

Poverty and Inequality Reduction Diagnostic for Nepal: A Case Study

Bhutan Country Diagnostic Study
Workshop on Diagnostic Approaches

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1. Has the Recent Growth been inclusive?

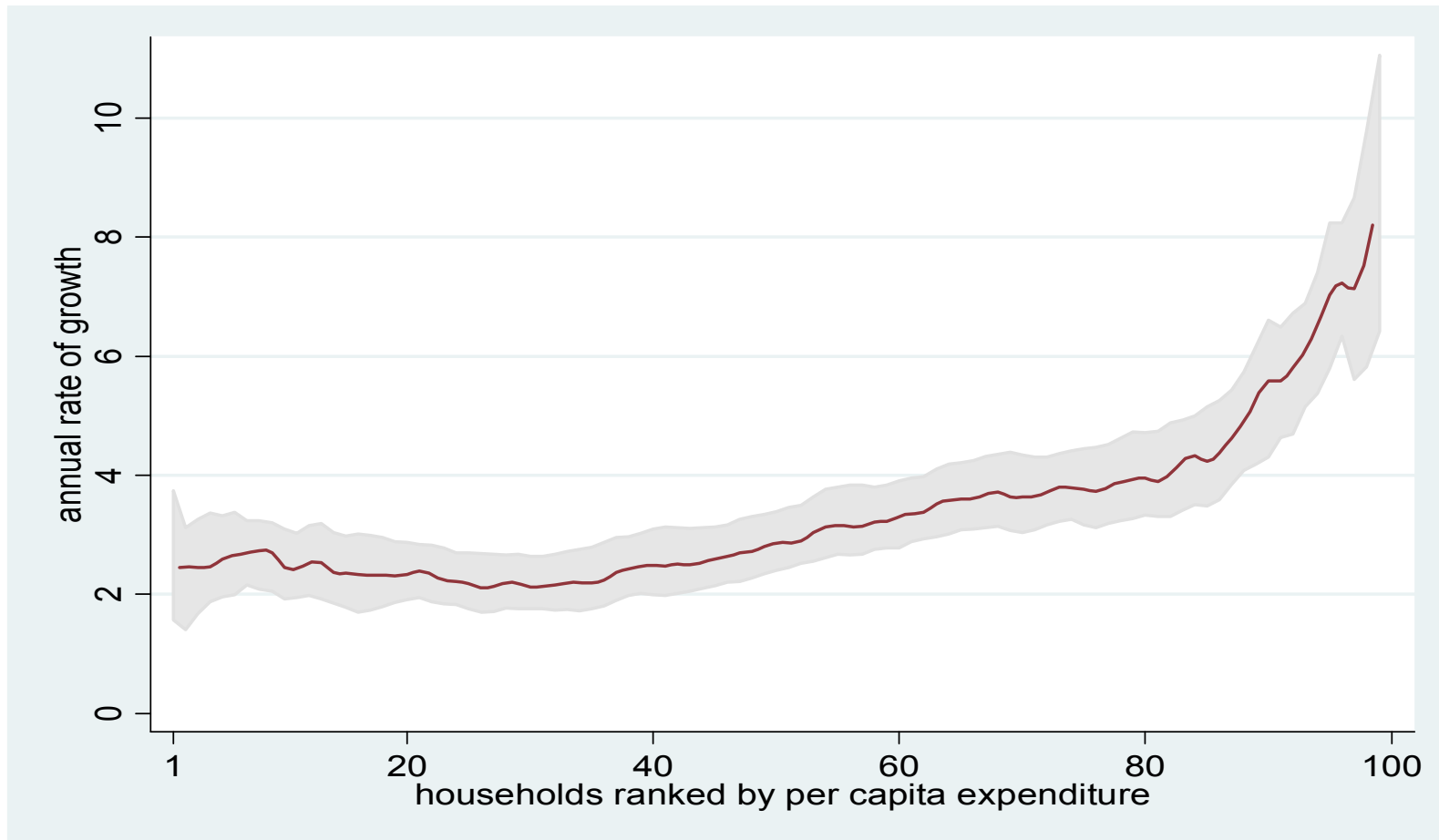
- Poverty reduction
 - From 42% in 1995-96 to 31% in 2003-04
 - But reduction rates – not uniform
- Income growth – not uniform
- Increase in inequality
 - Gini – from 34.2 to 41.4
 - Further poverty reduction of 13 percentage points if inequality did not worsened
- Poverty dynamics – determinants

Poverty Headcount Rates in Nepal (1995-96 and 2003-04, %)

| | 1995-96 | 2003-04 | Change |
|------------------------|-------------|-------------|------------|
| Nepal | 41.8 | 30.8 | -26 |
| Urban | 21.6 | 9.6 | -56 |
| Rural | 43.3 | 34.6 | -20 |
| Ethnicity/Caste | | | |
| Brahman-Chhetri | 34.1 | 18.4 | -46 |
| Terai Middle Caste | 28.7 | 21.3 | -26 |
| Dalit | 57.8 | 45.5 | -21 |
| Newar | 19.3 | 14.0 | -28 |
| Hill Janajati | 48.7 | 44.0 | -10 |
| Terai Janajati | 53.4 | 35.4 | -34 |
| Muslim | 43.7 | 41.3 | -6 |
| Other Minorities | 46.1 | 31.3 | -32 |

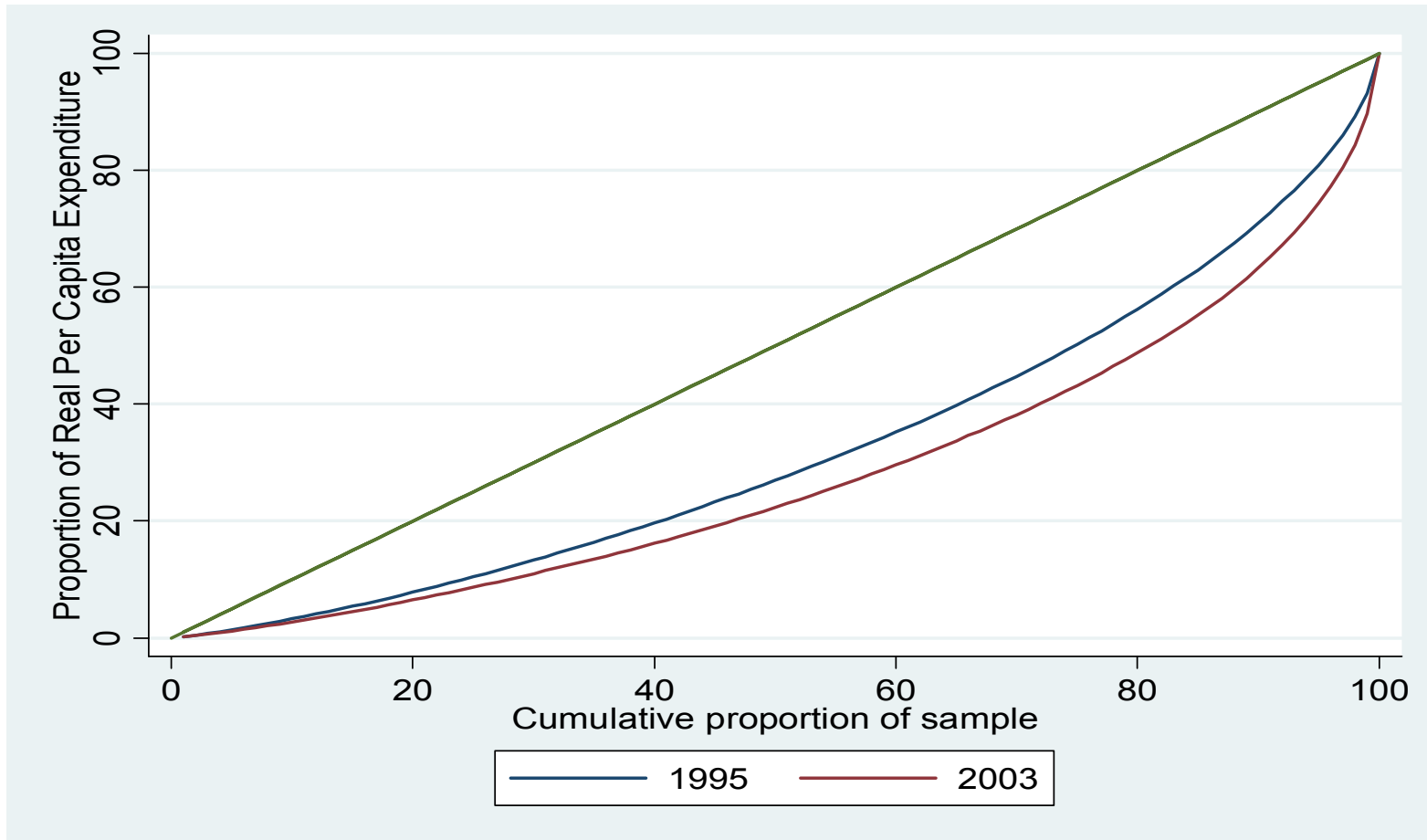
Source: World Bank et al. (2006).

What was the Growth Rate of Per Capita Expenditure Between 1995-96 and 2003-04? (%)



Source: Calculations based on NLSS I and II.

Lorenz Curves of Expenditure (1995-96 and 2003-04, %)



Source: Calculations based on NLSS I and II.

Move In and Out of Poverty Between 1995-96 and 2003-04 (%)

| | | 2003-04 | | |
|---------|----------|---------|----------|--------|
| | | Poor | Non-poor | |
| 1995-96 | Poor | 18.45 | 20.38 | 38.83 |
| | Non-poor | 13.59 | 47.58 | 61.17 |
| | | 32.04 | 67.96 | 100.00 |

Source: Calculations based on NLSS I and II.

Factors that Enhance the Chance of Escaping from Poverty

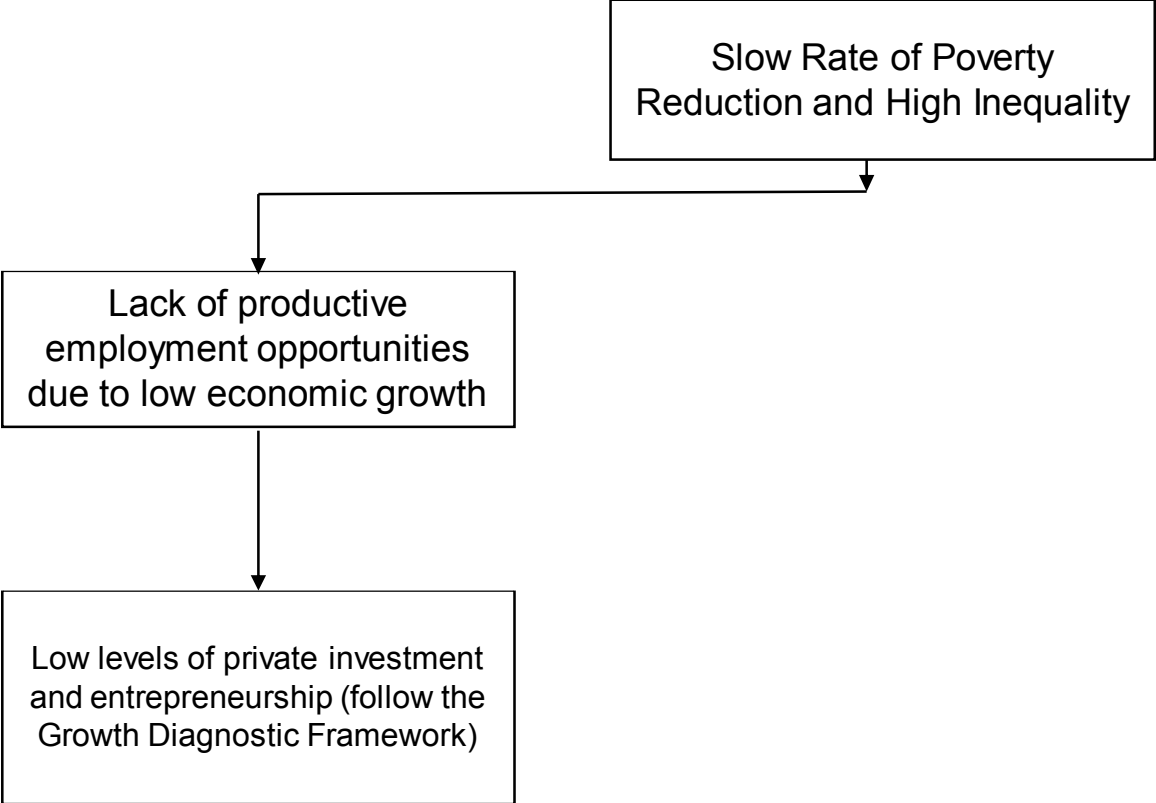
| Variables | RRR | Variables | RRR |
|--|-----------|---|-----------|
| <i>Household Head's characteristics</i> | | <i>Household characteristics</i> | |
| Age | 0.995 | Household size | 1.111 * |
| Female | 3.160 ** | Share of children aged 0-6 | 0.052 *** |
| Ethnicity | | | |
| (Brahman/Chhetri) | | <i>Access to land</i> | |
| Terai middle caste | 4.897 ** | Own land | 2.551 ** |
| Dalits | 0.387 ** | Size of irrigated land (h.a.) | 1.936 ** |
| Newar | 2.855 | | |
| Hill Janajati | 0.879 | <i>Access to finance</i> | |
| Terai Janajati | 0.546 | Loans | |
| Muslims | 2.857 | Remittances | 1.258 |
| Other minorities | 0.672 | (No remittances) | |
| Education | | Received domestic remittances | 2.207 * |
| (illiterate) | | Received international remittances | 0.803 |
| 4 or less | 1.119 | | |
| 5-10 | 6.164 *** | <i>Remoteness</i> | |
| 11+ | 3.882 * | Access to paved road | 1.572 |
| Occupation | | | |
| (self-employed agriculture) | | <i>Geography</i> | |
| self-employed/wage-skilled non-agri | 2.178 * | Rural | 3.866 * |
| wage agriculture | 2.050 * | Development Regions | |
| wage-unskilled non-agri | 2.113 | Eastern | 2.551 * |
| out of labor force/unemployed | 2.460 | Central | 1.445 |
| Chronically ill | 0.879 | Western | 2.072 |
| | | Mid-western | 1.194 |
| | | (Far-western) | |

Source: Calculations based on NLSS I and II.

