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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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GLOBAL PICTURE FOR INFRASTRUCTURE AND PRO-POOR GROWTH**

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ROOM DOCUMENT 3

**DONOR PRACTICES AND THE DEVELOPMENT OF BILATERAL DONOR'S INFRASTRUCTURE
PORTFOLIO**

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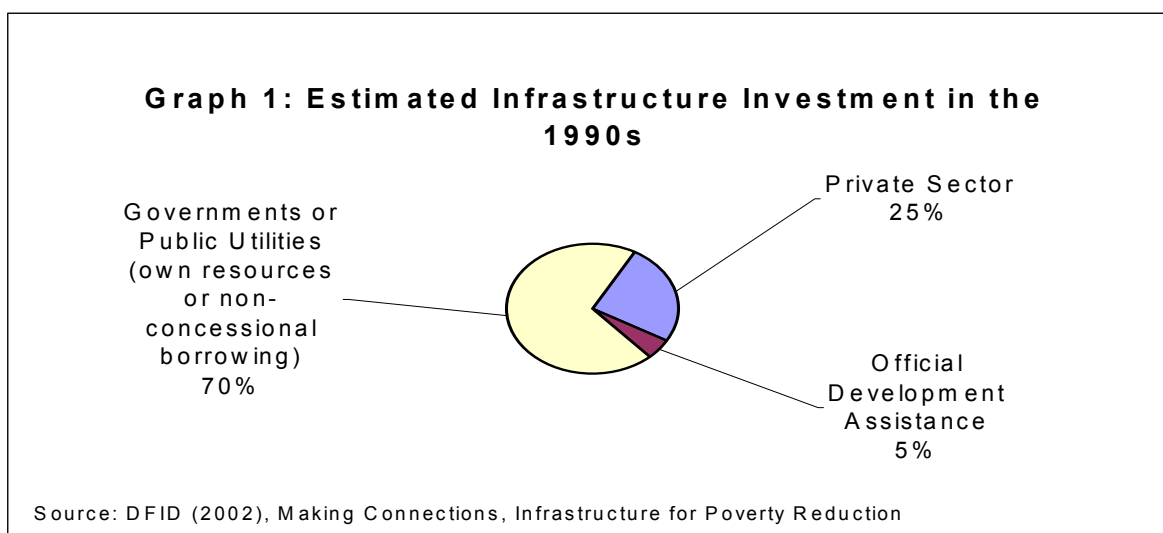
DAC Network on Poverty Reduction
First workshop of the infrastructure for poverty reduction task team

HANDOUT FOR SESSION IIa:

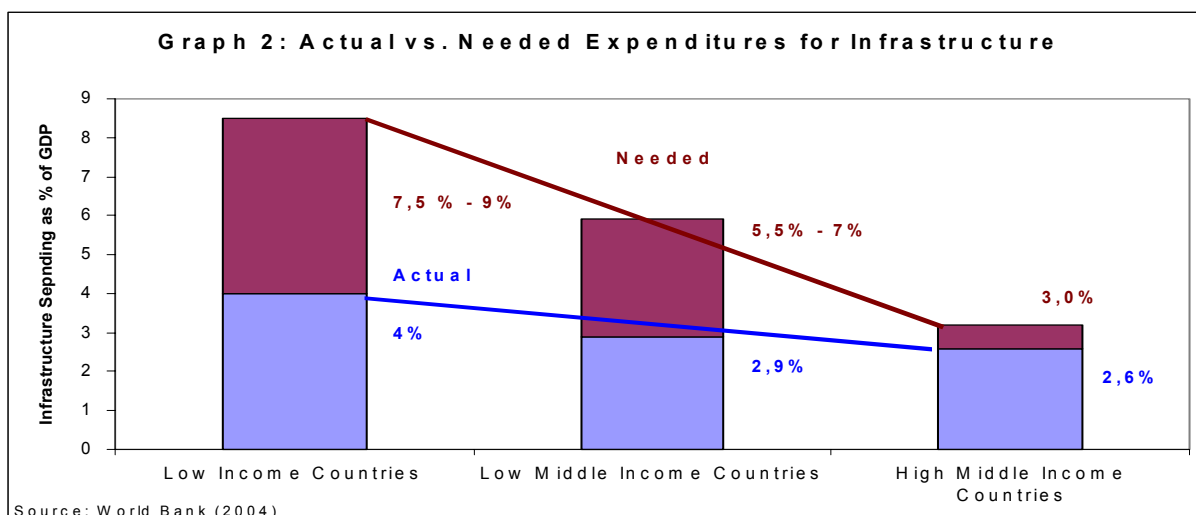
**Current Donor Practices
and the Development of Bilateral Donors' Infrastructure Portfolio**

I. INTRODUCTION: GENERAL TRENDS IN INFRASTRUCTURE FINANCING

1. Reliable data are hard to obtain, but estimates indicate that during the 1990s, approximately 70% of investment in infrastructure in developing countries was financed by the national governments or public utilities from their own resources or from non-concessional borrowing.
2. The concept of infrastructure used throughout this paper is based on the types of economic infrastructure relevant for poverty reduction, i.e. they include, energy, transport, information and communication technology (ICT), irrigation, water supply and sanitation as well as infrastructure components of rural and urban development. The concept of infrastructure used here does not include social infrastructure such as schools, health centres and shelters.
3. The private sector accounted for an estimated 25% of total investment in infrastructure, official development assistance for less than 5%.



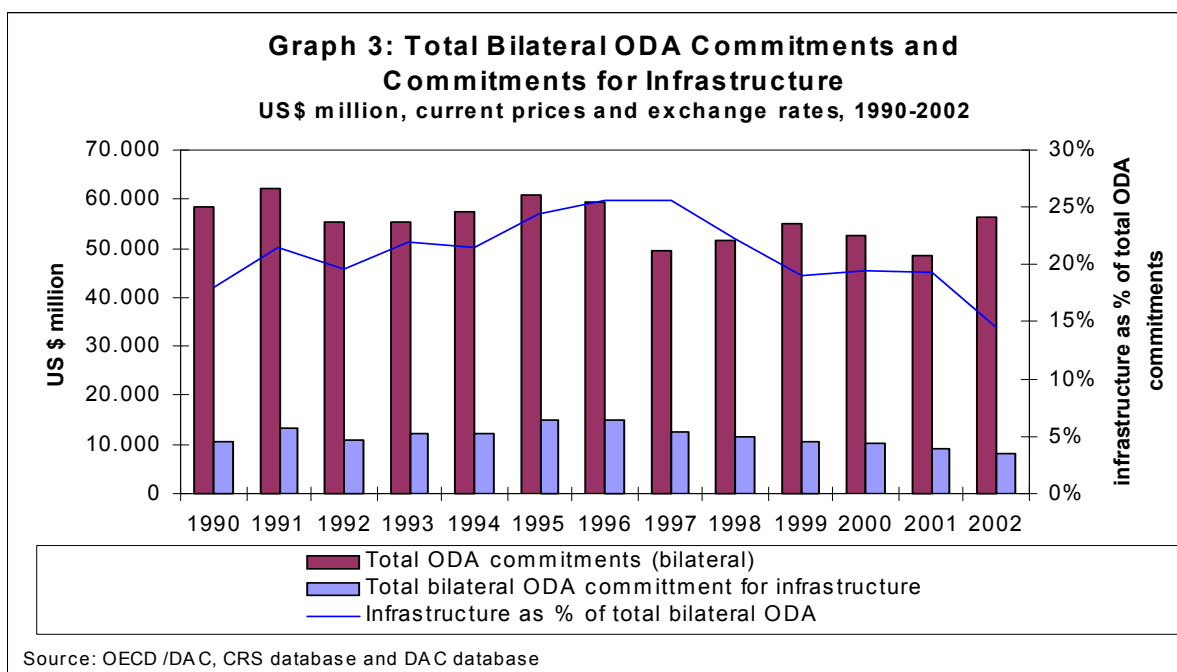
4. During the 1990s, public spending on infrastructure has been on a downward trend, partly as a result of high expectations of private sector involvement in infrastructure and a renewed focus on social issues and poverty reduction (HIPC, PRSP, MDGs). Compared to the 1970s and 1980s, the share of GDP spent on infrastructure in developing countries declined on average from 15% to around 3% today.
5. Estimates on actual vs. needed expenditures for infrastructure as percentage of GDP show a clear mismatch, in particular for low income countries where annual public spending accounts for only about half of the needed expenditure.



2. TRENDS IN ODA COMMITMENTS FOR INFRASTRUCTURE

2.A. Trends in Bilateral ODA commitments for Infrastructure

6. Bilateral ODA commitments for infrastructure have followed an **overall downward trend** since 1996 declining from 15.175 US \$ million to 8.174 US \$ million in 2002.
7. Trend in commitments for infrastructure differs from development of total bilateral ODA commitments.
8. **Decline in relative share** of infrastructure allocations in total ODA commitments since 1997 from 26% to 14% in 2002

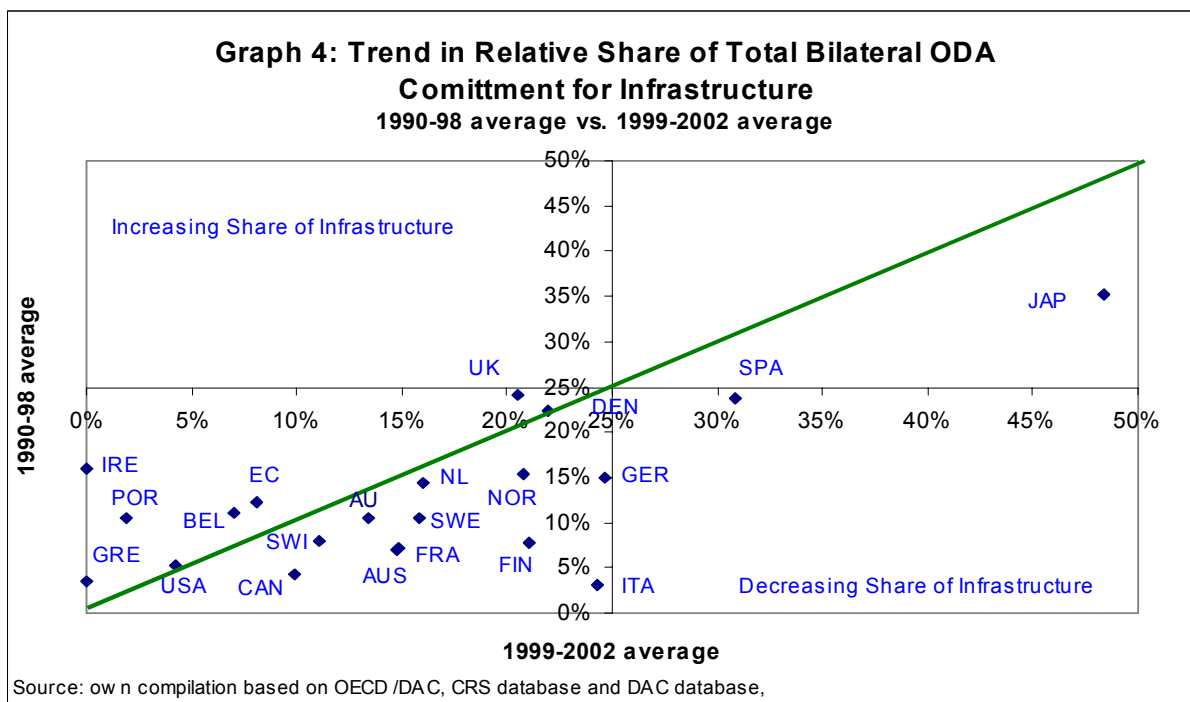


9. Trend **not uniform** across all bilateral donors. Comparing the 1990-98 average with the 1999-2002 average, the following trends can be observed:

