



INTRODUCTION TO THE SEEA CENTRAL FRAMEWORK

Presentation to the Regional Seminar on Developing a Programme for the Implementation of the 2012 SEEA in the Pacific Region

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OUTLINE

- Nature and ambitions of an accounting approach
- Coverage of SEEA Central Framework
 - Physical flow accounts
 - Environmental asset accounts
 - Accounting for environmental activities and transactions
 - Combined presentations
- Introduction to ecosystem accounting



ACCOUNTING HISTORY



AMBITIONS IN USING ACCOUNTING

- Stocks and flows
- Coherent and internally consistent
- Integrated
- Comprehensive
- Time series measuring same concept over time
- Apply to both physical and monetary based data



KEY ADVANTAGES OF SEEA

- Broad conceptual approach not issue based
 - National focus
 - Potential at corporate / local levels
- International standard
- Links to SNA
 - Accounting principles
 - Consistent classification, definitions, measurement boundaries
 - Consistent aggregates, indicators
 - Mainstreaming

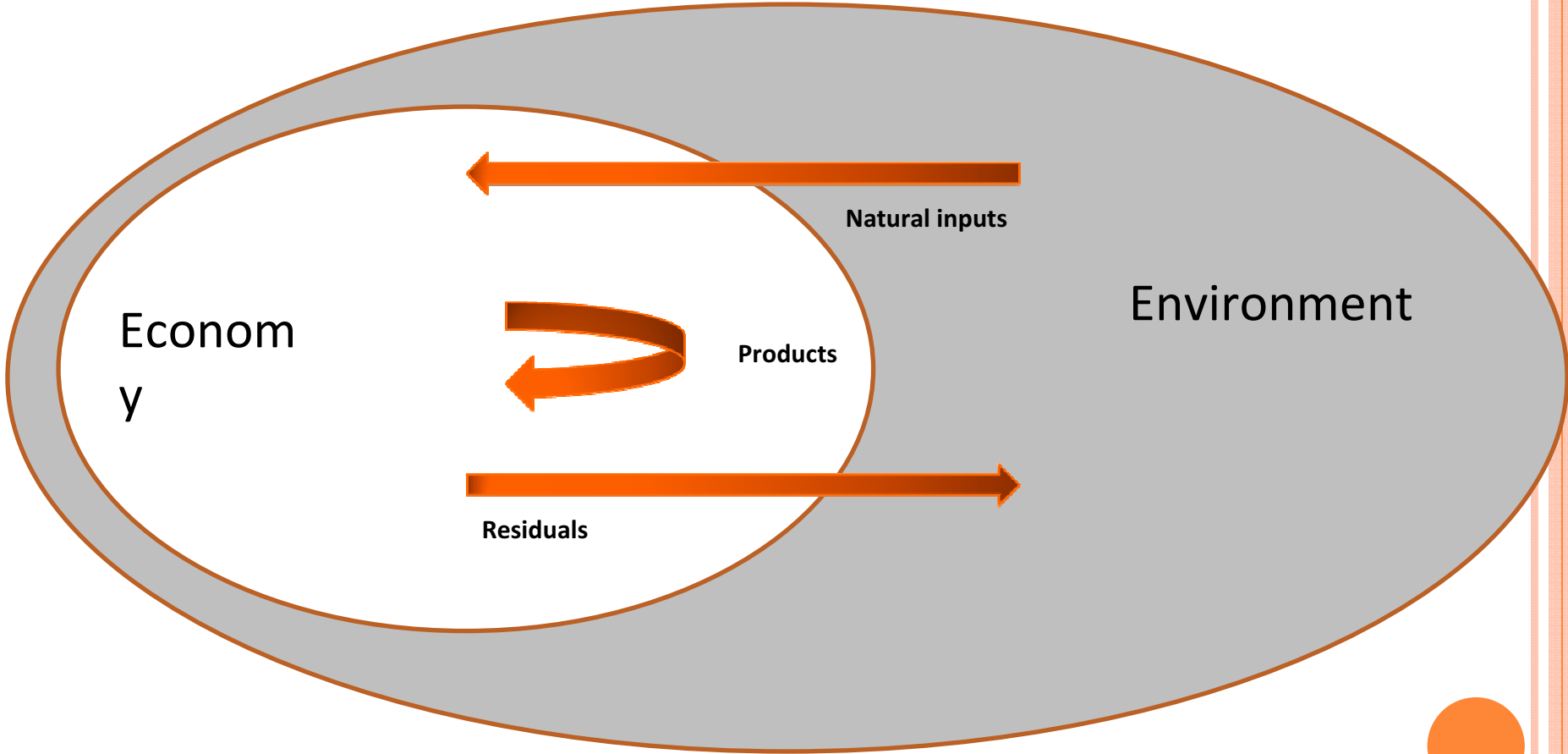


COVERAGE OF THE SEEA

- Physical flow accounting
 - Energy, water, emissions, waste
- Accounting for environmental activities
- Natural resource accounting
 - Stocks, natural growth, extraction and depletion
- Land accounting
 - Changes in land use and land cover
- Ecosystem accounting

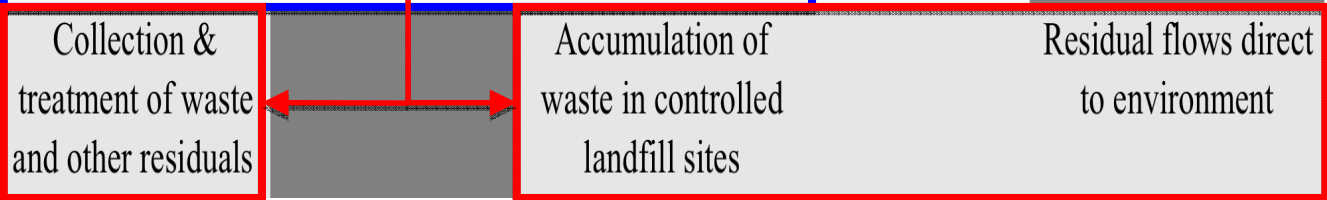
