Australia-ADB South Asia Development Partnership Facility

Bhutan Country Diagnostic Study

Outline of the Presentation

I. Diagnostic Methodology

II. Application

   i. From Theory to Practice

   ii. The Process

III. Key Questions for the Study

I. Diagnostic Methodology for Development Planning

- Why need a new approach to development planning?
  - Disappointments with Washington Consensus
  - Realization that every country is unique-both in terms of strengths and weaknesses, and also in terms of the constraints that it faces
  - Not all constraints are equally binding and critical.
  - Countries often lack resources to tackle all the constraints simultaneously.
- What does the diagnostics do?
  - Identify the most binding constraints and figure out policy priorities.
- How to identify the most binding constraints?
  - Identify proximate determinants of growth and social development.
  - Figure out which of these are the greatest impediments.
  - Identify the specific distortions behind the impediments.

Washington Consensus

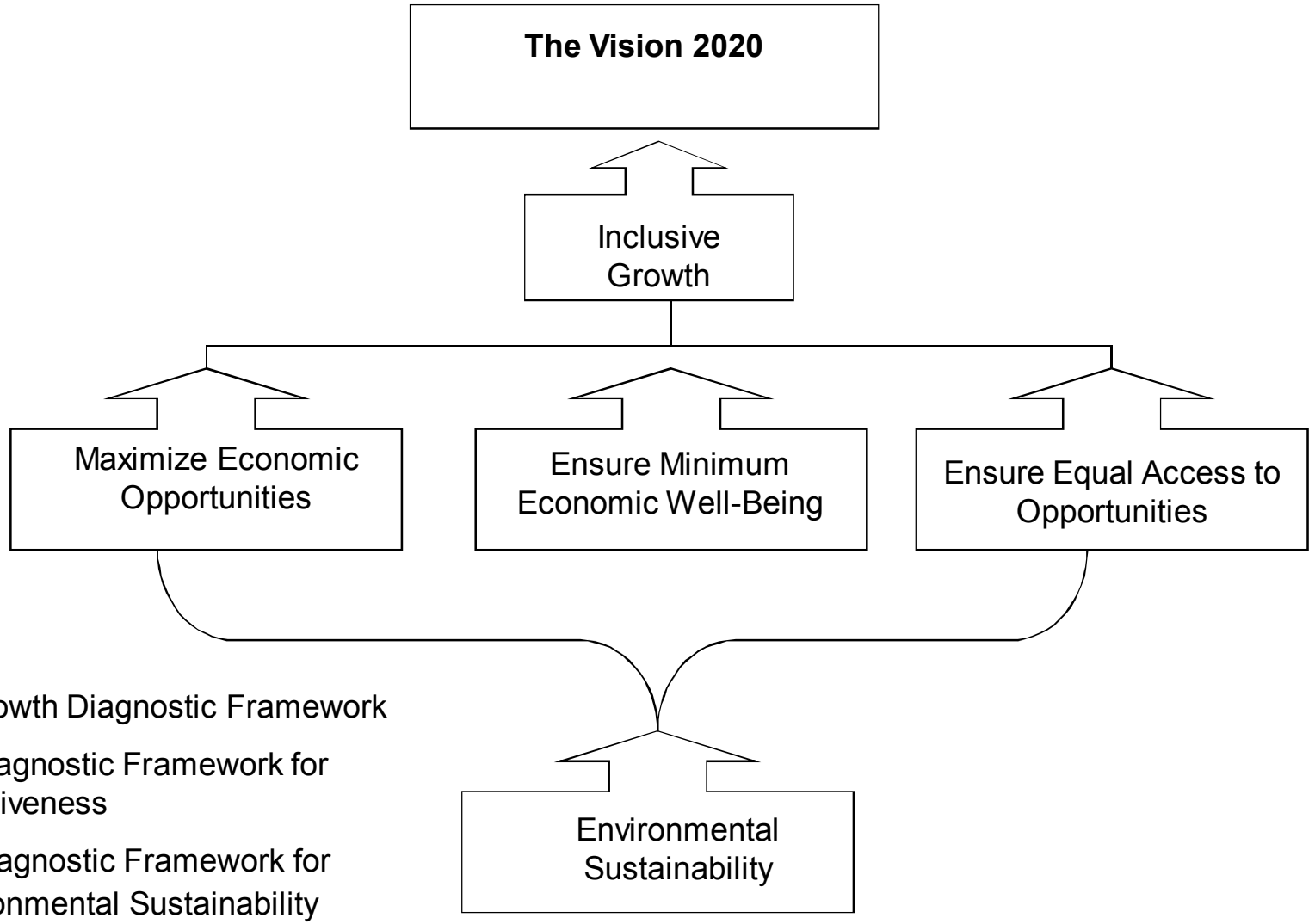
Original Washington Consensus:

1. Fiscal discipline.
2. Reorientation of public expenditures.
3. Tax reform.
4. Financial liberalization.
5. Unified and competitive exchange rates.
6. Trade liberalization.
7. Openness to FDI.
8. Privatization.
9. Deregulation.
10. Secure property rights.

"Augmented" Washington Consensus, 1-10 plus:

11. Corporate governance.
12. Anti-corruption.
13. Flexible labor markets.
14. WTO agreements.
15. Financial codes and standards.
16. "Prudent" capital-account opening.
17. Corner exchange rate regimes.
18. Independent central banks.
19. Social safety nets.
20. Targeted poverty reduction.