- The donors with a **relative low share of commitment for infrastructure** (0% - 8% of total bilateral ODA commitment) in the period 1990-98 have shown a tendency to increase the share of infrastructure (range of 3% to 16% of total

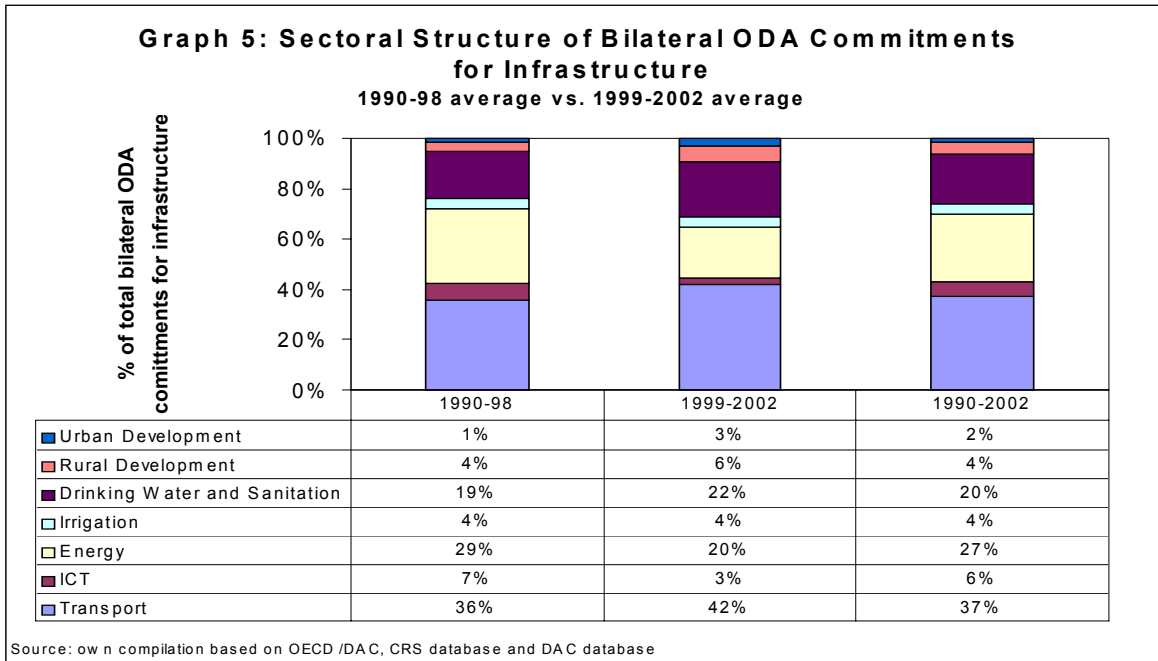
bilateral ODA commitment). 6 donors belong to this group: Belgium, Ireland, Greece, Portugal, US and EC

- The donors with a **middle share of commitment for infrastructure** (10% - 25% of total bilateral ODA commitment) in the period 1990-98 have shown a tendency to decrease strongly the share of infrastructure (range of 3% to 15% of total bilateral ODA commitment). 10 donors belong to this group: Canada, Switzerland, Australia, France, Sweden, Netherlands, Norway, Finland, Italy, Germany
- **Two donors with a middle share of commitment for infrastructure** (20% and 22% respectively) in the period 1990-98 have maintained (Denmark) and slightly increased (UK: 24%) their commitments.
- The two donors (Japan and Spain) with a **high share of commitment for infrastructure** (over 25%) have shown a decline from highs of 48% and 31% to 35% and 24% respectively.

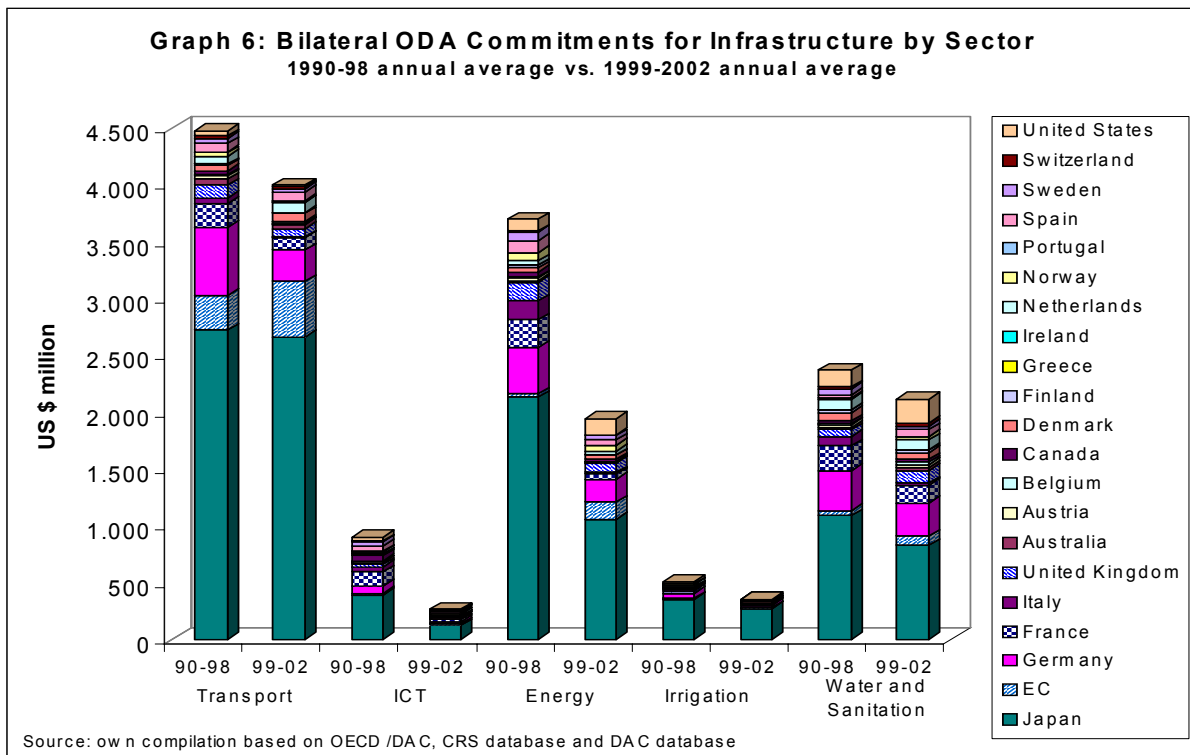


10. The **sectoral disaggregation** of bilateral ODA commitment highlights transport as the leading sector during the 1990-2002 period with 37% of all bilateral commitments for infrastructure, followed by energy (27%), water and sanitation (20%) and ICT (6%). Irrigation, rural and urban development account for around 2%- 4% of total commitments.

11. However, comparing the period 1990-98 with 1999-02, a **shift in the sectoral focus** is clearly discernible – with decreasing allocations for energy (from average of 29% to an average of 20%) and ICT (from 7% to 3%) on the one side and increasing relevance of the transport (36% - 42%) and the water sector (19% to 22%) on the other side.

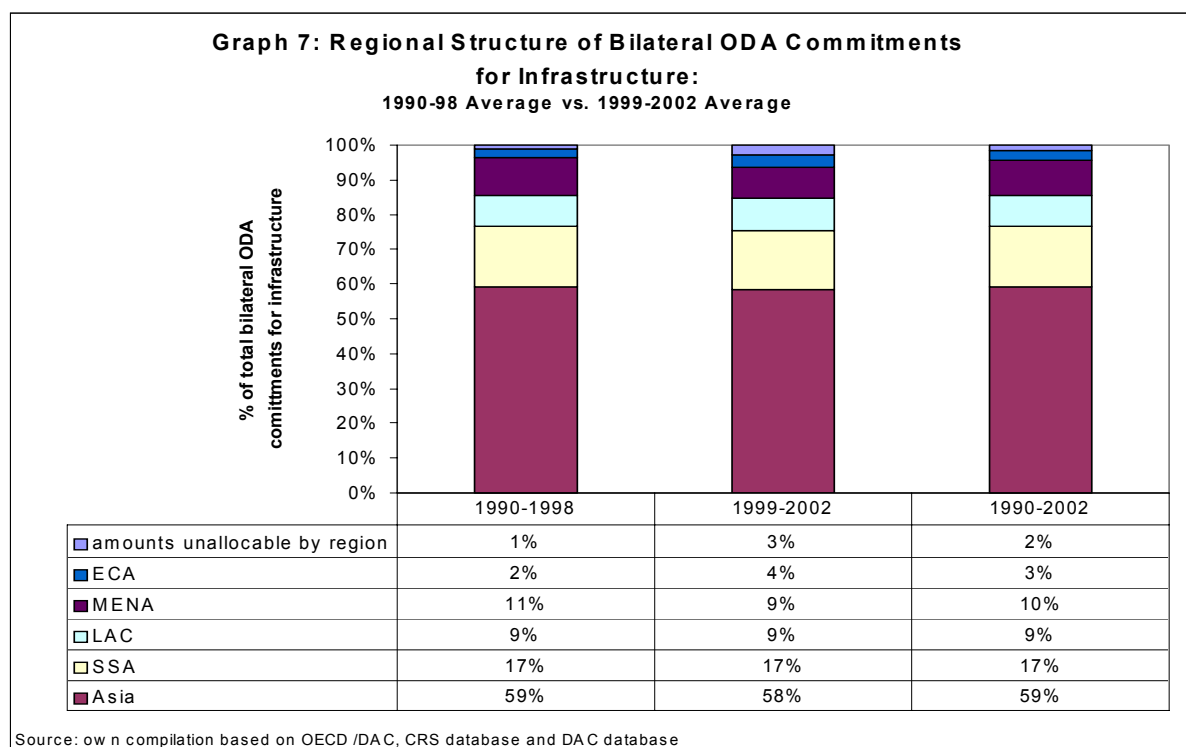


12. Taking a closer look at the relative share of bilateral ODA commitments for the different infrastructure sectors highlights the role of Japan as the largest donor in infrastructure in terms of volume, followed by Germany, France and the EC.

