ANALYSIS OF NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS

January 25, 1999

(Briefing on a Study Commissioned by Deputy V of BAPPENAS;
with updates through the third quarter of 1998)

NATURAL RESOURCES
MANAGEMENT PROGRAM

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OUTLINE OF PRESENTATION

1. OVERVIEW

2. SECTORAL ANALYSIS

3. PROVINCIAL ANALYSIS

4. NATURAL RESOURCE SECTORS
   - 4.1 FORESTRY AND WOOD PROCESSING
   - 4.2. PLANTATION CROPS AND LAND USE
   - 4.3 FISHERIES AND URBAN POLLUTION
   - 4.4 PROTECTED AREAS

5. SUMMARY OF TRENDS, ISSUES AND OPPORTUNITIES

1. OVERVIEW . . . OF RATIONALE/OBJECTIVES

RATIONALE

- Commissioned by BAPPENAS Deputy V, for Regional and Provincial Planning
- To investigate the natural resource, environmental, and provincial impacts of the financial crisis
- In practice, we focused on land-based natural resources, not all "environmental" issues.

OBJECTIVES

- To develop a broad understanding of the issues and trends from several directions
- To get beyond anecdotes to a deeper, disaggregated understanding of the crisis at provincial, sectoral, and subsectoral level, where possible.
- To get beyond macro and financial indicators to look at real activity, land use
- To use this as a basis for additional policy analysis and discussion of reform alternatives

This work is being updated and expanded as results of ongoing analyses are completed and as new data become available for more recent time periods.

1. OVERVIEW . . . . OF MAIN RESULTS

OVERALL

- Indonesia's financial crisis has highly variable impacts across provinces and sectors
- Overall economic activity declined by 15 percent in first three quarters of calendar year 1998
- Recession is deep and widespread, despite some pockets of some success
- Regional disparities will increase between resource/export-rich provinces and others (eastern)
- Imbalances and breakdowns in economic activity among interdependent sectors (e.g., agriculture and fertilizer or manufacturing industries dependent on imports) will impede recovery and growth
- Inflation and economic decline are lower in the east, but those areas were poorer at the start

NATURAL RESOURCES

- Natural resource sectors are maintaining some growth, or at least stability
- Forestry earnings are increasing as of the third quarter of 1998, and log extraction from forest land is increasing
- "Non-food (plantation) crops" subsector is growing rapidly, benefitting greatly from Rupiah devaluation
- Earnings in the "Fisheries" subsector are also rising, indicating pressure on sea and coastal resources
- Pressure on forest resources is increasing, continuing 5 year trend
- Forest (land) conversion is increasing annually, indicating very high cumulative levels.

These results are confirmed in national level data, survey of provincial officials, and anecdotal reports.

1. OVERVIEW . . . . OF APPROACH

- Used simple, descriptive approach; no modeling
- Conducted different analyses at different levels, sectoral, provincial, subsectoral
- Used various methods: data analysis, trends, surveys from different sources
- Mainly used centrally published sources of information: BPS, Ministry of Forestry, trade associations
- Supplemented this with simple survey results and anecdotes where relevant.

Next section discusses sectoral analyses:

- Overview of trends in Indonesia's major sectors
- Distribution of activity across the major sectors
- A closer look at Agriculture and Natural Resource sectors
- A closer look at Manufacturing sector, especially natural resource using subsectors

2. SECTORAL ANALYSIS

Indonesia's financial crisis has highly variable impacts across provinces and economic sectors

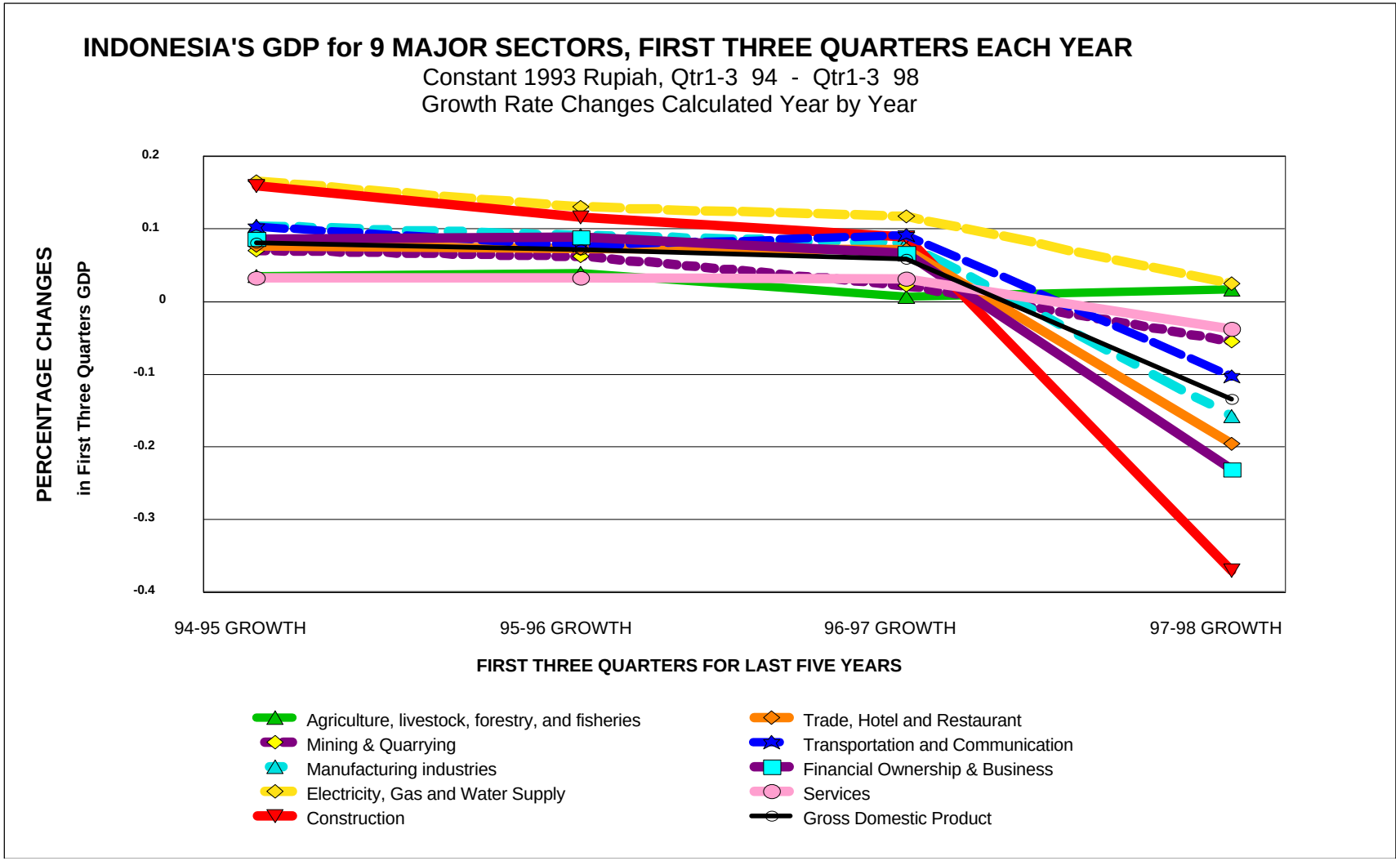
METHOD

- Upcoming figures show GDP growth for nine major sectors of Indonesian economy from 1994 to 1998
- We compared GDP growth for first three quarters of each year, using most recent results reported by BPS
- We normalized to 1994 (=1) and used constant 1993 Rupiah values reported by BPS
- Figures from BPS represent formal sector, reported value added
- Does not include: Informal, small scale, illegal or unreported activity.

RESULTS

- Prior to 1997, we see the 6-8% annual growth per year that is widely reported.
- After 1997, most sectors are in steep decline with drops of 20 to 40 percent in some sectors
- Construction, financial services, and trade/hotels (tertiary sectors) are at the bottom
- Natural resource sectors stand out as maintaining some growth, or at least relative stability
- Mining and Quarrying Sectoral GDP (value added) is down by about 5 percent in the post crisis period

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



INDONESIA'S GDP BY QUARTER
Data from Central Bureau of Statistics
GDP IN CONSTATN RUPIAH
in Trillions of Constant (1993) Rupiah
120
100
80
60
40
20
0
94/Qtr 1
94/Qtr 2
94/Qtr 3
94/Qtr 4
95/Qtr 1
95/Qtr 2
95/Qtr 3
95/Qtr 4
96/Qtr 1
96/Qtr 2
96/Qtr 3
96/Qtr 4
97/Qtr 1
97/Qtr 2
97/Qtr 3
97/Qtr 4
98/Qtr 1
98/Qtr 2 (rev)
98/Qtr 3
QUARTERS, LAST FIVE YEARS
Trade, Hotel, Commun., Services, Utilities
Transportation and Communication
Construction
Manufacturing industries
Mining & Quarrying
Agriculture, livestock, forestry, and fisheries

2. SECTORAL ANALYSIS

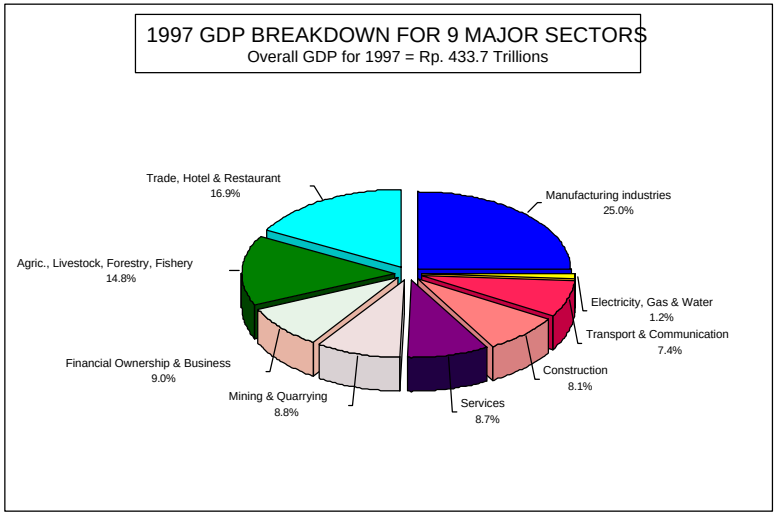
Pie charts following illustrate relative size of various sectors within the economy, mainly for background.

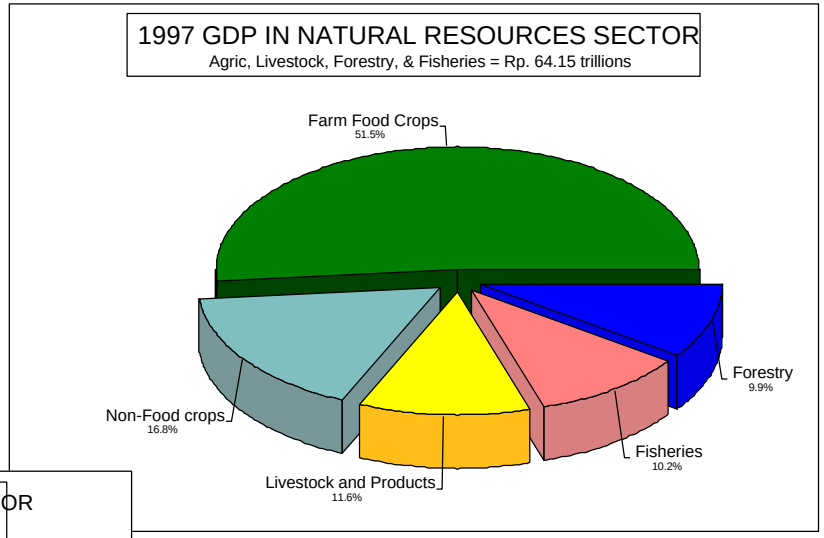
- Manufacturing (not including oil & gas) represented about a quarter of economic activity in 1997
  - S Within this sector, Food, Beverages and Tobacco subsector represents about half
  - S Many manufacturing subsectors depend on natural resource inputs

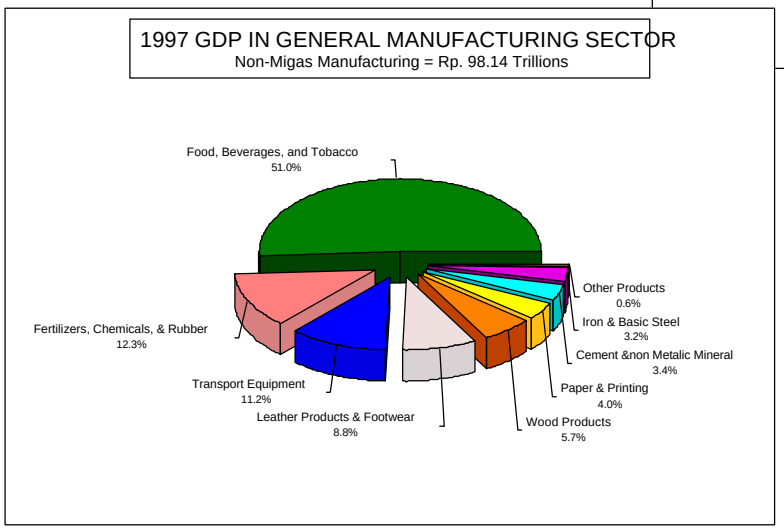
- Natural Resource Sectors (consisting of Agriculture, Livestock, Forestry, and Fisheries) represented about a sixth of economic activity in 1997
  - S Within this sector, Food Crops are largest with half (dominated by rice)
  - S Non-Food Crops are second most important, consisting mainly of plantation/estate crops
  - S Plantations moved from Agriculture Ministry to Forestry Ministry in the last cabinet.
  - S ("Forestry" represents direct forest products, not wood processing, a subsector of Manufacturing)

- Mining represented about 9% of economic activity in 1997.
  - Reported, formal sector mining has declined
  - Negative environmental impacts should have declined also

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS







2. SECTORAL ANALYSIS

Following line graph illustrates trends within Agriculture/Natural Resource Sector in more detail