Slow Rate of Poverty
Reduction and High Inequality

Lack of productive
employment opportunities
due to low economic growth

Low levels of private investment
and entrepreneurship (follow the
Growth Diagnostic Framework)



2. Critical Constraints to Inclusiveness

A. Productive employment opportunities

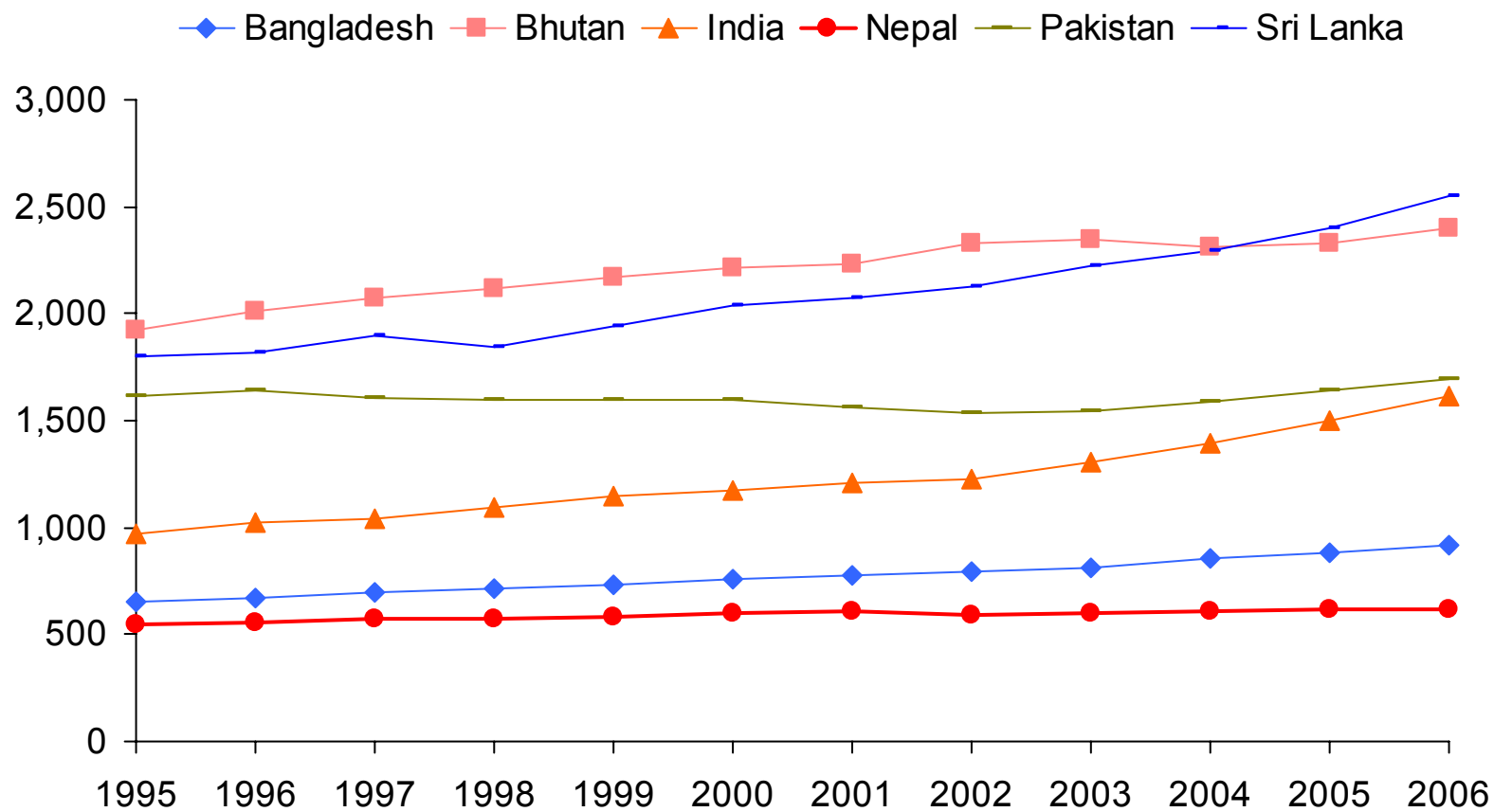
- Unemployment is relatively low, but underemployment remains high.
 - Labor productivity in Nepal is lowest in South Asia, and has been stagnant.
 - High migration rates within and out of the country.
 - A large percentage of people feel their income is not enough to support their living.
-
- Limited productive employment opportunities is a constraint.
 - Possible underlying causes for the lack of productive employment opportunities can be analyzed following the Growth Diagnostic Framework.

Employment Trends (1995-96 and 2003-04, %)

| | Men | | Women | |
|-------------------|---------|---------|---------|---------|
| | 1995-96 | 2003-04 | 1995-96 | 2003-04 |
| Unemployment rate | | | | |
| All | 5.4 | 4.1 | 3.8 | 3.8 |
| Urban | 9.5 | 7.0 | 17.4 | 13.5 |
| Rural | 5.1 | 3.6 | 3.2 | 2.5 |
| Poorest 40% | 5.5 | 3.3 | 5.0 | 2.5 |
| Underemployment | | | | |
| All | 14.2 | 15.4 | 24.3 | 25.7 |
| Urban | 9.1 | 9.3 | 22.5 | 26.1 |
| Rural | 14.6 | 16.6 | 24.3 | 25.7 |
| Poorest 40% | 13.3 | 16.3 | 22.6 | 24.1 |

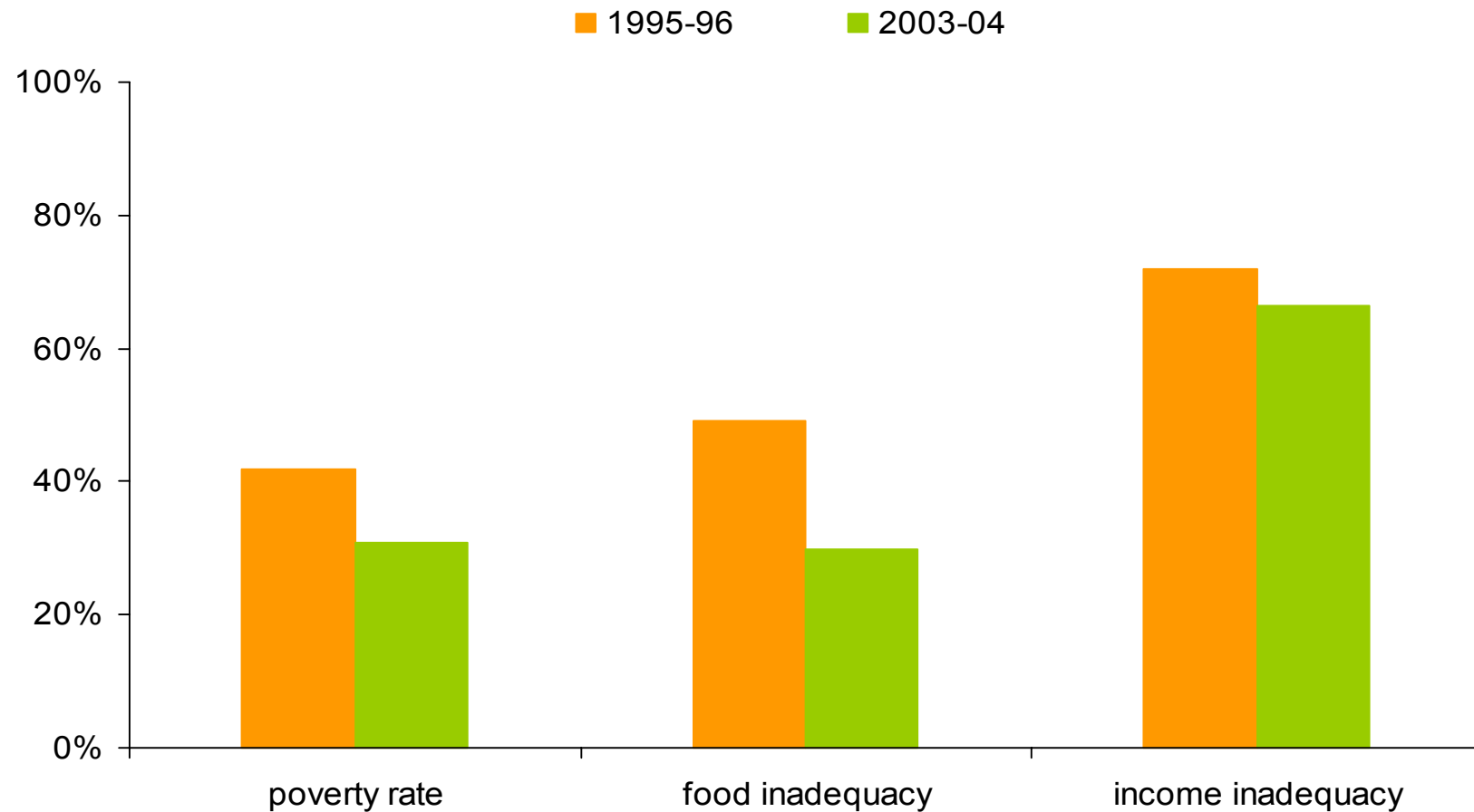
Source: World Bank et al. (2006).

Labor Productivity in South Asia (GDP in 2000 \$/Labor Force)



Source: World Development Indicators.

Poverty Rate and Self-Assessment of Food Consumption and Income Inadequacy (1995-96 and 2003-04)



Source: Calculations based on NLSS I and II.