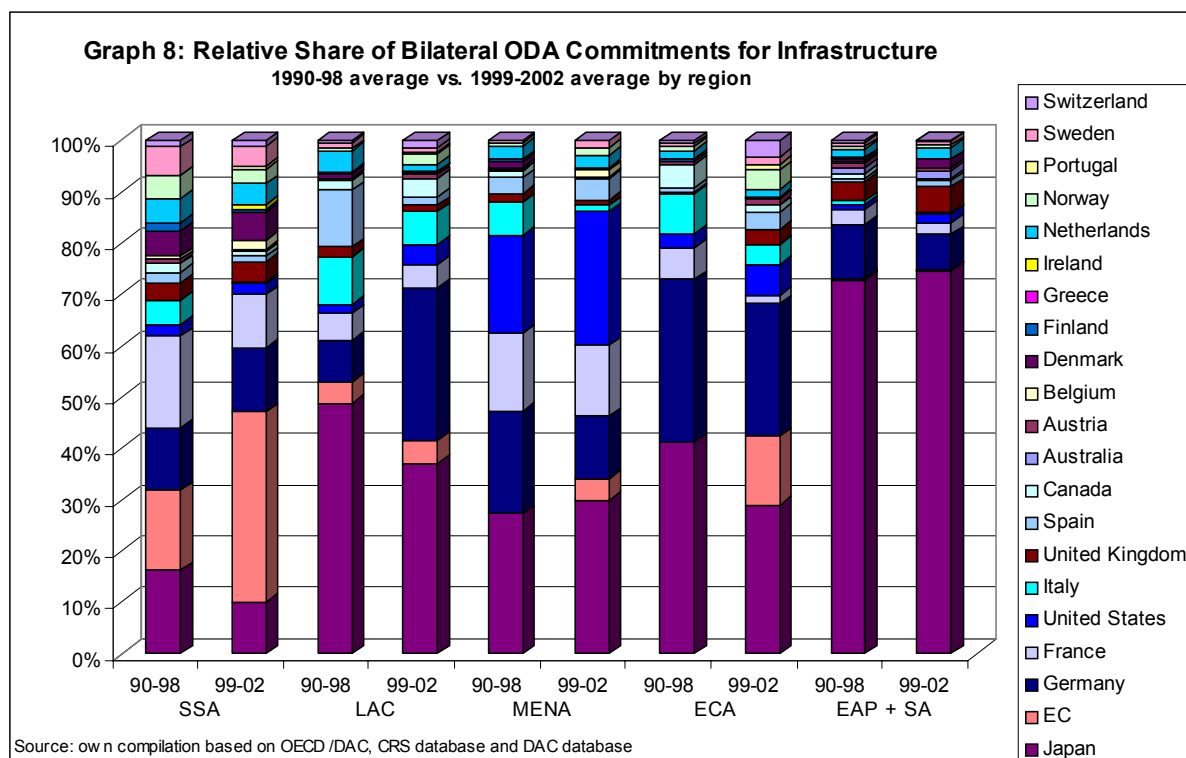


13. With regard to commitments for **transport infrastructure**, it is interesting to note that the EC has increased bilateral ODA commitments from an average of US \$ 310 billion during the period 1990-98 to US \$ 492 billion for the period 1999-2002 and has become the second largest donor for transport after Japan. The share of EC in overall commitments for transport infrastructure increased from 7% (90-98) to 12% (99-02). To the contrary, Germany has nearly halved the bilateral ODA commitments for transport (from US \$ 598 million to US \$ 271 million) and its relative share declined from 13% to 7% consecutively.

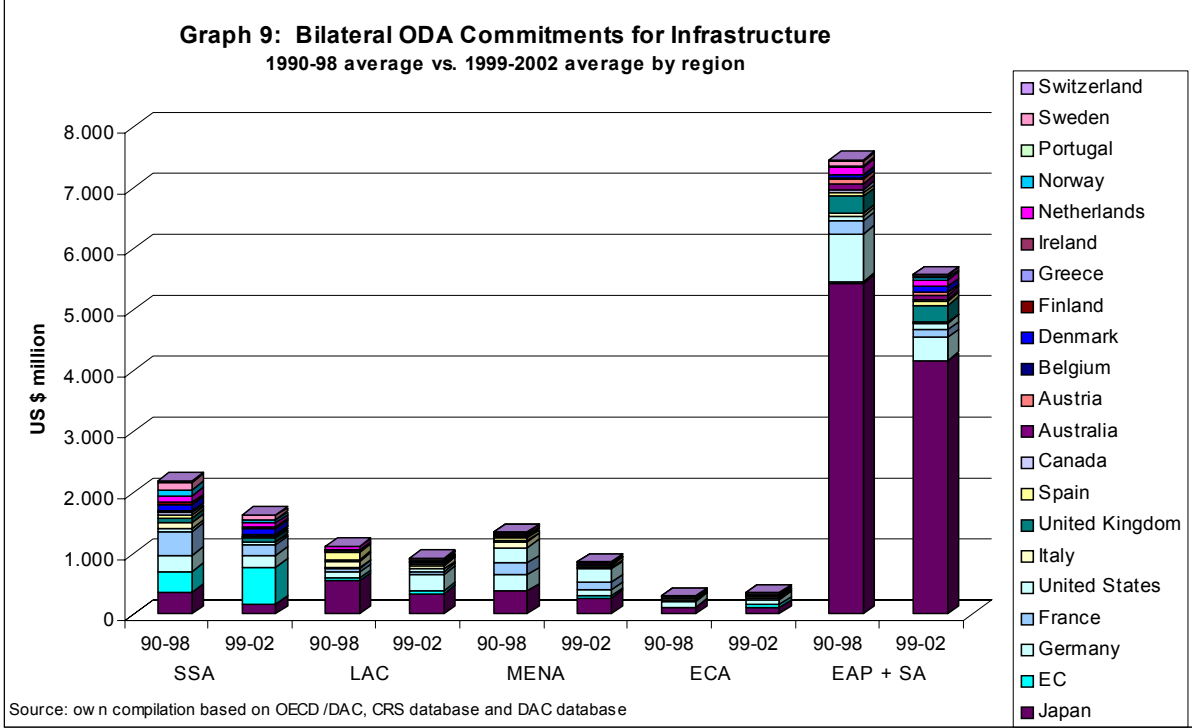
14. The strong decline in commitments for **ICT infrastructure** from an annual average of around US \$ 900 million during the 1990-98 period to an average of US \$ 266 million for 1999-2002 can mainly be related back to the strong reduction of commitments by Japan and France, the two most important donors in this sector. While Japan maintained the relative share of around 45% in total commitments, bilateral ODA from France dropped from a 14% share to 8% during 99-02.
15. Bilateral ODA commitments for **energy infrastructure** experienced a strong decline between the annual average for the 90-98 period and the 99-02 period. Interesting to note is the development in commitments from the EC as well as the United States both revealing a strong increase in annual commitments for energy (their shares in total commitments for energy rising from 1% during the 1990-98 period to 8% in 1999-02 and from 3% to 7% respectively), whereas the other donors reduced their share, notable Italy (from 5% of total commitments for energy during 1990-98 to 0% in 99-02) and France (from 7% to 2%).
16. Commitments for **irrigation infrastructure** are strongly reliant on Japan's bilateral commitments with a relative share of 69% during 1990-98 and 77% during 99-02. Major donors in irrigation like Germany, France, Netherlands, United States and Italy more than halved their contribution from the average annual level during 1990-98 to the 99-02 level. An increase in commitments for irrigation has been recorded for Spain and the EC, their relative shares in total commitments rising to 3% and 2% respectively.
17. With regard to the **water and sanitation infrastructure**, a number of donors increased their bilateral commitments for the sector, among them Australia, Belgium, the EC, Norway, Spain the UK as well as the US. Their relative share increased from low level of 1% to 6% during 1990-98 to levels between 2% and 10% during 99-02. The traditionally larger donors for water supply and sanitation in terms of volume all reduced their commitments and – as a consequence – their relative share in total commitments. This is in particular noticeable for Japan (46% to 39%), France (9% to 7%), Italy (4% to 1%) and Germany (15% to 14%).
18. The bilateral ODA commitments for infrastructure are **regionally concentrated on Asia** with 59% of all commitments during the period 1990-2002.