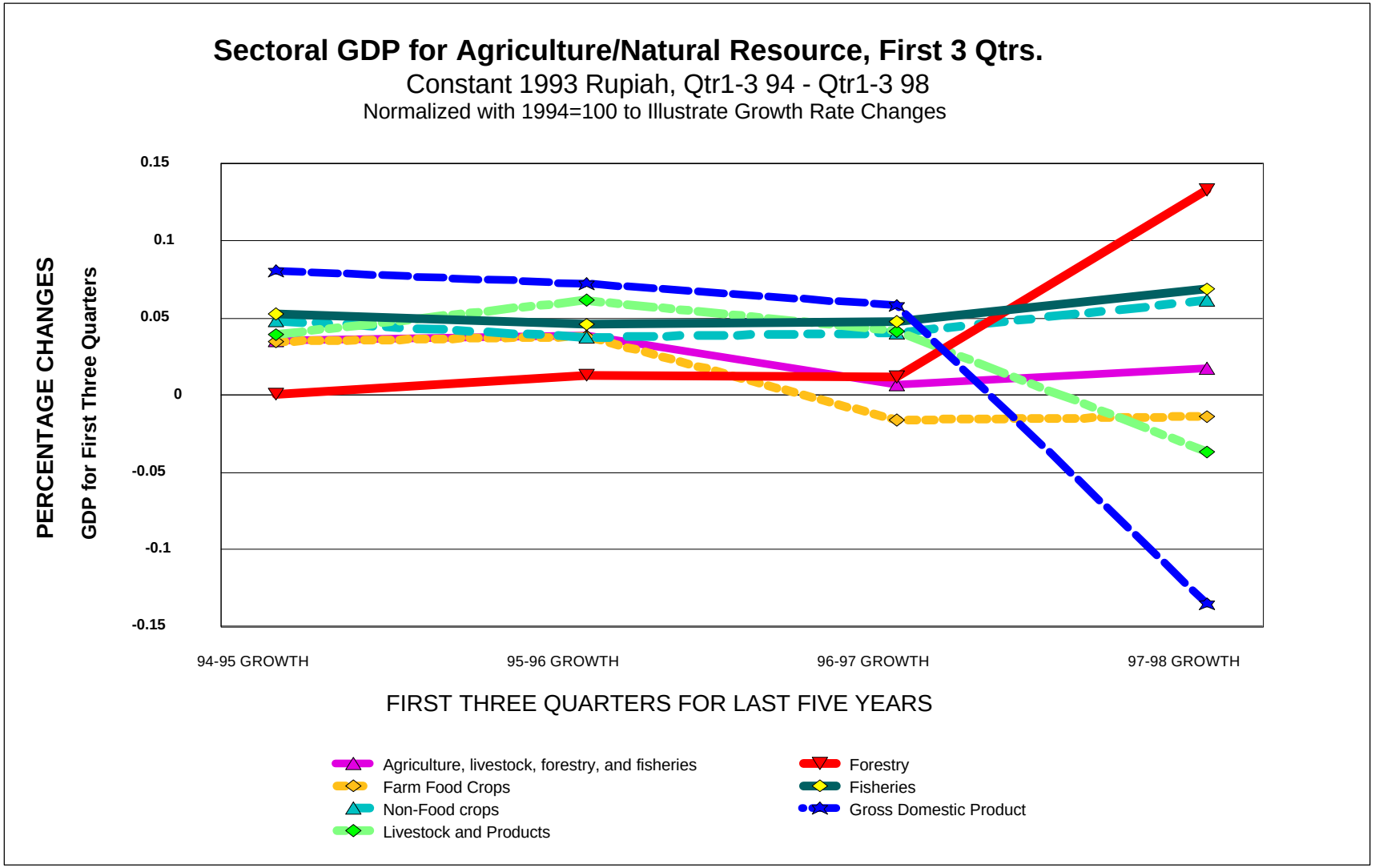
- There are five main subsectors: food crops, non-food crops, livestock, fisheries, and forestry
- In the post crisis period, economic growth is mostly flat
- Even slightly positive growth is relatively good in the current situation
- The non-food crops subsector is growing rapidly (up over 10% up since 1997)
- Most of this growth was in the first quarter, with a decline in the second quarter.

The value of production in Forestry was up by more than 12 percent. Both Non-Food Crops and Fisheries subsectors were growing by more than 7 percent since 1997). Some key results include:

- Relative to the rest of the economy, natural resource sectors are maintaining some growth, or at least stability, during the period of crisis.
- Forestry earnings are increasing as of the third quarter of 1998, and log extraction from forest land is increasing.

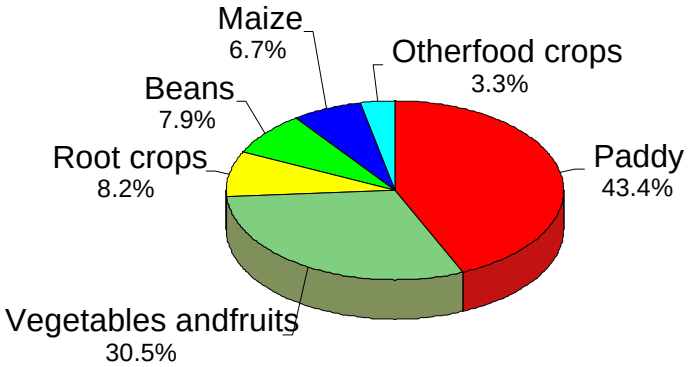
- The "Non-Food (i.e. mostly Estate) Crops" subsector is growing rapidly, benefitting greatly from the Rupiah's devaluation. This subsector includes coconut (copra), oil palm, coffee, tea, cocoa, etc.

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



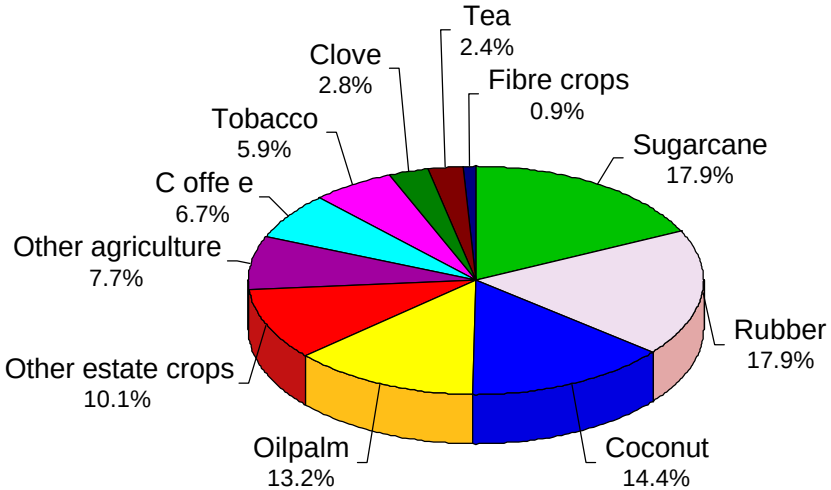
1995 FOOD CROP AGRICULTURE

Sectoral GDP Distribution by Crop Type



1995 NON- FOOD CROP AGRICULTURE

Sectoral GDP Distribution by Crop Type



2. SECTORAL ANALYSIS

Similar information for the manufacturing sector, a quarter of economic activity in 1997.

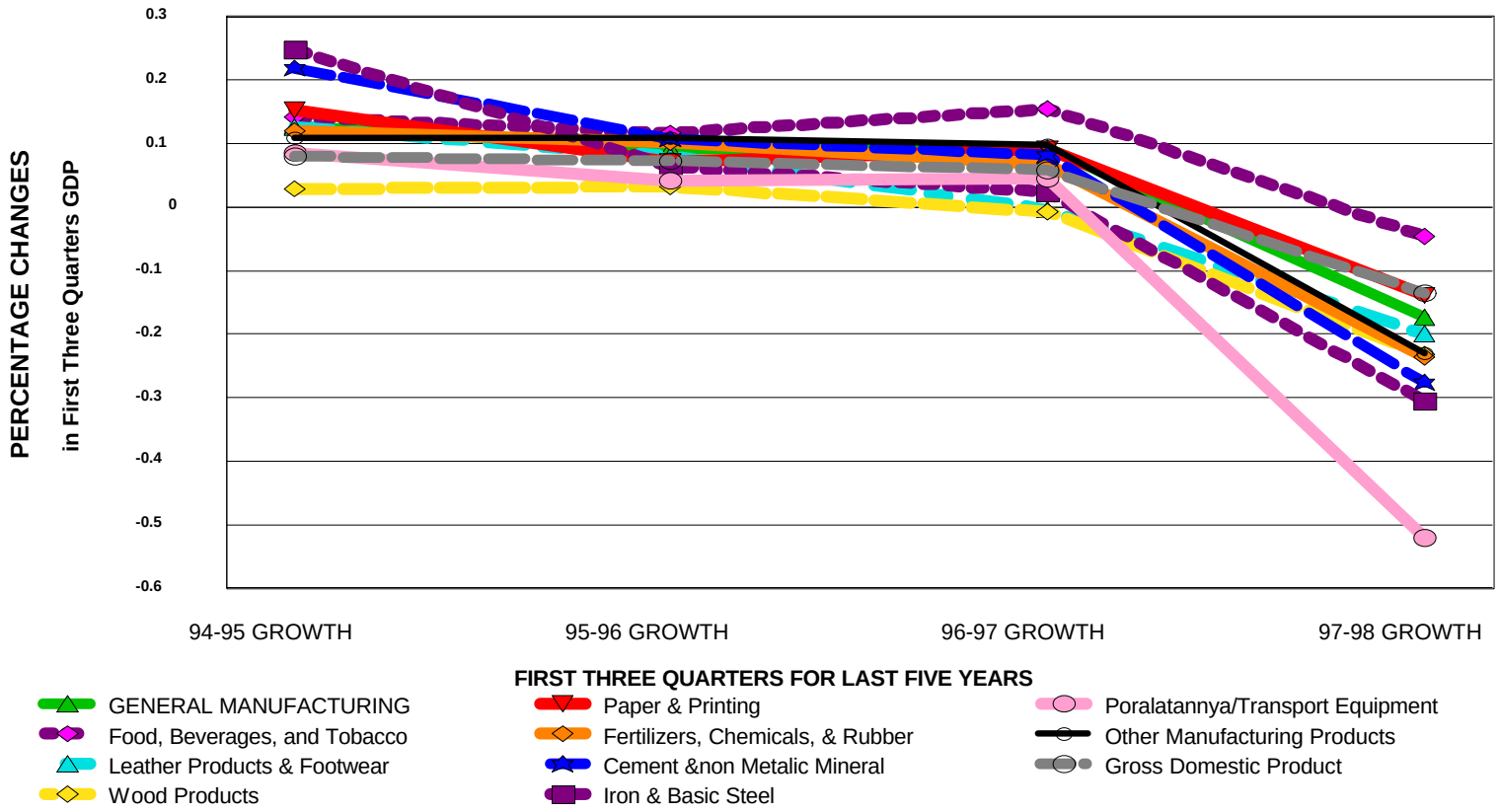
- Manufacturing represented about a quarter of economic activity in 1997. Many subsectors depend on natural resource inputs, for example wood products, cement, leather products, etc.
- Within manufacturing, "Food, Beverages and Tobacco" subsector represents about half the activity, "Wood Processing" about 6 %
- In terms of growth, The Food, Beverages, and Tobacco subsector is among the least hard hit of the sector as of second quarter 1998. (In the first quarter, sectoral GDP was up. Now, it shows the slightest decline.)
- In the first three quarters of 1998, activity in the wood processing sector has declined by more than 15 percent relative to 1997

Intersectoral dislocations (not to mention low investment and credit constraints) will impede recovery

- For example, agricultural activity is growing, but fertilizer and chemicals production is in decline
- Some regions already report dislocations in finding inputs needed to sustain economic activity (reported in a qualitative/quantitative survey of provincial BAPPEDAs, more later)

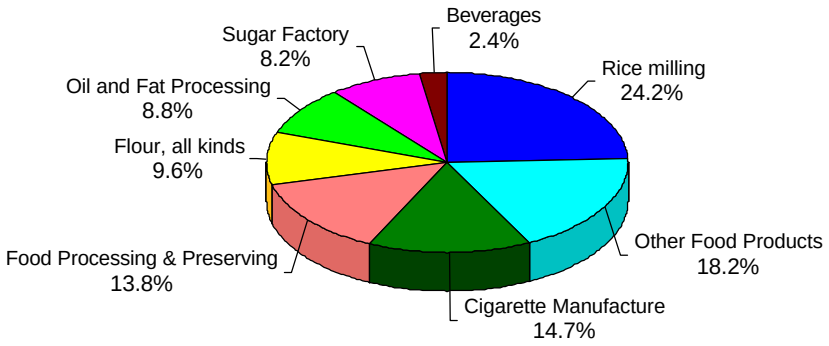
SECTORAL GDP FOR GENERAL MANUFACTURING: FIRST THREE QUARTERS EACH YEAR

Constant 1993 Rupiah, Qtr1-3 94 - Qtr1-3 98
Growth Rate Changes Calculated Year by Year