Slow Rate of Poverty
Reduction High Inequality



Unequal access to
opportunities

2. Critical Constraints to Inclusiveness

B. Access to opportunities

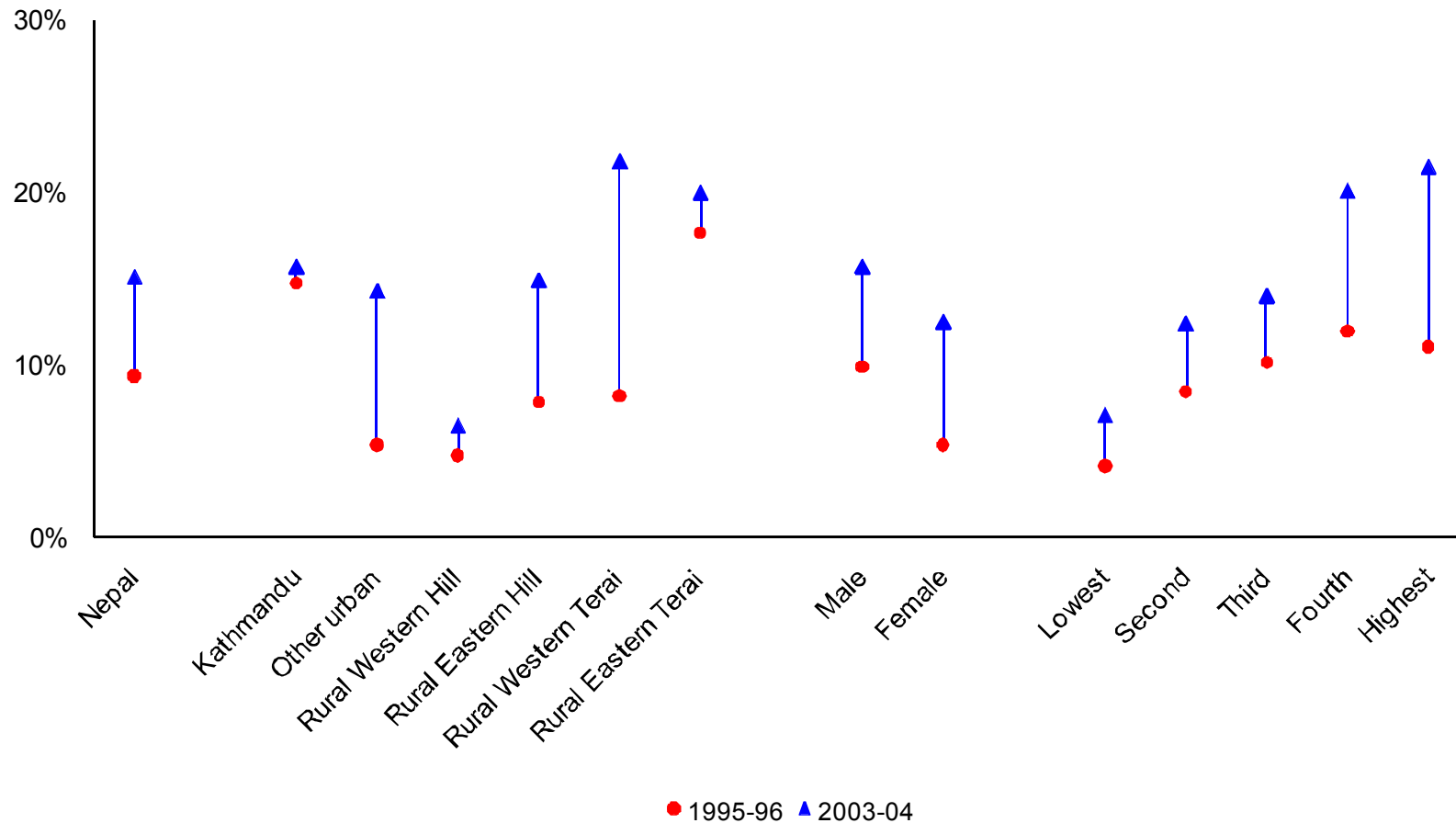
- There is unequal access to employment opportunities, especially non-agricultural skilled wage employment.
 - Access to opportunities to commercialize and diversify agricultural activities remains unequal.
 - Opportunities to start and operate non-farm enterprises are limited in rural areas, and also for poor and disadvantaged groups.
 - Poor and disadvantaged groups have less opportunities to migrate to countries other than India.
-
- Unequal access to opportunities is a constraint.
 - Possible underlying causes are weak human capabilities and uneven playing fields.

Occupation Patterns of Household Heads (2003-04, %)

| | Self-employment | | | | Wage-employment | | |
|--|-----------------|--------|-------|----------|-----------------|-------------------|---------------------|
| | Agriculture | Manuf. | Trade | Services | Agriculture | Skilled non-agri. | Unskilled non-agri. |
| Nepal | 64.6 | 4.6 | 4.9 | 3.4 | 7.0 | 3.5 | 11.9 |
| Region | | | | | | | |
| Kathmandu | 8.6 | 10.5 | 15.4 | 8.4 | 0.4 | 22.7 | 34.1 |
| Other urban | 32.1 | 10.7 | 12.0 | 8.8 | 1.8 | 8.0 | 26.7 |
| Rural Western Hills | 75.4 | 5.1 | 3.2 | 2.2 | 2.2 | 3.2 | 8.9 |
| Rural Eastern Hills | 83.6 | 3.2 | 1.9 | 1.4 | 3.0 | 1.3 | 5.6 |
| Rural Western Terai | 68.7 | 2.0 | 4.4 | 4.0 | 5.1 | 1.8 | 14.1 |
| Rural Eastern Terai | 61.1 | 3.5 | 4.4 | 2.8 | 17.9 | 1.2 | 9.0 |
| Per Capita Expenditure Quintile | | | | | | | |
| Lowest | 68.3 | 4.2 | 1.1 | 1.6 | 14.0 | 0.4 | 10.3 |
| Second | 69.7 | 4.9 | 1.8 | 2.0 | 9.5 | 0.3 | 12.0 |
| Third | 69.0 | 3.9 | 4.6 | 2.2 | 6.7 | 2.1 | 11.5 |
| Fourth | 69.4 | 3.3 | 5.8 | 3.0 | 5.3 | 2.6 | 10.7 |
| Highest | 49.2 | 6.8 | 9.8 | 7.4 | 1.6 | 10.6 | 14.6 |

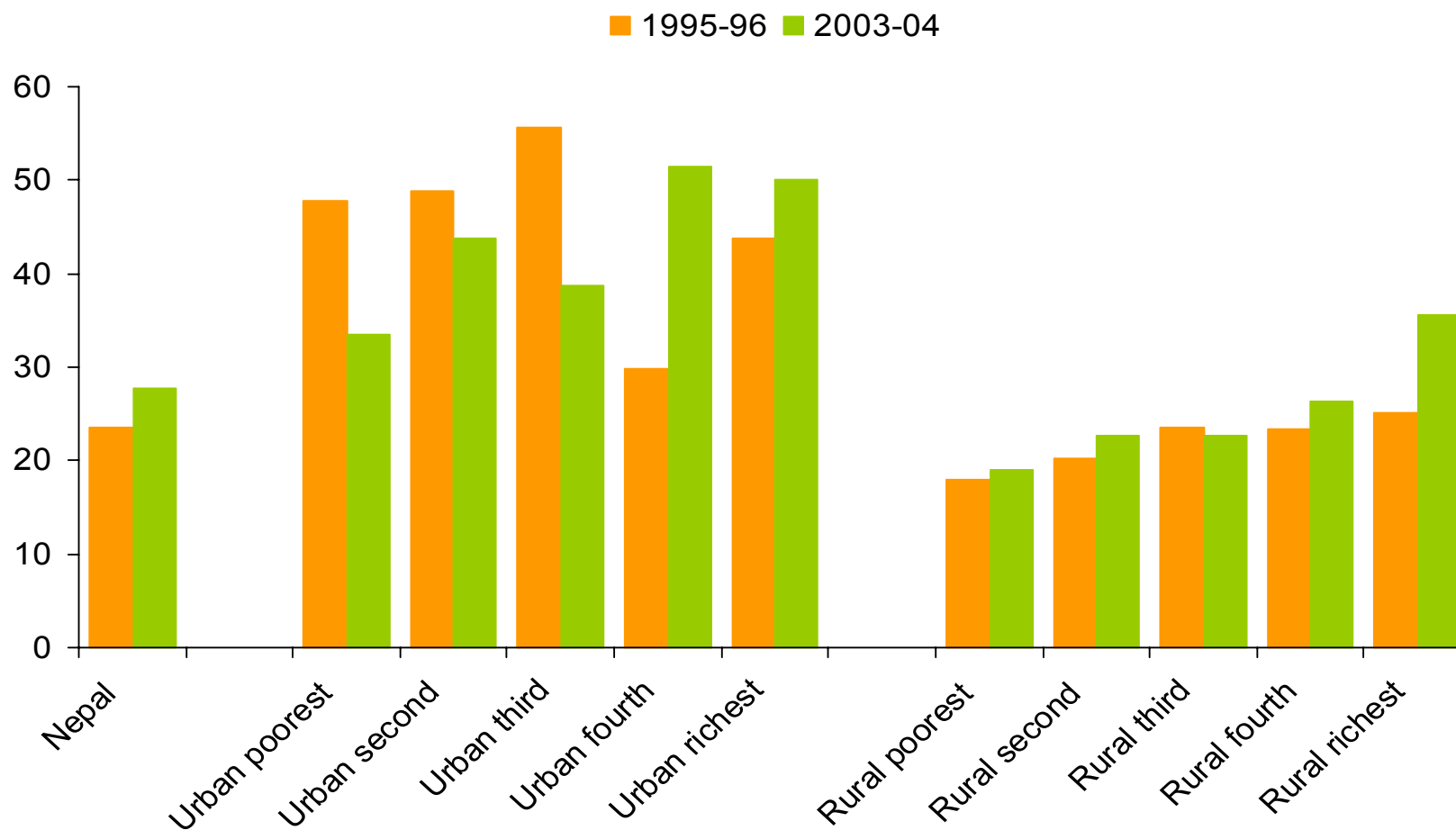
Source: Calculations based on NLSS II.

Share of Sales in Gross Agricultural Output (1995-96 and 2003-04)



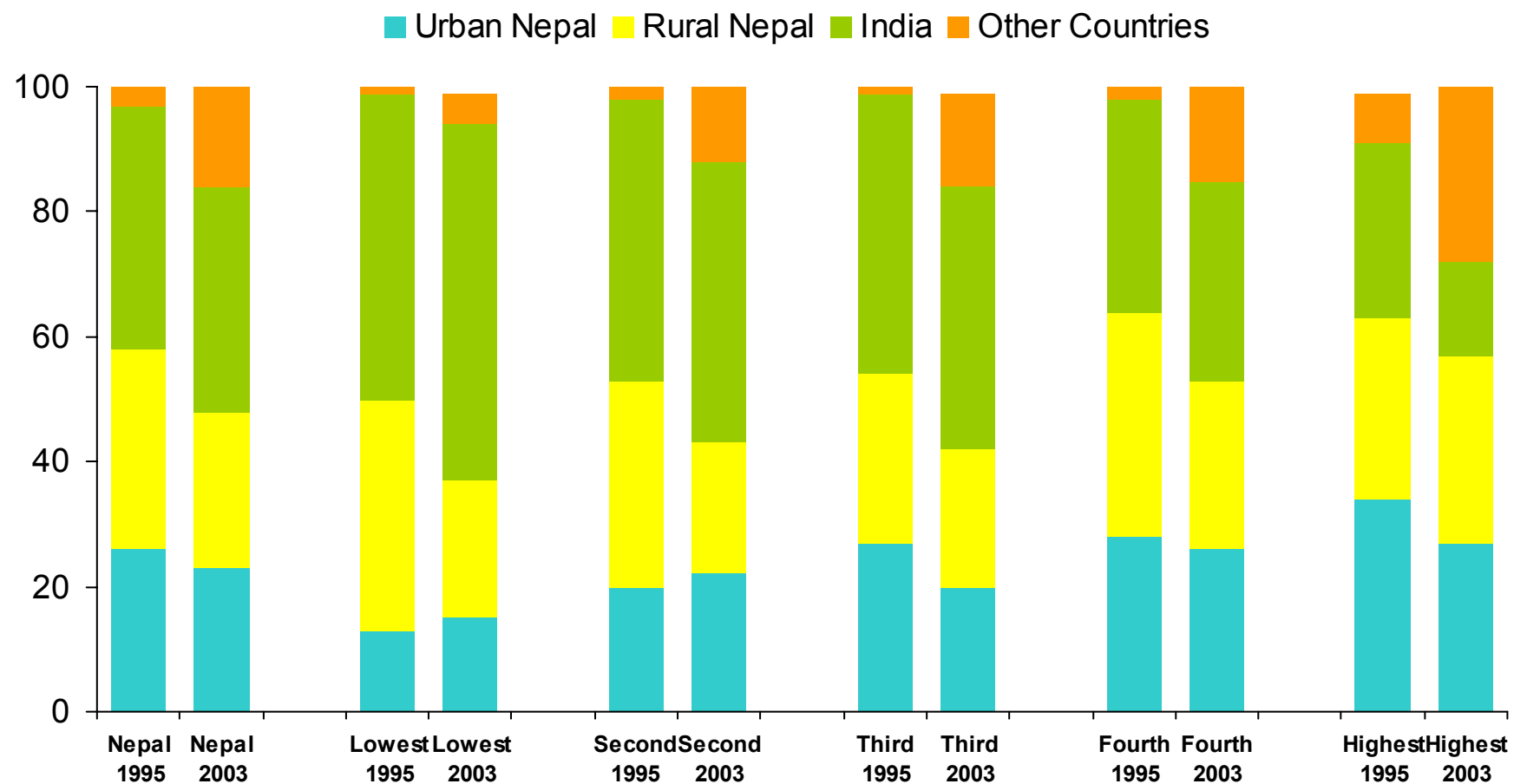
Source: Calculations based on NLSS I and II.