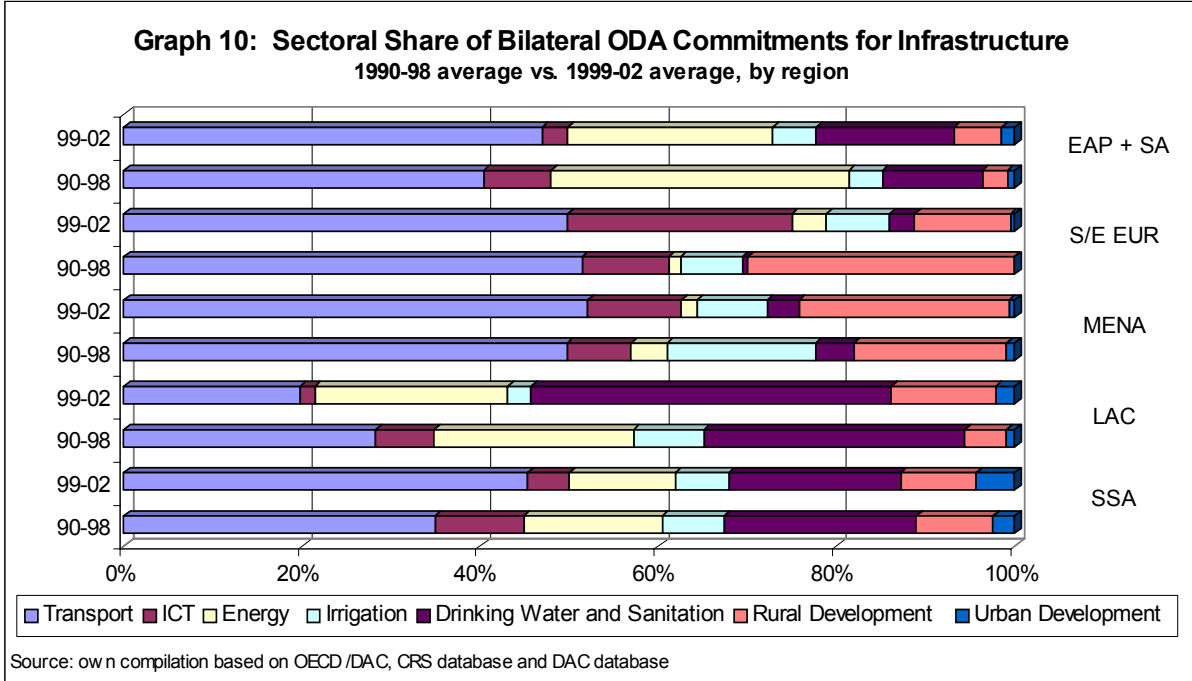
19. Second in importance is Sub-Sahara Africa with a constant share of 17% over the whole period. Comparing the 1990-98 period with the period after the financial crisis, a slight reduction can be observed for the MENA (11% to 9%) and the Asia region (59% to 58%), whereas commitments to the ECA region gained in importance (from 2% to 4%). Infrastructure allocations for the LAC region represent about a tenth of total bilateral ODA commitments.
20. Taking a closer look at the relative share of donor commitments by region reveals a clear regional concentration of bilateral donors. France, the EC, Japan and Germany together accounted for more than two thirds of all ODA for infrastructure in **Sub-Sahara Africa** during the 1990-98 period. Whereas France and Japan strongly reduced their commitments in the early 2000s (from 18% and 16% relative share to 10%), the EC increased its average annual commitments from US \$ 342 million (90-98) to US \$ 605 million (99-02) and their relative share from 18% to 37%.
21. Commitments for infrastructure in the **Asia region** are clearly dominated by Japan's ODA accounting for three-quarters of all bilateral ODA commitments. Compared with the average annual commitments during 1990-98, it is interesting to note that Germany has reduced its relative share in the early 2000s from 10% to 7% while the United Kingdom has increased their relative share from 4% to 5%.
22. The **Southern and Eastern Europe and Central Asia** region has received ODA allocation for infrastructure during the 1990-98 period primarily from Japan (41%), Germany (32%), Italy (8%), France (6%) and Canada (5%), together accounting for nearly 95% of total commitments. However, the average commitments during the 99-02 period show a different picture: taken together, the five bilateral donors only account for around 60% of total commitments. New engagements are discernable from the EC with a relative share of 13% of all commitments during the 99-02 period as well as the United States (6%), United Kingdom, Switzerland, Spain (3% each) and Norway (4%).
23. For the **MENA region**, Japan (30%), United States (26%), France (14%) and Germany (12%) have allocated the largest shares during the 99-02 period with an increasing trend for the United States (up from 19% during 90-98) and Japan (up from 27%).



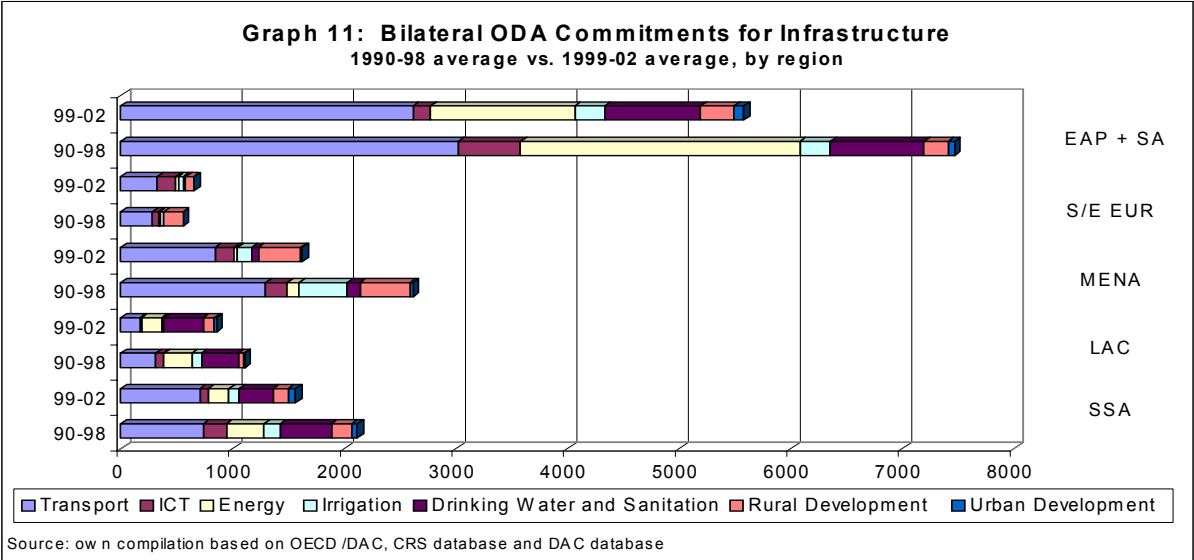
24. The general trend of decreasing allocations for energy is particularly strong for Asia (32% to 22%) and for ITC in Sub-Saharan Africa, Latin America as well as Asia. The increasing allocations for transport are clearly discernable for Asia and the MENA region. Commitments for water and sanitation have increased in relative importance in Latin America, Southern and Eastern Europe as well as Asia. Southern and Eastern Europe shows a somewhat different picture with decreasing shares for transport infrastructure and strongly increasing commitments for ITC.



25. Important shifts in the relative share of donor commitments for infrastructure can also be observed for **Latin America and the Caribbean** with a relative decline in Japan commitments (49% to 39%) as well as Spain (11% to 2%) and a strong increase in allocation from German ODA (from 8% to 31%).

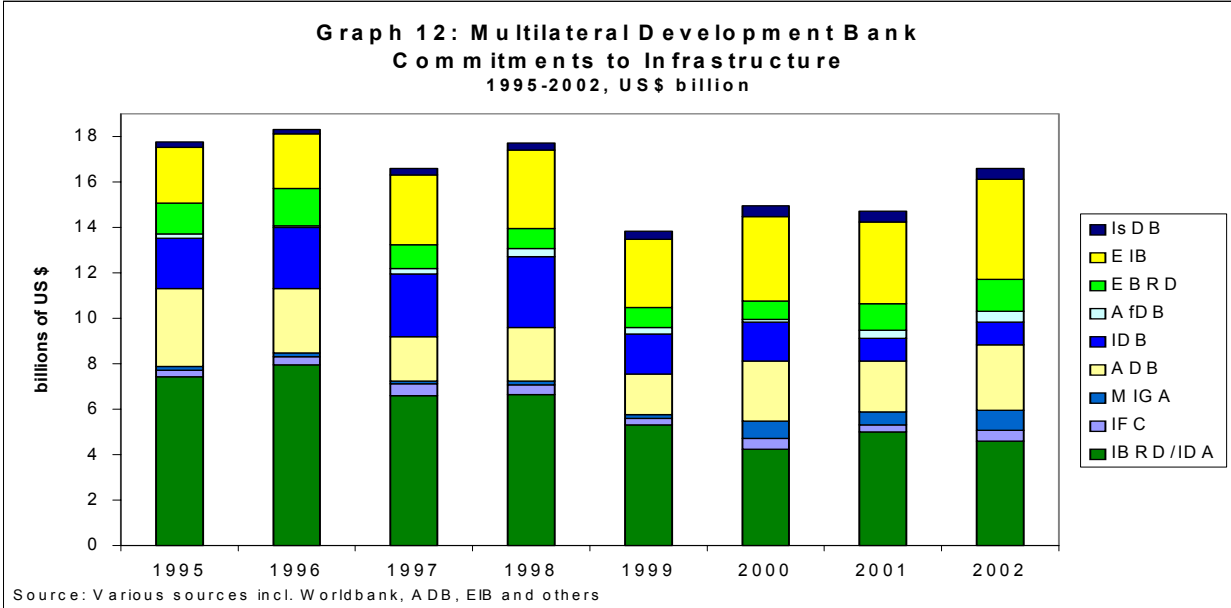


26. The **sectoral disaggregation of ODA commitments for infrastructure** by region reveals diverging compositions. Whereas transport infrastructure was the leading sector with over 40% of all commitments and an increasing trend in Asia, the MENA region and Sub-Saharan Africa, its relative share in commitments for infrastructure in Latin America only reached an annual average of 20% during the 99-02 period down from an average of 28% during the 1990-98 period. Drinking water and sanitation with an average of 40% (99-02) and 29% (90-98) of all commitments is the leading sector for Latin America and the Caribbean.