Inclusive Growth Concept

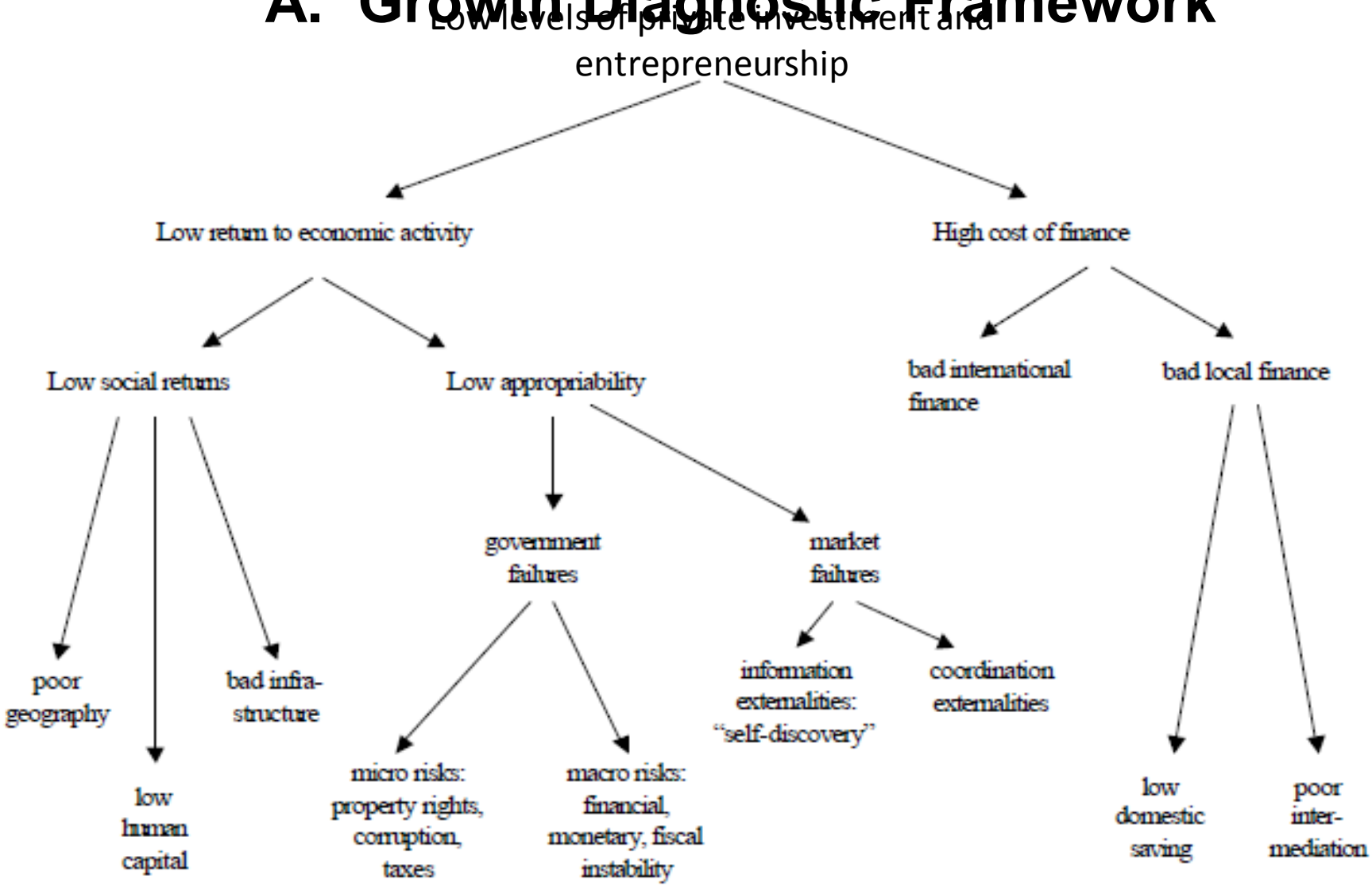


A. Growth Diagnostic Framework

B. Diagnostic Framework for Inclusiveness

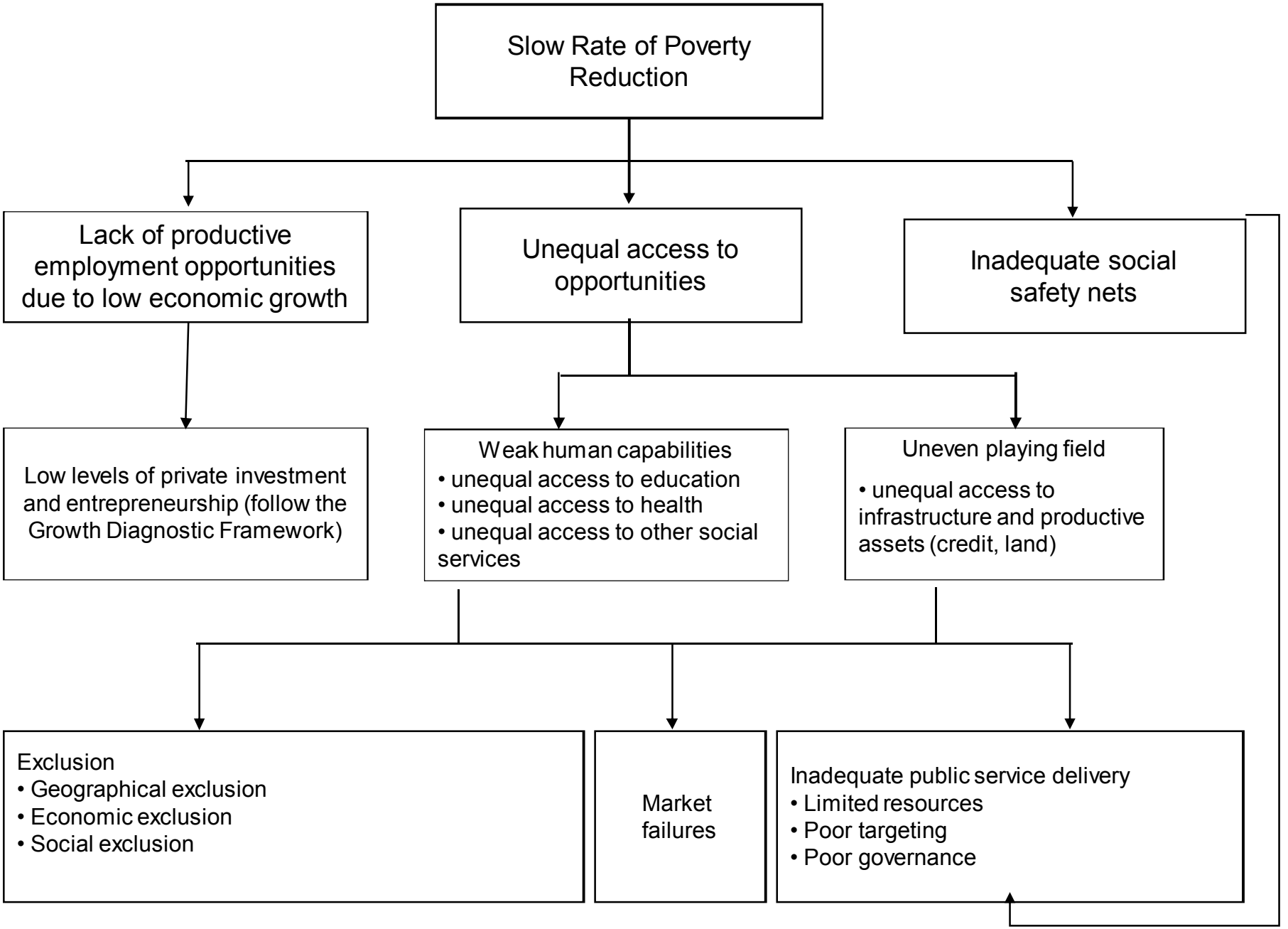
C. Diagnostic Framework for Environmental Sustainability

A. Growth Diagnostic Framework

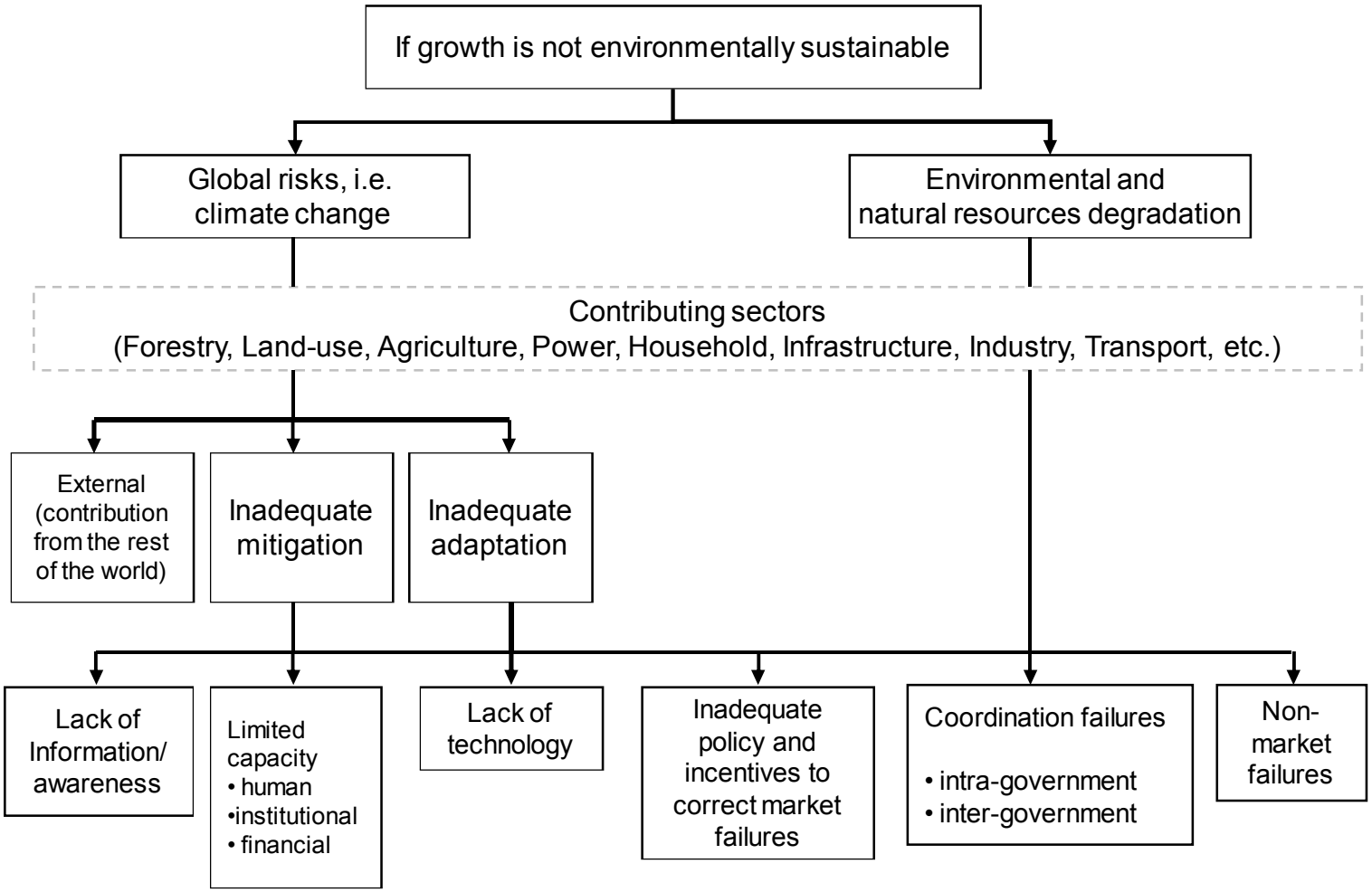


Source: Hausmann, Rodrik and Velaso (2005)

B. Diagnostic Framework for Inclusiveness



C. **Diagnostic Framework for Environmental Sustainability**



II. Application– From Theory to Practice

A. Price and Non Price Signals

1. Price Signals:

   Searching for price signals: e.g., return to education, interest rates, cost of transport, private health expenditures:

   - If low education is a serious problem, returns to skill/education should be high and unemployed skilled people should be low.
   - If investment is constrained by savings, interest rates should be high and growth respond to changes in available savings (e.g., inflow of foreign capital).
   - If poor transport links are a constraint, there should be bottlenecks and high private cost of transport.
   - If poor health is a serious problem, then household expenditures on curative health services will be comparatively high

2. Non-price signals:

- When a constraint binds, it results in activities designed to get around it:
  - High tax → high informality.
  - Poor legal institutions → high demand for informal mechanisms of conflict resolution and contract enforcement.
  - Constrained access of investors to finance→ internalization of finance through business groups, etc.
  - Constrained access of households to finance → thriving money lending business
  - Scarce human capital → high in migration of skilled workers

