



Convention on
Biological Diversity



Leveraging public programmes with socio-economic and development objectives to support conservation and restoration of ecosystems: lessons learned from national experiences

**A study commissioned by the CBD Secretariat in response to
decision XI/16**

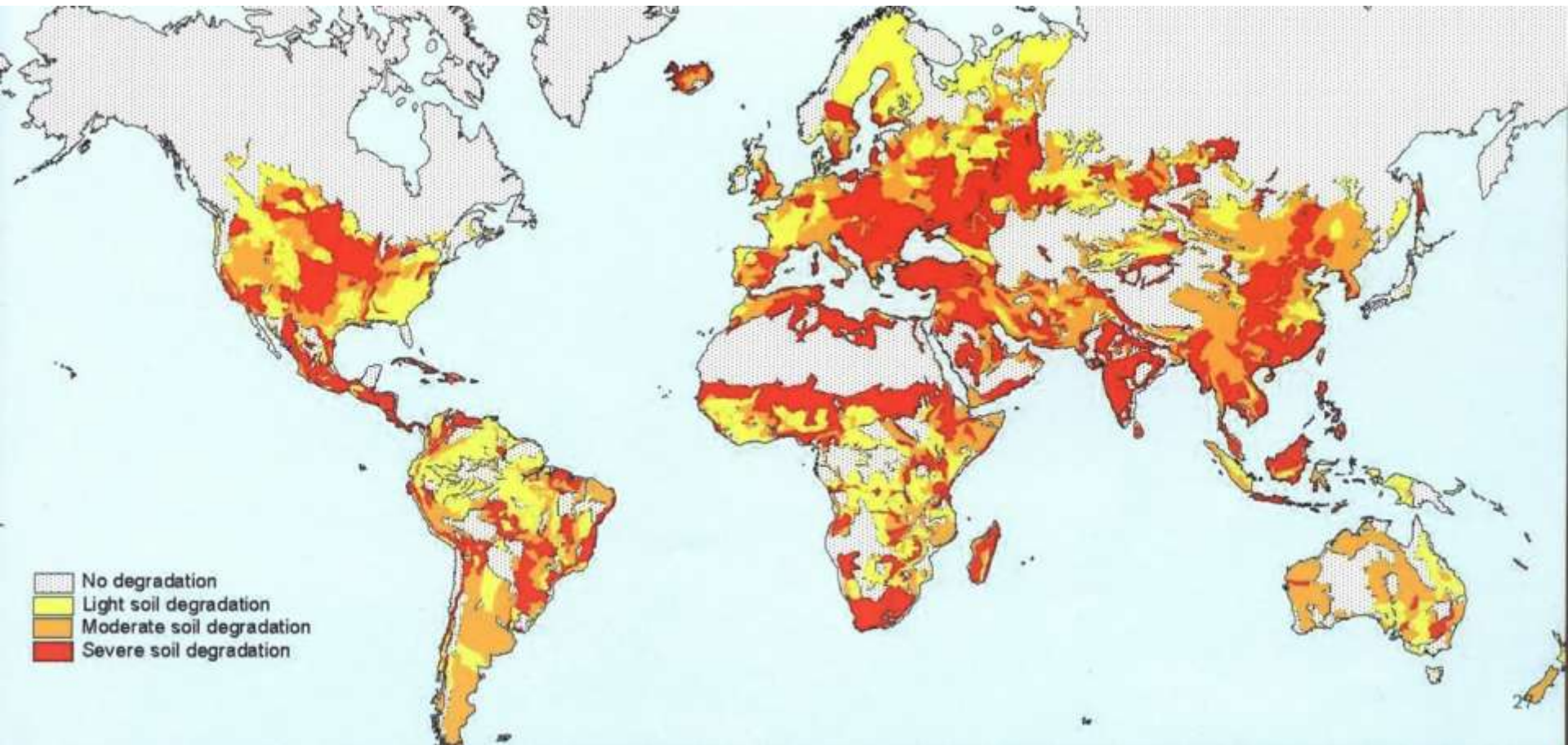
Sakhile Koketso
CBD Secretariat



Introduction



- The SPFB recognises that biodiversity underpins ecosystem functioning and the provision of ecosystem services
- There have been significant gains in the conservation of biodiversity, e.g. through increases in the global terrestrial and marine protected areas estate and recovery of species
- Biodiversity is still being lost and degraded at alarming rates and the magnitude of the threats to biodiversity is increasing
- Conservation of biodiversity will need to be enhanced in order to maintain biodiversity and the human systems that depend on it
- BUT also ... actions for restoring degraded ecosystems will have to be strengthened and up-scaled



Source: Ball State University

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Introduction



- There has been a lot of experience with the restoration of individual ecosystems, but not so much on large scale (landscape level) restoration
- Some countries have invested in large scale conservation and restoration of ecosystems utilizing public programmes to achieve lasting results



Introduction



- Public programmes have been used to address poverty and to protect the poor from temporary or chronic shocks such as natural disasters and unemployment
- Include:
 - employment guarantee schemes (annual)
 - short- term employment programmes
 - labour intensive public works programmes
 - social welfare programmes



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Objectives of the study



- To assist countries to:
 - understand the potential of public programmes with socio-economic and development objectives programmes to contribute simultaneously to poverty alleviation and development and large scale biodiversity conservation and ecosystem restoration goals
 - Provide countries with best practices and lessons learned

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Questions to be answered by the study



1. How were these public programmes developed?
 - i. What were their primary and secondary objectives?
2. How were the public programmes designed?
 - i. How was natural capital integrated into the programmes?
 - ii. Why was the natural capital integrated into the programmes?
3. What were the criteria for success of these programmes:
 - i. What were the enabling factors?
 - ii. What were the key principles that can be replicated?

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Initial findings from the Korean country study



1962: severely degraded forests due to the Japanese occupation (1910-1945) and the Korean War (1950-1953)

With GDP per capita of USD 82, ROK was one of the poorest, least developed countries in the world

Consequences of forest degradation included increased flooding, deepening poverty

Until 1950, fuelwood and charcoal accounted for 90.5% of the primary energy source

Rapid population growth resulted in increased charcoal consumption, demand for timber for construction, slash-and-burn practices, and illegal timber harvesting, further degrading the forests



Rehabilitation of eroded land in Yeongil district

Initial findings from the Korean country study



The forest rehabilitation of the ROK was implemented over 25 years (1962-1987), divided into 2 major periods

The first period (1962 – 1971):

- Implemented by the 1st and 2nd Economic Development Plans
- The focus was on the creation of fuel wood plantations to alleviate the fuel problems of rural areas and erosion control to rehabilitate degraded land
- 667,000 ha (6670 sq km) of fuel wood plantations were created
- As part of the food production and construction programme and under the framework of the Erosion Control Work Act, were reforested

How:

- Increasing incomes meant a shift to coal and anthracite in the cities and at the same time the government banned carrying fuel wood from rural areas to cities
- Government-based nurseries, forest cooperative-based nurseries, community-based nurseries (in about 300 villages) and village fuel wood lots
- Establishment of KFS
- Crack down on slash and burn activities

Initial findings from the Korean country study



The first period (1973 - 1987):

- Implemented by the 1st and 2nd National Forest Plans (NFP)
- The goal of the NFPs was to reforest 2,637,000ha (26,370 sq km)
- Erosion control works were planned on 84,000 ha (840 sq km)
- First NFP completed 4 years early, and second NFP completed one year early

How:

- Creation of 80 commercial forest complexes
- Implementation of the NFP in alignment with the Economic Development Plans, National Comprehensive Physical Development Plan and the *Saemaul Undong* (rural development programme)
- Utilization of nationwide tree planting:
 - Villages responsible for the 2km radius around them
 - Schools, financial institutions, private companies were responsible for nearby forests
 - Forest owners were responsible for reforesting their own lands