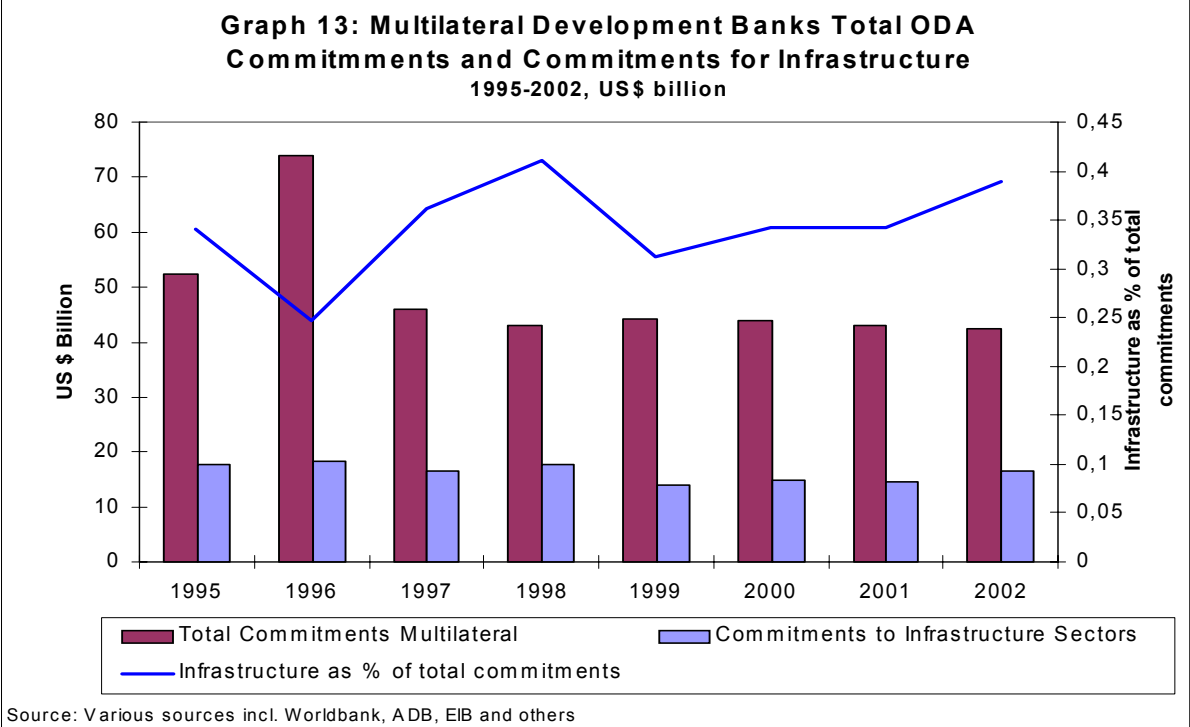


2.B. Trends in Multilateral ODA commitments for Infrastructure

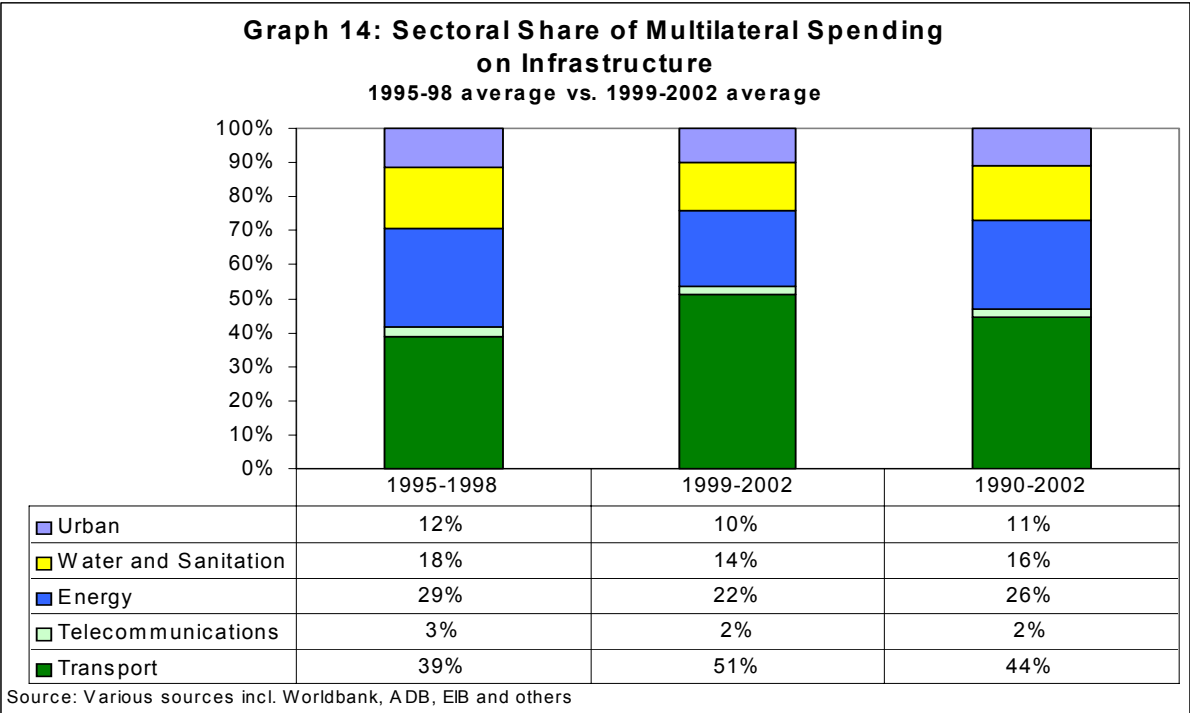
27. Throughout the mid to late 1990s, multilateral spending on infrastructure declined, reaching a trough of US \$13,8 billion in 1999. This decline occurred mainly because of a reduction in IBRD/IDA lending from around US\$ 8 billion in 1996 to US\$ 4,25 billion in 2000. However, over the past few years, there has been a slight recovery in infrastructure spending, with total commitments of all Multilateral Development Banks standing at US \$ 16,6 billion in 2002.



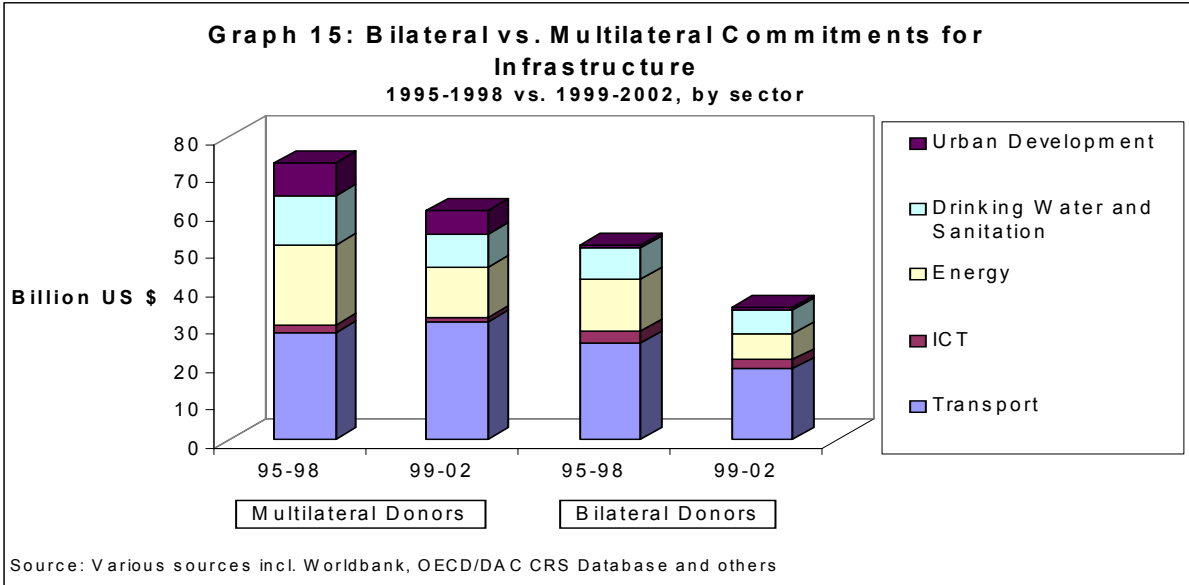
28. During the period 1995 to 2002, commitments to infrastructure sectors as percentage of total commitments varied strongly between 25% (1996) and 41% (1998) with a general upwards trend from 34% in 1995 to 39% in 2002.



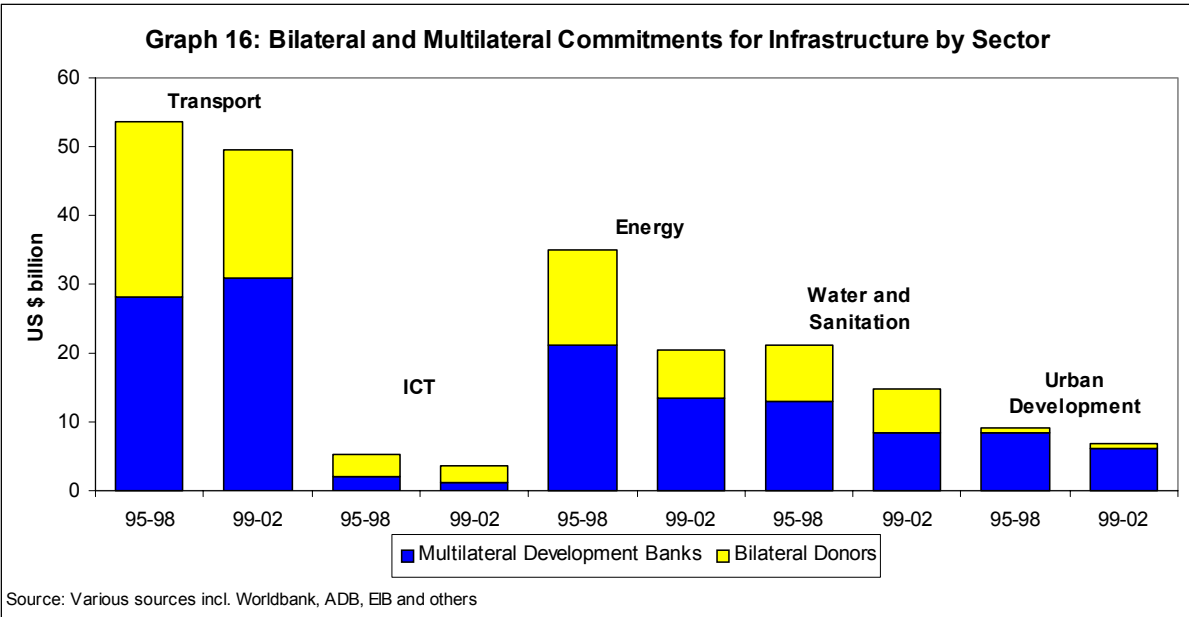
29. The **sectoral composition of multilateral spending** reveals the same sectoral focus on transport infrastructure as for the bilateral donors with a share of 44% of all multilateral commitments for infrastructure during the period 1995-2002. Energy (26%), water and sanitation (16%) and urban infrastructure (11%) together account for over half of the multilateral spending on infrastructure.



- 30. Comparing the 1995-98 period with the 1999-2002, the trend of increased allocations for the transport sector which clearly came out for the bilateral donors can also be observed for multilateral donors (39% -> 51%). However the share of allocations going to water and sanitation out of total multilateral spending for infrastructure has declined from 18% to 14% contrary to the development of bilateral ODA commitments.
- 31. Comparing bilateral ODA commitments for infrastructure with the commitments by multilateral development banks, sets the bilateral donors contribution into perspective: While during the 1995-98 period, bilateral commitments for infrastructure stood at around 83% of multilateral spending, the relation dropped to 68% for the 99-02 period.