B. Comparative Approaches

1. Bench-marking
    - With time periods-high growth episodes vs low growth episodes
        - If the country could register a high level of economic growth in the past; what has changed since then?
        - If the country, despite poor infrastructure or poor governance, could register a high level of growth in the past; poor infrastructure or governance are not critical
    - With other countries (similar but better performing)
        - Indonesia or Philippines vs Thailand or Malaysia
        - Within the country-vs other regions, sectors and industries
        - Faster growing regions with the lagging regions – in Indonesia Java and Sumatra vs Paua, Maluku or East Nusa Tengara
        - Faster growing sectors/industries vs slow moving ones – textiles in Cambodia vs agriculture

2. Types of evidence

- Direct evidence
  - rates of return, costs, salaries/wages etc
  - Indirect evidence (country or sector specific studies)
  - Rate of returns for firms delivering a particular product, and regression and correlation results.
- Business Community/Investor feedback
  - Investment climate surveys,
  - Enterprise Surveys,
  - Global Competitiveness Report,
  - Doing Business Surveys
  - Governance Perception Indices

II. Application – The Process

1. Conduct of Inception workshop
   - Present study methodology/approach to a wider audience (other government agencies, civil society, private sector, academe, development partners)
   - Outline the process
   - Build channels of communication to follow the study (website, mailing list, contact persons)
2. Study tour
3. Conduct of Training in Diagnostic Approaches
4. Conduct of Overarching Diagnosis
   - Analysis undertaken preferably through own staff resources, complemented by consultants
   - Identify broad areas of constraints that can be subject of more in-depth diagnostics
   - Maintain interaction with government focal points
5. Conduct of 1st Consultation Workshop
   - Present findings of the overarching diagnosis
   - Seek consensus on findings and further studies

6. Conduct of Enterprise Survey
7. Conduct of In-depth studies
    - Engage sector experts
    - Identify critical constraints within the selected areas/sub-sectors
    - Identify policy recommendations to overcome the constraints
8. Conduct of 2nd Consultation
    - Present findings of the in-depth studies
    - Present policy options to overcome constraints
    - Solicit stakeholders' feedback on findings and recommendations
9. The Report
    - Compile the draft report taking into account stakeholder feedback
    - Circulate the draft report for comments from key stakeholders
    - Finalize the report by incorporating/addressing the comments
10. Report Launch/Dissemination Activities
    - In-country dissemination
    - Regional dissemination

III. Key Questions for the Bhutan Diagnostic Study

Economic Growth

- Is there sufficient level of private investment in the country and in the key sectors?
- If not;
  - Is the cost of finance high? If so; why?
  - Are the returns to investment low? If so; why?

Inclusiveness of Growth

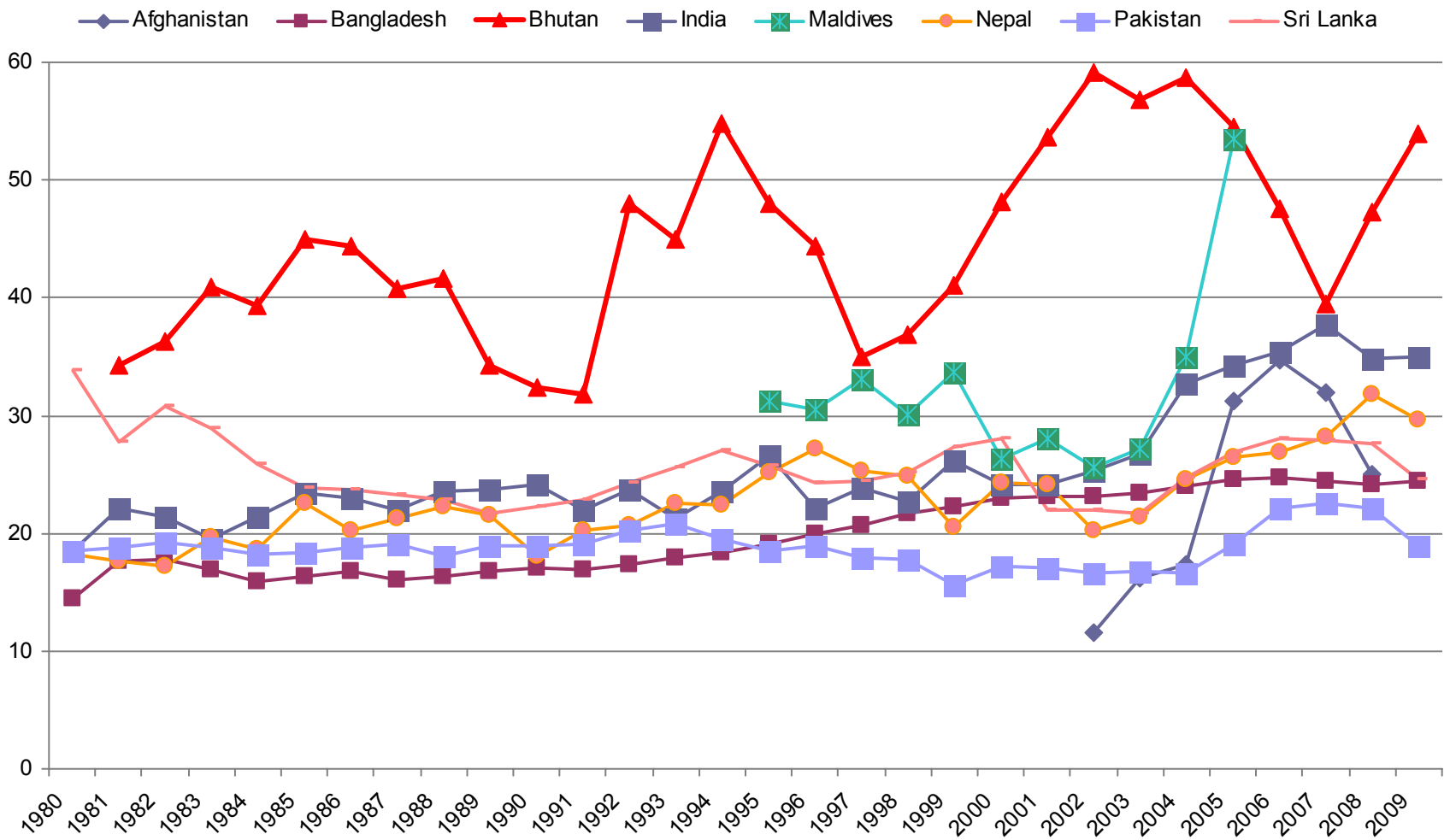
- What are the trends in poverty and income inequality levels?
- If poverty or inequality is high;
  - Are there adequate opportunities for employment?
  - Are there inadequacies in access to social services and facilities? If so; why?
  - Are there inadequacies in access to infrastructure and productive assets? If so; why?
  - Are there inadequacies in access to social production and safety nets? If so; why?

Environmental Sustainability

- Is the quality of environment being maintained or improved? If no, what are the underlying causes?

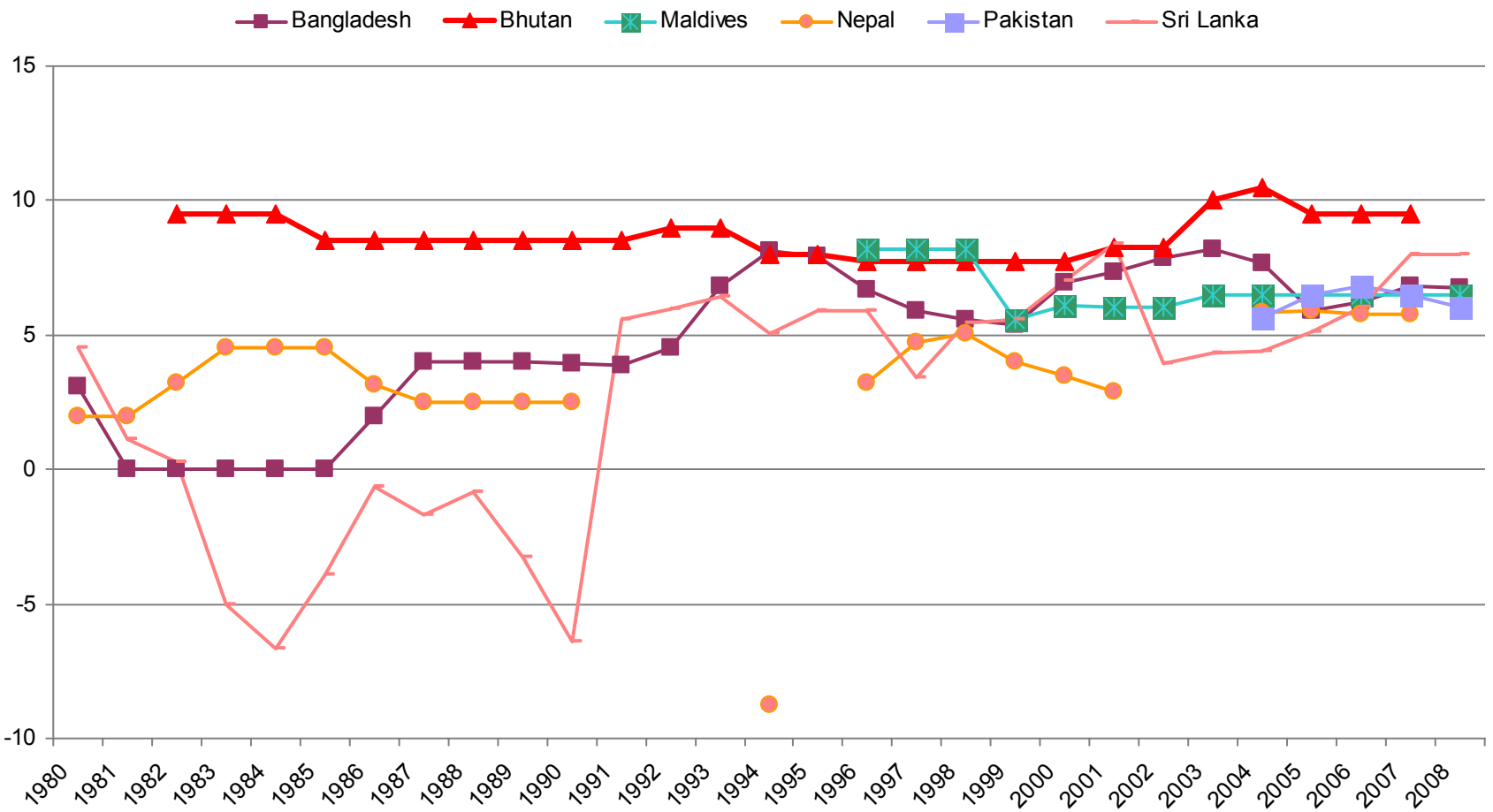
- Are the natural resources being exploited in a sustainable manner? If no, what are the contributing factors- local or regional/global?