Percentage of Households with Non-farm Enterprises (1995-96 and 2003-04, %)

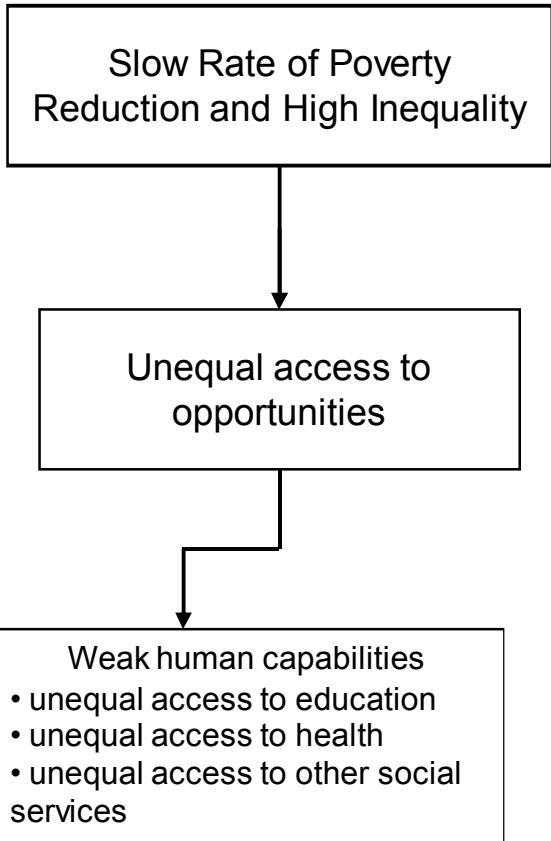


Source: Calculations based on NLSS I and II.

Destination of Migrants (1995-96 and 2003-04, %)



Source: Calculations based on NLSS I and II.



2. Critical Constraints to Inclusiveness

C. Human capabilities: Education

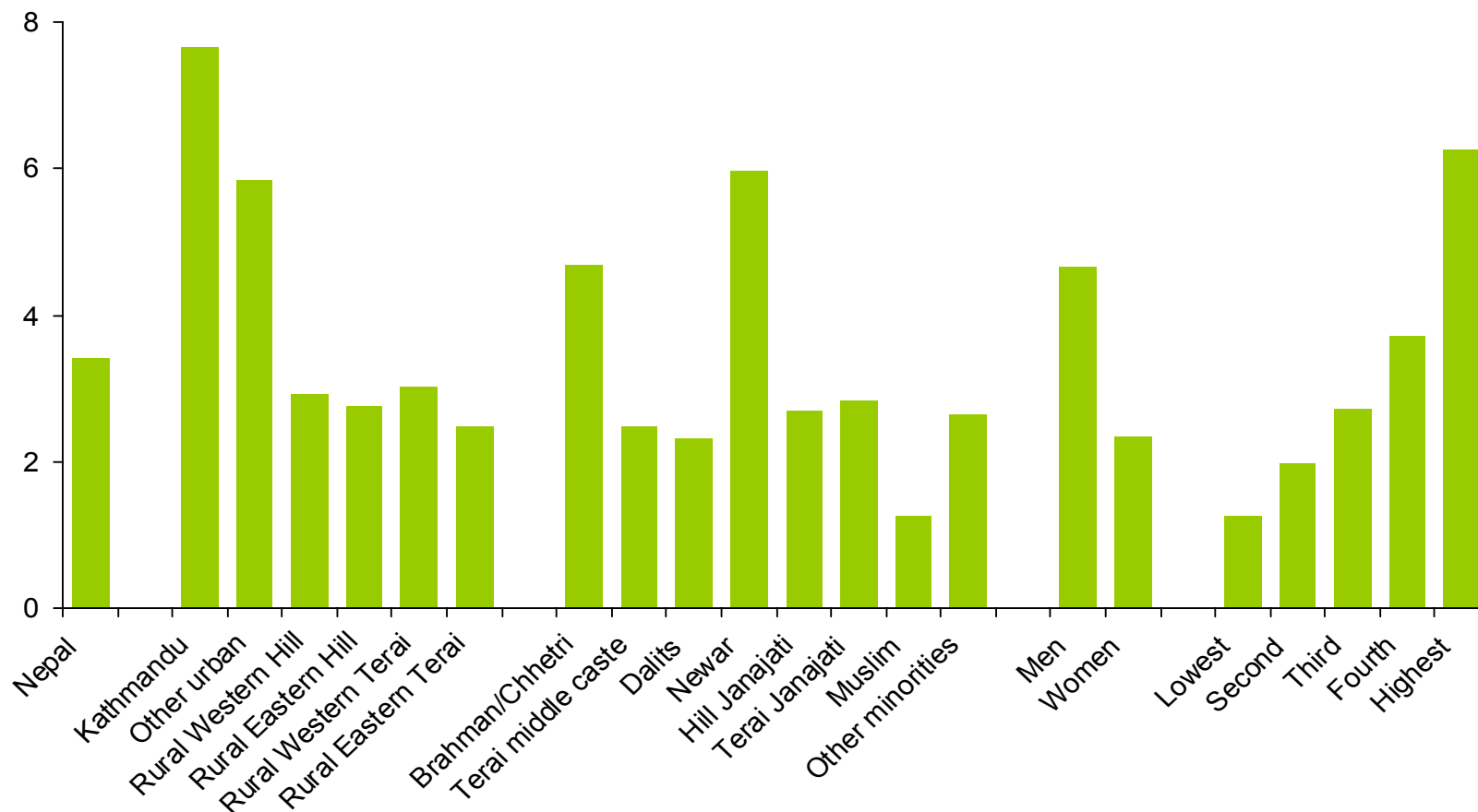
- The regression analysis suggests that education plays a key role in the movement out of poverty.
 - There has been a significant increase in skill premiums.
 - We observe a great disparity in education level among the working population.
 - Primary school enrollment rates have significantly improved in recent years, but access to secondary school remains limited and inequitable.
- Access to secondary education is inequitable and a critical constraint to inclusiveness.

Average Daily Wages (1995-96 and 2003-04, Real 1995-96 Rupees)

| | Agriculture | | | Unskilled non-agriculture | | | Skilled non-agriculture | | |
|--------------------------------|-------------|---------|-------------|---------------------------|---------|-------------|-------------------------|---------|-------------|
| | 1995-96 | 2003-04 | changes (%) | 1995-96 | 2003-04 | changes (%) | 1995-96 | 2003-04 | changes (%) |
| Nepal | 44 | 55 | 25 | 81 | 97 | 20 | 94 | 295 | 214 |
| Region | | | | | | | | | |
| Kathmandu | - | - | - | 103 | 83 | -19 | 173 | 672 | 288 |
| Other urban | 40 | 57 | 43 | 91 | 101 | 11 | 111 | 170 | 53 |
| Rural Western Hill | 49 | 54 | 10 | 75 | 91 | 21 | 72 | 111 | 54 |
| Rural Eastern Hill | 37 | 54 | 46 | 84 | 90 | 7 | 83 | 137 | 65 |
| Rural Western Terai | 50 | 63 | 26 | 81 | 94 | 16 | 97 | 126 | 30 |
| Rural Eastern Terai | 42 | 54 | 29 | 75 | 113 | 51 | 80 | 159 | 99 |
| Education level (years) | | | | | | | | | |
| Illiterate | 43 | 52 | 21 | 73 | 83 | 14 | - | - | - |
| Less than 5 | 53 | 61 | 15 | 82 | 99 | 21 | - | - | - |
| 5-7 | 44 | 65 | 48 | 94 | 99 | 5 | - | - | - |
| 8-10 | 45 | 63 | 40 | 86 | 108 | 26 | 75 | 113 | 51 |
| 11+ | - | - | - | 121 | 142 | 17 | 121 | 426 | 252 |

Source: World Bank et al. (2006).

Years of Schooling for Those Aged 15+ (2003-04, Years)



Source: Calculations based on NLSS II.

Net School Enrollment Rates (1995-96 and 2003-04, %)

| | Primary | | Lower Secondary | | Upper Secondary | |
|--|---------|---------|-----------------|---------|-----------------|---------|
| | 1995-96 | 2003-04 | 1995-96 | 2003-04 | 1995-96 | 2003-04 |
| Nepal | 56.8 | 72.4 | 19.1 | 29.0 | 9.3 | 15.1 |
| Region | | | | | | |
| Kathmandu | 75.3 | 85.5 | 43.1 | 63.5 | 37.3 | 33.2 |
| Other urban | 71.3 | 82.1 | 33.5 | 40.4 | 13.1 | 34.2 |
| Rural Western Hill | 59.9 | 84.7 | 19.3 | 24.4 | 5.3 | 10.9 |
| Rural Eastern Hill | 63.6 | 71.6 | 18.0 | 29.3 | 9.5 | 9.7 |
| Rural Western Terai | 57.8 | 76.2 | 10.7 | 28.5 | 2.6 | 12.3 |
| Rural Eastern Terai | 45.2 | 59.2 | 20.2 | 23.4 | 13.3 | 16.0 |
| Per Capita Expenditure Quintile | | | | | | |
| Lowest | 38.3 | 55.8 | 5.4 | 7.9 | 1.7 | 1.3 |
| Second | 48.3 | 68.4 | 10.6 | 15.1 | 4.8 | 6.6 |
| Third | 61.7 | 80.7 | 18.4 | 30.4 | 6.6 | 8.9 |
| Fourth | 69.9 | 81.7 | 27.5 | 42.7 | 10.5 | 22.1 |
| Highest | 76.5 | 84.8 | 34.2 | 53.2 | 20.6 | 33.4 |

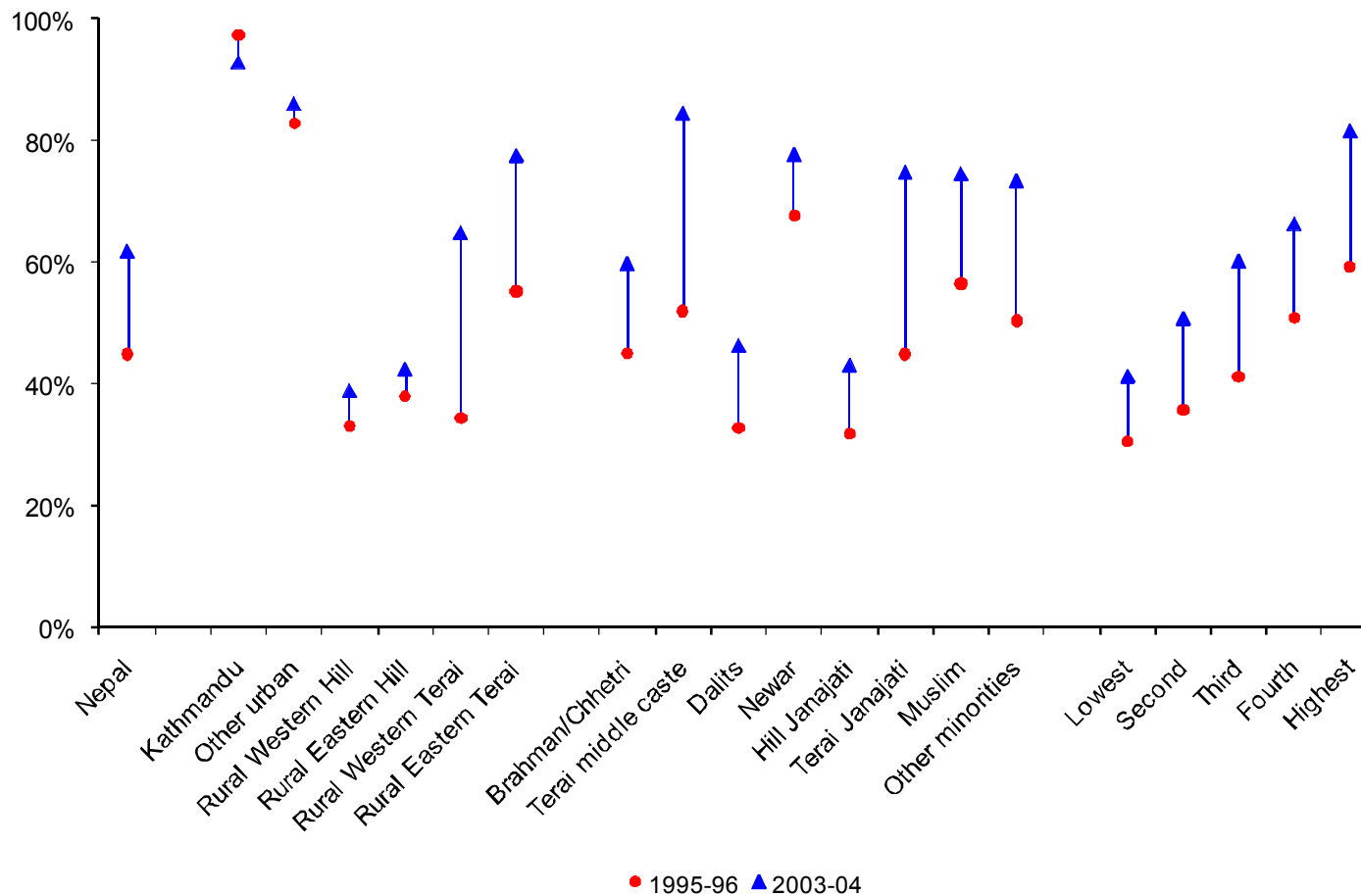
Source: Calculations based on NLSS I and II.