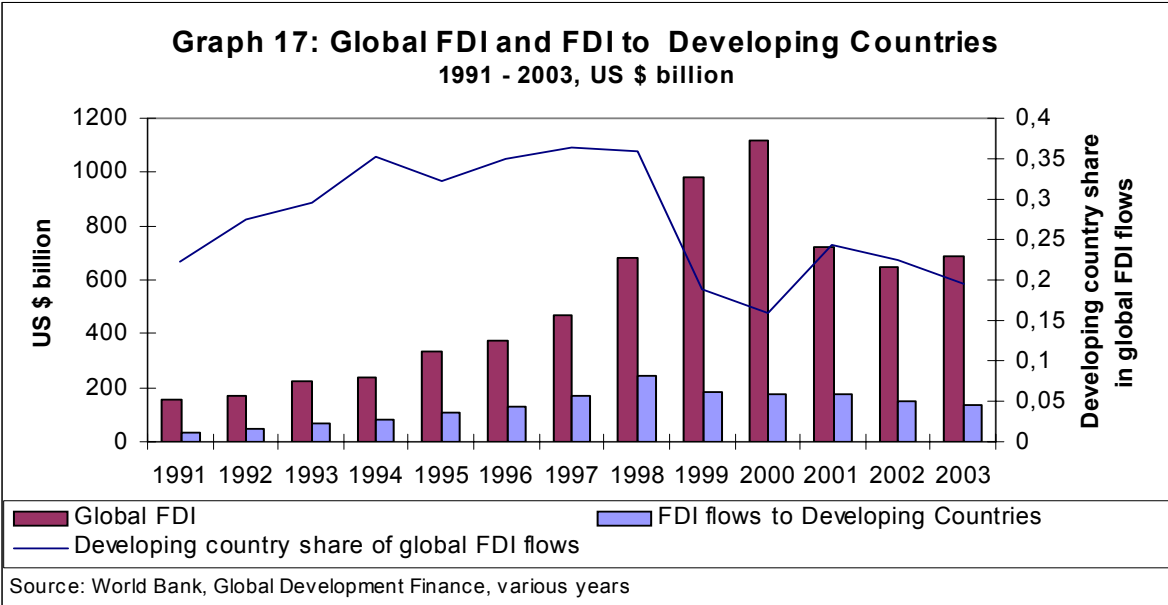
- 32. However, at the same time, multilateral investment has not substituted the declining bilateral investment resulting in a net reduction on ODA commitments for infrastructure of 24% (annual average bilateral and multilateral ODA commitments together declined from around US\$ 33 billion during 1995-98 to around US\$ 25 billion during the 1999-2002 period).
- 33. Furthermore, the decline in average annual ODA commitments for infrastructure was more pronounced (24%) than the reduction in overall ODA declining by 12% from an annual average of US\$ 110 billion during 1995-98 to US\$ 96 billion during 1999-2002.



3. INVESTMENT IN INFRASTRUCTURE: PRIVATE SECTOR AND PUBLIC EXPENDITURE

3.A. Private Sector Investment in Infrastructure

34. World FDI has grown rapidly over the period 1990-2000 from US \$ 160 billion to US \$ 1.118 billion in 2000. Since 2000, global FDI flows have fallen from their peak level to US \$ 650 million and only recovered slightly in 2003.



35. The FDI flows to developing countries also rose dramatically during most of the 1990s, from US \$ 35 billion in 1991 their peak level of US \$ 185 billion in 1999 before falling back to US \$ 178 billion in 2000 and declining further to an estimated US\$135 billion in 2003. A large share of the upsurge of FDI into the developing world in the mid- and late 1990s was motivated by the privatisation of public utilities in several countries.

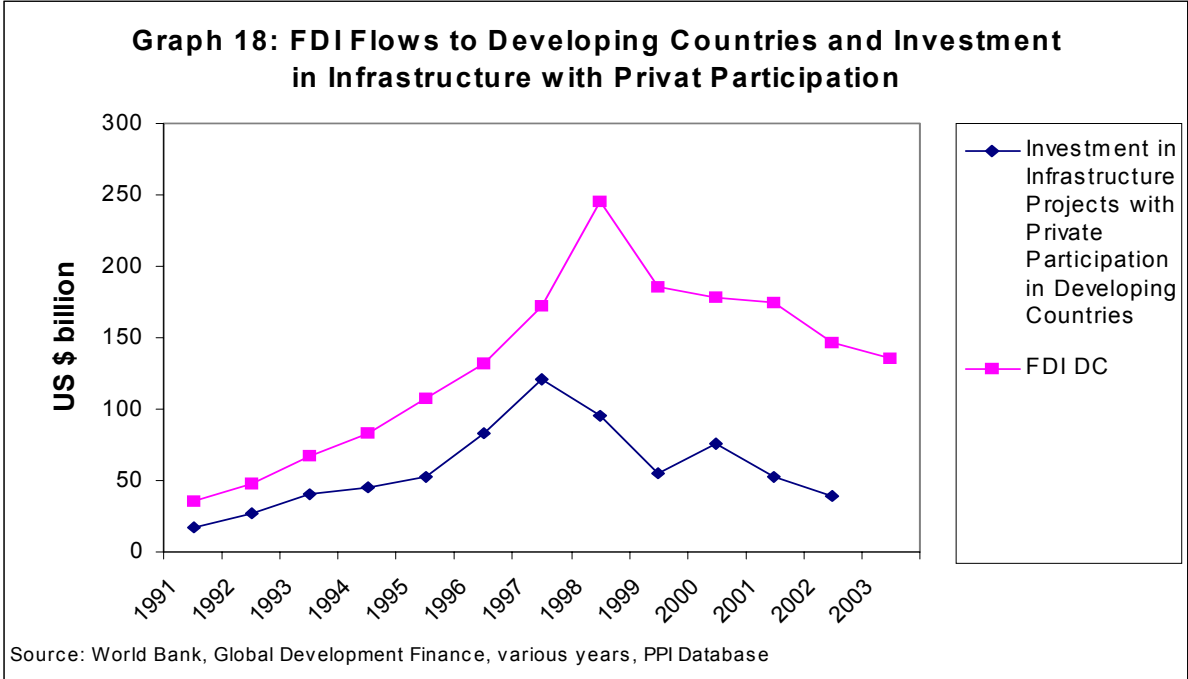
36. However, FDI flows to developing countries are highly concentrated, in 2002 the top 10 developing country recipients of FDI accounted for 78% of total FDI flows to developing countries. The top recipients are (in descending order) China, Brazil, Mexico, Argentina, Poland, the Czech Republic, Chile, Republica Bolivariana de Venezuela, Thailand and India.

37. That means, on a global level, the industrial countries account for much of the increase in global FDI flows, their share in world FDI flows has risen from a low of 65% in 1994 to an estimated 84% in 2000. The share of developing countries in global FDI flows has fallen substantially from 35% (1994) to 16% (2000), however recovered to around 20% in 2003.

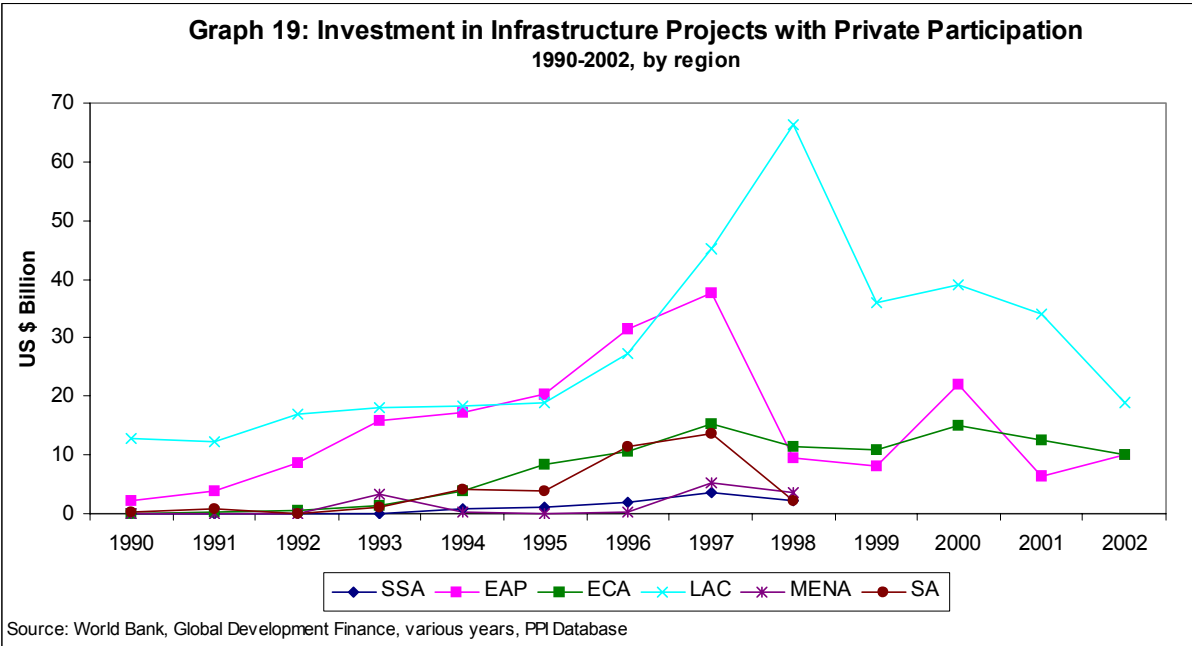
38. The slowdown in FDI flows to developing countries reflects both the increased attractiveness of investment in industrial countries and the playing out of factors that have kept FDI buoyant, among others the cross-border asset sales from East Asia in the wake of the financial crisis and large scale privatisation projects which used to be the driving force of FDI in Latin America over the past years are on a downward trend.

39. Sub-Sahara Africa has had particular difficulties in attracting FDI, reflecting insufficient market size, poor infrastructure, political uncertainty and restrictive policy regimes towards foreign investment. Traditionally, FDI inflows in Sub-Sahara Africa have been concentrated on the resource based sectors (oils, minerals) in countries such as Nigeria, Angola, Sudan and Equatorial Guinea. In the second half of the 1990s however, a diversification of FDI flows towards activities in countries that are not major exporters of oils or minerals has been observed. For example, Lesotho, Mozambique, Tanzania and Uganda saw sharp increases in FDI inflows for agriculture, light manufacturing and utilities.

40. With regard to the contribution of FDI flows to capital formation, the World Bank’s World Development Indicators state an average share of FDI in total fixed investment over the last decade of around 15%. The share of infrastructure in total FDI flows nearly doubled during the period 1990 to 1998, led by a surge in flows into the telecommunications sector.