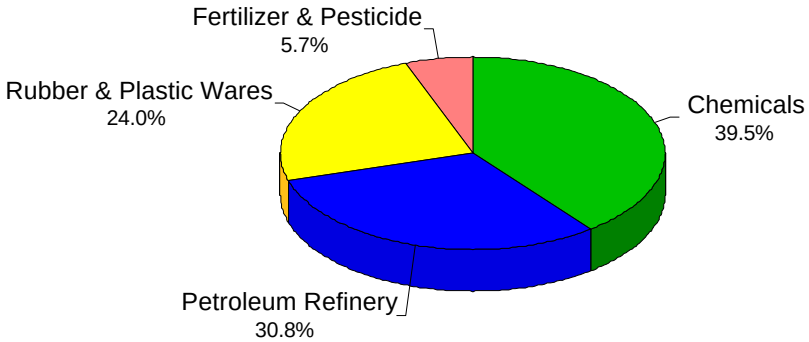


NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS

1995 MANUFACTURE OF FOOD, BEVERAGES, & TOBACCO
Sectoral GDP Distribution by Product Type



1995 MANUFACTURE OF FERTILIZER, CHEMICALS, RUBBER
Sectoral GDP Distribution by Product Type



3. PROVINCIAL ANALYSIS

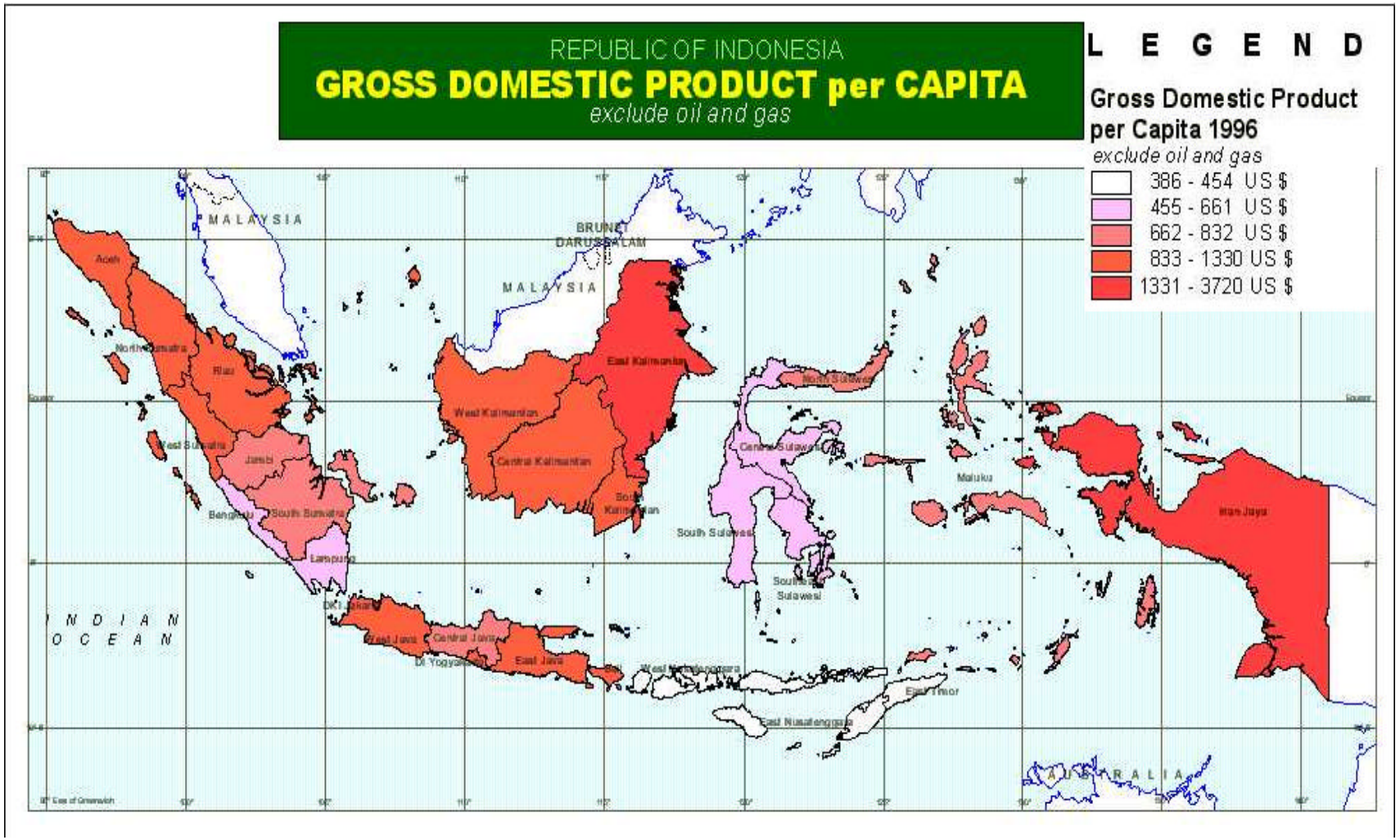
REPORTED ON MAPS

- Distribution of GDP per capita across provinces
- Absolute poverty distribution across provinces
- Exports and imports distribution across provinces and islands
- Inflation distribution across provinces and islands

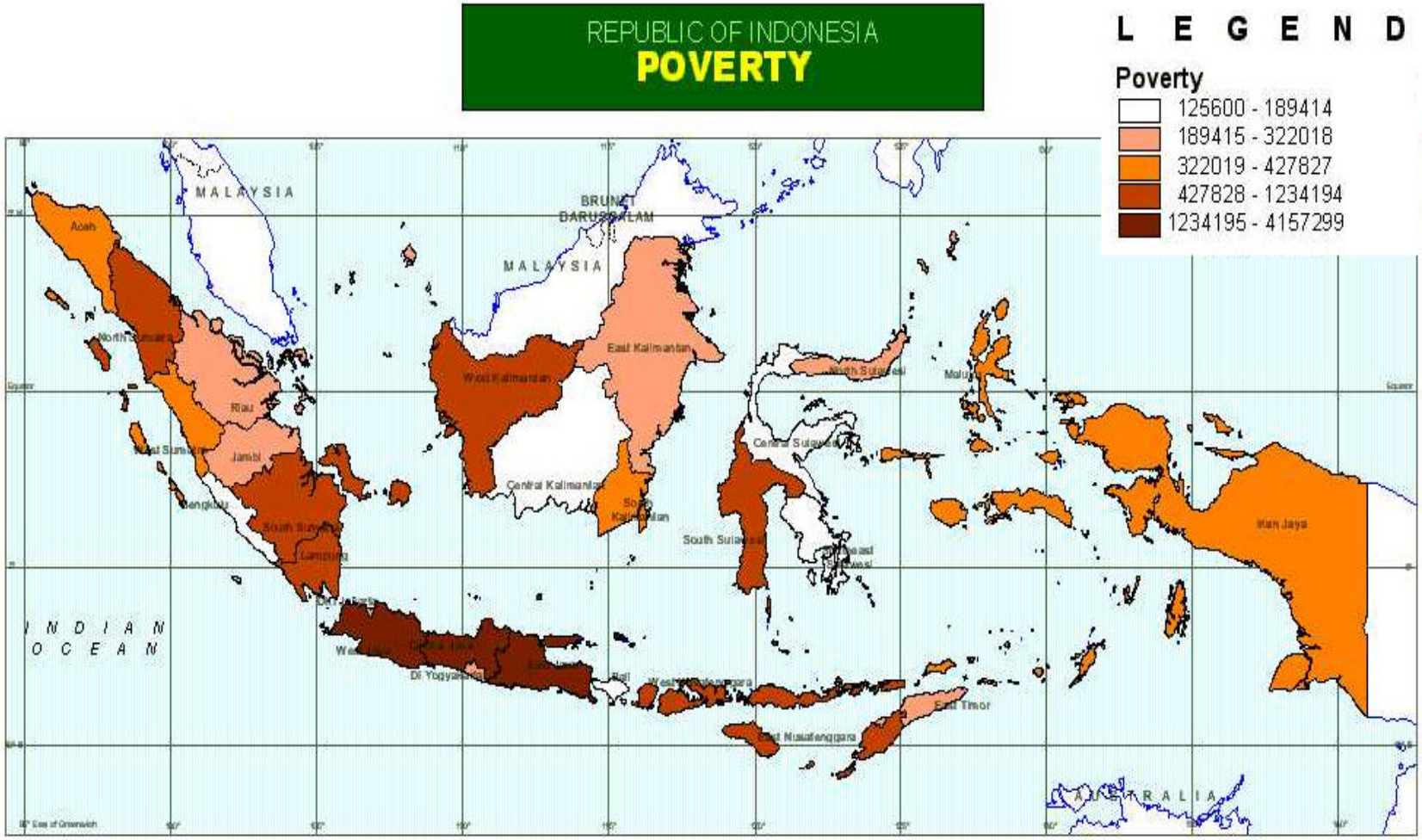
REPORTED IN GRAPHICS

- Regional dependence on exports as an indicator of crisis impacts
- "Projected" growth rates across provinces and islands
- Results from a survey of provincial governments

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



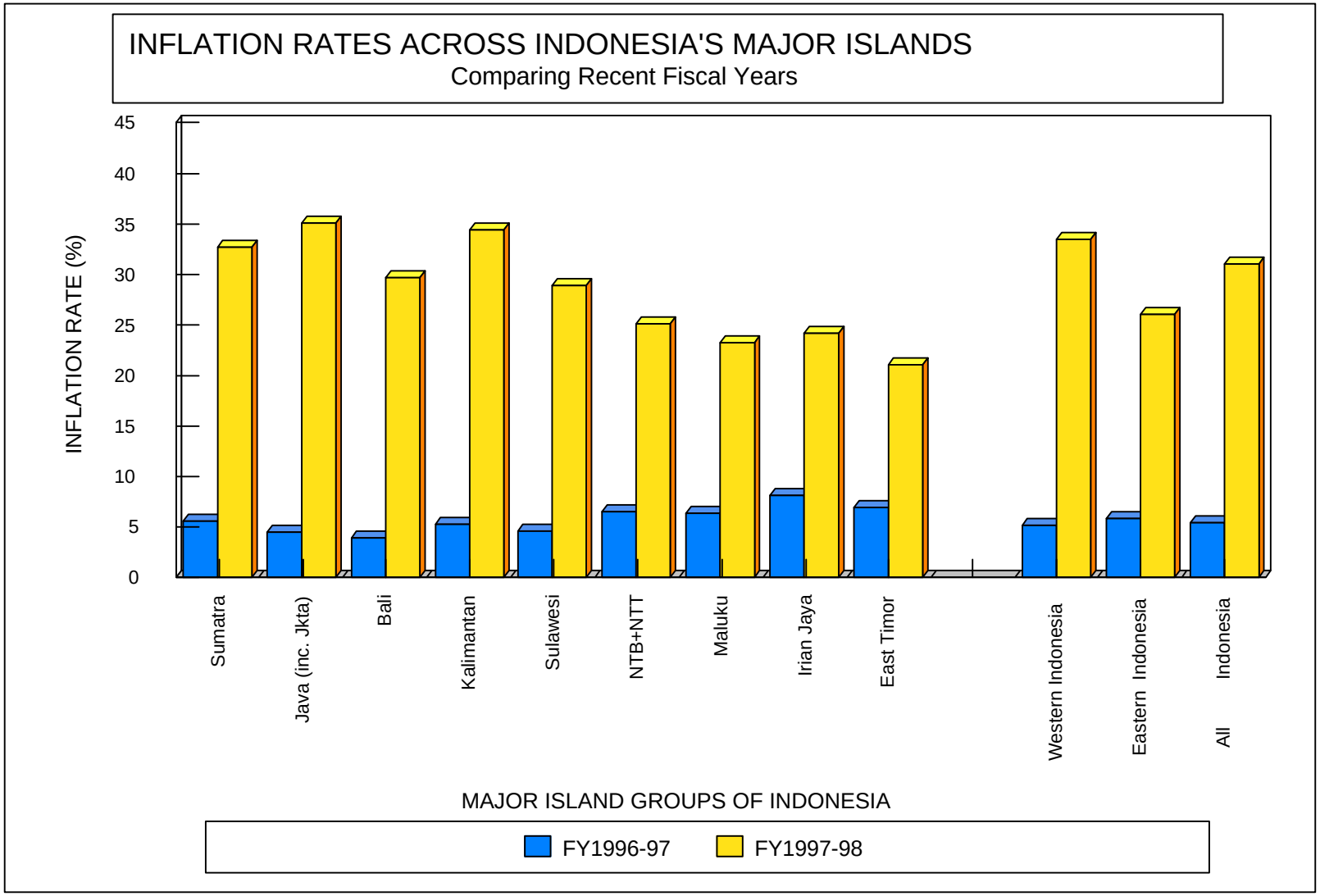
NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



3. PROVINCIAL ANALYSIS

- Distribution of inflation rates (from June 1998) across provinces reinforce the idea that the crisis has highly variable impacts
- Inflation is lower in the east than the west, but quite high everywhere
- Maps of GDRP per capita (from 1997) illustrate the same variability across provinces
- Maps of absolute numbers of people in poverty illustrate another key element of Indonesia's diversity and variability
- The percentage poor people and GDRP/capita may be lower in the east
- In absolute terms, though, Java has the most poor people

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



3. PROVINCIAL ANALYSIS

The next figure illustrates how the crisis will reinforce regional disparities in income and growth potential

METHOD

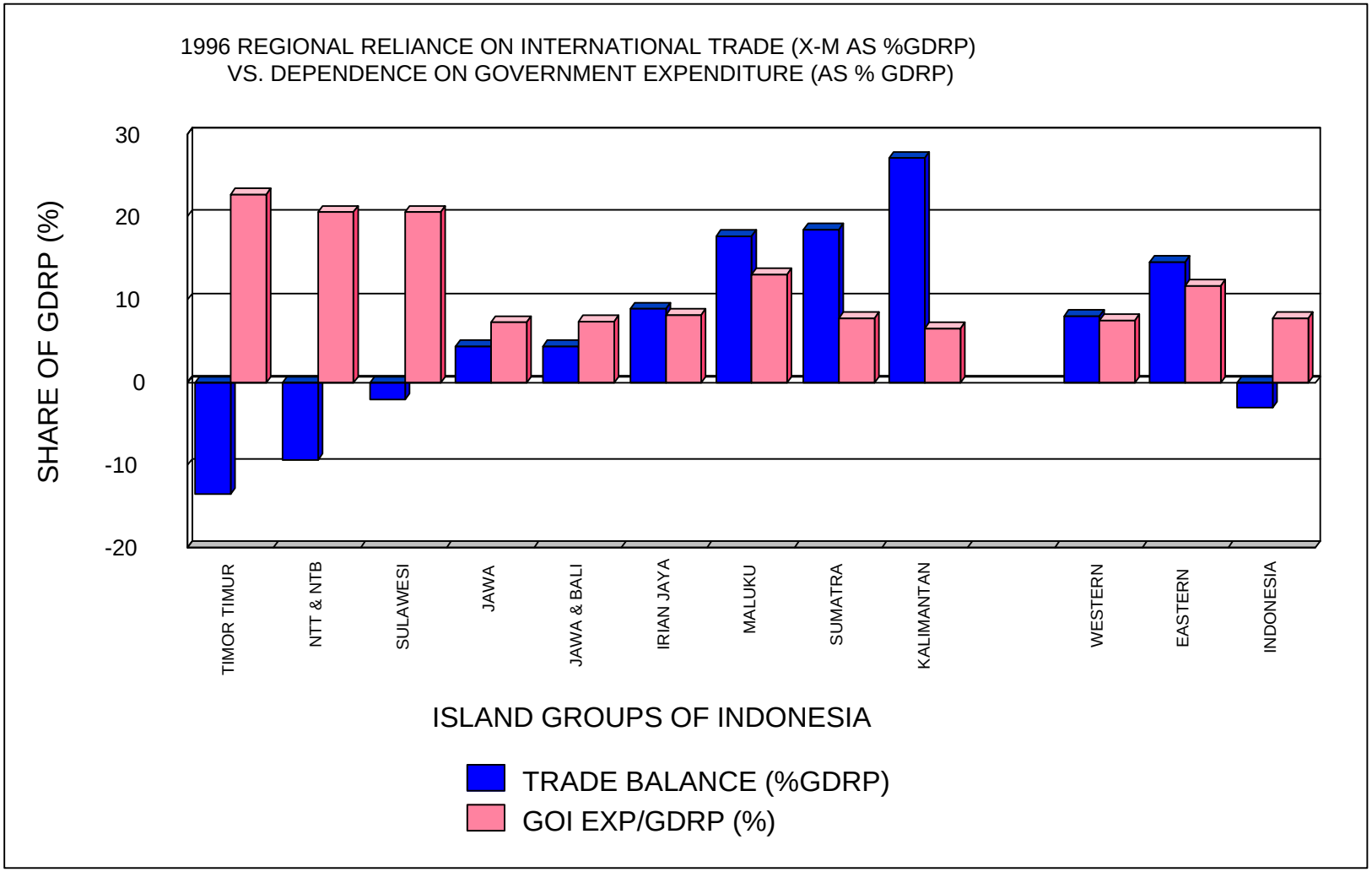
- Calculated 1996 trade balance (exports - imports) as a share of Provincial GDP
- Calculated 1996 government spending as a share of Provincial GDP
- Ranked provinces by trade share and plotted both measures

RESULTS

- Export rich provinces are the resource rich islands of the West
- Government spending makes up a larger share of GDRP of poorer eastern provinces
- Since resource exporters are earning more in rupiah terms due to devaluation ....
- And government has fewer resources to maintain development spending ....
- The crisis has the tendency to make the rich provinces richer and the poor poorer.