Before



After
Prescription



1 Years
Later



10 Years
Later

Progress in ROK's Forest Rehabilitation

Initial findings from the Korean country study



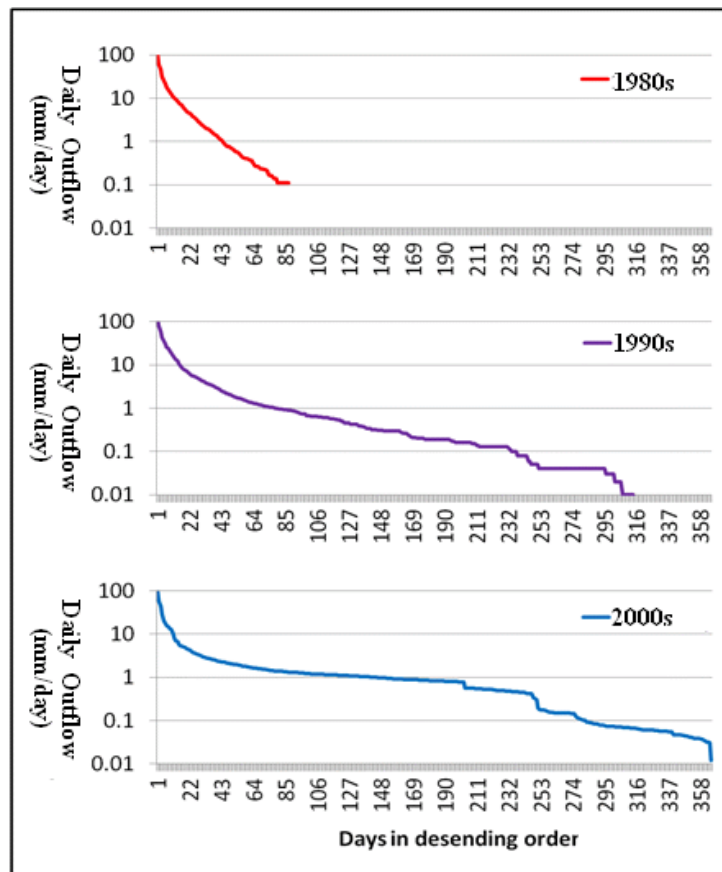
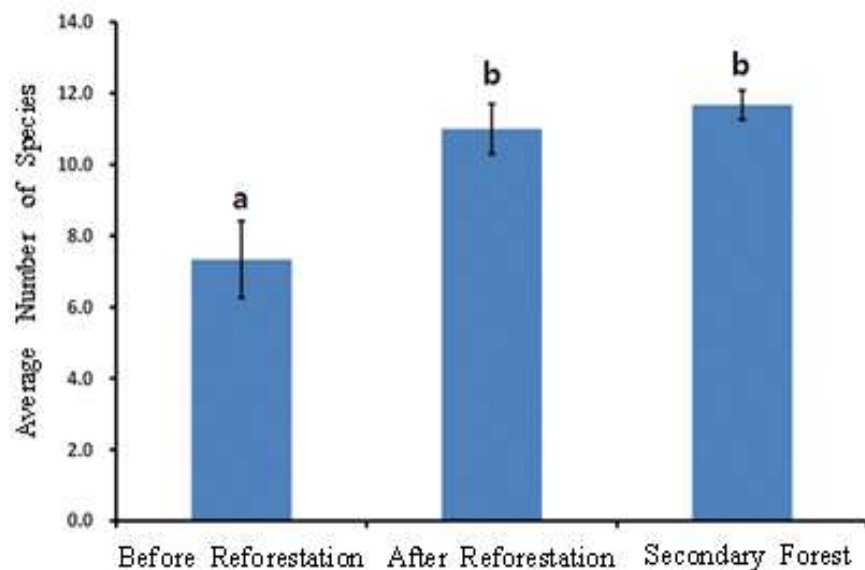
Outcomes:

Changes in Forest Resources: from 1952 to 2007, unstocked land dropped from 3.32 million ha to 0.17million ha, and the growing stock grew to 6.2 million ha from 3.4 million ha.