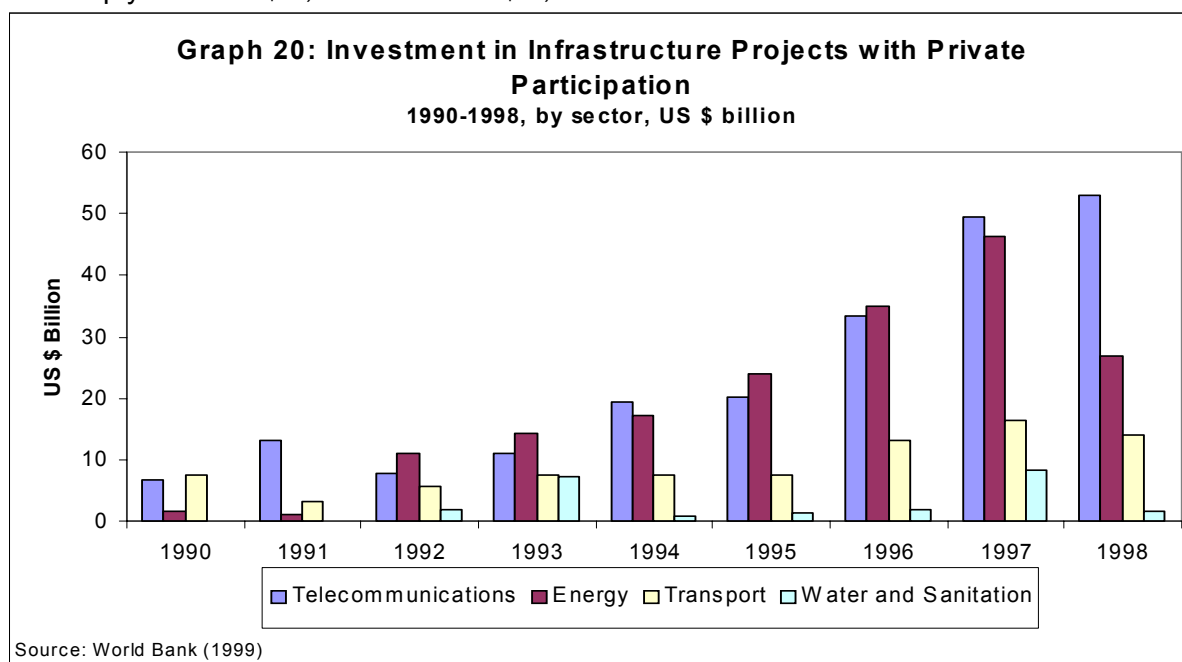
41. The trend of liberalising and privatising infrastructure activities that began in the 1970s and 1980s gained an unprecedented dynamic in the 1990s. Investment in infrastructure projects with private participation grew dramatically between 1990 and 1997, from about US \$ 16 billion to US \$ 120 billion. As a result of the financial crisis that began in Asia in mid-1997, it then declined by about one fifth to US \$ 95 billion in 1998. The downward trend continued over the 1998 – 2002 period, reaching a low of US \$ 35 billion in 2002.



42. Latin America and East Asia have been the leading regions with regard to FDI flows to developing countries over the 1990s. East Asia experienced a sharp decline in investment in infrastructure projects with private participation from 1997 to 1998 (Asian

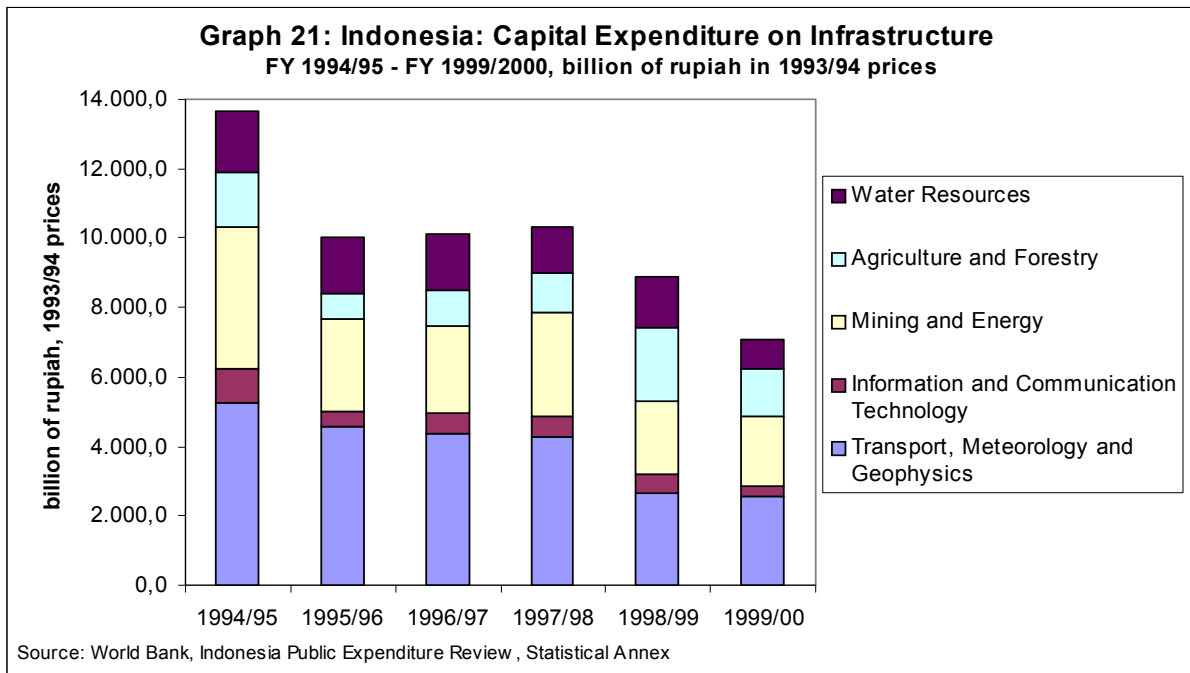
crisis) and investments have since then remained around one third of their 1997 level. Infrastructure finance with private participation in Latin America has started a steep decline from 1998 onwards (Mexico crisis), from a high of around US \$ 70 billion in 1998 to around US \$ 40 billion in 2000 and dropping again by half to US \$ 20 billion in 2002.

43. The data on infrastructure finance with private participation has to be interpreted with caution. The data source, the World Bank's Private Participation in Infrastructure (PPI) Project Database tracks projects newly owned or managed by private companies that reached financial closure. However investment are recorded on a commitment basis and refer to all investment (public and private). Therefore the data tend to be overstated and should not be taken at face value, but rather for information on trends in private funding for infrastructure. It is estimated that only 40% of the investments deals reported were actually implemented.
44. Telecommunications and energy have been the leading sectors in private participation throughout the nineties, with shares of 44% and 28% respectively.
45. Investment in energy infrastructure projects with private participation have suffered the most from the decline in private activity after the financial crisis in 1997, falling from US \$ 46 billion in 1997 to US \$ 27 billion in 1998. Investment in water and sanitation fell steeply from US \$ 8,4 billion to US \$ 1,5 billion.



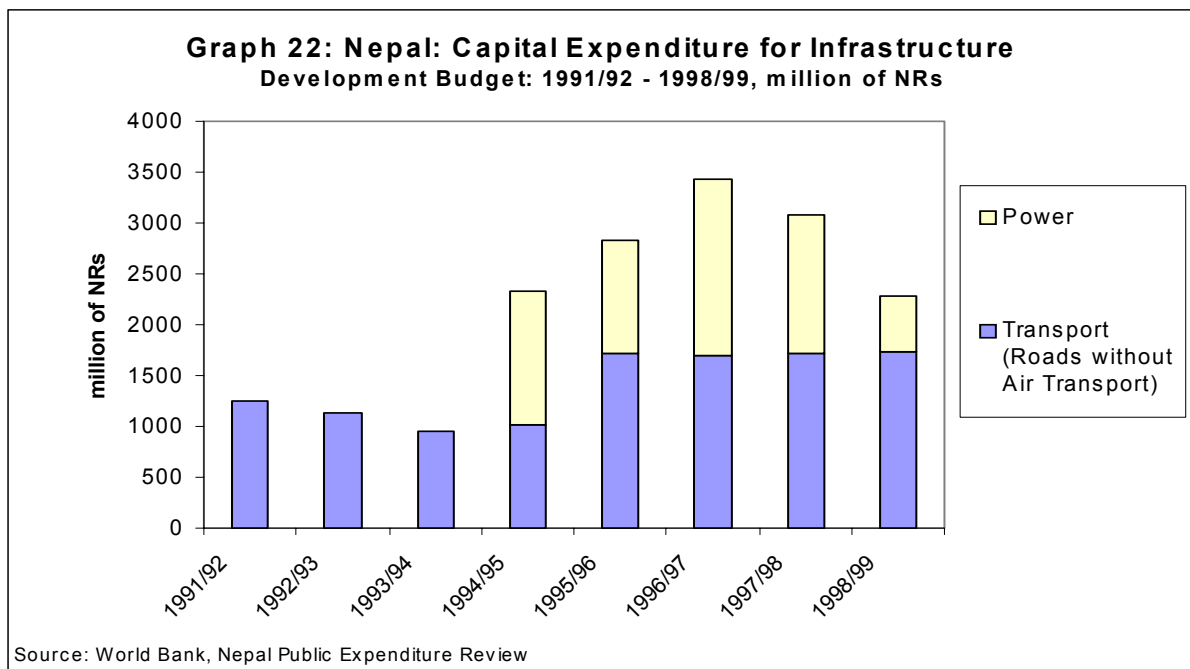
3.B. Trends in Public Spending for Infrastructure

46. Public expenditure remains the most important source for infrastructure financing during the 1990s, accounting for around 70% of total expenditures for infrastructure.
47. However, if we take a more detailed look at the trend of infrastructure financing through public expenditure in selected developing countries, a shift can be observed. For Indonesia, for example, the total expenditure (own and foreign resources) on infrastructure related sectors (water resources, agriculture and forestry, mining and energy, ICT as well as transport, meteorology and geophysics) declined strongly over the period 1994/95 to 1999/2000, as well in total volume from 13,7 billion rupiah to 7 billion rupiah as in percentage of total investment (from 48% to 28%). Over the same period, the percentage of infrastructure investment financed with own resources declined from 55% to 35%.



48. As a share of GDP, expenditures for infrastructure from own resources declined from 1,9% in 1994/95 to 0,2% in 1999/2000.

49. In Nepal, public expenditure on infrastructure from own resources was concentrated on transport and power and show an increase over the period 1991/92 to 1998/99. During the same period, the share of infrastructure investment financed with own resources declined from around 50% in the FY 1991/92 to 17% in the FY 1998/99.