(Note that "GOI Expenditure as Percent of GDRP" may be relatively large, but actual transfers to the east may not be large in absolute terms since GDRP is so small in these places.)

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



3. PROVINCIAL ANALYSIS

Projected growth rates make the same point: the crisis is widely variable; hard to find real winners

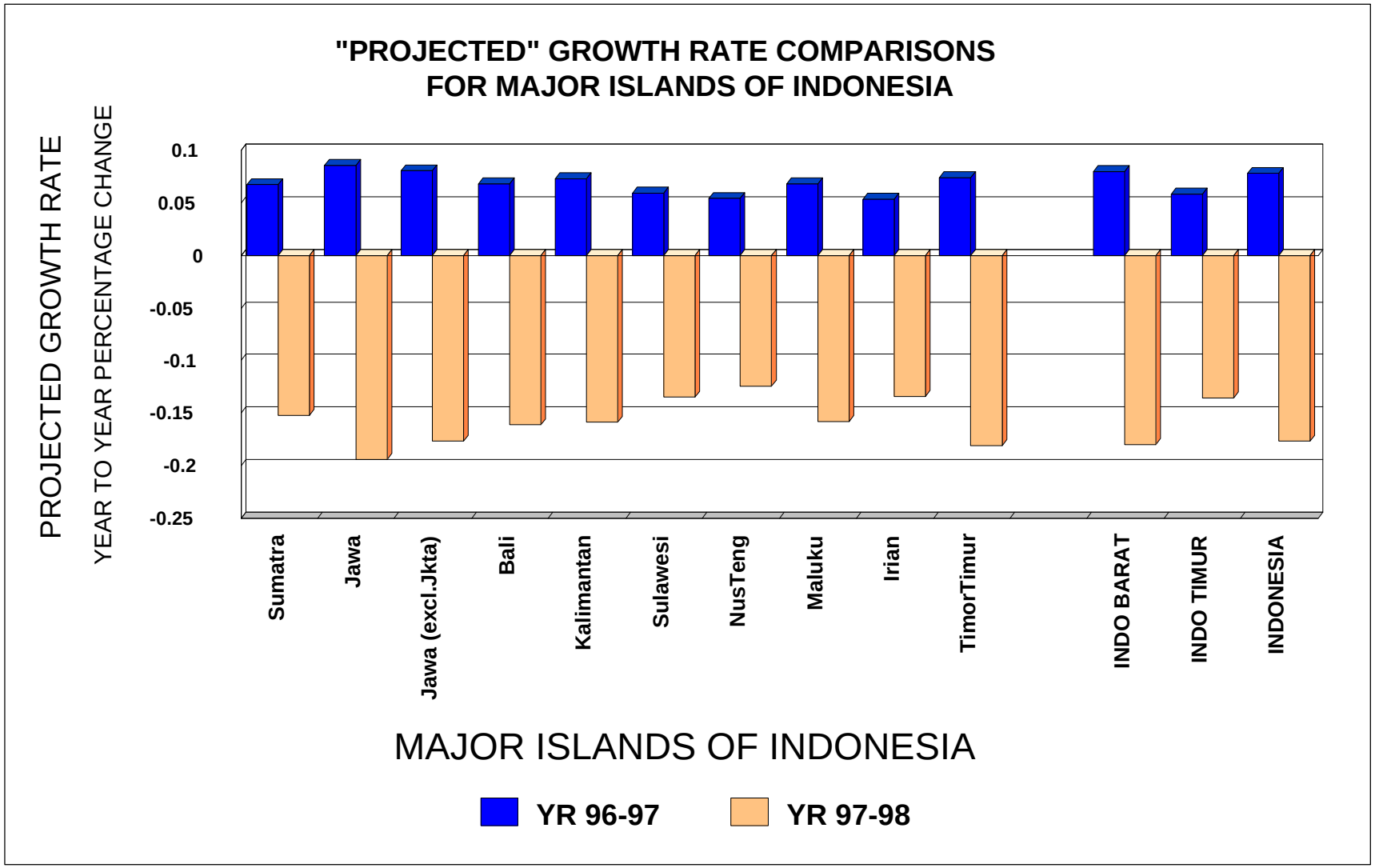
- There are pockets of success here and there in export led sectors
- Overall, the situation looks bleak for most provinces as of the second quarter 1998
- This is because agriculture and natural resources sectors
  - Are growing only slowly, if at all
  - Make up only about a sixth to a third of provincial economies
  - While other sectors are sharply declining.

* * * * *

"Projected" growth rates were calculated by applying actual second quarter 1998 growth rates BY SECTOR to the sectoral distribution of GDRP BY PROVINCE, available only from 1996

- That is, we applied national average sectoral growth rates from current year to the provincial breakdown of sectors from a prior year
- This is not meant to rigorous, only an illustration of the current scenario across provinces.

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



3. PROVINCIAL ANALYSIS

METHOD

To get another reading of the provincial nature of the crisis, with the Center for Environmental Economic Studies, we:

- Conducted simple survey of provincial government officials using qualitative impressions reported numerically
- Targeted BAPPEDA and BAPEDAL-DA officials by fax and phone in Aug-Sep 1998
- One measure indicated direction of effect; the other indicated magnitude of effect
- Together, these yield a rough "index" of perceived post crisis changes

RESULTS

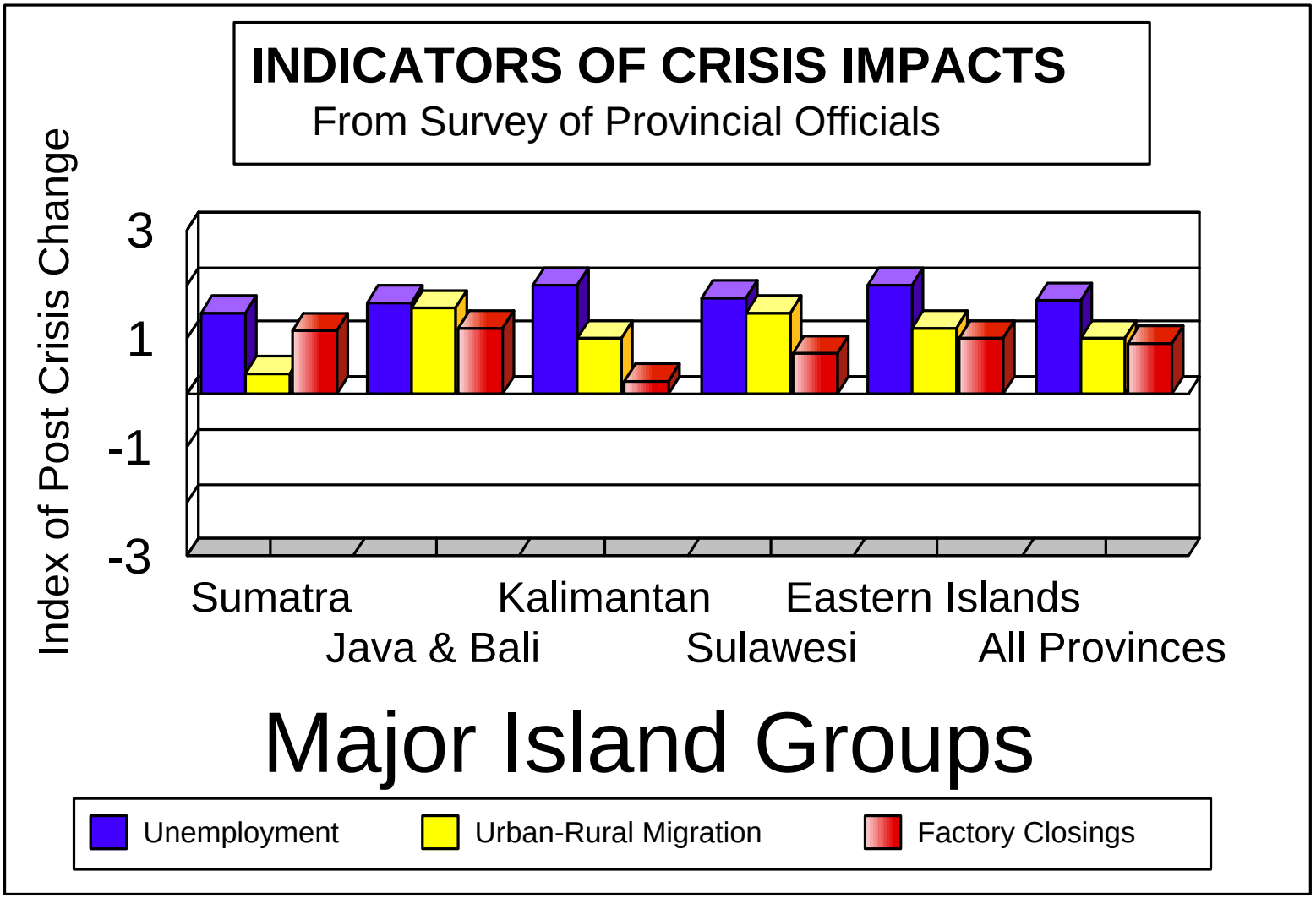
Survey results (impressions) generally confirm and support issues and trends reported above

- Unemployment is reported to be increasing
- Urban-rural migration is reported to be increasing
- Factory closings are reported to be increasing

Officials also report that little attention is being paid to environmental issues, because all concern is focused on crisis

Planners are giving more attention to agro-industry, but expect that environmental impacts will increase

Reports indicate movement to informal sector and acceptance of lower status agrarian or labor activities


INDICATORS OF CRISIS IMPACTS
From Survey of Provincial Officials
Index of Post Crisis Change
3
1
-1
-3
Sumatra
Java & Bali
Kalimantan
Sulawesi
Eastern Islands
All Provinces
Major Island Groups
Unemployment
Urban-Rural Migration
Factory Closings

4. NATURAL RESOURCE SECTORS

4.1 FORESTRY AND WOOD PROCESSING

Values of Wood Products

Volume of Wood Products

Comparison to provincial survey results

Summary of trends in resource use and pressures

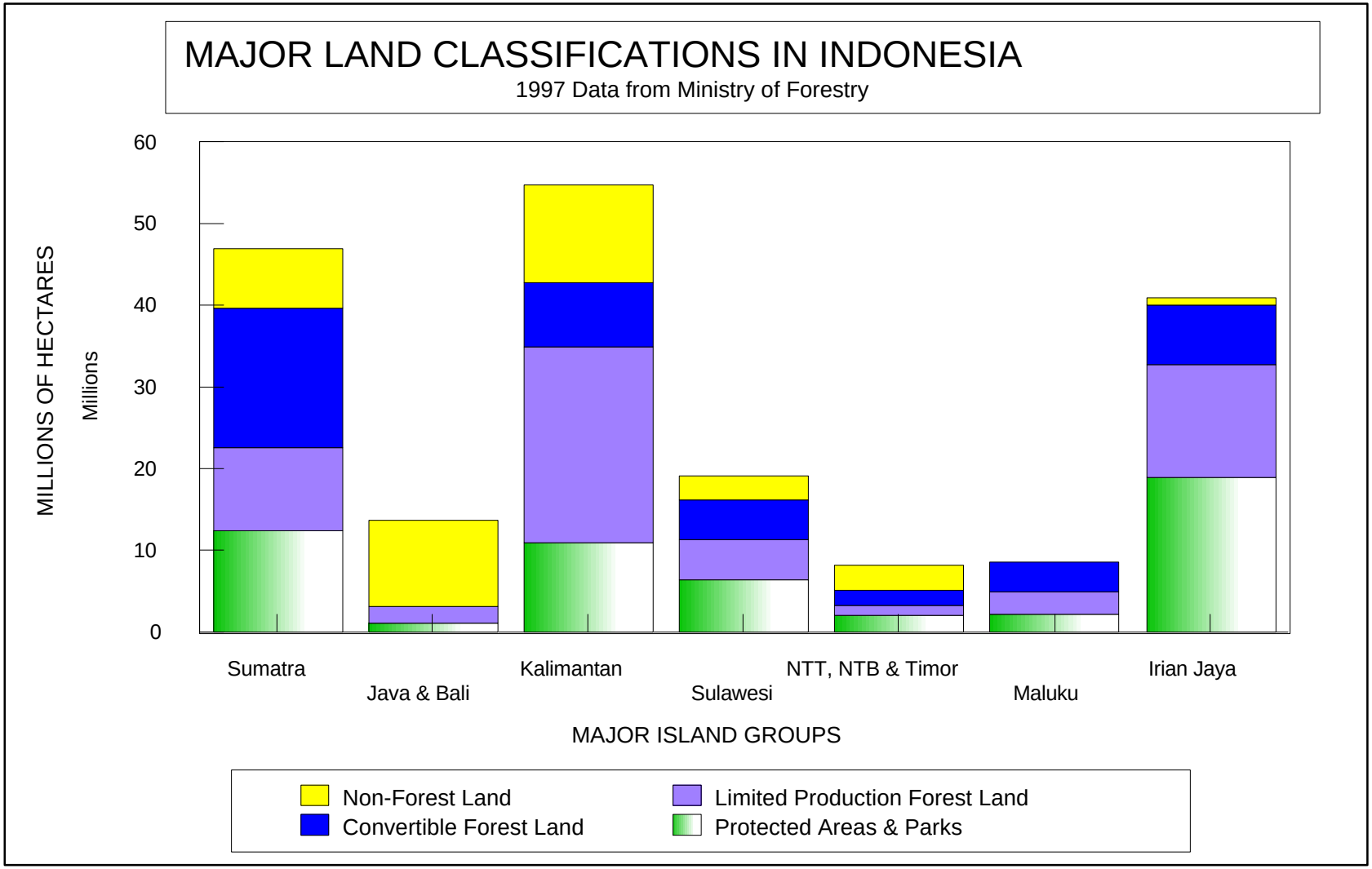
This section reports data from the Ministry of Forestry, Ministry of Industry and Trade, and trade associations
The data are mainly in dollars (not constant rupiah) and oriented toward exports

