Conservation and Management of Natural Capital for achieving Sustainable Development Goals

Malvika Onial

WII-ADB Training Programme

15th July 2019

ADB

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

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Types of capital

- Capital: a widely used financial term, refers to financial assets or financial value of assets, which are used to generate more wealth, generally through investments

Financial capital

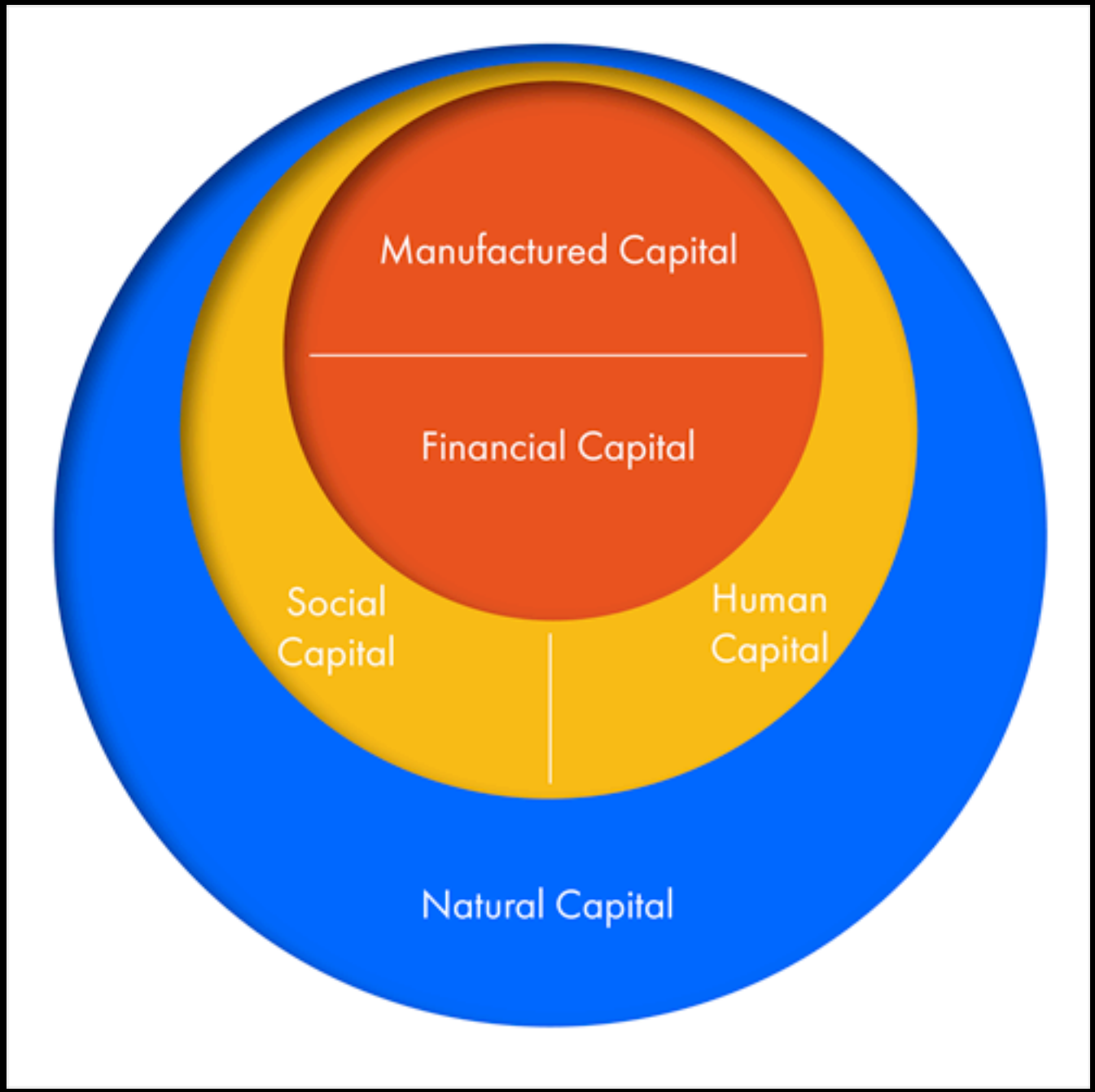
Manufactured capital

Human capital

Social capital

Natural capital

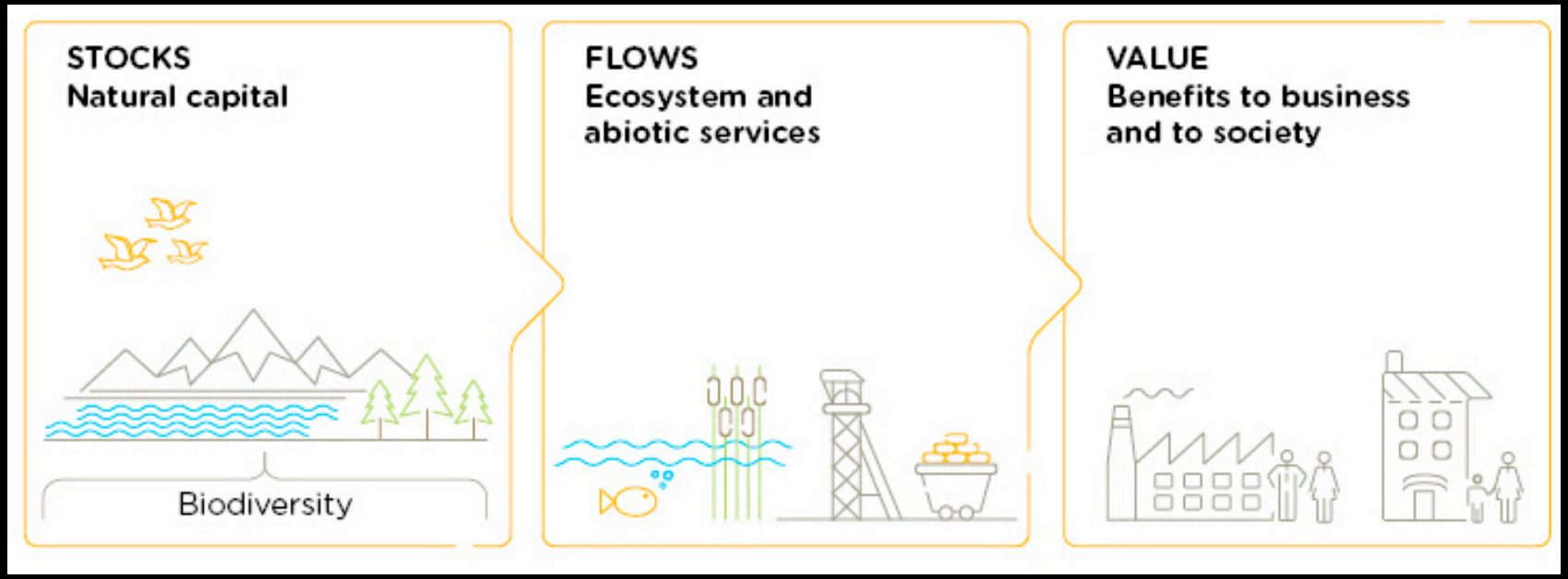
Source: AECOM



Source: Forum For The Future

What is natural capital?

- The stock of renewable and non-renewable resources that combine to yield benefits.
- Stock as natural capital and the flows as **ecosystem services.**
- Support other forms of capital by providing essential resources and services.



Source: Natural Capital Coalition

What are ecosystem services?

Ecosystem services are the benefits that people derive from biodiversity and the environment, *i.e.* the flow of benefits provided by natural capital.

Source: WWF 2016

The benefits that ecosystems contribute towards human well-being (Millennium Ecosystem Assessment, 2005).