2. Critical Constraints to Inclusiveness

D. Human capabilities: Health and other social services

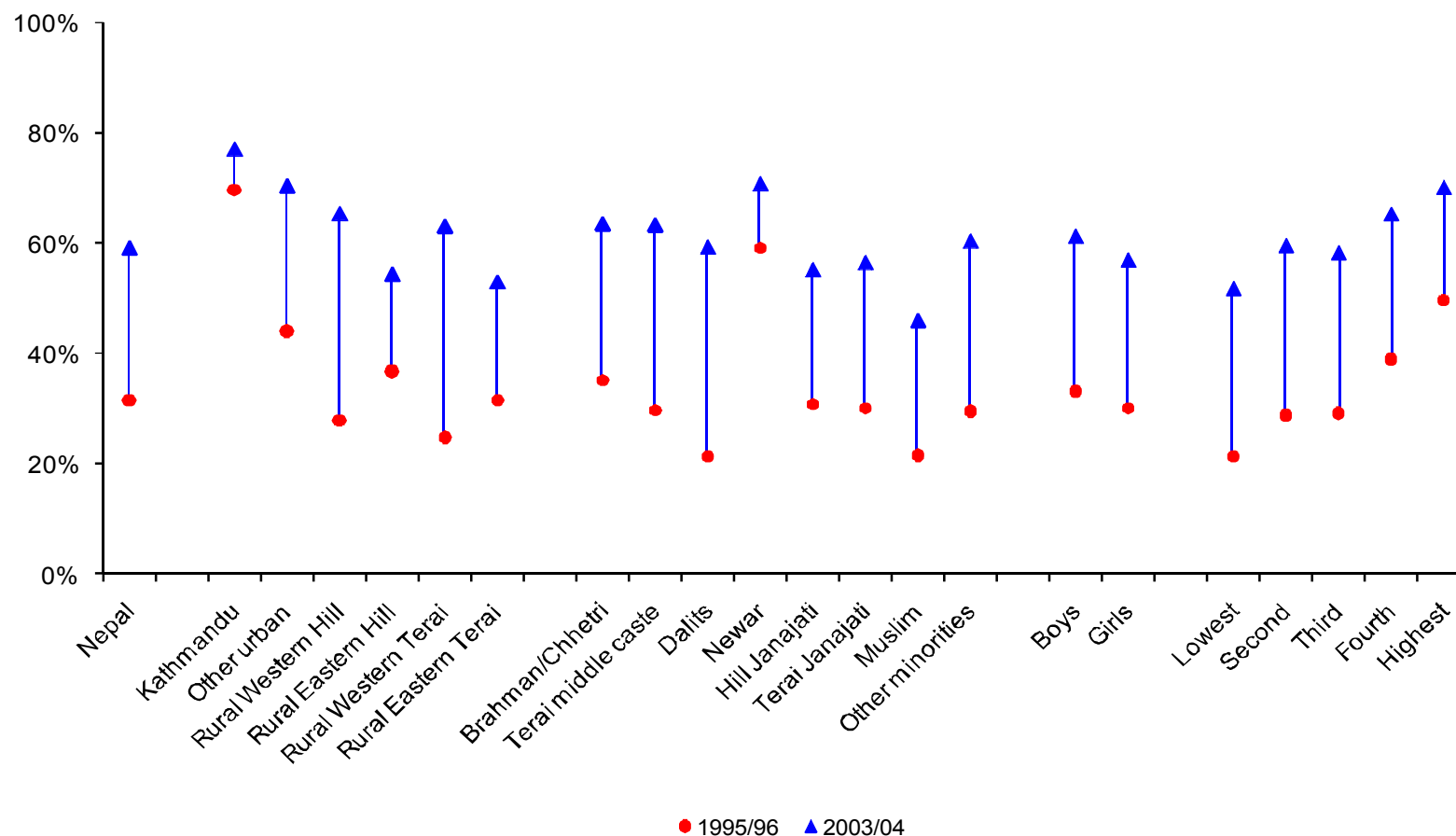
- Despite the decade-long conflict/civil war, Nepal has made a significant progress in health outcomes in recent years (e.g., reduced infant and child mortality rates, increased life expectancy at birth etc.).
 - The government still needs to continue its efforts in improving access to these services.
- Access to health care, water and sanitation may not be a critical constraint at present.

Access to Health Center (1995-96 and 2003-04)



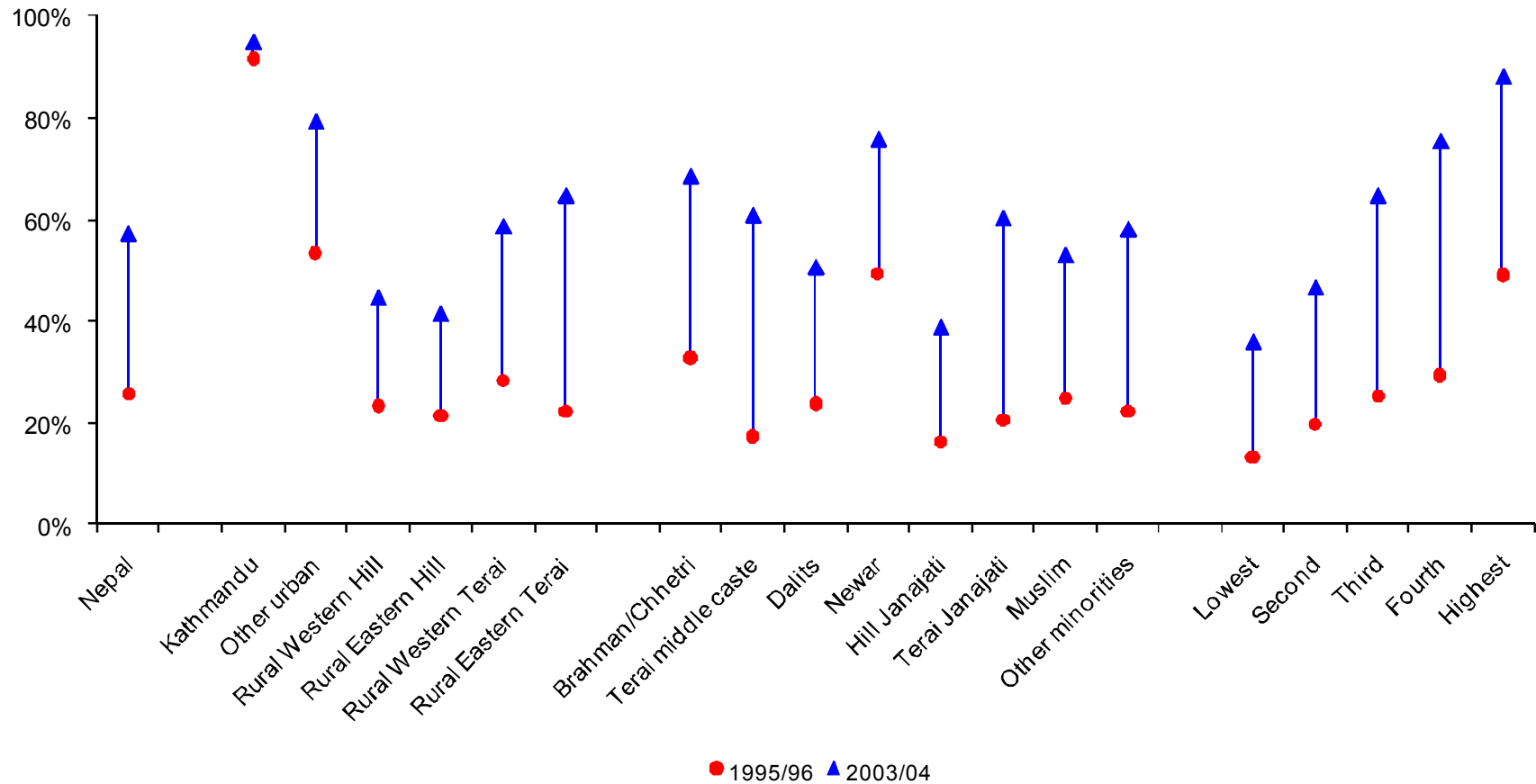
Source: Calculations based on NLSS I and II.

Access to Full Immunization for Children Aged 5 or Younger (1995-96 and 2003-04)



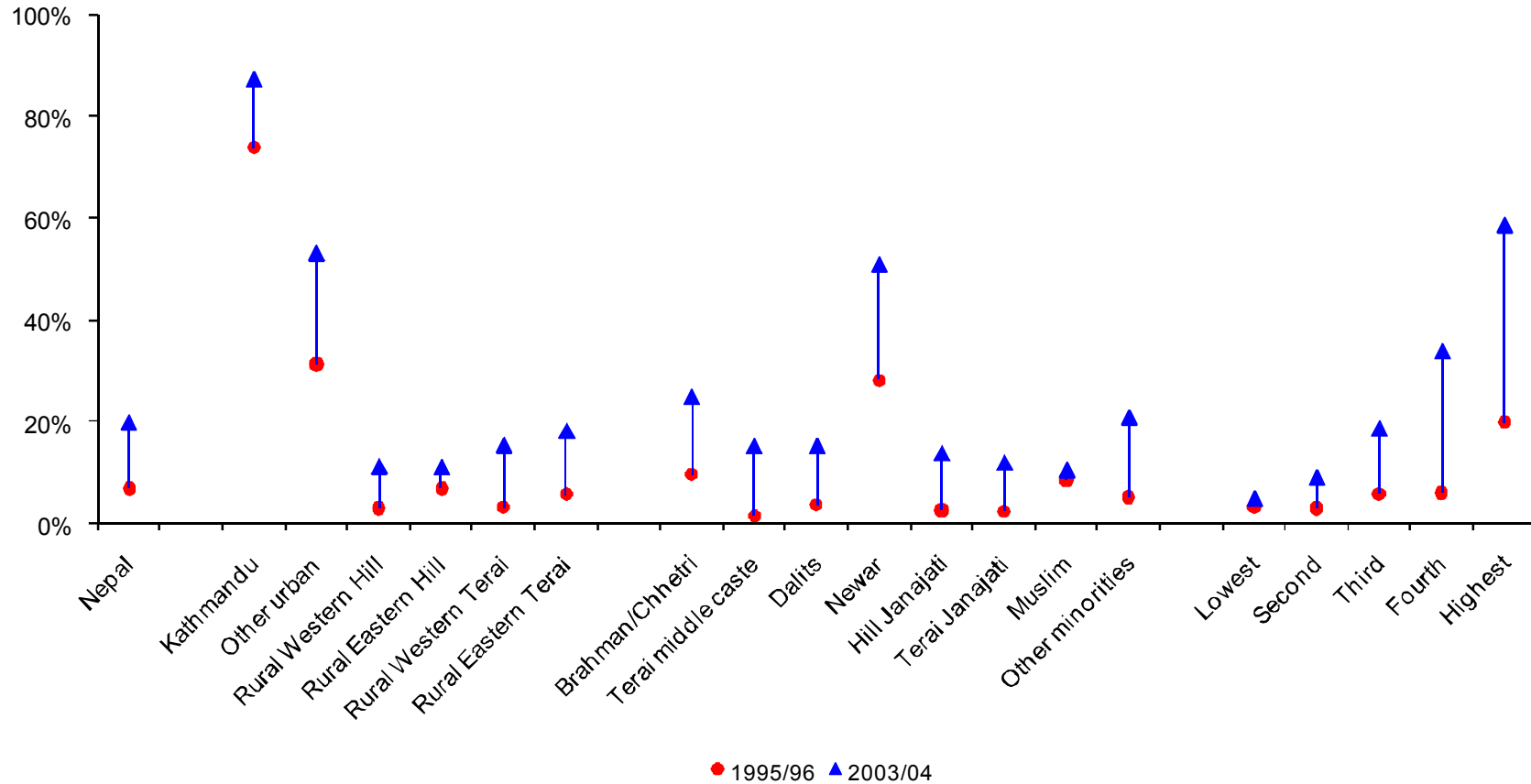
Source: Calculations based on NLSS I and II.