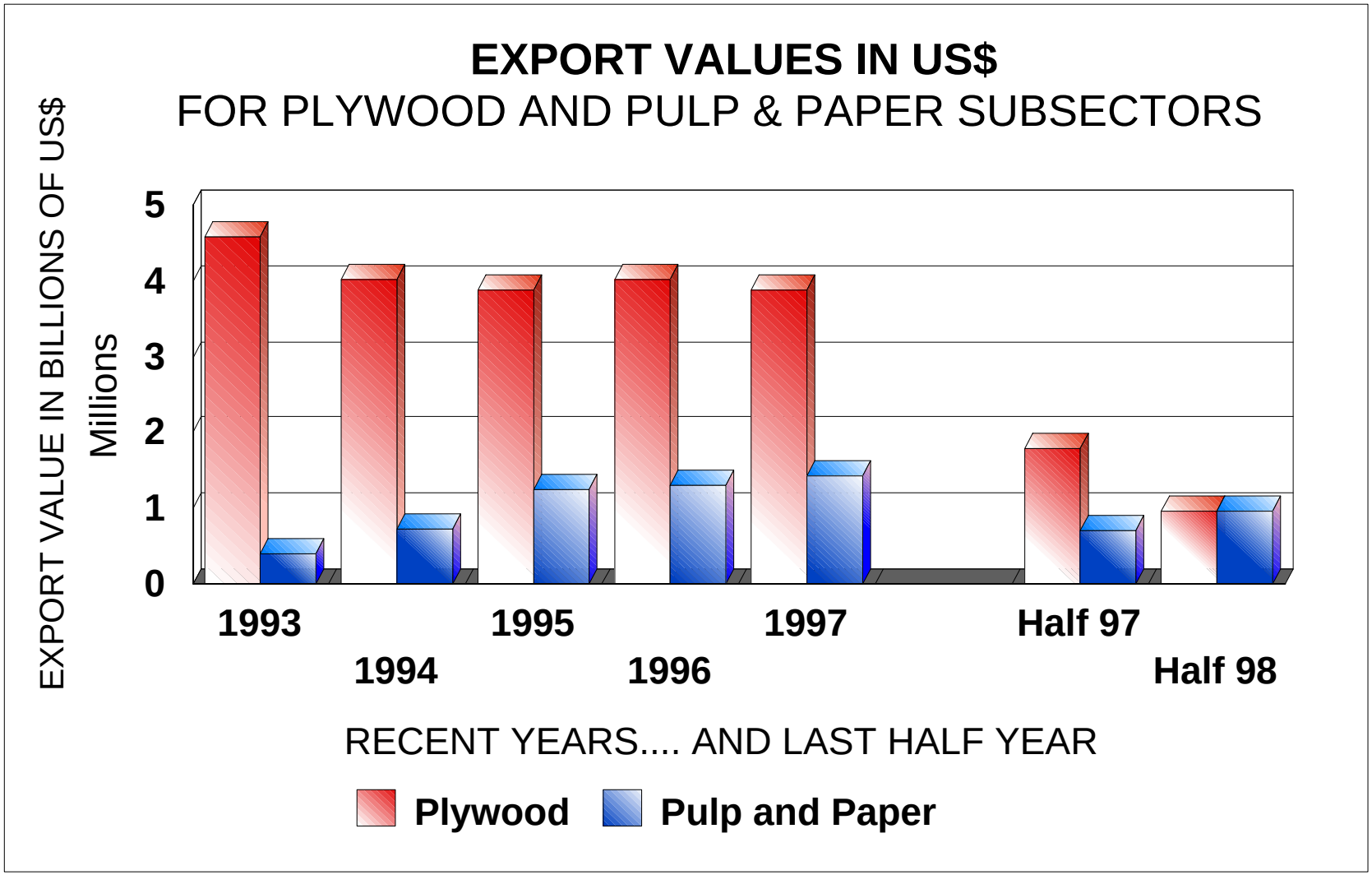
4.1 FORESTRY AND WOOD PROCESSING . . . . VALUES

- Export values for plywood and sawn timber are down in dollar terms, following a five year trend.
- Export volume of plywood (closely tracks production) down by a third last year (not from Japan!)
- This continues a longstanding trend of decreasing production and value in this subsector.
- In *rupiah terms*, post-crisis values received for exported wood products are flat or up (2nd Qtr 1998).
- Export values for woodworking, furniture, and rattan follow a similar line: down in dollar terms, but flat or up in Rupiah terms.

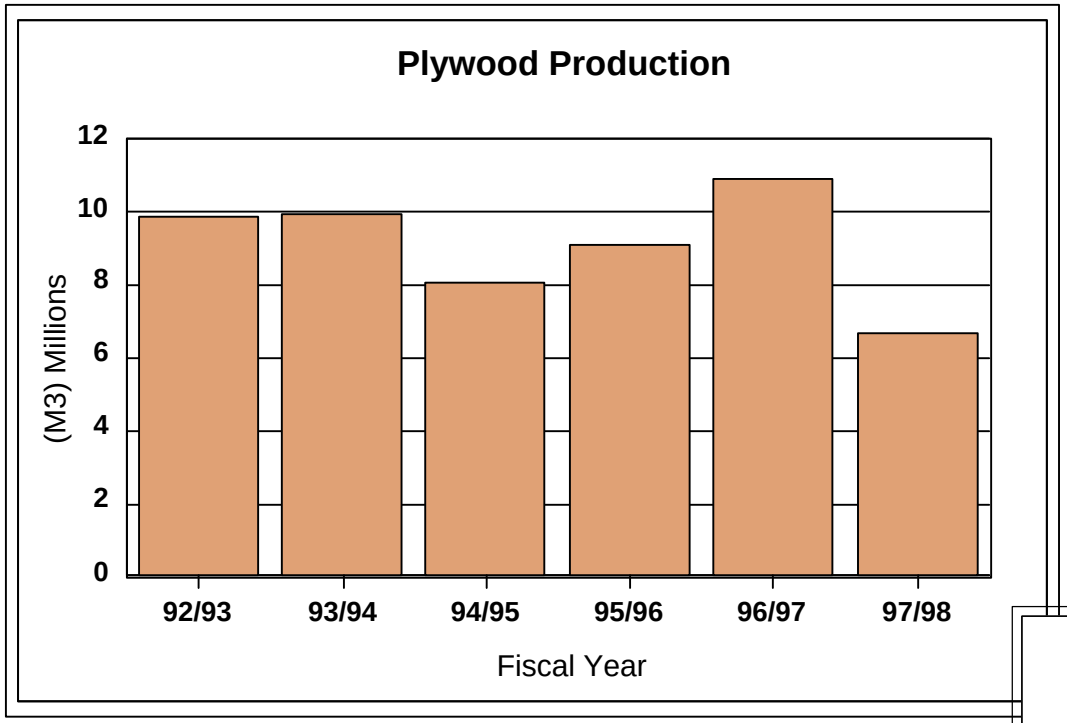
* * * * *

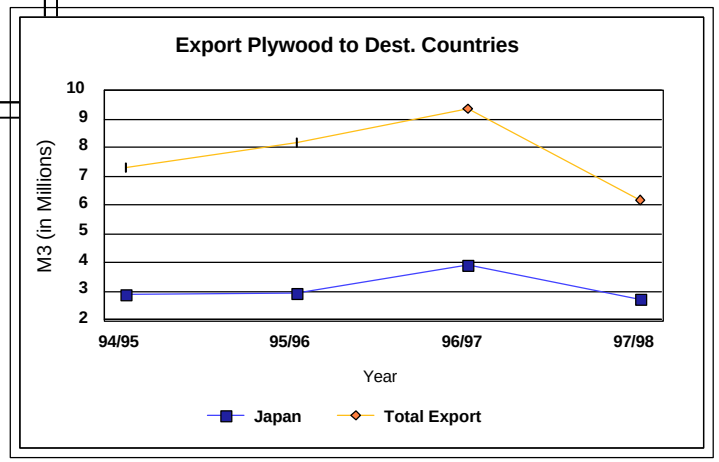
- Pulp and paper subsector is a major exception, exports are up in dollar terms in the post crisis period
- Activity in the subsector has increased by about 30 percent per year, doubling in value since 1993.

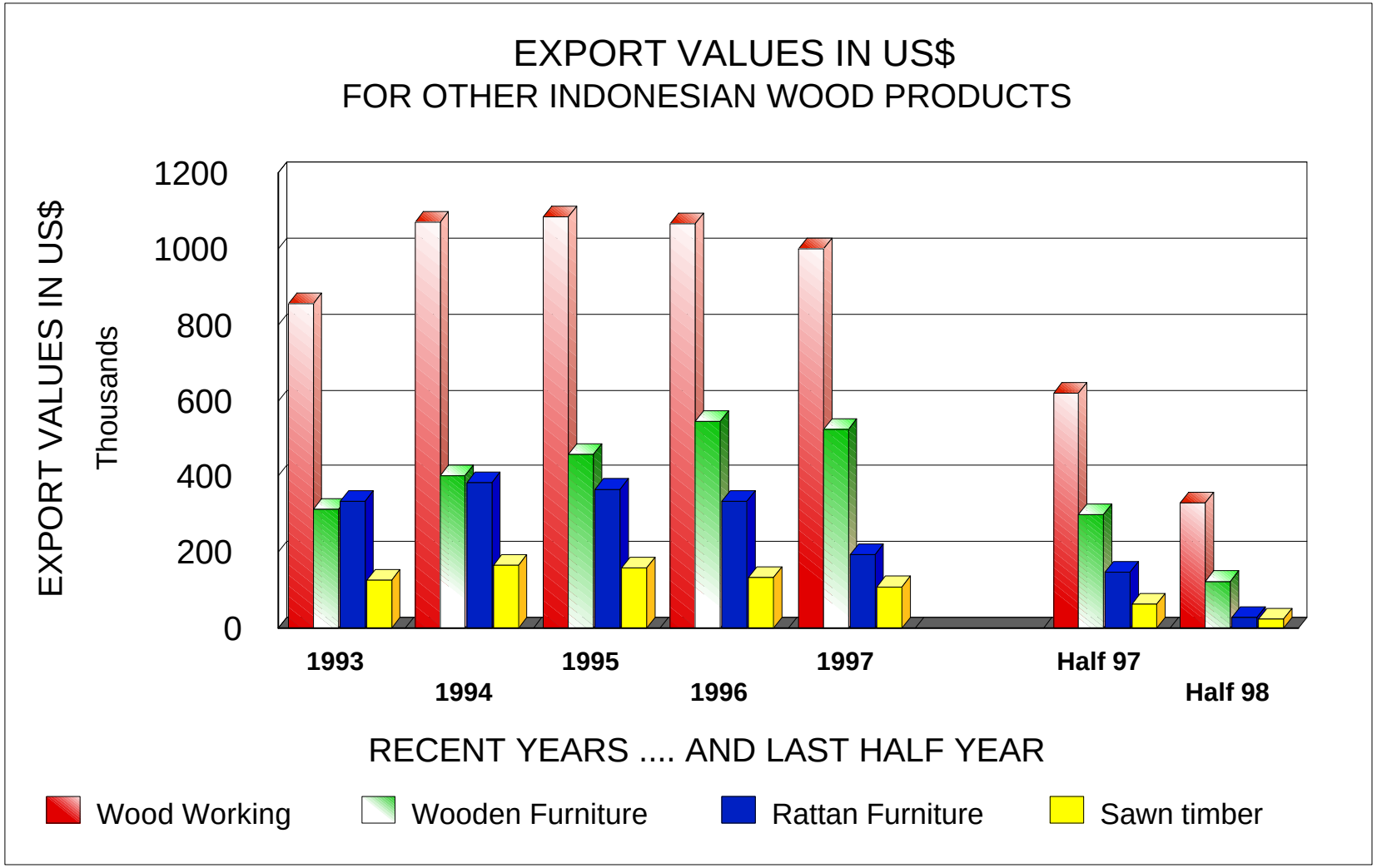

MAJOR LAND CLASSIFICATIONS IN INDONESIA
1997 Data from Ministry of Forestry
MILLIONS OF HECTARES
Millions
60
50
40
30
20
10
0
Sumatra
Java & Bali
Kalimantan
Sulawesi
NTT, NTB & Timor
Maluku
Irian Jaya
MAJOR ISLAND GROUPS
Non-Forest Land
Convertible Forest Land
Limited Production Forest Land
Protected Areas & Parks


EXPORT VALUES IN US$
FOR PLYWOOD AND PULP & PAPER SUBSECTORS
EXPORT VALUE IN BILLIONS OF US$
Millions
5
4
3
2
1
0
1993
1994
1995
1996
1997
Half 97
Half 98
RECENT YEARS.... AND LAST HALF YEAR
Plywood
Pulp and Paper

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS






EXPORT VALUES IN US$
FOR OTHER INDONESIAN WOOD PRODUCTS
EXPORT VALUES IN US$
Thousands
1200
1000
800
600
400
200
0
1993
1994
1995
1996
1997
Half 97
Half 98
RECENT YEARS .... AND LAST HALF YEAR
Wood Working
Wooden Furniture
Rattan Furniture
Sawn timber

4.1 FORESTRY AND WOOD PROCESSING . . . . VOLUME

The pressure on the forest resource -- log extraction -- is increasing on trend and in the post crisis period.