Investment Rate is high but fluctuating and largely concentrated in one or two sectors



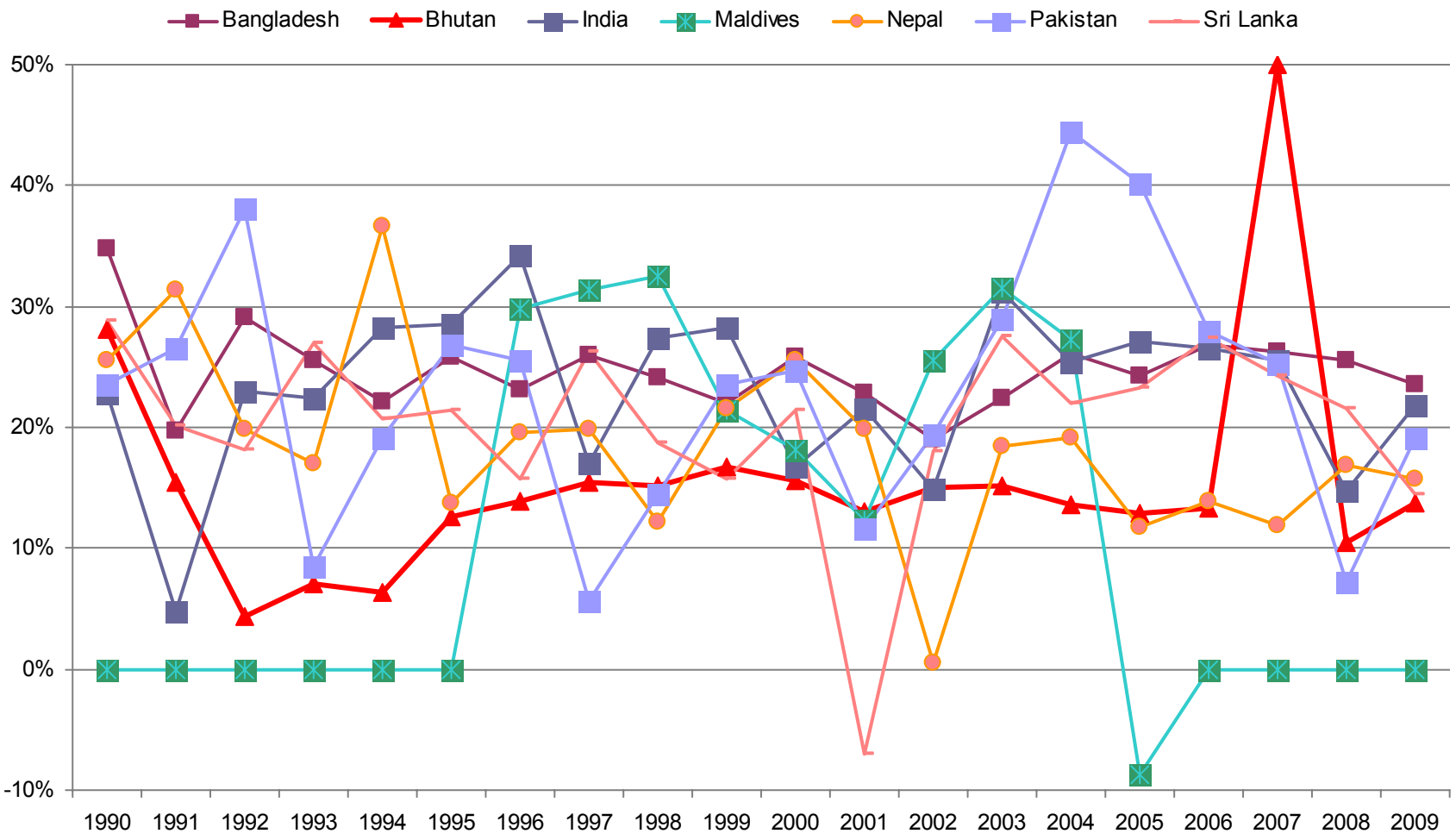
Source: World Development Indicators, Accessed, February 2011

Spread between lending and deposit rates is one of the highest in South Asia.



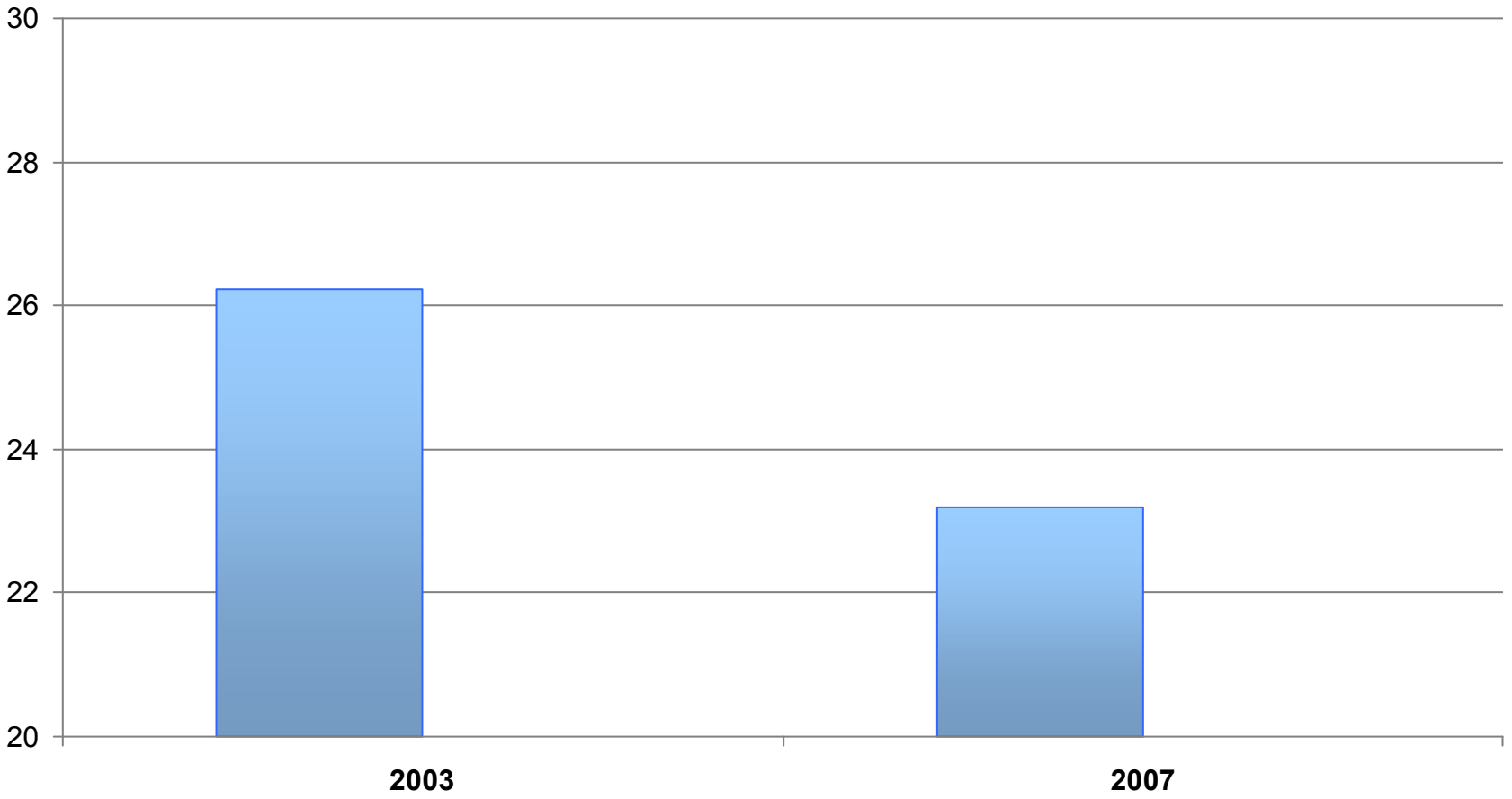
Source: World Development Indicators, Accessed, February 2011