Changes in Biodiversity : increase in forest dependent species; increase in tree diversity; increase in diversity of bird species; increase in density of other forest mammals such as boar and deer.

Changes in Water Resources : increase in stream flow from 3 months in a year to year-round; reduction in sedimentation; reduction in floods.

Changes in Forest Recreational Resources : increase in the use of forests for recreational purposes.



<Change of Yangju Experimental Watershed by Decades>

Initial findings from the Korean country study



Factors for success:

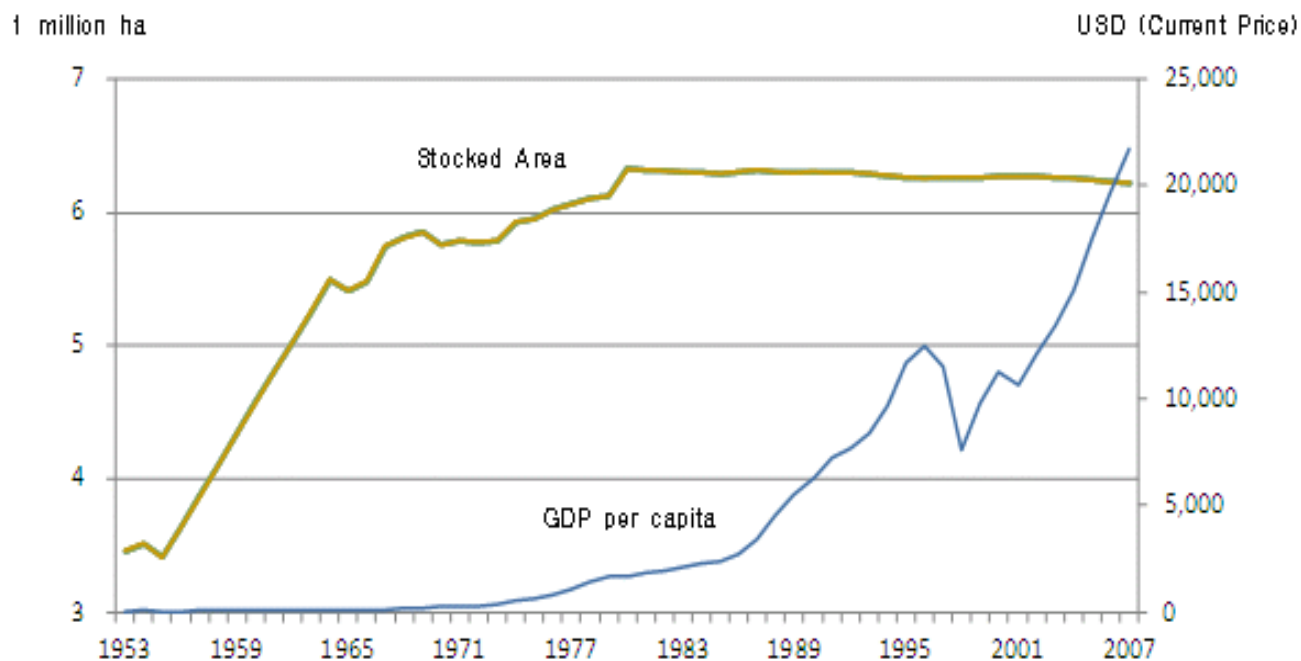
Strong Leadership by President Park: strong vision for the reforestation of denuded forest land within a short period of time, and chose forest rehabilitation as the top priority government project

Institutions: KFS was established as a separate organization under the MAF in 1967 and then moved to MOHA; combining the administrative power of the MOHA and technological power of the KFS, forest rehabilitation was effectively facilitated; ROK trained many forestry technicians and officials for the forest rehabilitation

Integrated Approach : NFP were directly related to the top priority government policies such as 5-Year Economic Development, National Comprehensive Physical Development Plan, *Saemaul Undong* (rural development programme)