Access to Prenatal Consultation (1995-96 and 2003-04)



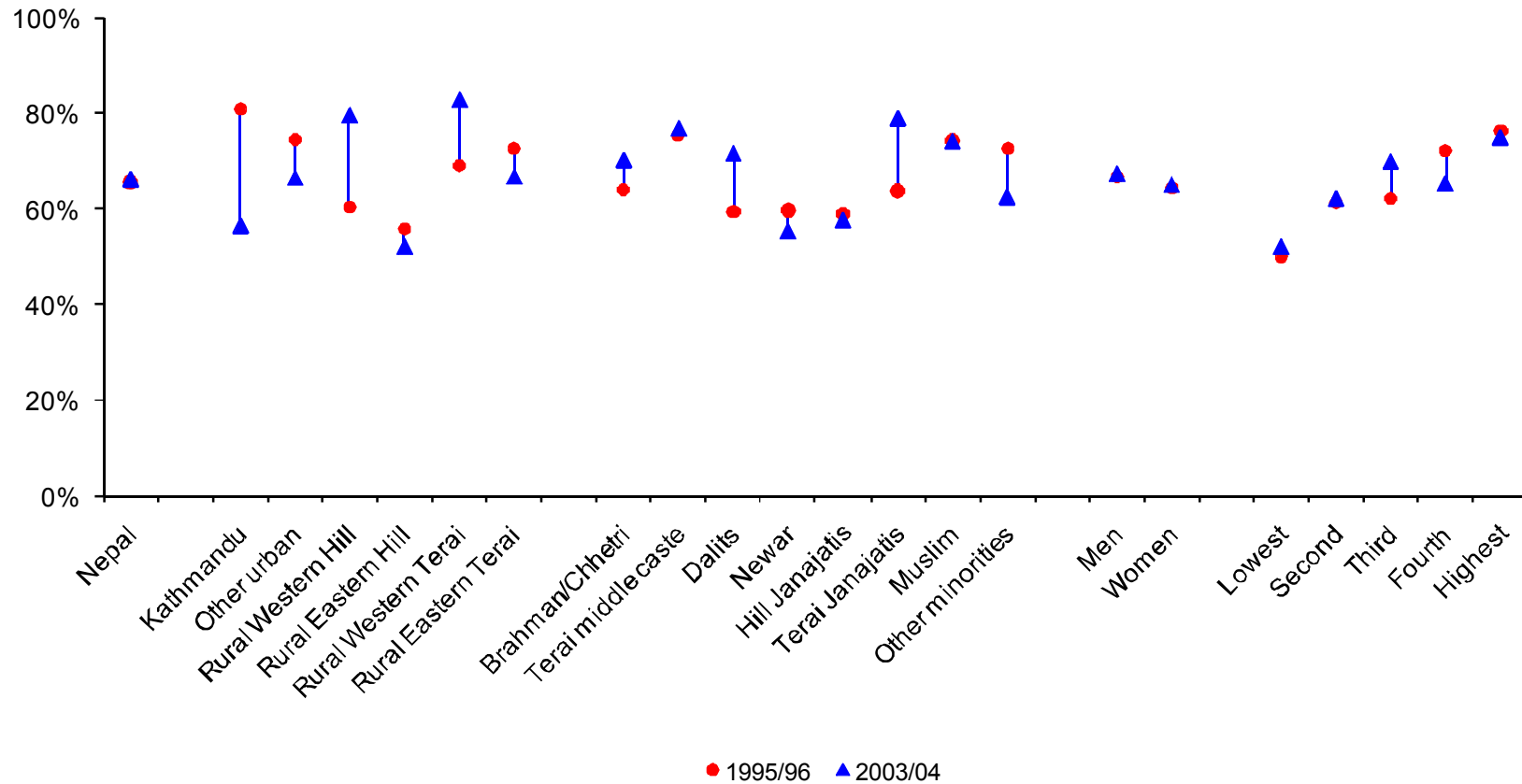
Source: Calculations based on NLSS I and II.

Access to Assisted Delivery (1995-96 and 2003-04)



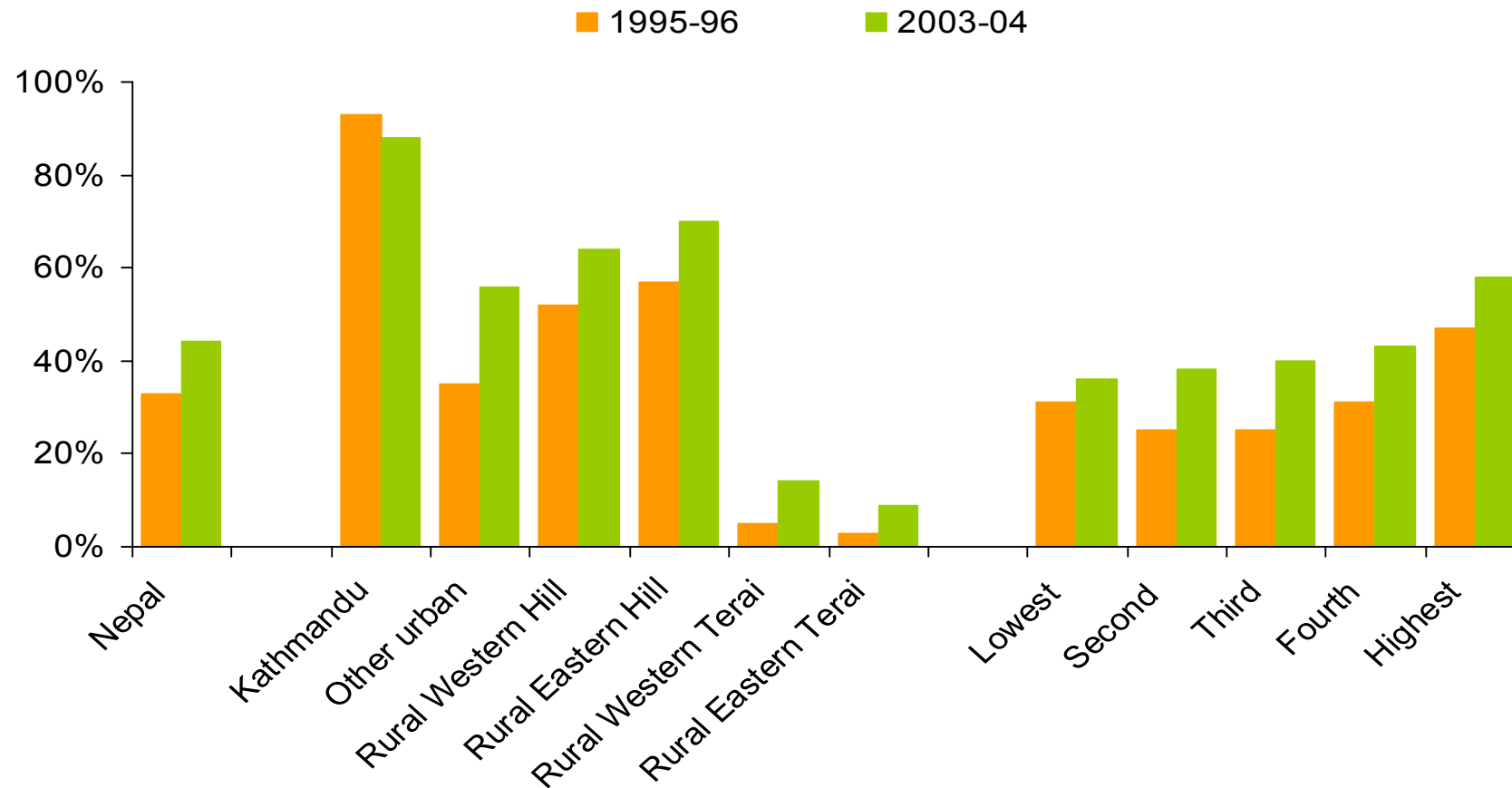
Source: Calculations based on NLSS I and II.

Access to Medical Consultation (1995-96 and 2003-04)



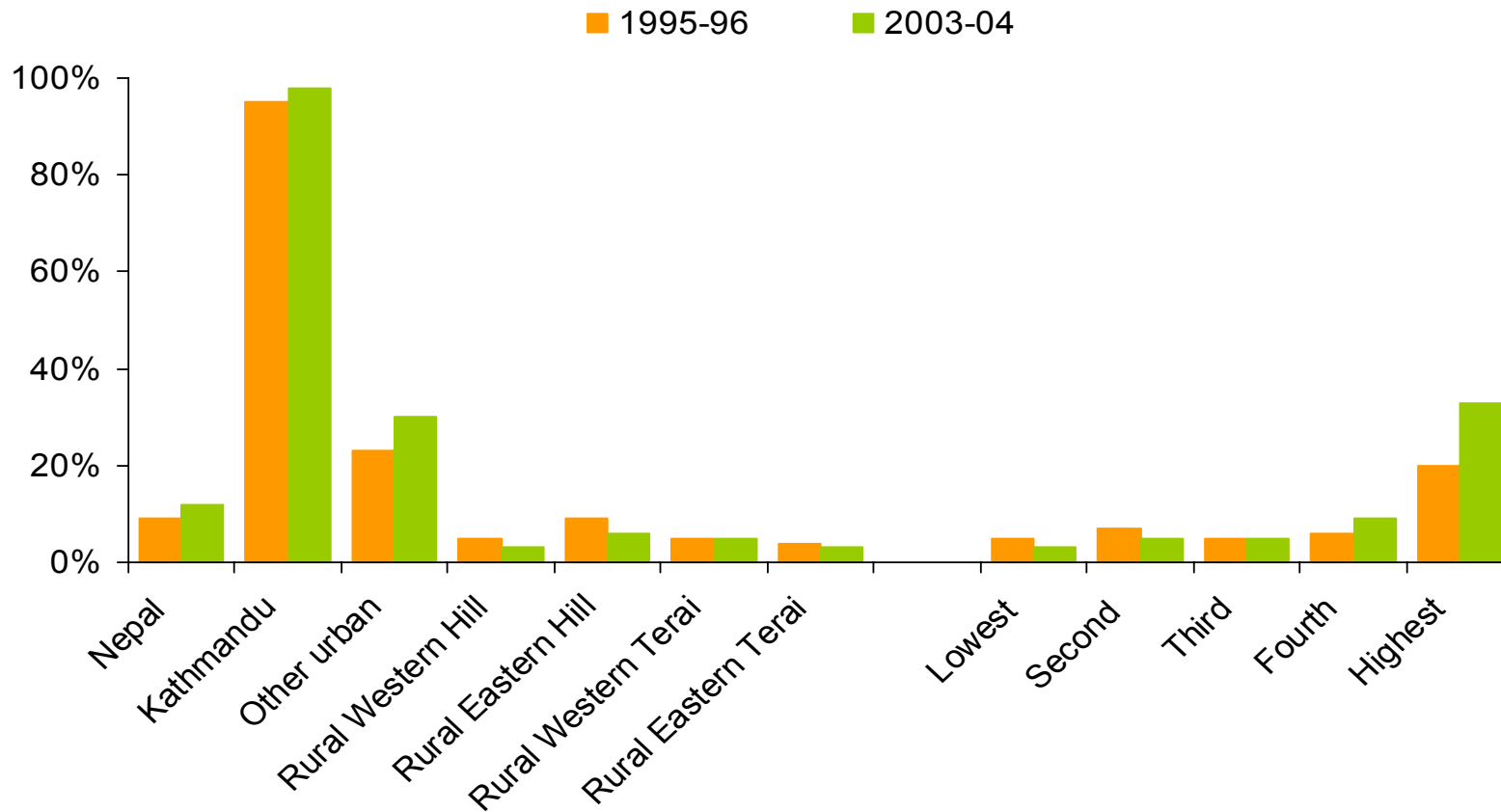
Source: Calculations based on NLSS I and II.

Access to Piped Water (1995-96 and 2003-04)



Source: Calculations based on NLSS I and II.

Access to Sanitary System (1995-96 and 2003-04)

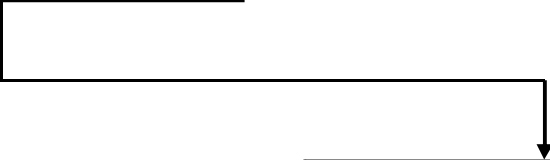


Source: Calculations based on NLSS I and II.