Ecosystem services: Categories

- Provisioning services: products or goods - water, fish, timber
- Regulating services: ecosystem functions - flood control and climate regulation
- Cultural services: non-material benefits - recreational, aesthetic, and spiritual benefits
- Supporting services: fundamental processes - nutrient cycling, photosynthesis - that support the above three categories.

Dependence on natural capital

- In the Asia Pacific region, 30% of national wealth comes from natural capital (ADB 2017)

→ 85% in Bhutan, 39% in Viet Nam, and 19% in the Philippines

- Significant revenue generation and employment from natural capital

→ forests in Indonesia generate USD $21 billion per year and support 3.7 million jobs

→ a hectare of mangroves in Thailand: USD $18,641

→ NPV of India's forests per hectare: USD $21,295 to 46,675 (Verma et al 2014).

Where is the problem?

- Traditional measures of wealth such as GDP fail to appropriately capture natural capital and ES

  India, natural capital provides up to 53% of the wealth of the poor (TEEB 2010)

- Values reflect only market prices for traded commodities

- Severe declines in natural capital that threaten to constrain future economic growth.

Decline in natural capital: Consequences

- Cost of loss and degradation high:

➢ 25% of the land area in Asia and the Pacific was considered degraded in 2008

➢ land degradation and deforestation →increasing flood risks

➢ Compounded by climate change

→ South Asia: By 2030, floods could cost $215 billion each year

→ Coastal and marine ecosystems: loss of mangroves and coral reefs → reduced coastal resilience and reduced fisheries productivity.

Drivers of decline in natural capital

- agriculture expansion, intensification
- urbanization
- poaching
- infrastructure development

Transportation infrastructure

Continuing decline in natural capital due to unsustainable use and degradation of natural capital.

Protection and restoration of natural capital stocks to maintain ecosystem services is a key challenge.

ADB TAR 2017

Sustainable Development Goals (SDGs)

- 2030 Agenda for Development adopted by all United Nations Member States in 2015
- ➢ "a shared blueprint for peace and prosperity for people and the planet, now and into the future.
- At its heart are the 17 SDGs:
- ➢ an urgent call for action by all countries in a global partnership for →
- ➢ ending poverty and deprivations with strategies that improve health and education, reduce inequality, and spur economic growth,
- ➢ address climate change and preserve our oceans and forests."

https://sustainabledevelopment.un.org/sdgs


SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

SDG 9

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

- **Target 9.1**

Develop sustainable, resilient and inclusive infrastructures

Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Sustainable transport drives sustainable development

Source: UN HLG on Sustainable Transport

- Transport identified as a major component of sustainable development (UNSG Five-Year Action Agenda)

"Transport is not an end in itself but rather a means of allowing people to access what they need: jobs, markets and goods, social interaction, education, and a full range of other services contributing to healthy and fulfilled lives"

Source: UN HLG on Sustainable Transport

Achieving SDGs

Transport policies, initiatives and projects can contribute towards achievement of following aspects of the SDGs:

- Ending poverty, hunger and achieving food security (Goals 1 and 2)
- Improving road safety (Goal 3)
- Improving energy efficiency in the transport sector (Goal 7)
- Development of quality, reliable, sustainable and resilient transport infrastructure (Goal 9)

Achieving SDGs

Transport policies, initiatives and projects can contribute towards achievement of following aspects of the SDGs:

- Improvement of urban public transportation system (Goal 11)
- Climate impacts on transport and mitigation and adaptation measures (Goal 13)
- Collaboration and partnership to develop sustainable transport system (Goal17).

The way forward

The way forward

Planning and implementation of transportation projects

- ✓ Make transport planning, policy and investment decisions based on sustainable development dimensions—social development, environmental (including climate) impacts and economic growth.

- ✓ Integrate all sustainable transport planning efforts with an appropriately-balanced development of transport modes: integration vertically among levels of government and horizontally across modes, territories and sectors.

The way forward

- ✓ Create supportive institutional, legal and regulatory government frameworks to promote effective sustainable transport infrastructure

- ✓ Build technical capacity of transport planners and implementers through partnerships with

- international organizations
- multilateral development banks
- governments at all levels