Social returns to investment are low



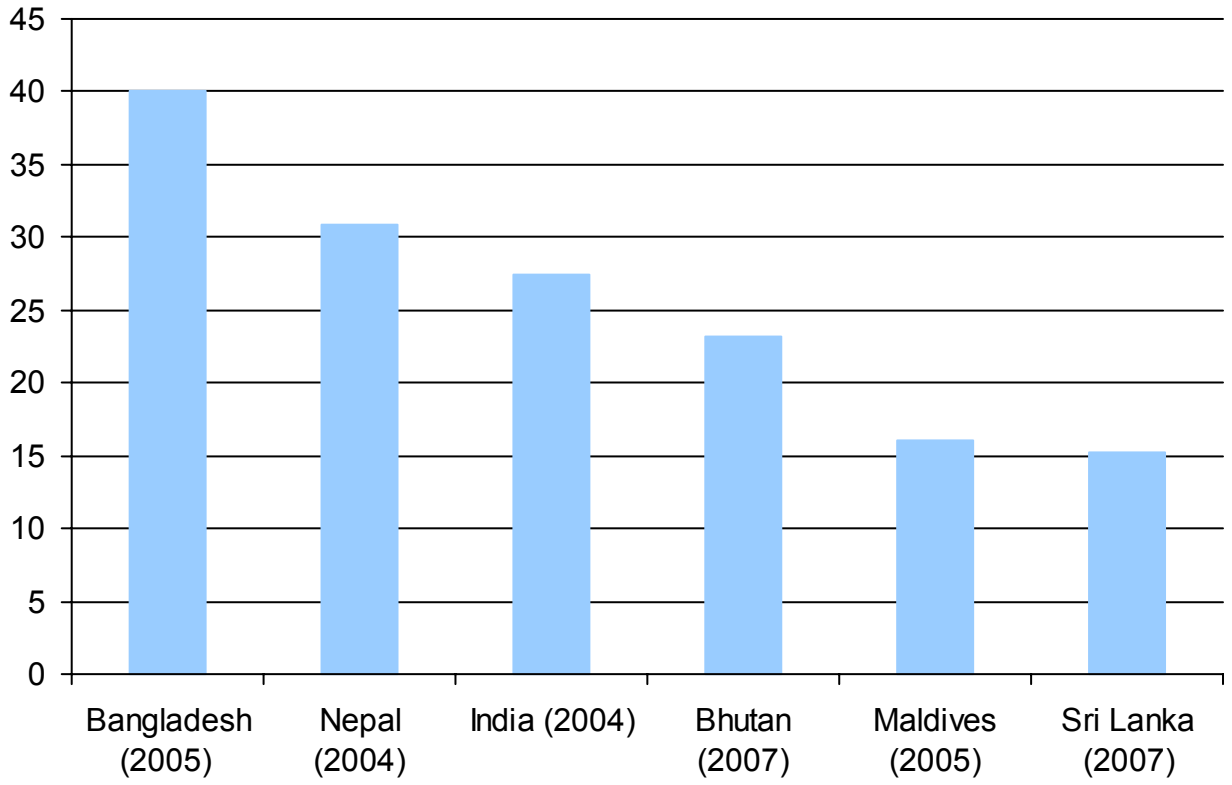
Note: Returns have been estimated as the ratio of GDP Growth Rate and Gross Capital Formation as percentage of GDP
Source: World Development Indicators, Accessed, February 2011

Poverty level has declined

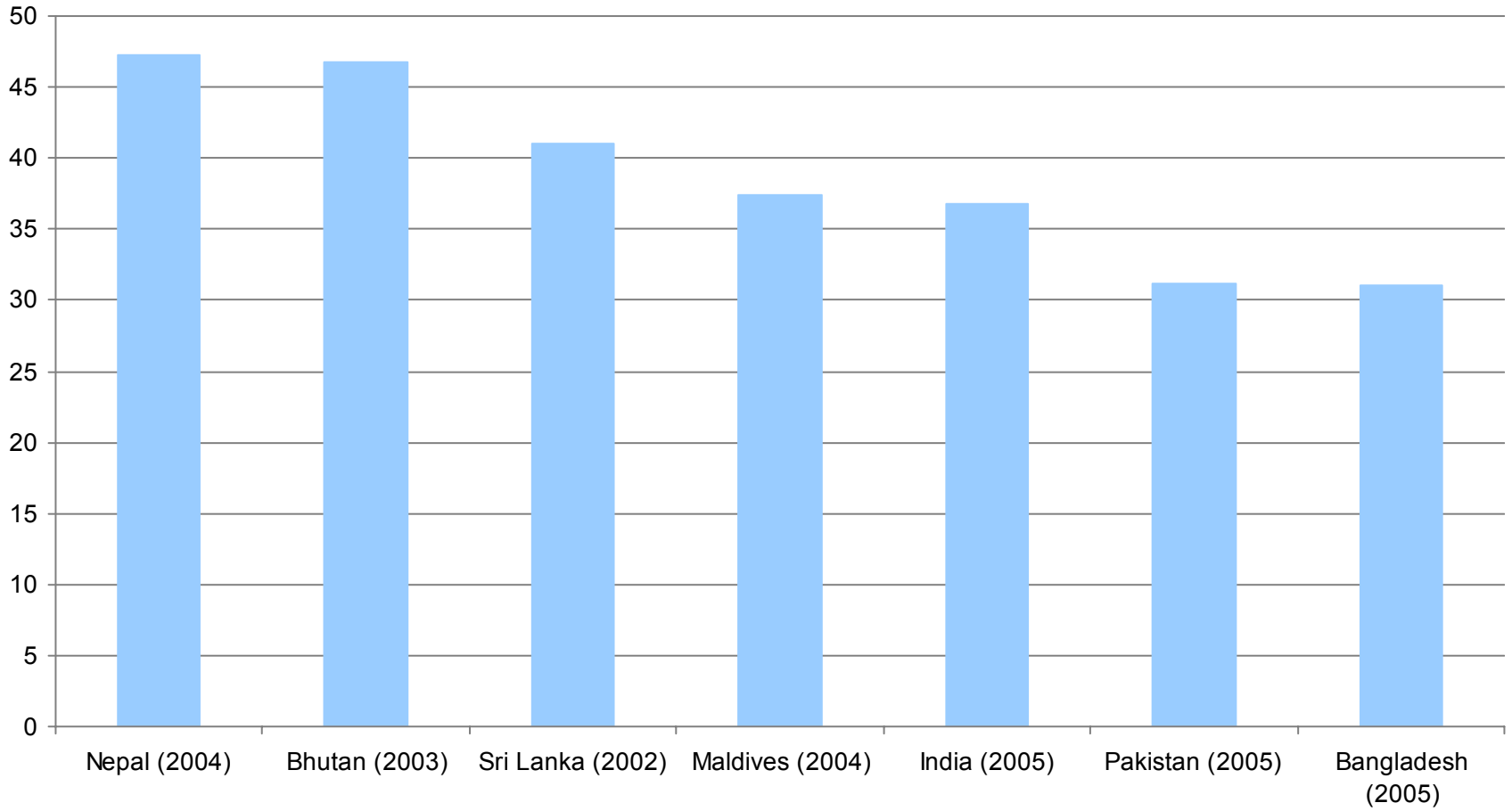


Source: 2007 data from ADB KI while 2003 data from WDI.