* * * * *

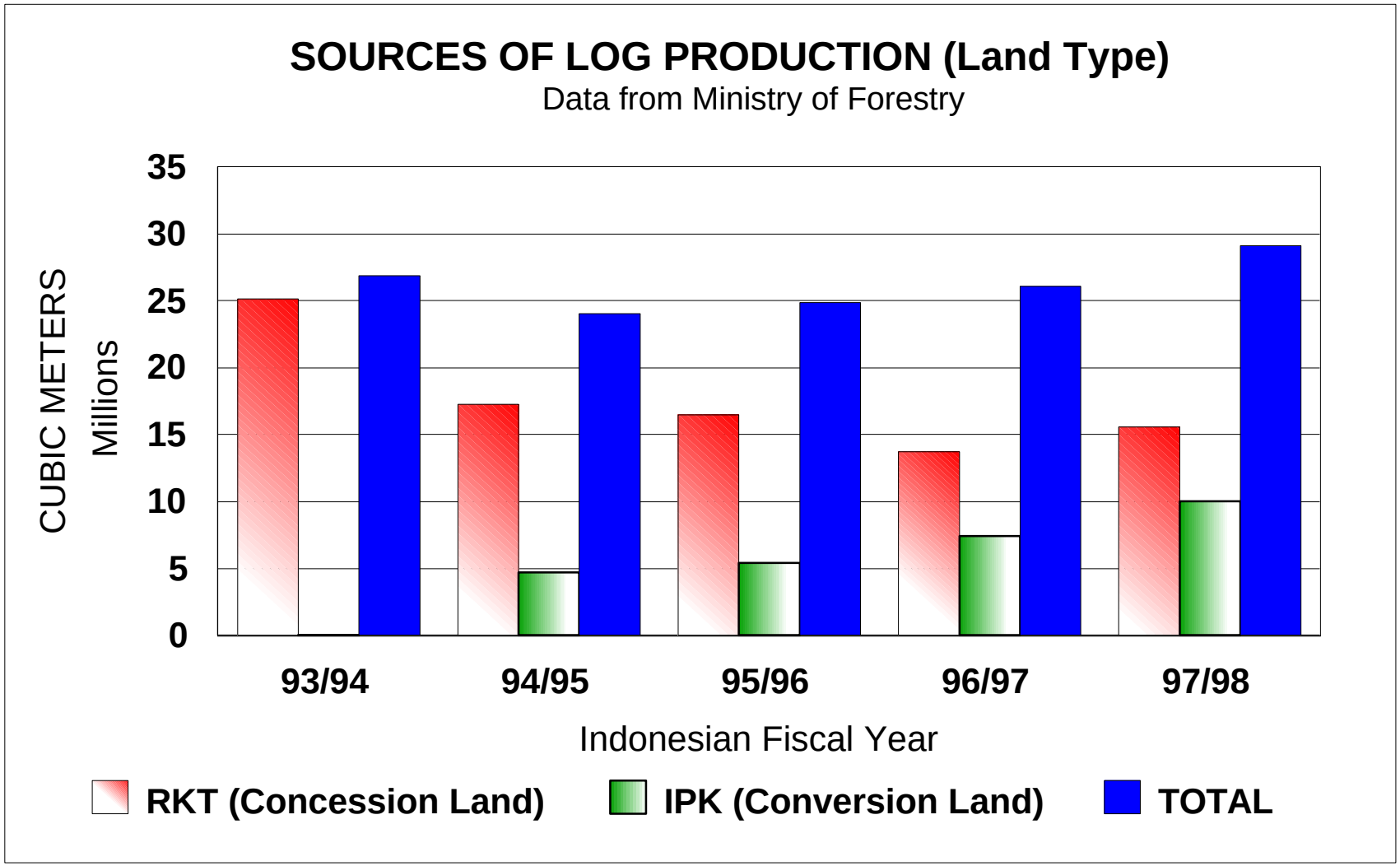
- Total log extraction is increasing since 1994/95 (Indonesian Fiscal Year) at about 5% per year.
- In IFY 97/98, mostly post crisis, log extraction is still up by about 10 % (> 3 million cubic meters)

* * * * *

- Much of the ongoing increase in log extraction comes from pulp and paper expansion
- Mainly this wood comes from conversion forest lands (IPK, license to cut wood and convert land)
- Wood use in this industry segment is increasing at about 21% per year
- Since 1994/95 log extraction in this segment has doubled

* * * * *

- Log extraction from concessions (Annual prod. plans = RKT) has been on a flat or downward trend
- In the most recent fiscal year (IFY 97/98), however, log extraction in this segment increased by 13%.
- This increase in log extraction is not consistent with the decline (less wood use) in plywood sector.
- This issue needs further investigation.

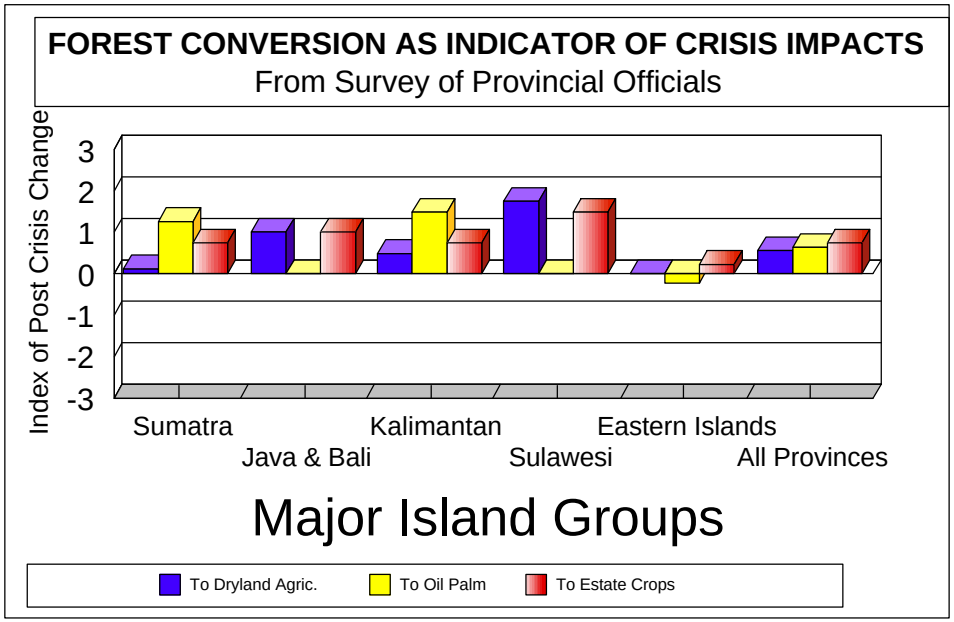

SOURCES OF LOG PRODUCTION (Land Type)
Data from Ministry of Forestry
CUBIC METERS
Millions
35
30
25
20
15
10
5
0
93/94
94/95
95/96
96/97
97/98
Indonesian Fiscal Year
RKT (Concession Land)
IPK (Conversion Land)
TOTAL

4.1 FORESTRY AND WOOD PROCESSING . . . . SUMMARY

- Pressure on the forest resource has increased over a five year trend. This has continued into the most recent year of crisis (IFY 97/98)
- Forest products sector has been restructuring over the last five years -- not just post crisis:
  - Plywood production and exports are decreasing
  - Pulp & paper production (supported by conversion) is increasing, doubled in last five years.
- Forest conversion (cutting forest to make way for plantation crops or pulp forests) is increasing annually
- If land conversion is increasing annually, then cumulative conversion is rising rapidly

Perceptions of provincial government officials reported in our survey confirm these trends

- Land conversion to agriculture, palm oil, and estate crops is reported as increasing in each region



4. NATURAL RESOURCE SECTORS

4.2. PLANTATION CROPS AND LAND USE

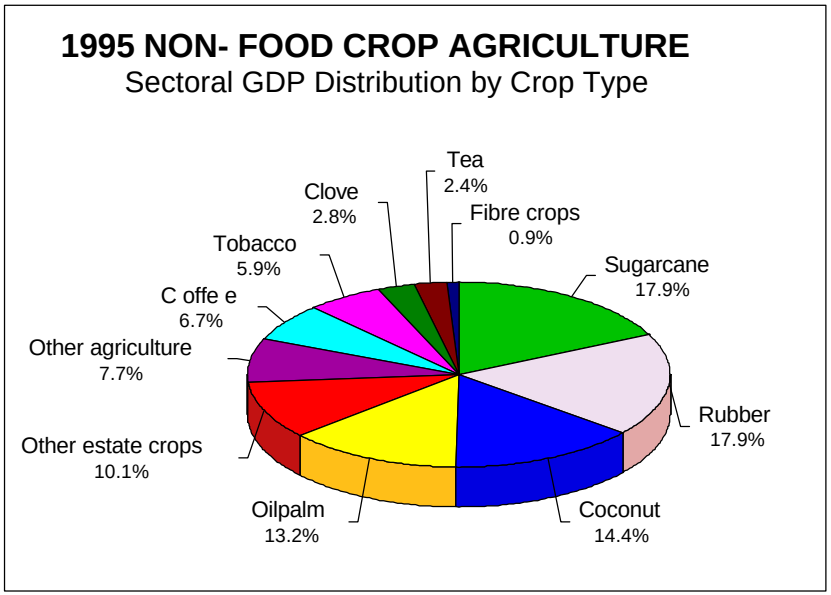
This section reports on:

- Land Area and Production of Plantation Crops
- Ownership and Allocation of Plantation Crop Lands
- Land Use and Production Trends in Plantation Sector

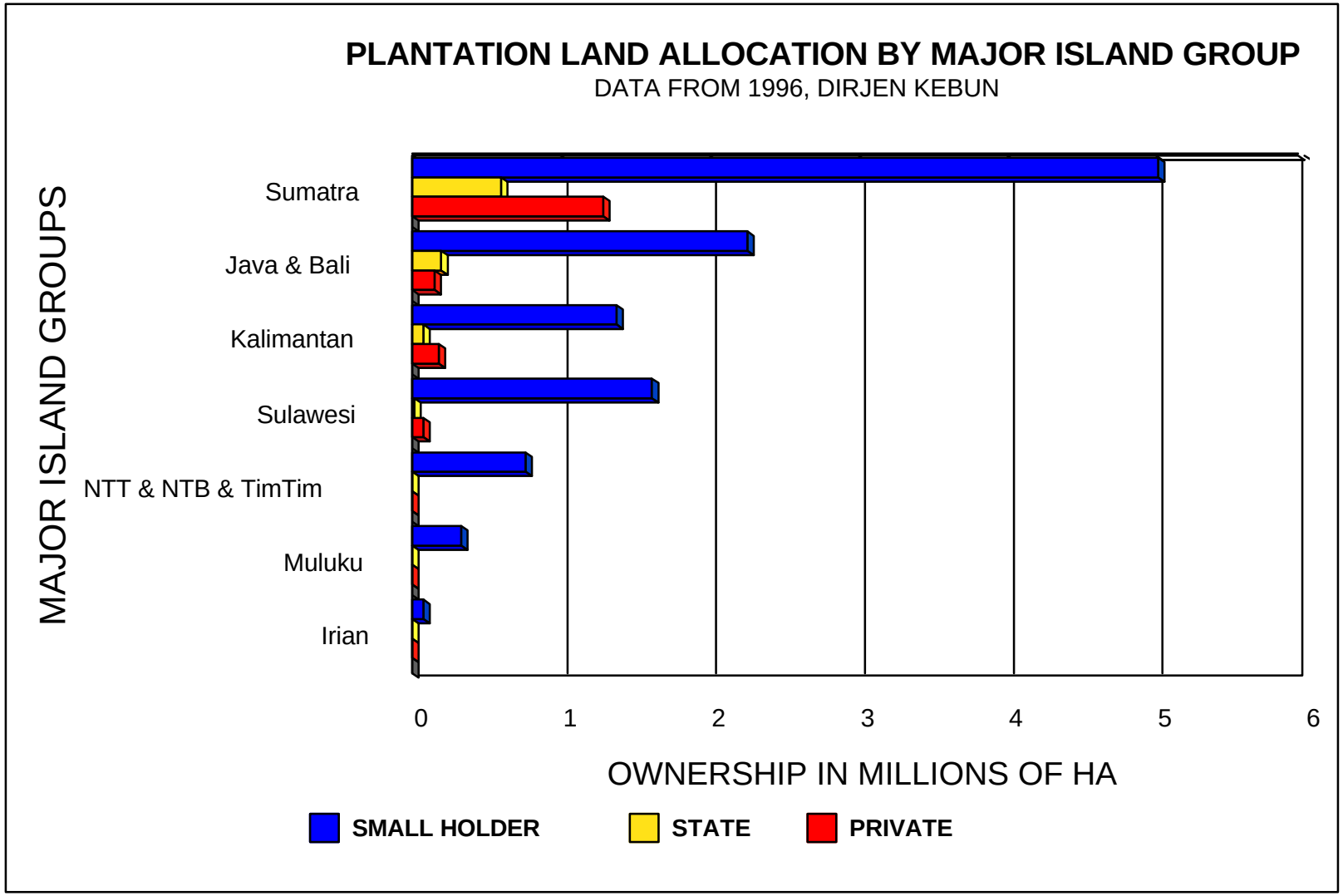
As noted above, non-food/plantation crops subsector is growing rapidly (up over 10% since 1997)

- This could have a positive impact on agriculturalists, especially small holders that dominate the plantations subsector (see later figures).
- This could have an adverse impact on the environment, if there is lasting incentive for clearing and planting of land in plantation crops.
- The nature of the environmental impact will depend on the specific management practices adopted, the location of the activity, and the extent of activity induced by the potential from currency devaluation.