Slow Rate of Poverty
Reduction and High Inequality



Unequal access to
opportunities



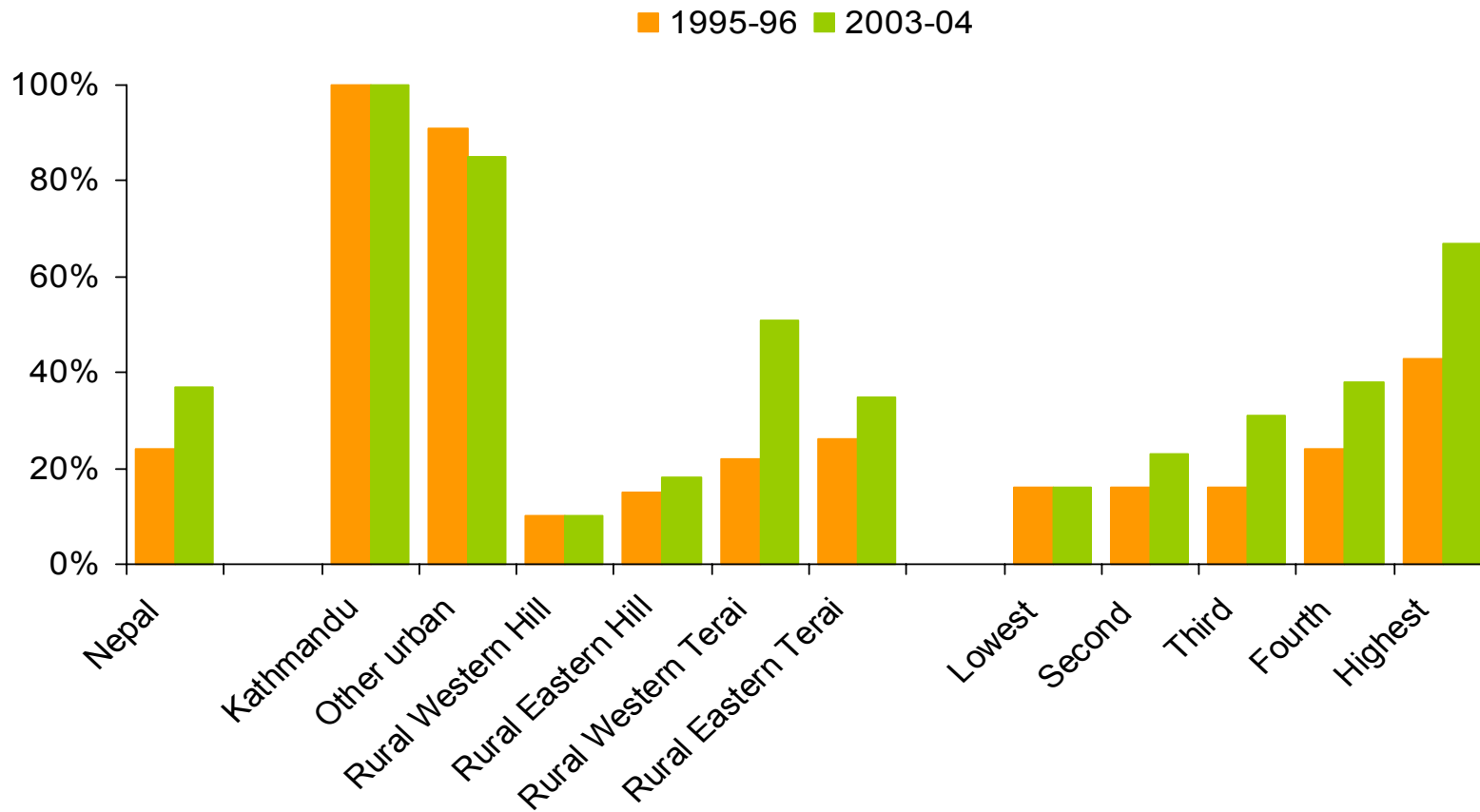
Uneven playing field
• unequal access to
infrastructure and productive
assets (credit, land)

2. Critical Constraints to Inclusiveness

E. Even playing fields: Infrastructure

- Despite much efforts in the provision of roads in recent years, there remains a great room for improving connectivity in Nepal which is a geographically challenged country.
 - Roads are still not uniformly distributed – limited provision particularly in the mountainous and hilly areas.
 - Roads are also important in accessing key facilities.
 - Access to electricity is limited in rural areas, and also for poor households.
- Access to infrastructure (e.g., roads, electricity) is a critical constraint.

Access to Paved Road (1995-96 and 2003-04)



Source: Calculations based on NLSS I and II.

Distribution of Roads

| | Total Roads (km) | People per km of Roads (no.) | Road Density (km/100 km ²) |
|------------------------|------------------|------------------------------|--|
| Region | | | |
| Eastern | 3,481 | 1,535 | 12 |
| Central | 6,665 | 1,205 | 25 |
| Western | 2,955 | 1,547 | 10 |
| Mid-Western | 2,215 | 1,360 | 5 |
| Far-Western | 1,518 | 1,444 | 8 |
| Ecological Belt | | | |
| Mountain | 742 | 2,275 | 1 |
| Hill | 7,590 | 1,351 | 12 |
| Terai | 8,504 | 1,318 | 25 |

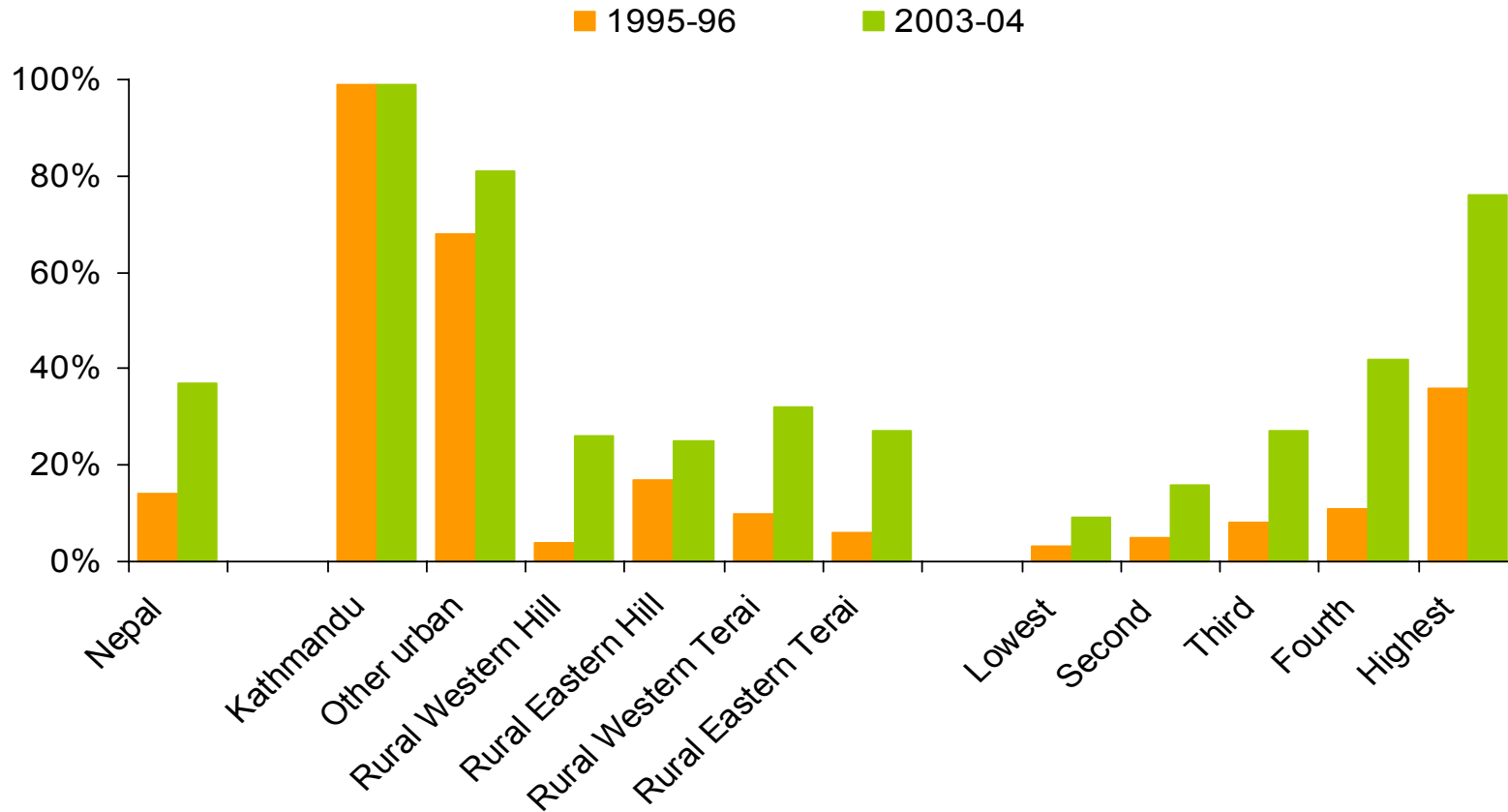
Source: Department of Roads.

Time to Access Selected Facilities (2003-04, Mean Hours)

| | School | Health Center | Paved Road | Market Center |
|---------------------------------|--------|---------------|------------|---------------|
| Per Capita Expenditure Quintile | | | | |
| Lowest | 0.38 | 1.07 | 5.59 | 3.64 |
| Second | 0.30 | 0.88 | 5.50 | 2.72 |
| Third | 0.30 | 0.77 | 4.92 | 2.31 |
| Fourth | 0.29 | 0.69 | 4.23 | 2.02 |
| Fifth | 0.18 | 0.45 | 1.71 | 1.05 |

Source: World Bank et al. (2006)

Access to Electricity (1995-96 and 2003-04)



Source: Calculations based on NLSS I and II.

2. Critical Constraints to Inclusiveness

F. Even playing fields: Productive assets

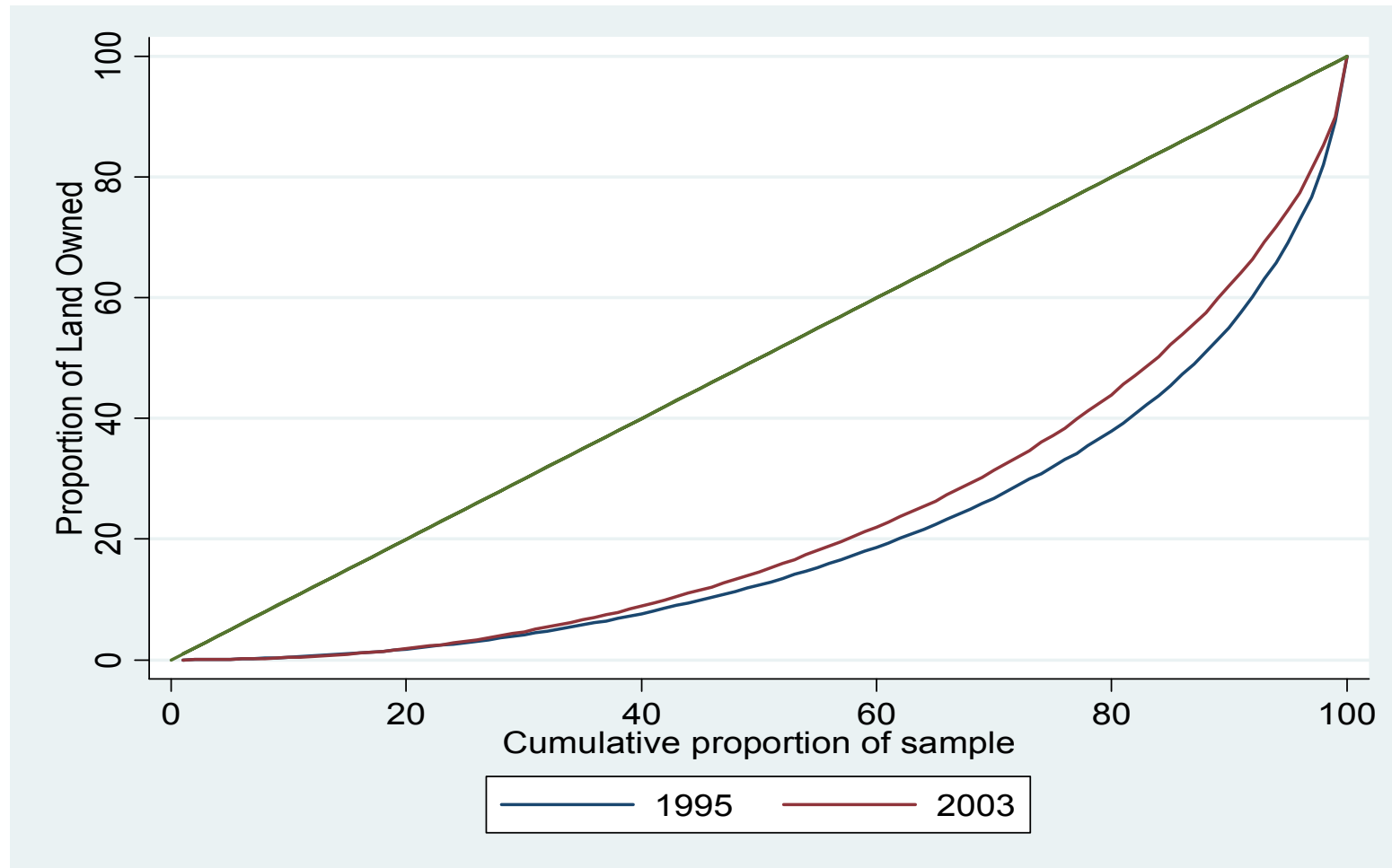
- More than land ownership, the size and access to irrigated land are inequitable in Nepal.
 - Despite the recent improvement in access to irrigated land, the greatest increase was observed among wealthy households.
 - Access to financial services remains limited and has been deteriorating in recent years.
 - Compared with well-off households, poor households are more likely to obtain loans from informal sector with higher interest rates.
- Access to productive assets (land , credit) is a critical constraint.