But poverty level is still higher than some countries in the region

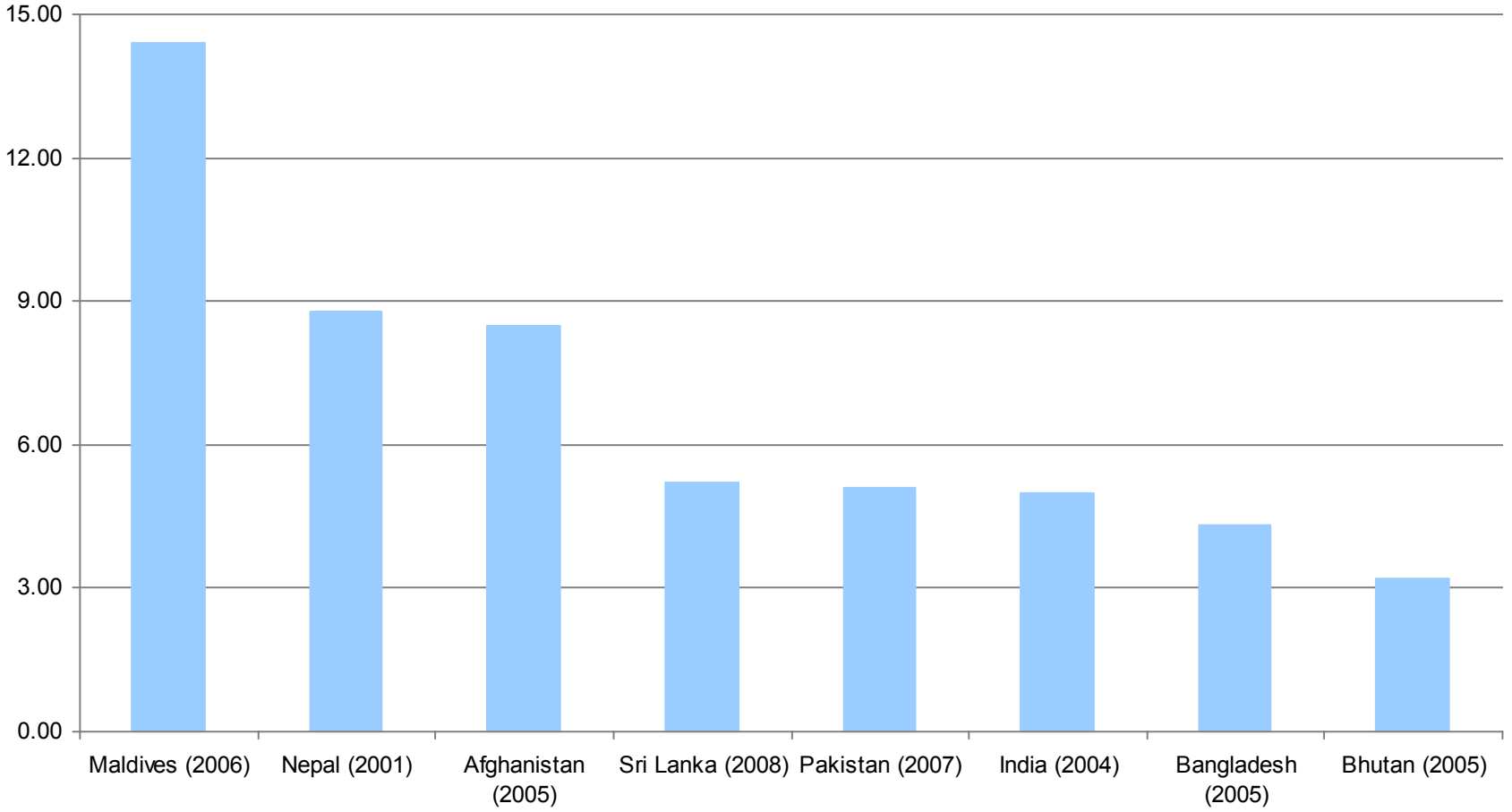


Inequalities as measured by income/expenditure Gini Coefficient are high



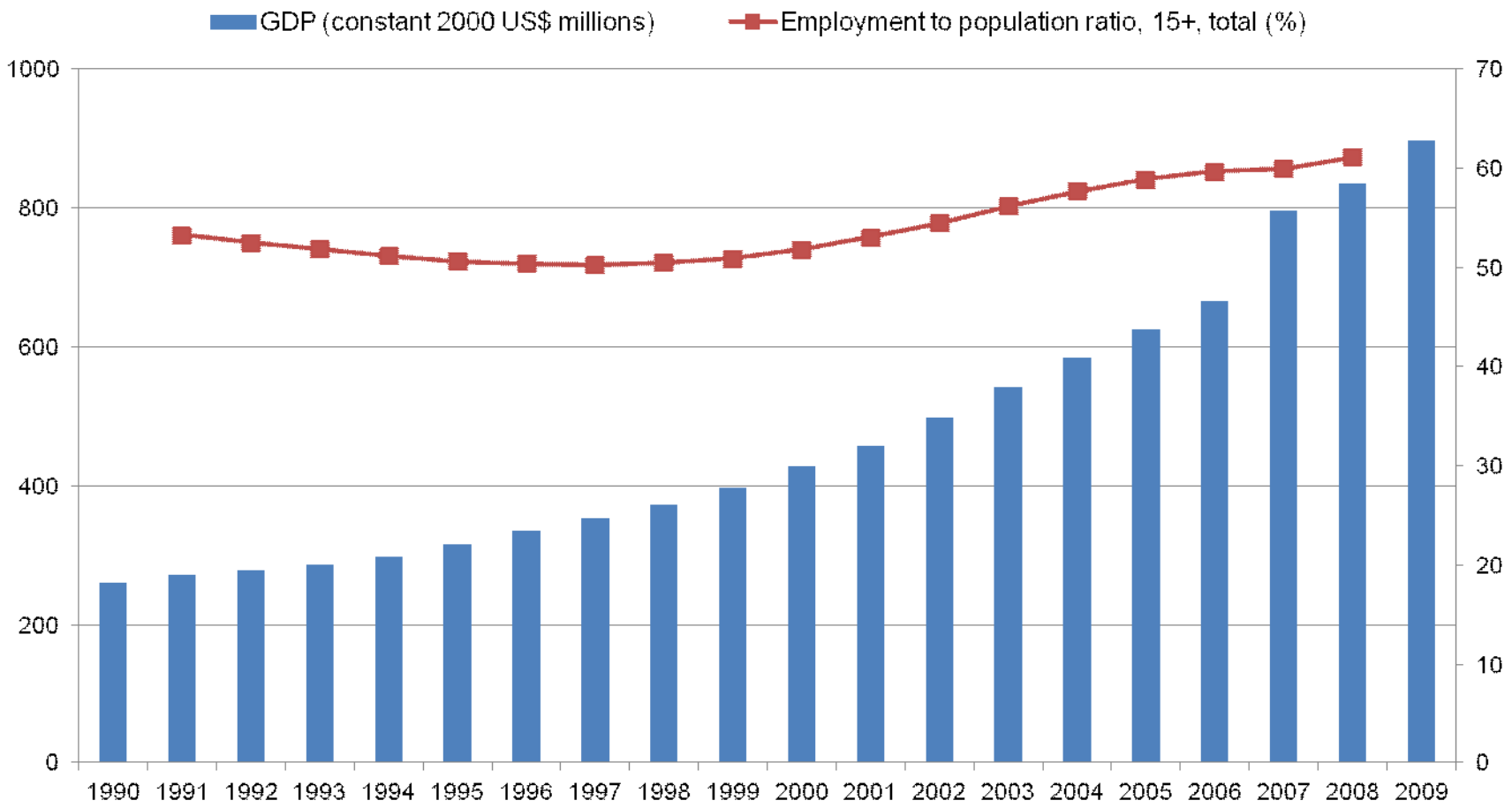
Source: ADB Key Indicators 2010

Unemployment is lowest in the region



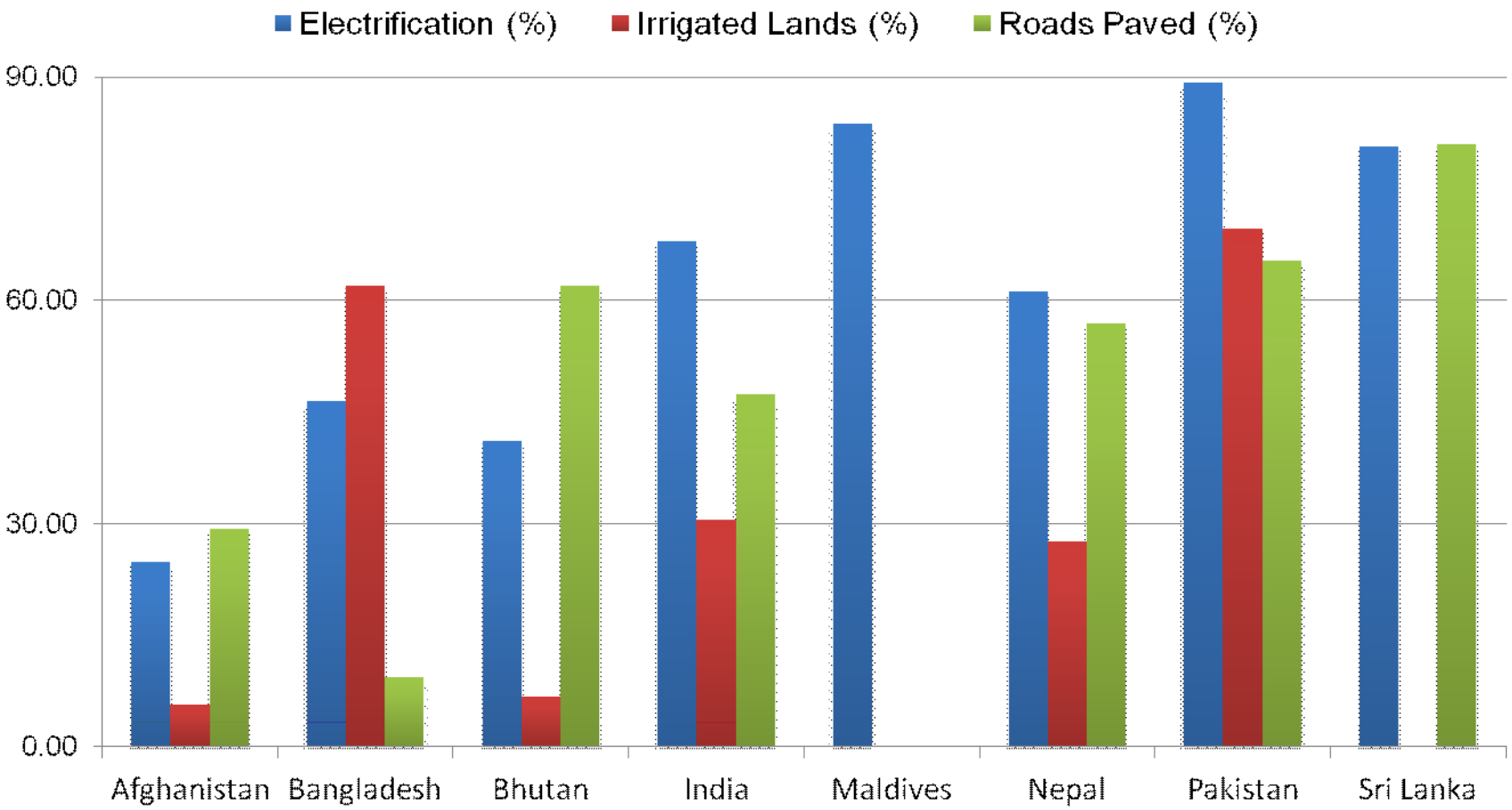
Source: World Development Indicators, accessed February 2011