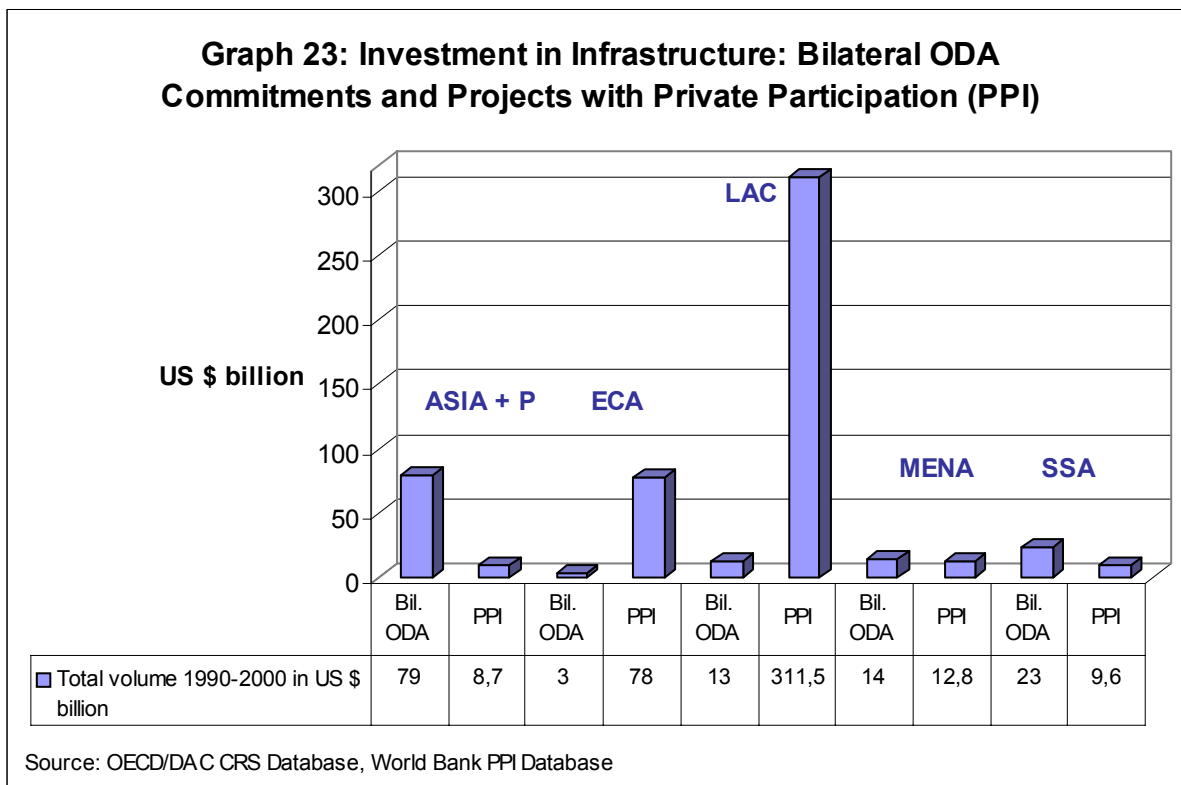
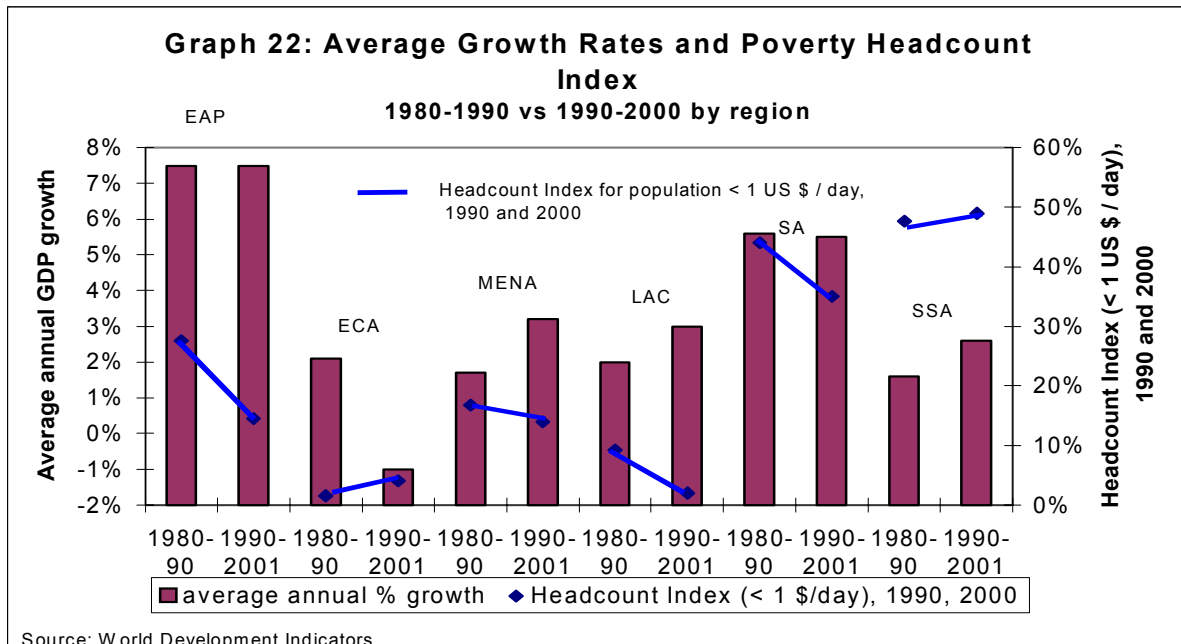


50. In both countries, the declining share of budget financed infrastructure in the late 1990s was not substituted by increasing funding by bi- and multilateral ODA nor by FDI.

4. INFRASTRUCTURE FOR ECONOMIC GROWTH AND POVERTY REDUCTION

51. The Millennium Development Goals (MDGs) stand for a renewed commitment of the international community to overcome the persistent poverty and address many of the most enduring failures of human development. The 8 MDGs aim at halving income poverty in every country and worldwide (Goal 1), improving the social status of the poor (Goals 2-6), strengthening environmental sustainability, including municipal services (drinking water and eradicating slums - Goal 7), and a global partnership for development (Goal 8).
52. It has been widely acknowledged that growth is the main source of progress in poverty reduction and that adequate infrastructure services are crucial to growth and to the achievement of all MDGs. Economic infrastructure has also direct impacts on improving social MDGs (e.g. transport services for bringing children to the school).
53. The linkages between investment in infrastructure, growth and poverty reduction are both direct and indirect and have received intensive research attention during the last decade.
54. A number of studies have looked at the composite effects of infrastructure investments on economic growth, particularly in rural areas, and on poverty reduction. A study completed in India (Fan, Hazell and Thorat, 1999) found that investment in rural roads, followed by agricultural research and development, had the greatest effect in reducing poverty.
55. A study for Indonesia (Kwon, 2000) considers government investment in irrigation, roads, health, science and technology, agriculture and forestry and education. The rate of decline in poverty was found to be most sensitive to road investments, followed by education, agriculture and irrigation.
56. Energy plays a central role for poverty reduction – providing access to energy can enable the poor to satisfy their need in terms of energy needed for cooking, power for pumping potable water and irrigation water as well as electricity for health and education outcomes. Moreover, income generating activities often rely on the availability of energy. A number of empirical studies have analysed the direct and indirect linkages of access to energy with the poverty situation and found that in many countries rural electrification has a major effect on education, markedly improves health care, facilitates a regular water supply and addresses other basic needs.
57. For a detailed discussion of the infrastructure, growth and poverty reduction linkage see the draft paper by Christopher Willoughby for Session I of the Workshop.
58. In Asia, investment in infrastructure has been going hand in hand during the 1990s with economic growth and poverty reduction. However, social investment, in particular in education in East Asia, has also proved to be an important condition for growth. This is not only due to high public spending but also to private investment in education (Sri Lanka, Kerala, Taiwan, Singapur, Korea).
59. Without suggesting a direct causal relationship, it is interesting to contrast regional economic growth and poverty reduction (graph 22) with the investment in infrastructure from different sources by region (graph 23).
60. Absolute Poverty measured by the headcount index has fallen considerably from the 1980-90 period to the 1990-2000 period for East Asia and the Pacific, Latin America and the Caribbean, MENA as well as South Asia – as one would expect in view of the high and increasing rates of GDP growth. An increase in the poverty headcount index has been observed for Sub-Sahara Africa and Europe and Central Asia, both regions with relatively low GDP growth.
61. The high reduction in the headcount index goes hand in hand with high investment in infrastructure during the 1990s finance from different sources. Latin America has

experiences an enormous inflow of FDI for infrastructure, in East Asia and the Pacific bilateral ODA has accounted for an important share of investment in infrastructure.



5. Summary and Issues for Discussion

62. Public Expenditure from governments or public utilities still accounts for around 70% of all funding for infrastructure in developing countries, however as a share of GDP spending on infrastructure is considerably below the 1970s level.
63. ODA commitments from bilateral donors as well as multilateral spending on infrastructure have declined over the 1990s both in absolute terms as well as in % of total finance. The multilateral development banks' commitments for infrastructure show a slight recovery in 2002 reaching 40% of total commitments, whereas the bilateral ODA commitments have sunk to a long-term low of 14% of total commitments. However, the slightly increasing multilateral investment has not substituted the high reduction in bilateral ODA and in particular FDI.
64. Transport (followed by energy and water) is the leading sector of ODA commitments for infrastructure with increasing shares of total commitments both for bilateral donors as well as multilaterals. Whereas the relative share of water and energy both declined with regard to multilateral spending, bilateral donors increased the relative share of allocations for water and sanitation.
65. Private Sector involvement in infrastructure funding has shown an increasing trend during the 1990s, but has not developed as strongly as expected, and has not leveraged the decline in other funding sources.
66. The results of the statistical analysis give rise to issues for further analysis, consideration and discussion. Relevant questions are:

- Q1** **What is the rationale behind the general decline in donors' commitment for infrastructure given the widely acknowledged relevance of infrastructure both for economic growth and for poverty reduction ?**
- Q2** **Have the bilateral and the multilateral donors relied too strongly on the private sector to provide the needed funding for infrastructure in the developing countries ?**
- Q3** **Some bilateral donors have increased, others have decreased their infrastructure portfolio. What is the rationale behind the policy decisions? Is there a trend for concentration among bilateral donors, based on the expectation of other players substituting for the reduction in bilateral commitments i.e. the EC in the transport sector or the multilateral development banks for infrastructure in general? Germany's withdrawal from the transport sector was often rationalised with an assumed increasing EC investment; however total EC investment did by far not compensate for the substantial bilateral donors' reduction in infrastructure.**
- Q4** **Why did the transport sector become the largest recipient of aid in infrastructure, in particular at a time when the poverty agenda dominates the international discussion? Is there any rationale behind this concentration, i.e. the impact on poverty reduction, or is it just a general concept of 'road is important' ?**
- Q5** **What has happened in Africa? The income dimension of poverty is predominant in Africa, but an increase in investment and ODA commitments for infrastructure and productive agriculture cannot be observed. Investing in social sectors and peace keeping and governance is a major focus. Do we have the right priorities for poverty reduction in Africa?**