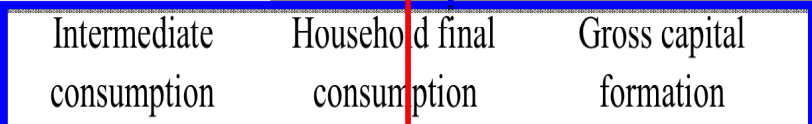
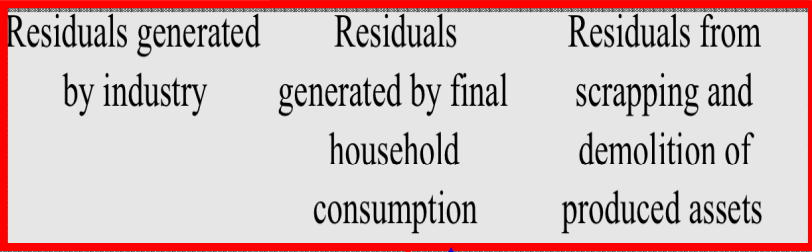


THE ENVIRONMENT-ECONOMIC LINK



	Industries	Households	Accumulation	Rest of the world	Environment	Total
Supply table						
Natural inputs					Flows from the environment	Total supply of natural inputs
Products	Output			Imports		Total supply of products
Residuals						Total supply of residuals
Use table						
Natural inputs	Extraction of natural inputs					Total use of natural inputs
Products	Intermediate consumption	Household final consumption	Gross capital formation	Exports		Total use of products
Residuals						Total use of residuals

	Industries	Households	Accumulation	Rest of the world	Environment	Total
Supply table						
Natural inputs					Flows from the environment	Total supply of natural inputs
Products	Output			Imports		Total supply of products
Residuals	Residuals generated by industry	Residuals generated by final household consumption	Residuals from scrapping and demolition of produced assets			Total supply of residuals
Use table						
Natural inputs	Extraction of natural inputs					Total use of natural inputs
Products	Intermediate consumption	Household final consumption	Gross capital formation	Exports		Total use of products
Residuals	Collection & treatment of waste and other residuals		Accumulation of waste in controlled landfill sites		Residual flows direct to environment	Total use of residuals



