	X
Mushrooms KGS 67,5 M	X
Honey KGS 7,9 M	KGS 7,9 M

International classification of ecosystem services for SEEA ecosystem accounting

Экосистемные услуги*		Примеры: польза от лесов
Снабжение	Древесина	Древесина
	Дрова/уголь	Энергия от древесины
	Недревесные продукты леса	Продукт питания, корма, медицинские препараты
	Генетический материал	Разработка продукции
	Выпас	Корм скота
Регуляция	Опыление	Сельскохозяйственное производство
	Регулирование расхода воды	Гидроэнергетика
	Формирование и удержание почв	Контроль осадков
	Регулирование водного цикла	Снабжение (питьевой) водой
	Атмосферное/климатическое регулирование	Хранение/секвестрация углерода
Культурные услуги	Отдых	Туризм
	Информация и знания	Исследование/образование
	Духовное развитие	Культурное наследие, идентификация, духовные/религиозные функции
	Неиспользование	Существование/наследие

SEEA integrated indicators- Forest accounts in SNA

Таблица 6.1. Комбинированные таблицы
Таблицы ресурсов и использования в стоимостном выражении за 2014г.

Таблица ресурсов в стоимостном выраже… *(тыс. сом)*

	Производство (включ… производство домохозя… для собственных нуж… классифицированные МСОК		Итого

> Forestry sector resources: KGS 5,3 billion
>
> Output: KGS 1,2 billion
> Imports: KGS 4,1 billion

Продукты	Выпуск	Импорт	
Итого	1 183 047,2	4 123 343,9	**5 306 391,1**

Использование в стоимостном выражении

Продукты	Промежуточное потребление — Отрасли, классифицированные по МСОК	Конечное потребление — Домохозяйства	Конечное потребление — Органы государственного управления	Накопление	Потоки в остальной мир	Итого
Продукты	Промежуточное потребление	Расходы домохозяйств на конечное потребление	Расходы органов государственного управления на конечное потребление	Валовое накопление капитала	Экспорт	
Итого	198 083,1	3 681 305,3	225 763,0	170,0	1 201 069,5	**5 306 391,1**

Achievements

- Fulfilment of national and international obligations
- Efficient inter-agency cooperation
- National ownership of project results/activities
- Identification of gaps and needs
- Availability of a local expert capacity

Problems and challenges

- Complexity of integration into national accounts
- Incomparability of indicators due to differences in methodologies of collection and processing
- Lack of comprehensive system of accounting and reporting, reliability of databases;
- Lack of sectoral methodologies for calculation of indicators;
- Lack of uniform and precise definitions and terms;
- Impossibility of recalculation of sectoral macroeconomic indicators (e.g., share of the forestry sector) due to estimated expert data and lack of their systematic collection

Next steps and needs

- Reforming the existing agency-specific systems of accounting for natural resources that are traditionally oriented at information collection mainly for industry-specific goals;
- Developing a set of indicators not included into the system of the state statistical observation and assigning an official status to them;
- Creating a system for managing of integrated databases;
- Coming up with uniform terms and definitions and solidifying them in the Kyrgyz legislation.

…We cannot manage what we cannot measure…

✓Over a single sunny day, 1 hectare of forest sequesters from air *120-280 kg of carbon dioxide* and emits *180-200 kg of oxygen*
✓A single medium-sized tree produces enough oxygen for *3 people* to breathe
✓A single hectare of conifers catches *over a year 40 tons of dust, while a single hectare of deciduous - 100 tons*

Thank you!