But employment growth is not keeping up with economic growth



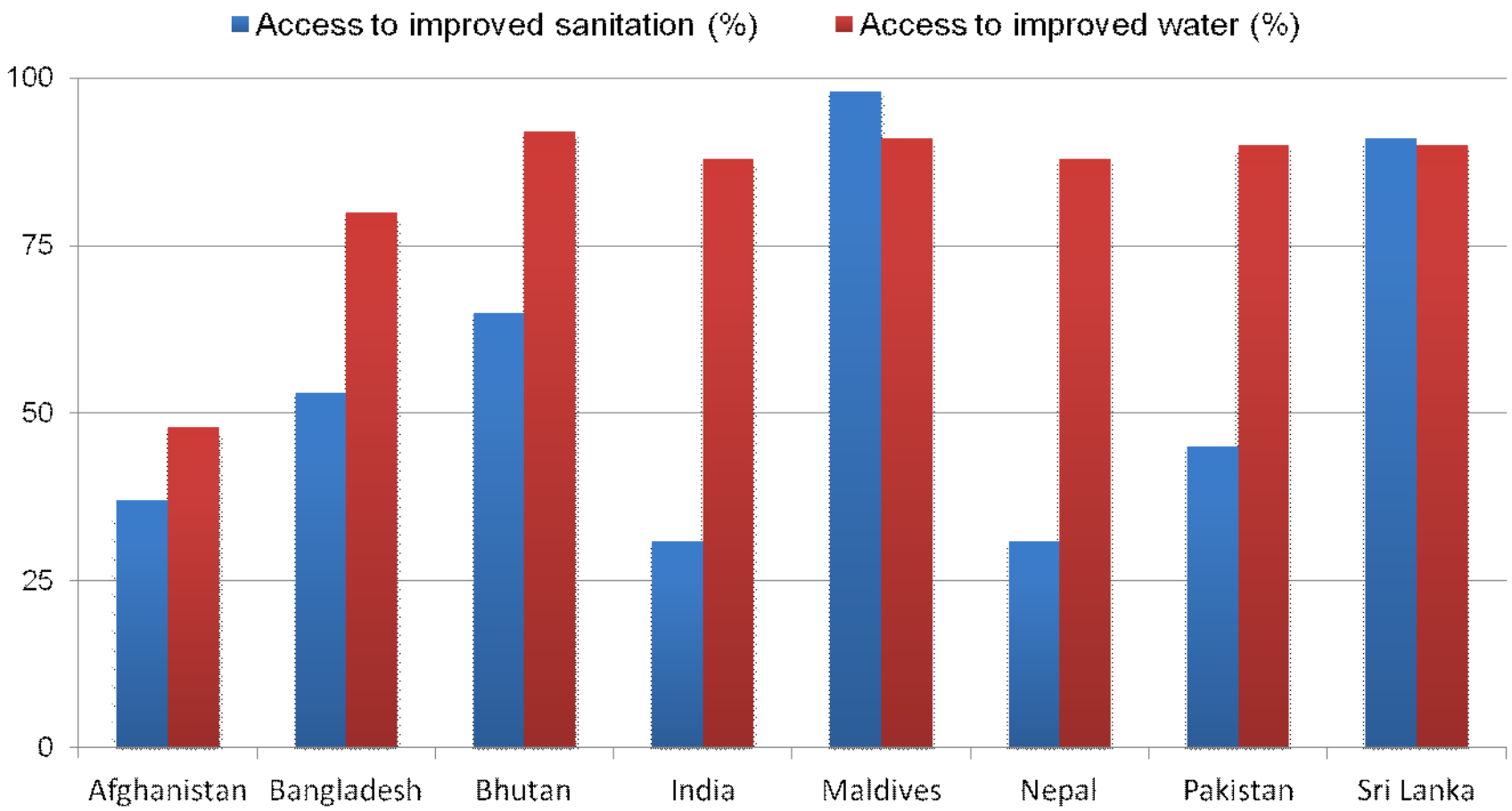
Source: World Development Indicators, accessed February 2011

Infrastructure facilities with exception of roads are relatively low by regional standards



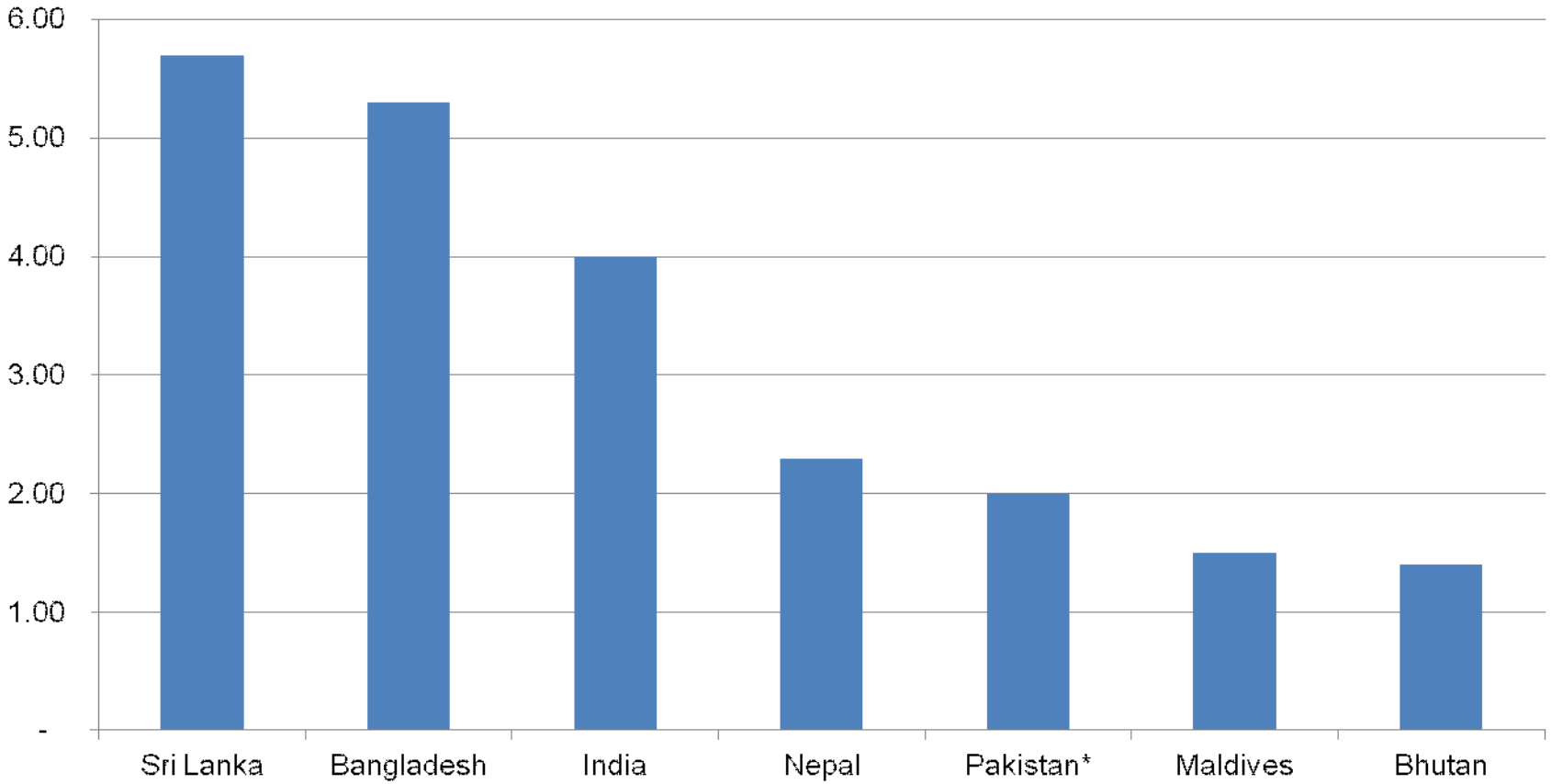
Source: Irrigated lands and Roads Paved from World Development Indicators, accessed February 2011
Electrification from ADB Key Indicators 2010, latest data.

Social services and facilities are good but there is room for improvement



Source: World Development Indicators, accessed February 2011, latest data.

Social Protection Expenditures as % of GDP were one of the lowest in the region in 2008



Source: UNICEF. 2008. Social Protection in South Asia: A Review
*Based on 2002-2003 data

Urbanization and Development

- Bhutan's expanding urban population exerts increasing pressure on the country's land, water, forest and other natural resources.

Urbanization	1990	1995	2000	2005	2009
Urban population (in thousands)	85.3	101.1	133.1	189.3	236.8
Urban population (% of total)	15.7	19.7	24.4	29.9	34.5
Urban population growth (annual %)	6.8	2.2	6.9	6.7	5.0
Population density (people per sq. km of land area)	11.6	12.8	13.6	16.5	17.9

- Pressures in urban areas manifest in the form of converting prime agricultural land for infrastructural development, increasing pressures on surrounding forests and watersheds, and inadequate waste management (SOE 2004).