TYPES OF PHYSICAL FLOW ACCOUNTS

- Energy
- Water
- Air emissions (including GHG emissions)
- Solid waste
- Emissions to water
- Nutrients



ASSET ACCOUNTS

Opening stock of environmental assets		
Additions to stock		
	Growth in stock	
	Discoveries of new stock	
	Upward reappraisals	
	Reclassifications	
	<i>Total additions of stock</i>	
Reductions of stock		
	Extractions	
	Normal loss of stock	
	Catastrophic losses	
	Downward reappraisals	
	Reclassifications	
	<i>Total reductions in stock</i>	
Revaluation of the stock*		
Closing stock of environmental assets		

TYPES OF ENVIRONMENTAL ASSET ACCOUNTS

- Mineral and energy resources
- Timber – natural and cultivated
- Aquatic – natural/wild fish and aquaculture
- Other biological resources
- Water resources
- Land – land cover and land use, forest accounts
- Soil resources



ACCOUNTS FOR ENVIRONMENTAL ACTIVITIES AND TRANSACTIONS

- Environmental activities
 - Environmental protection
 - Resource management
- Environmental Protection Expenditure Account
- Environmental Goods and Services Sector (EGSS) statistics
- Environmental taxes and subsidies



COMBINED PRESENTATIONS

- Comparison between monetary and physical information possible through use of
 - Common and aligned structures
 - Aligned measurement boundaries
 - Consistent classifications (especially industry)
- Many possibilities
 - Thematic approach for energy, water, emissions, forests
 - “Production function” approach for individual activities – e.g. agriculture
- Organisation of data in combined presentation allows simple derivation of indicators



“SECTOR” AND ACTIVITY VIEWS

	Agriculture / Fishing / Tourism
Output (\$)	
Value added (\$)	
Employment (number)	
Assets (\$ / number)	
Land use (hectares)	
Water use (m3)	
Energy use (joules)	
Carbon emissions (tonnes)	
Solid waste (tonnes)	