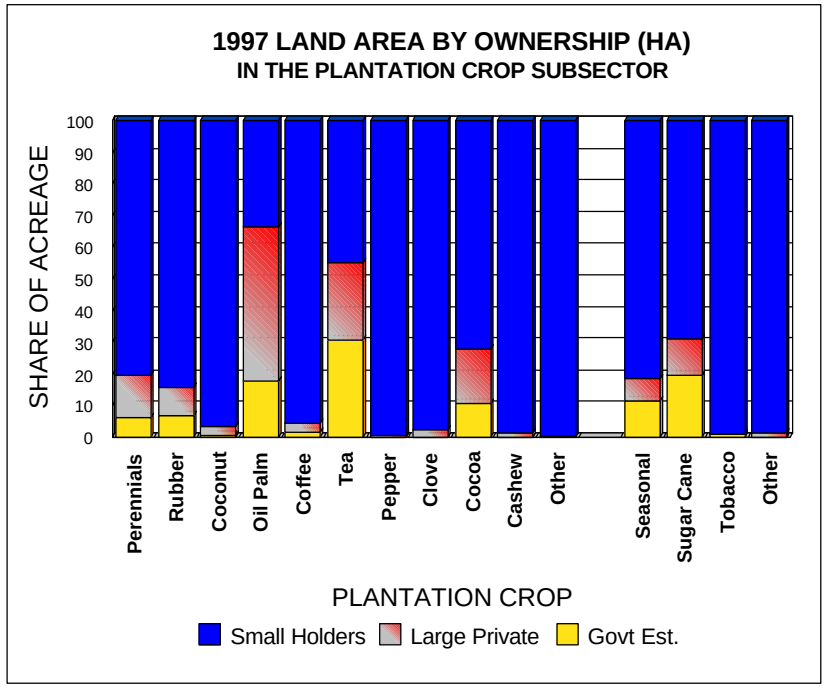
4.2. PLANTATION CROPS AND LAND USE

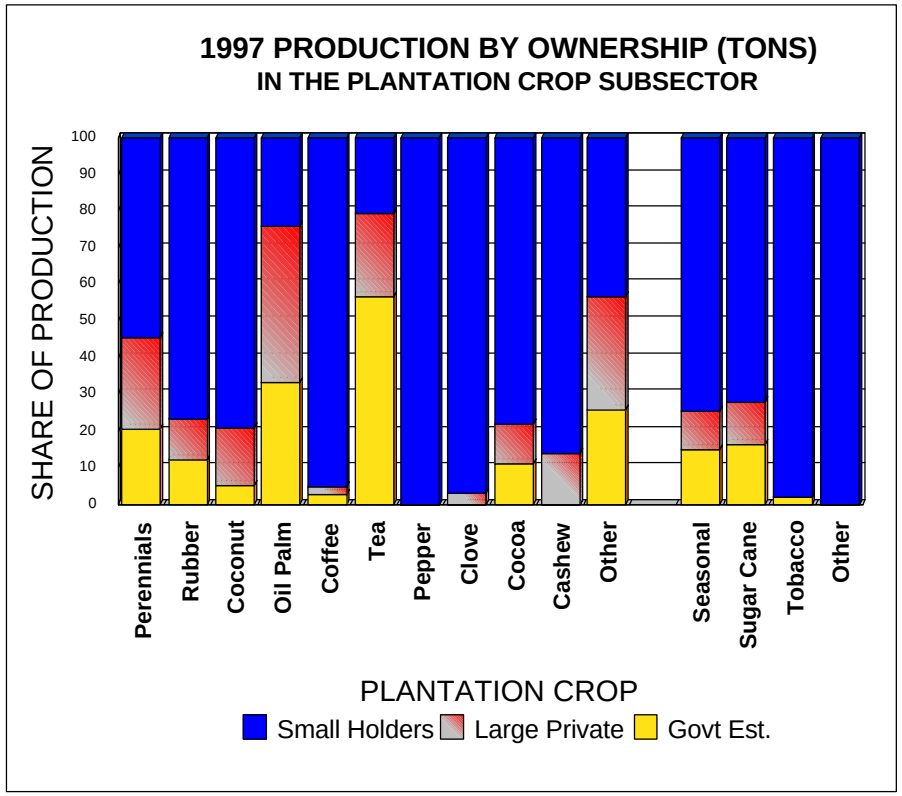


- Plantation crops are grown mostly in the west of Indonesia and in the larger islands
- Land allocated to this sector is mainly in the hands of small holders in all cases
- Small holders represent more than 70 percent of land in plantation crops in all major island groups
- Sumatra and Kalimantan have the highest percentage of large private estates
- Small holders dominate land area and production in all crops except oil palm and tea
- Large holders produce more per unit area than small holders in most cases.


PLANTATION LAND ALLOCATION BY MAJOR ISLAND GROUP
DATA FROM 1996, DIRJEN KEBUN
MAJOR ISLAND GROUPS
Sumatra
Java & Bali
Kalimantan
Sulawesi
NTT & NTB & TimTim
Muluku
Irian
0
1
2
3
4
5
6
OWNERSHIP IN MILLIONS OF HA
SMALL HOLDER
STATE
PRIVATE

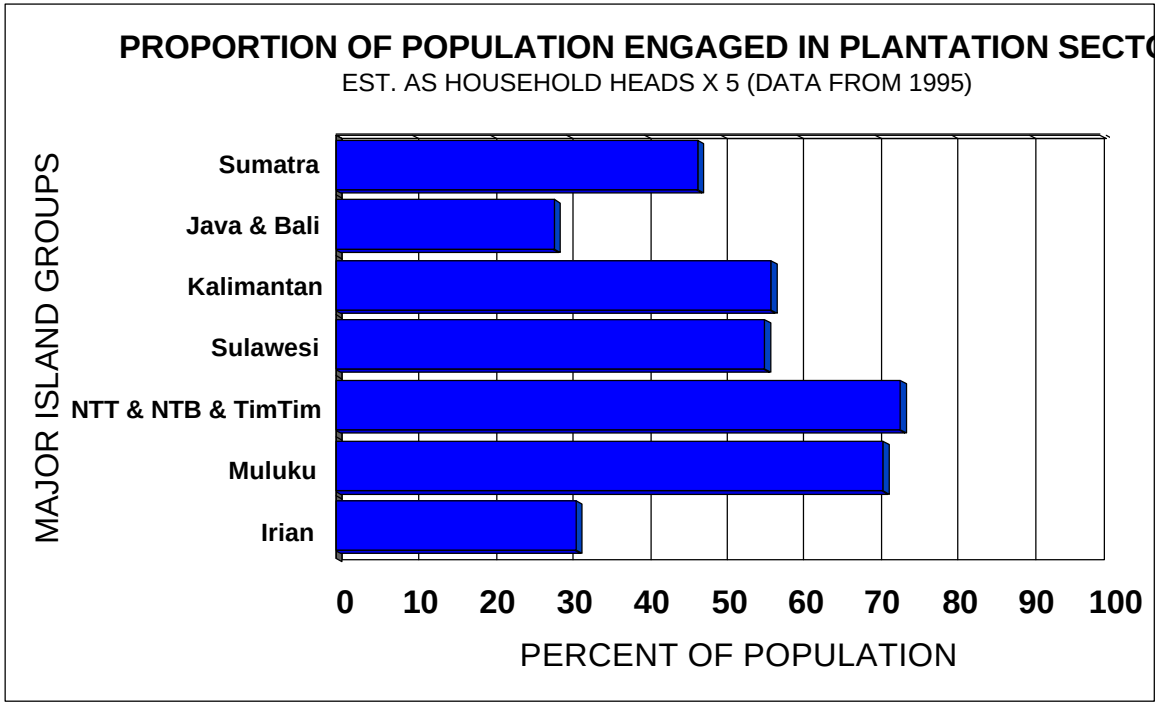
NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS





4.2. PLANTATION CROPS AND LAND USE

Bar graph is based on number of households engaged in plantation agriculture by province



- We multiplied households by five to get a measure of population
- These data indicate that a very large part of population depends on plantation agriculture. More than half in most places
- These data need more interpretation and this calculation method may not be very reliable.

4.2. PLANTATION CROPS AND LAND USE

The figures following illustrate ownership patterns over time for various specific plantation crops.

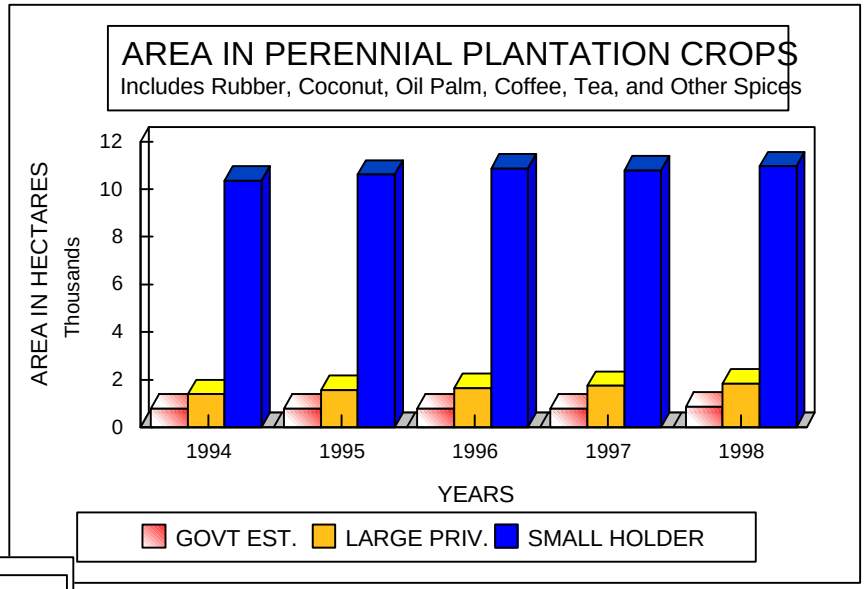
- Small holders vastly dominate the plantation and non-food crops subsector
- But their production and land use have remained relatively constant over time
- Large private estates have been growing slowly as a share of overall production
- Oil palm is the crop showing the most growth over time
- Other crops are relatively flat over time in production and land allocation.

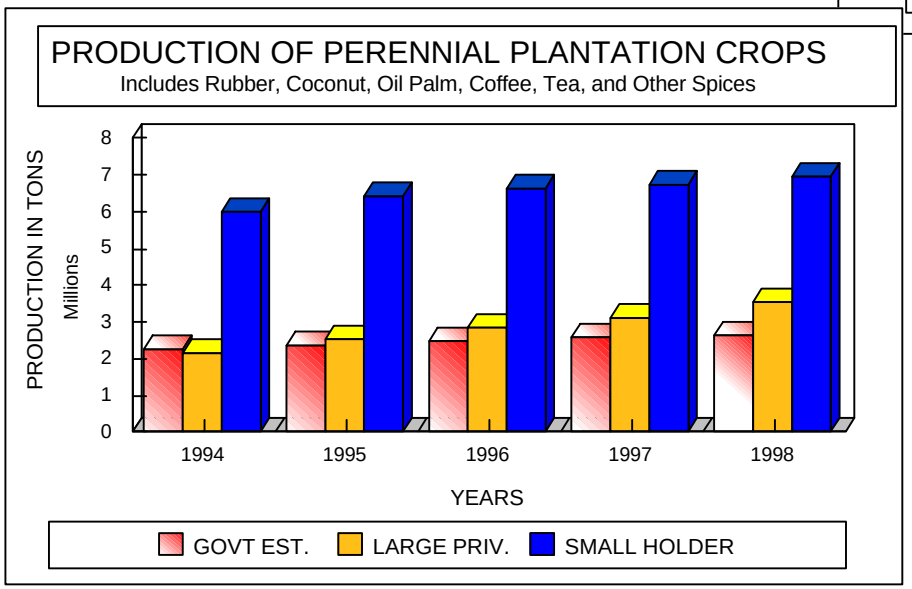
4.2. PLANTATION CROPS AND LAND USE

These figures illustrate the five year trend in perennial (tree) plantation crop land area and production

Overall production is not increasing very rapidly

However, the large holder segment does show an upward trend

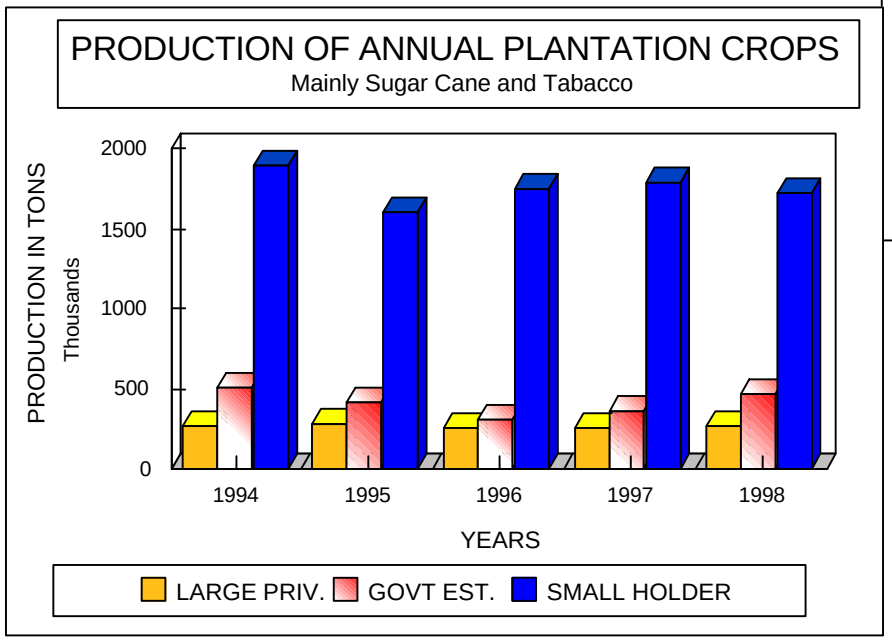


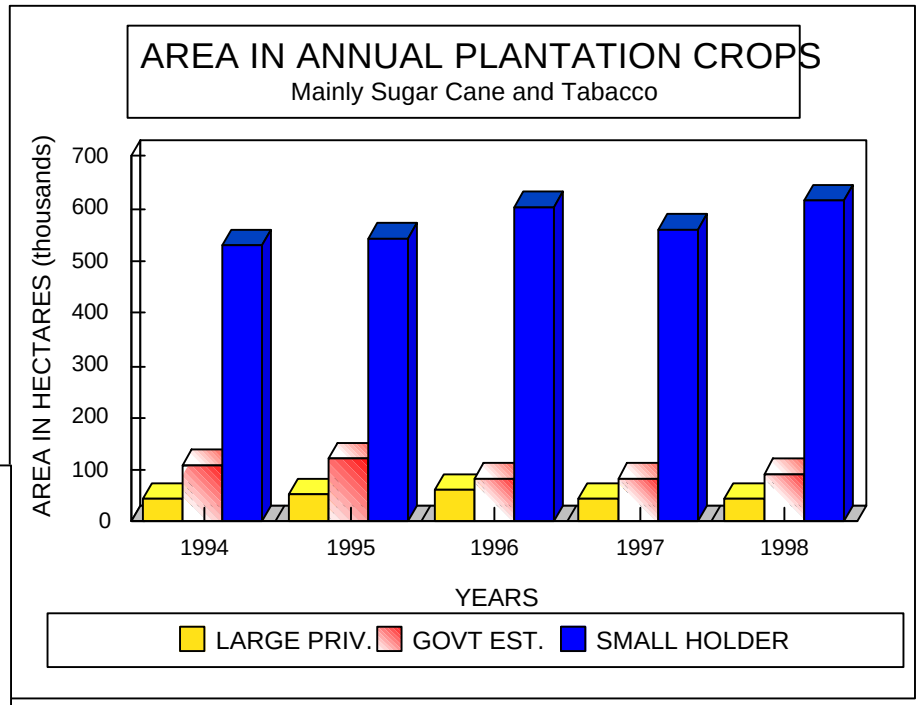


4.2. PLANTATION CROPS AND LAND USE

These figures illustrate the five year trend for seasonal plantation crops, mainly sugar and tobacco