Continuous Economic Growth : After 1962, ROK accomplished the continuous but rapid economic growth – transition in energy source from fuel wood to other sources

Migration of Rural Population into Cities



Changes in Forest Area and GDP per Capita (1953-2007)

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Initial findings from the South African country study



Context:

Environmental programmes with the combined objective of creating employment have been in place in South Africa since 1995

The environmental programmes are implemented under the broader umbrella of the South Africa's Expanded Public Works Programme (EPWP)

EPWP projects in this sector involve the employment of people on labour-intensive projects with environmental objectives

Current programmes had their origins in the Working for Water (WfW) programme which had the following objectives: controlling invasive alien plants, improving runoff and providing social improvement for communities who were disadvantaged by Apartheid

The programme has since expanded to include other environmental objectives and there are now two main programmes:

- Natural resources management (NRM)
- Environmental Protection and Infrastructure Programme (EPIP)

Initial findings from the South African country study



NRM sub-programmes address threats to the productive use of land and water as well as the functioning of natural systems, including invasive alien species, wild fires and land degradation

NRM has 7 sub-programmes:

- Working for Water
- Working for Ecosystems
- Working for Forests
- Working for Energy*
- Eco-Furniture Programme*
- Working on Fire
- Working for Wetlands



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Initial findings from the South African country study



EPIP includes sub-programmes which support municipalities in the fulfilment of environmental responsibilities

EPIP also has 7 sub-programmes:

- Working on Waste
- Working for the Coast
- Working for Land
- Greening & Open Space Management
- People & Parks
- Wildlife Economy
- Youth Environmental Service



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Initial findings from the South African country study



Factors for success:

A unique opportunity – South Africa in transition in the 1990s

High-level Political Support

Strategically positioned technical support and consistent, committed high level leadership

Linking the environment with social needs: Two for the price of one

Emphasising the potential economic benefits

Publicising the successes

Ongoing allocation of reliable and consistent funding at a national level



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Historical Work	Working for Water		EPIP (SRPP)		Working on Fire	
Financial Year	Budgets South African ZAR ('000s)	Full-time Equivalents (FTEs)*	Budgets South African ZAR ('000s)	Full-time Equivalents (FTEs)	Budgets South African ZAR ('000s)	Full-time Equivalents (FTEs)
1995/1996	R 27 046	2026				
1996/1997	R 86 668	6281				
1997/1998	R 251 436	15196				
1998/1999	R 260 534	12359				
1999/2000	R 241 762	11853	R 28 721			
2000/2001	R 328 520	11143	R 132 978	214		
2001/2002	R 365 923	9820	R 196 757	3258		
2002/2003	R 396 300	12343	R 240 969	4629		
2003/2004	R 393 124	7538	R 323 593	7333	R 21 000	
2004/2005	R 422 932	5141	R 391 122	5195	R 36 100	852
2005/2006	R 400 175	6910	R 416 428	8298	R 40 000	1482
2006/2007	R 354 371	6131	R 447 551	11493	R 49 500	1587
2007/2008	R 384 228	7119	R 707 660	5451	R 69 146	1440
2008/2009	R 477 481	7193	R 818 956	3777	R 100 158	2017
2009/2010	R 508 772	6862	R 758 716	4110	R 108 208	1802
2010/2011	R 748 893	9915	R 605 819	9229	R 208 115	3078
2011/2012	R 966 188	7930	R 630 519	10434	R 338 339	4710
2012/2013	R 1 196 456	12020	R 1 129 900	17766	R 400 090	5515

*A Full-Time Equivalent job is 230 person days worked within a financial year. Thus, in 2012/13 the Branch had a budget of ZAR2 726 446 000, and created 35 301 FTEs or over 8 119 000 person days.



Thank you for your attention!

Secretariat of the Convention on Biological Diversity

413 Saint Jacques Street, Suite 800

Montreal, QC, H2Y 1N9, Canada

Tel: +1 514 288 2220

Fax: + 1 514 288 6588

Email: secretariat@cbd.int

www.cbd.int

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