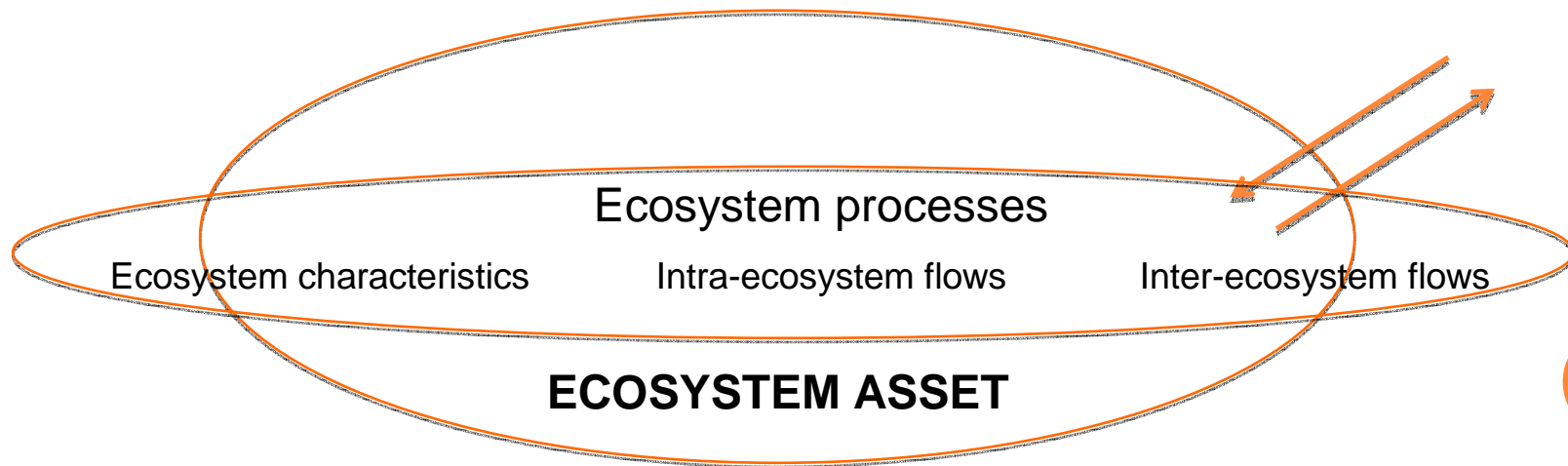


ECOSYSTEM ACCOUNTING

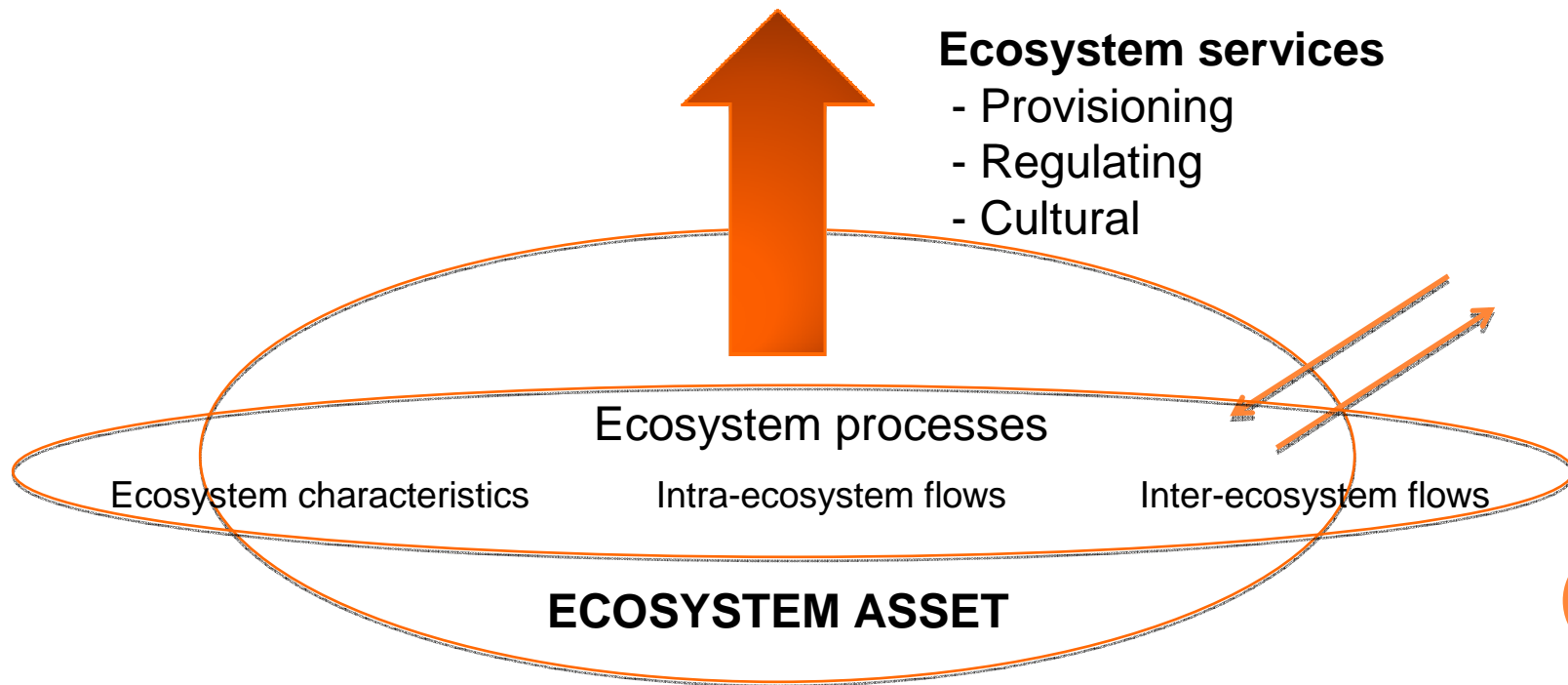
- Focus on monitoring environmental impact rather than environmental pressures
- Determine appropriate areas – ecosystem assets
- Find indicators of condition (e.g. carbon balances, water flows, biodiversity) and assess change over time
- Find indicators of ecosystem services
 - Provisioning, regulating, cultural
- Examine relationship between flows of ecosystem services and changing condition (essentially analysis in volume terms)
- Apply valuation as needed