Land Ownership and Access to Irrigation (1995-96 and 2003-04)

| | Land Ownership (%) | | Land Area (ha) | | Access to Irrigation (%) | | Share of Irrigated land (%) | |
|---------------------------------|--------------------|---------|----------------|---------|--------------------------|---------|-----------------------------|---------|
| | 1995-96 | 2003-04 | 1995-96 | 2003-04 | 1995-96 | 2003-04 | 1995-96 | 2003-04 |
| Nepal | 82 | 77 | 1.04 | 0.79 | 50 | 63 | 30 | 44 |
| Per capita expenditure quintile | | | | | | | | |
| Lowest | 83 | 81 | 0.96 | 0.50 | 47 | 47 | 20 | 26 |
| Second | 84 | 80 | 0.92 | 0.69 | 47 | 55 | 28 | 36 |
| Third | 82 | 79 | 0.89 | 0.69 | 49 | 63 | 30 | 42 |
| Fourth | 83 | 83 | 1.13 | 0.87 | 51 | 75 | 32 | 55 |
| Highest | 79 | 65 | 1.22 | 1.12 | 56 | 70 | 37 | 55 |

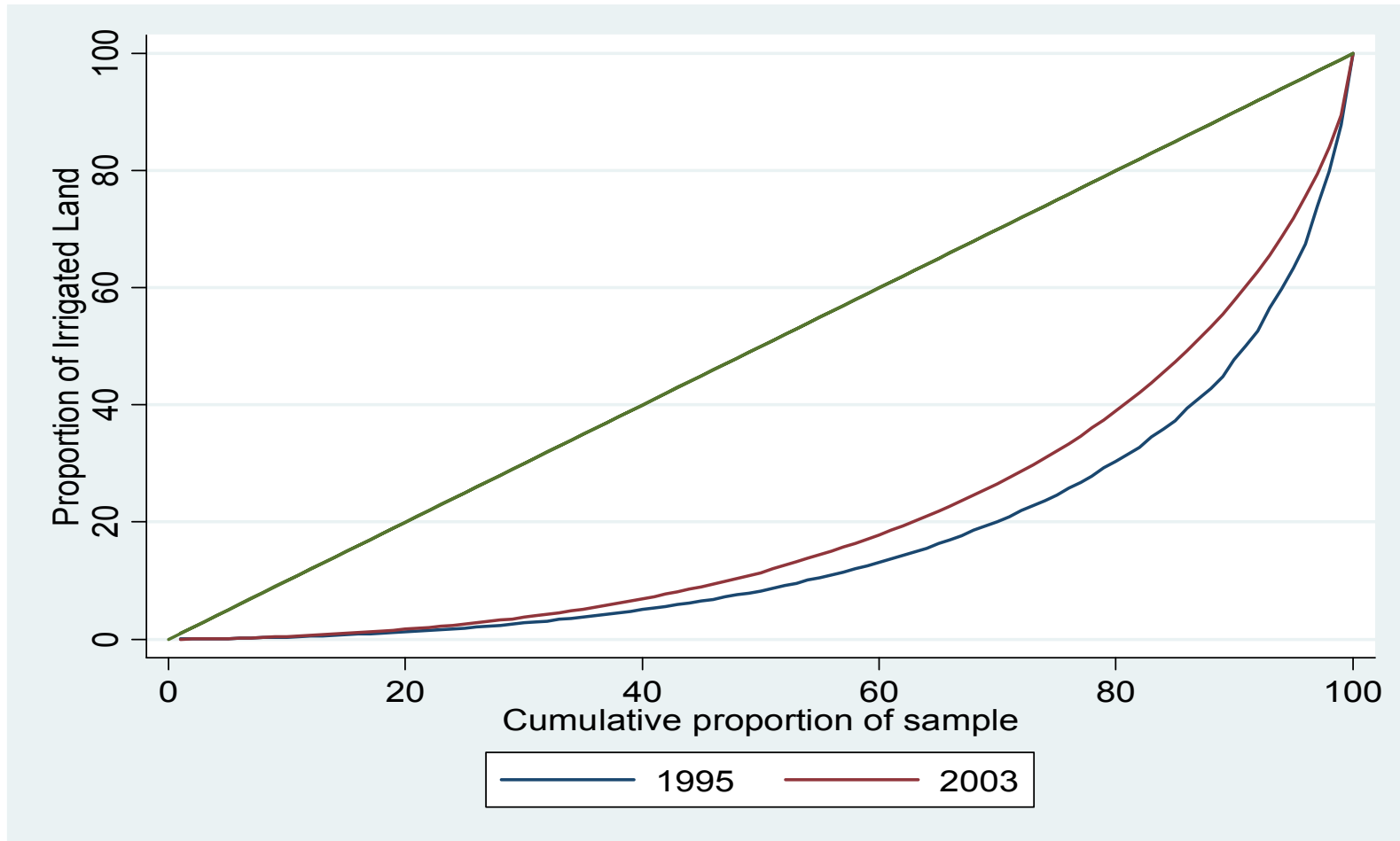
Source: Calculations based on NLSS I and II.

Distribution of Land Holdings (1995-96 and 2003-04, %)



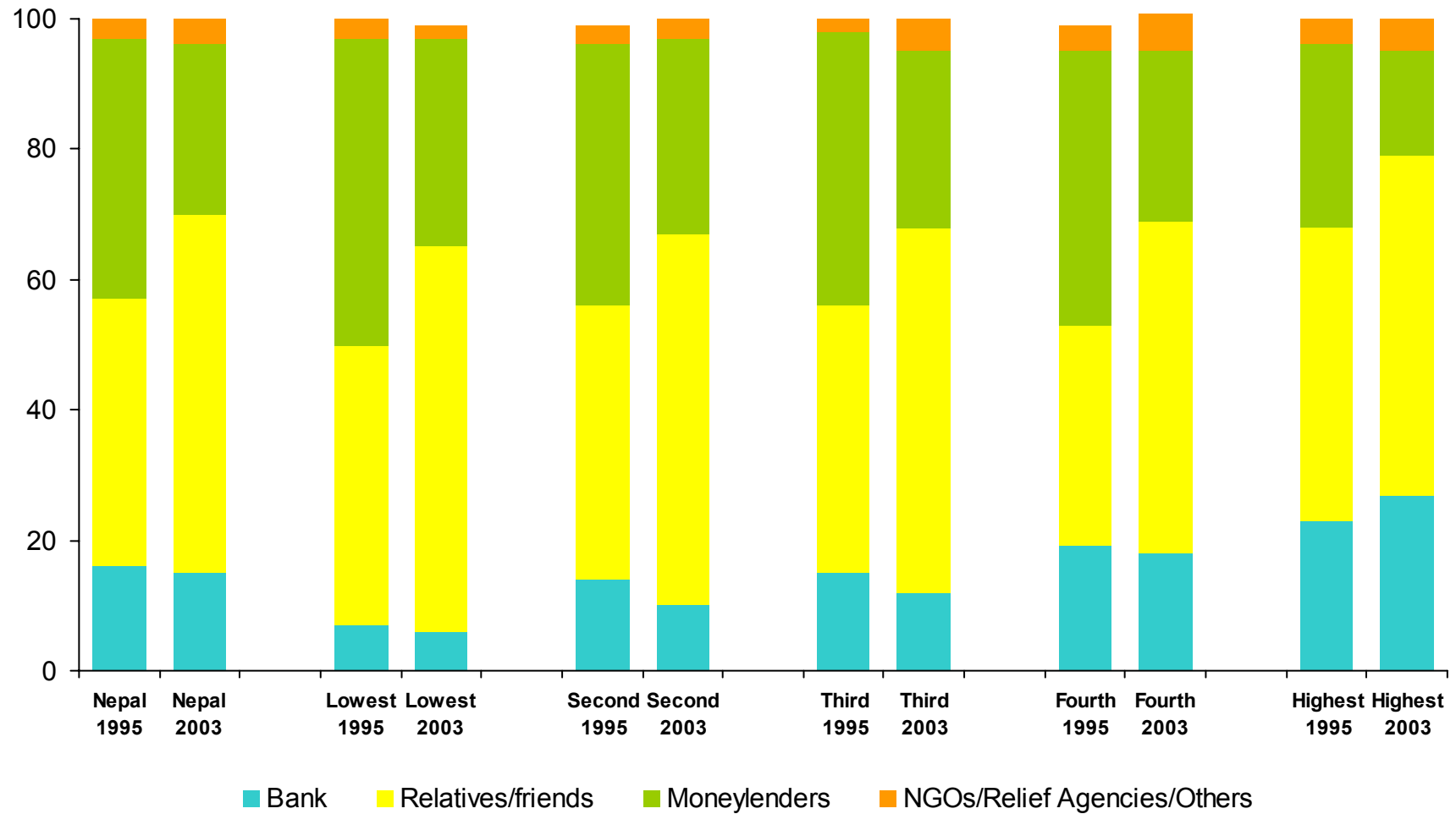
Source: Calculations based on NLSS I and II.

Distribution of Irrigated Land (1995-96 and 2003-04, %)



Source: Calculations based on NLSS I and II.

Distribution of Loans by Source (1995-96 and 2003-04, %)



Source: Calculations based on NLSS I and II.

Interest Rates (2003-04, %)

| | Formal | | Informal | |
|-------|-----------------------|---------------------|-------------------------|-------------|
| | Agricultural Banks | Commercial Banks | Relatives or Friends | Moneylender |
| Urban | 16 | 12 | 21 | 20 |
| Rural | 18 | 16 | 30 | 31 |

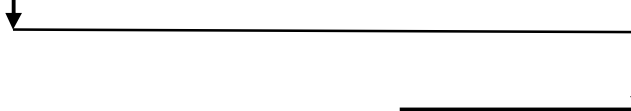
Source: World Bank et al. (2006)

Inhabitants per Bank Branch (2005)

| | No. of Inhabitants |
|-------------|--------------------|
| Eastern | 70,954 |
| Central | 49,617 |
| Western | 57,444 |
| Mid Western | 110,714 |
| Far Western | 100,654 |

Source: Ferrari et al. (2007).

Slow Rate of Poverty
Reduction and High Inequality



Inadequate social
safety nets

2. Critical Constraints to Inclusiveness

G. Social safety nets.

- The provision of social safety nets in Nepal is relatively low in comparison with other South Asian countries.
- Inadequate provision of social safety nets constitutes a critical constraint in Nepal where deep-rooted exclusion of certain segments of society exists.

Social Protection Index

| | SP Expenditure (% of GDP) | SP Coverage (%) | Distribution Effect of SP (%) | Impact of SP on Income (%) | SPI Ranking |
|------------|---------------------------------|--------------------|-------------------------------------|----------------------------------|-------------|
| Nepal | 2.3 | 18 | 35 | 7 | 24 |
| Asia | 4.0 | 35 | 57 | 23 | - |
| Bangladesh | 5.3 | 24 | 53 | 24 | 17 |
| Bhutan | 1.4 | 17 | 30 | 12 | 26 |
| India | 4.0 | 33 | 100 | 26 | 10 |
| Maldives | 1.5 | 22 | 74 | 8 | 21 |
| Pakistan | 1.6 | 7 | 8 | 3 | 30 |
| Sri Lanka | 5.7 | 41 | 85 | 26 | 9 |

Source: ADB (2008).

3. Summary of Critical Constraints to Inclusiveness

- Lack of productive employment opportunities, especially in rural areas.
- Unequal access to opportunities due to inequity in accessing education and skill development; unequal provision of infrastructure (roads, electricity, irrigation); unequal access to productive assets (land, credit).
- Inadequate social safety nets.

Thank you!

For more information, visit:

<http://www.adb.org/Projects/Country-Diagnostic-Studies/default.asp>