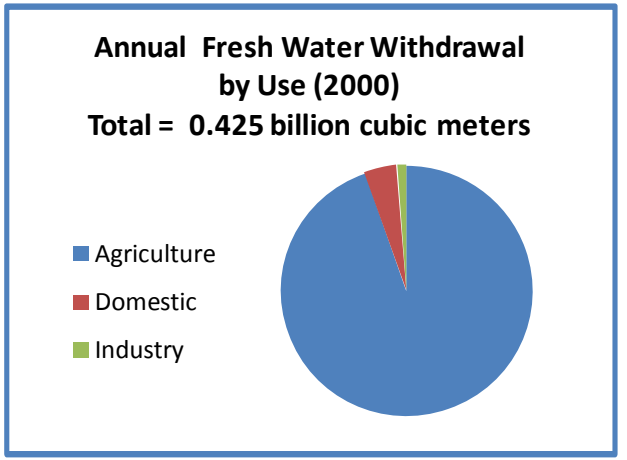
- Preliminary analysis shows a total of 24,808.4 acres of land has been used for various development purposes including transmission lines and government institutions (NEC,2004; cited in National Adaptation Programme of Action)

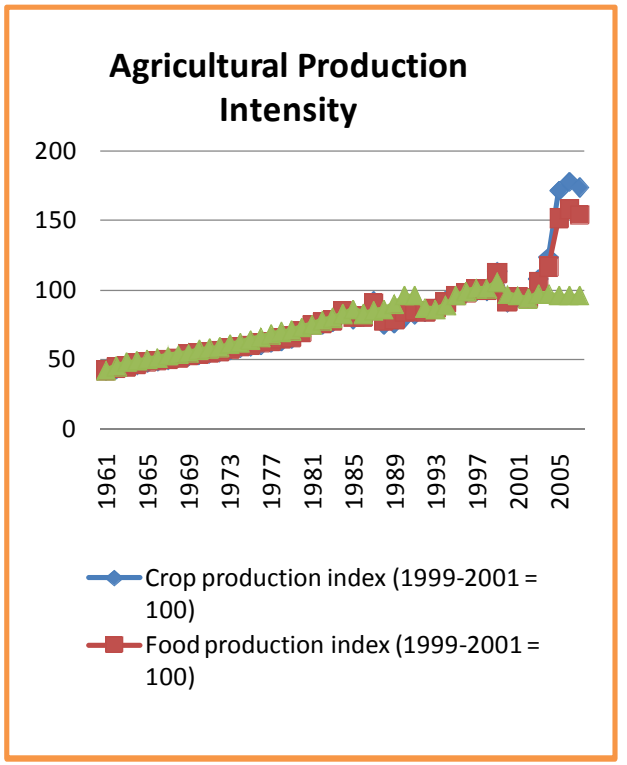
Agricultural Intensification for Food Security

- The transformation from subsistence to a cash-oriented economy, combined with the growing population, has forced a change from the environment-friendly traditional systems into an intensive and extensive cultivation of agricultural crops at the expense of forests (NEC, 2000).

Percentage of Total Land Area (%)	**1970**	**1980**	**1990**	**1995**	**2000**	**2005**	**2008**
Agricultural land	8.1	8.7	9.6	12.6	14.0	14.6	14.6
Arable land	2.3	2.7	2.7	3.2	3.4	3.3	3.3
Forest area	..	..	64.6	76.8	78.1	83.0	83.8
Permanent cropland	0.32	0.4	0.5	0.6	0.6	0.7	0.7
Population density (people per sq. km of land area)	6.1	8.7	11.6	12.81	13.6	16.5	17.9

Source: World Development Indicators (accessed March 2011)





Other Emerging Environmental Concerns

AIR POLLUTION

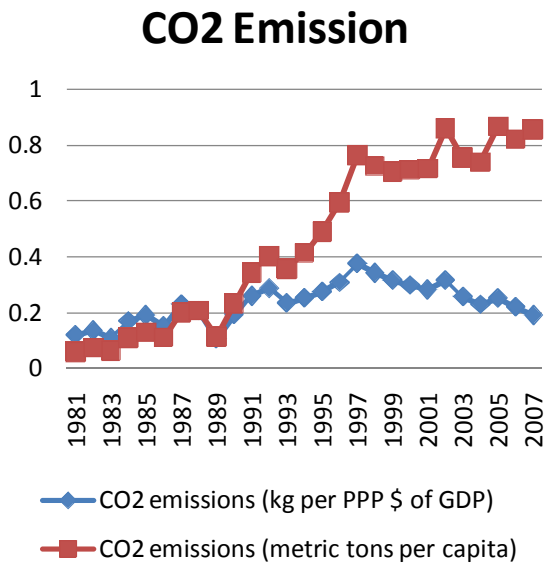
•Bhutan continues to enjoy relatively better air quality, however air pollution is seen as an emerging issue, especially in the urban areas due to increasing industries and transport vehicles (SOE, 2004); Higherst GHG contributor is the industry sector

WATER POLLUTION

•Localized water pollution problems along banks of streams and rivers both in urban areas and in rural locations, due to oil and grease spills from workshops, grey water sullage from domestic households and uncontrolled seepage/overflow from septic tanks and piping flow directly into the rivers (SOE, 2004)

THREATS OF CLIMATE CHANGE

Six areas considered most vulnerable to climate change are: (i) forests and biodiversity, (ii) agriculture, (iii) water resources, (iv) glacial lake outbursts, (v) health, and (vi) landslides.(NEC 2000).

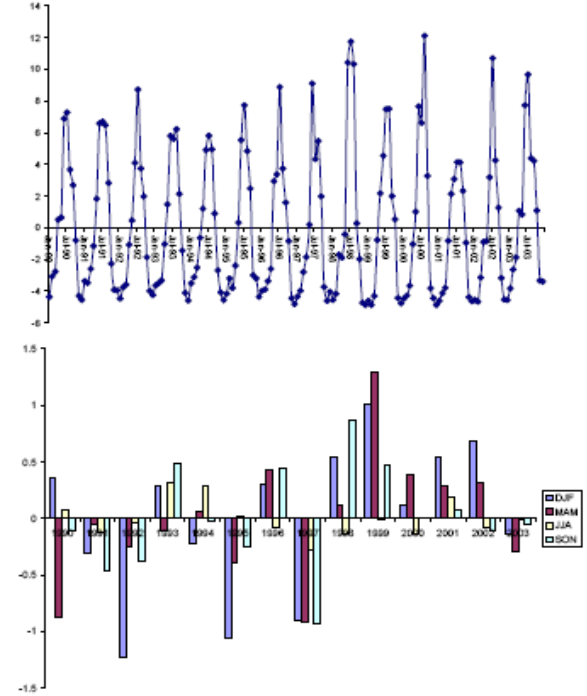


Preliminary climate vulnerability assessment shows that (NEC 2000)

- "Best guess" scenario (IPCC) indicates that by the year 2100 temperature will increased by 2^{o}C

- Increases in temperature caused by global warming will result in the retreat of glaciers, increasing the volume of such lakes and ultimately provoking glacial lake outburst floods (GLOFs) with potential catastrophes. Glaciers retreat reported to be 49cm

Figure 2. Anomaly of monthly average precipitation and mean temperature from the 1990-2003 mean



Glacial lakes in northern Bhutan have been growing rapidly due to receding of glaciers and pose serious disaster threads to settlements down stream.

Possible Impacts of Climate Change in Bhutan

- **Forest & Biodiversity:**
  - Drought in combination with increased lightning risks triggering forest fires; Change in phenological characters of plants/ Loss of endemic species; change in migratory pattern of the trans boundary wildlife (All resulting in loss/degradation of forest ecosystem and reduction of alpine range lands.
- **Agriculture:**
  - Crop yield instability; Loss of production and quality (due to variable rainfall, temperature, etc.); Decreased water availability for cropproduction; Increased risk of extinction of already threatened crop species (traditional crop varieties); Loss of soil fertility due to erosion of top soil and runoff.; Loss of fields due to flash floods, land slides and rill & gully formations; Soil nutrient loss through seepage
- **Water resources & Infrastructure:**
  - Temporal & spatial variation in flow, affecting notably electricity production/exports due to disruption of average flows for optimum hydropower generation; Increased sedimentation of rivers, water reservoirs and distribution network, affecting notably irrigation schemes' productivity/ agricultural crop yields; Reduced ability of catchment areas to retain water/increased runoffs with enhanced soil erosion (deterioration of environment); Accelerate sedimentation in the existing water supplies or reservoirs;

Possible Impacts of Climate Change in Bhutan-*continued*

- Glacial lake outburst:
  - perturbation in the quantity of river water used for hydropower generation; destruction of settlements, infrastructure, and agricultural lands;and loss of biodiversity, and even human lives downstream.
- Health:
  - Loss of life from frequent flash floods, GLOF and landslides (recent Trashigang floods and landslides); Spread of vector-borne tropical disease (malaria, dengue) into more areas (higher elevations) with warming climate; Loss of safe (drinking) water resources increasing water borne diseases.