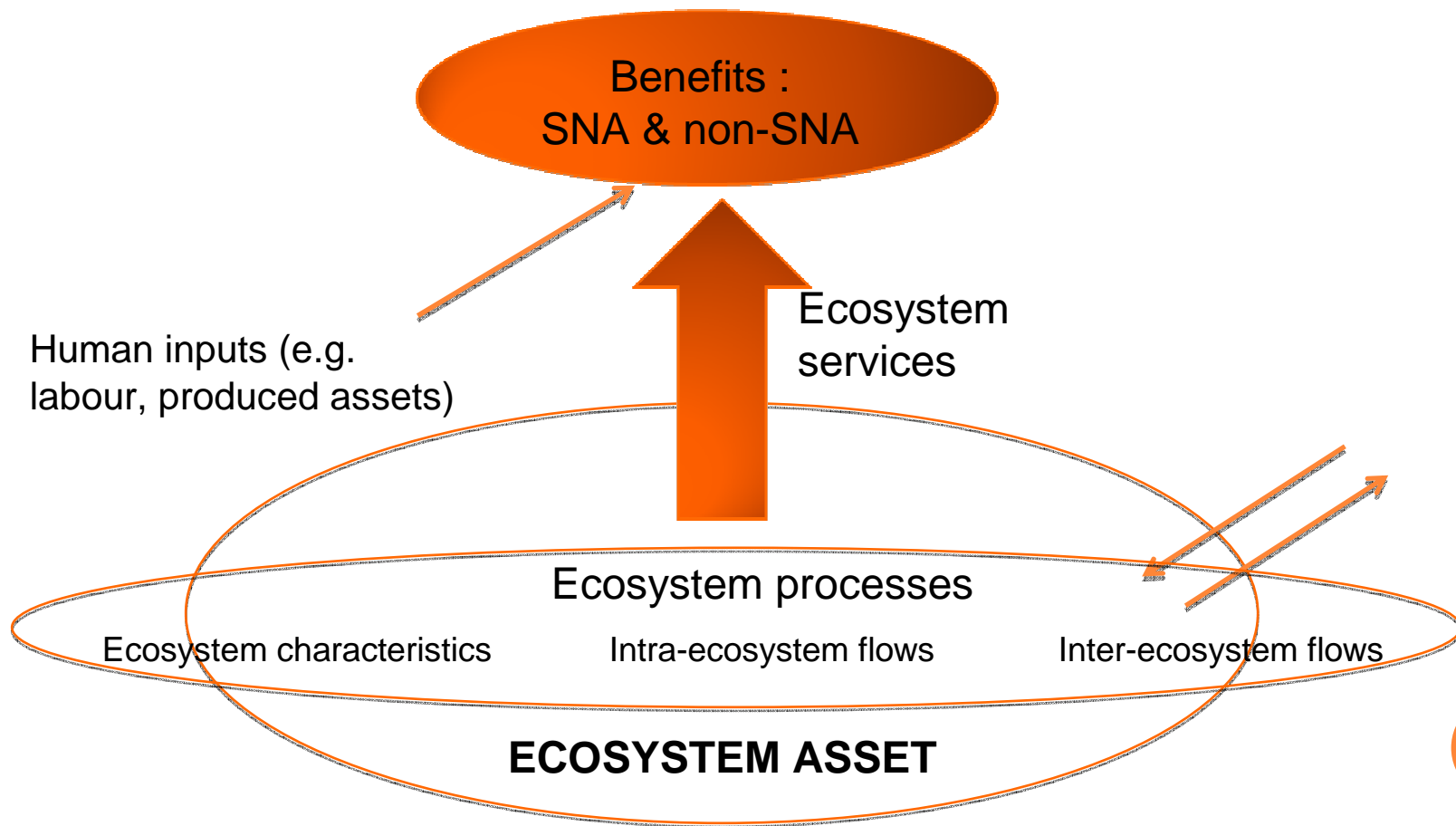
CORE SEEA ECOSYSTEM ACCOUNTING MODEL



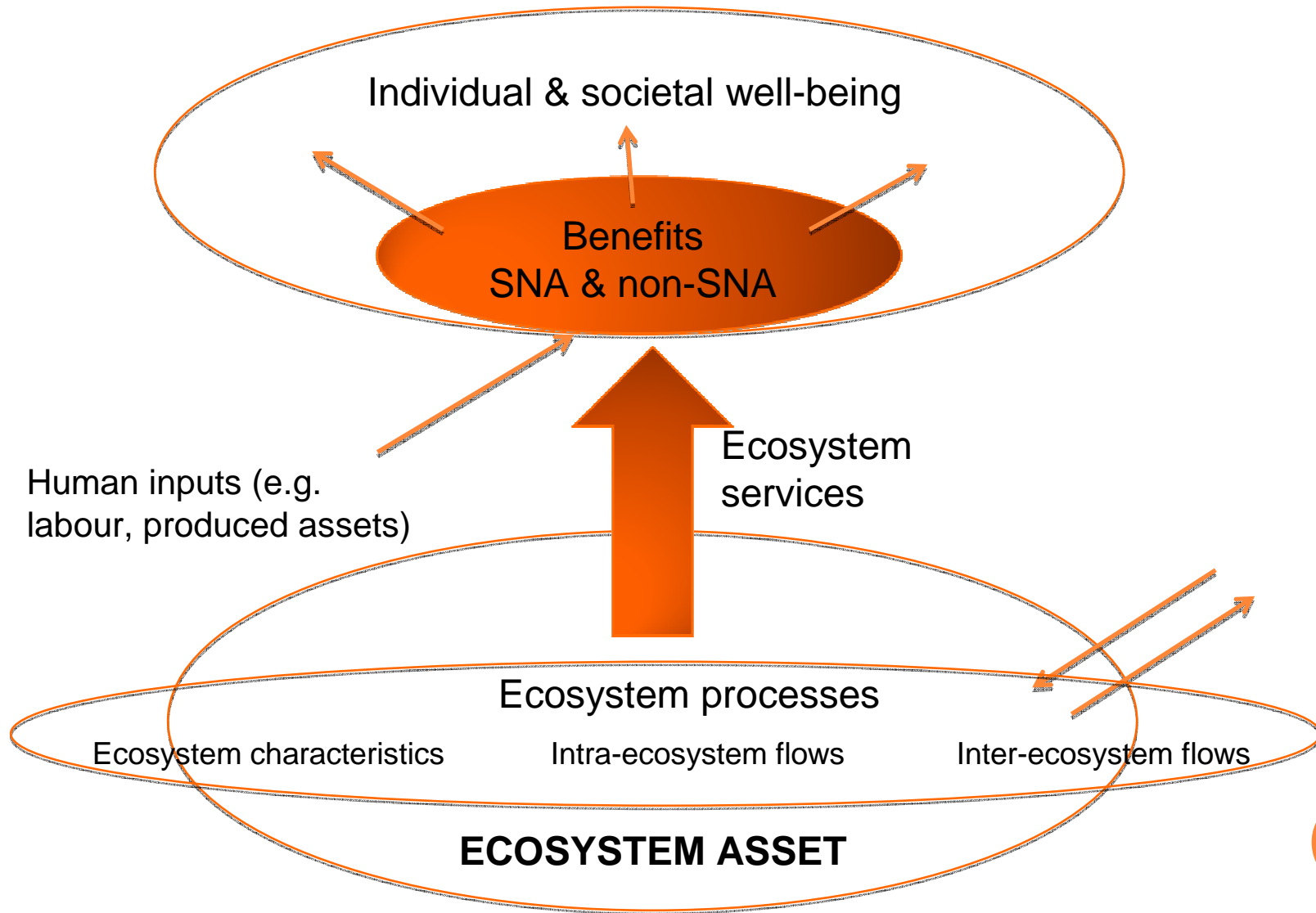
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