Here there are no clear trends in production or land area





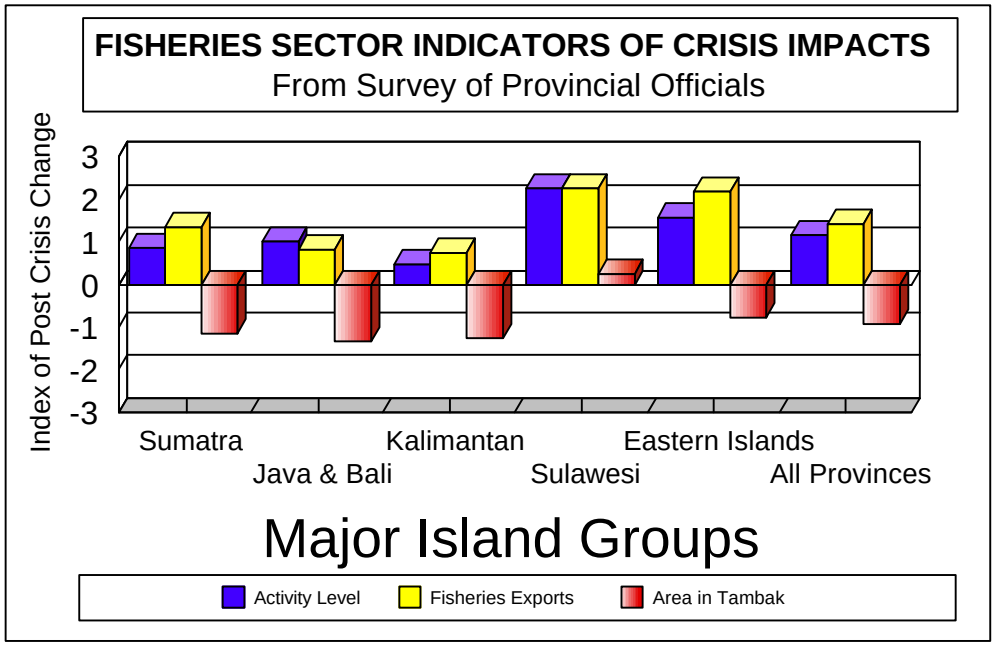
4. NATURAL RESOURCE SECTORS

4.3 REPORTED IMPACTS ON FISHERIES AND POLLUTION LEVELS

- Generally our study focused on land based natural resource, not coasts or urban pollution
- GDP data show that value added in Fisheries is up by over 7 percent in 1998, indicating resource use pressures
- Some additional subjective, qualitative results are available from our survey of provincial officials

FISHERIES

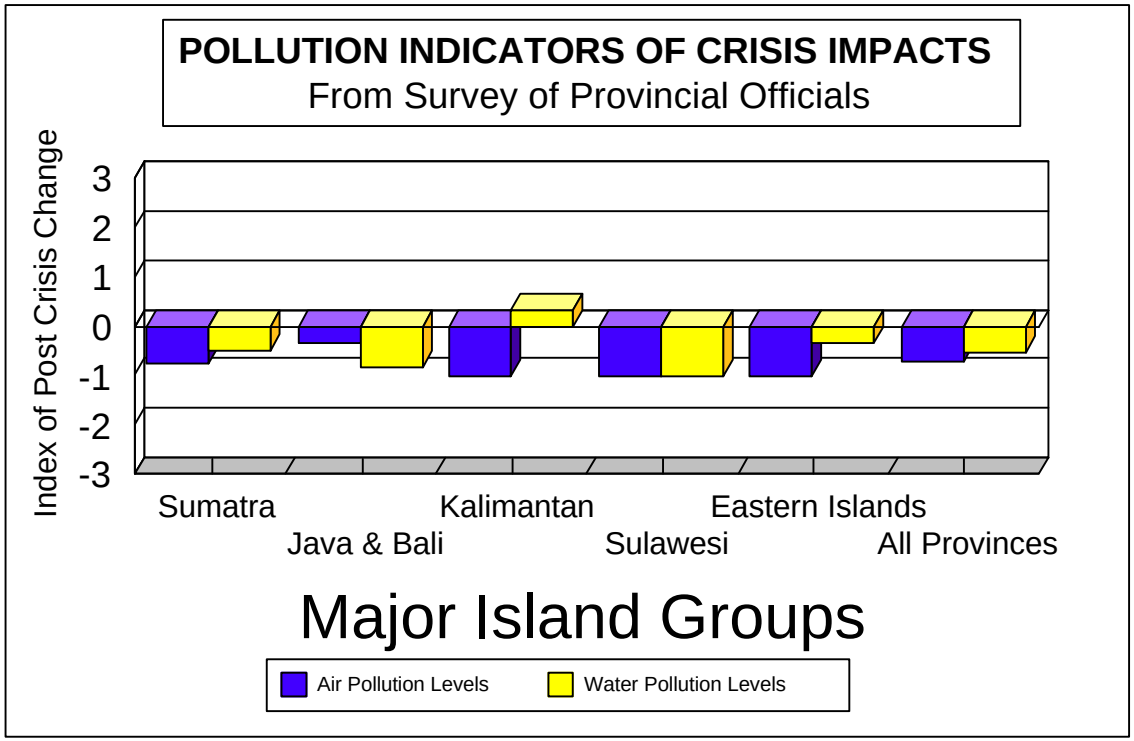
- Officials report that overall economic activity level (and employment) appear to be up
- This trend also applies to exports of fisheries products (indicating the role of exchange rate)
- However, area in *tambak* (aquaculture ponds) is down in most cases
- This may be explained because intensive pond aquaculture may be relatively import/capital intensive
- In Sulawesi, where *tambak* method is extensive, we see an opposite indication.



4. NATURAL RESOURCE SECTORS

4.3 REPORTED IMPACTS ON POLLUTION LEVELS

- Officials report that urban/industrial pollution has decreased in post crisis period
- This perception holds for both water and air pollution in almost all regions
- Water pollution may have increased in Kalimantan (where there are anecdotal reports of small scale unauthorized mining)
- In theory, pollution could go up if the decline in enforcement outweighed the decline in economic activity.
- In practice, it seems that pollution levels may be tracking economic activity (downward)



4. NATURAL RESOURCE SECTORS

4.4 PROTECTED AREAS

The economic crisis has resulted in increased pressure on parks and protected areas, as reported from several sources.

IMPACTS REPORTED FROM USAID/NRM-ASSISTED SITES IN KALIMANTAN AND SULAWESI

- Increased land clearing to grow export commodities like cocoa and coffee, in Lore Lindu National Park, Central Sulawesi
- Increased illegal logging activities to meet local market demands for wood, in Kutai NP, E. Kalimantan, and Lore Lindu NP, C. Sulawesi
- Increased fishing to meet demand of export-oriented live fish trade, in Bunaken National Park, North Sulawesi
- Increased pressure by mining companies to obtain exploration/mining rights in mineral-rich protected areas, e.g., Kutai NP, E. Kalimantan
- Reduced government funding has resulted in reduced enforcement and patrolling, as reported from all national parks

Encroachment appears to be motivated by the chance to capture windfall gains from exports, not by increased poverty (qualitative data only)

RESULTS FROM A SURVEY OF INDONESIAN PARK MANAGERS (WB, PHPA, and NRM)

- Trends mentioned by park managers -- land encroachment, excessive logging, demands for land -- confirmed other results
- 33% to 50% of respondents believe there has been an increase in land encroachment from local people and collection of NTFPs
- But....more work is needed to understand the quantitative extent of this perceived increase, relative to past influences and pressures.
- For example, 50 to 70 % of respondents also believe that mining, illegal logging by commercial forest concessions, and road building are at about the same level of threat as they were before the crisis.

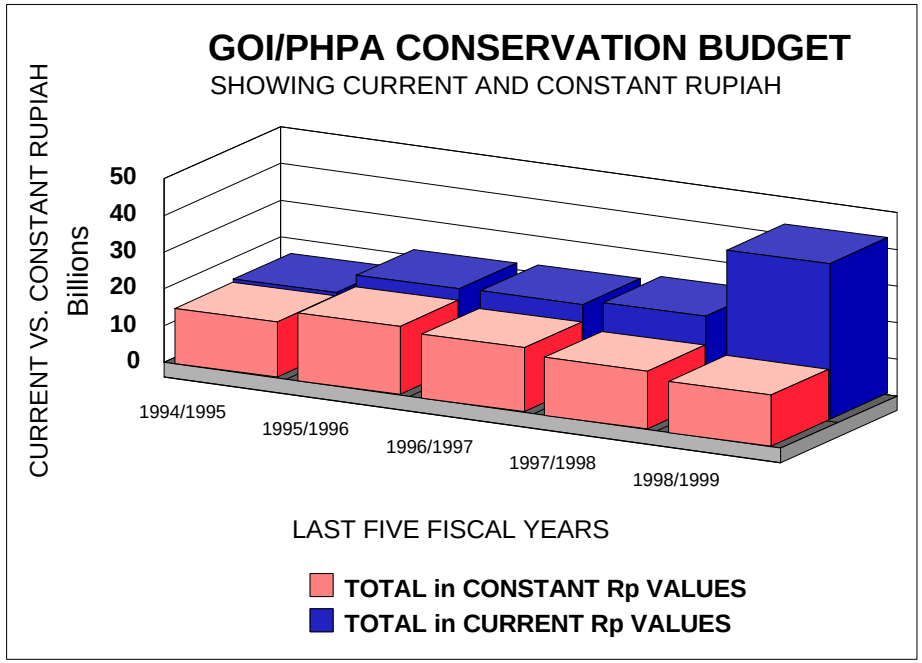
NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS

RESULTS FROM THE NRM-ASSISTED PHPA CONSERVATION FINANCE DATABASE

Budgetary aspects of the crisis may be as important in some areas as the physical and environmental impacts of the crisis.

This analysis is based on GOI budget data for protected areas management, which includes most donor resources and national resources, not only budgets for national parks.

- Real spending (constant 1993 rupiah) on protected areas management is declining, just when threats are increasing.
- Spending in current value rupiah (blue/dark) appears to be rising rapidly in the post-crisis period.
- In fact, real purchasing power (pink/light) is eroded by inflation and represents fewer resources for conservation than even five years ago.



This is an opportunity to decentralize management and use new approaches, such as:

- Debt-for-nature swaps
- Regional conservation management trust funds
- Boosting tourism and other industries that rely on conservation.

5. SUMMARY OF ISSUES RAISED BY THE

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS

ANALYSIS

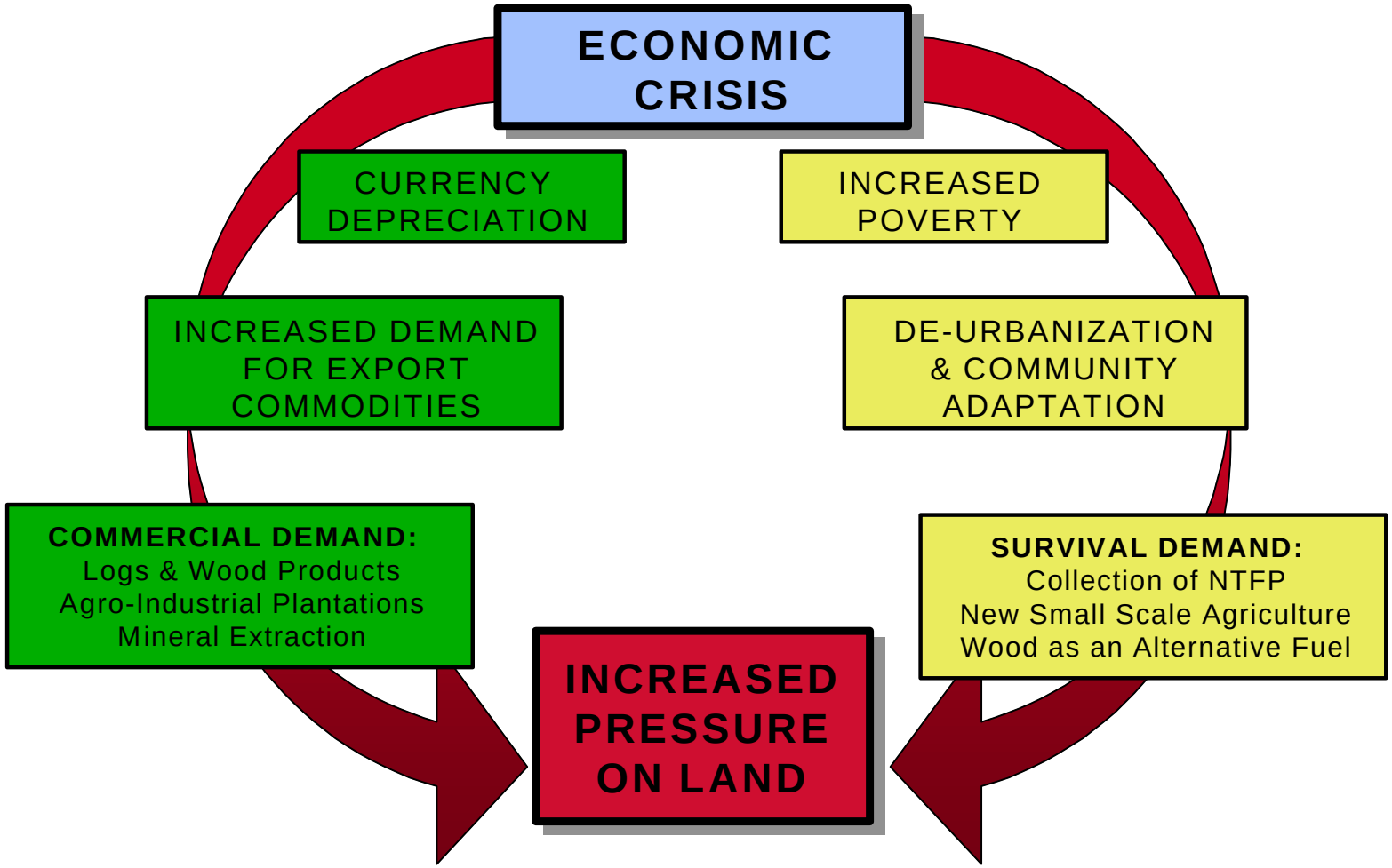
- Agriculture/plantation sector growth could help with recovery, but is dominated by small holders with poor access to land, credit, management skills, markets, and little tenure security.
  - If natural resource sectors are to lead sustainable economic recovery, need to determine:
  - Which crops/management systems are economically viable and environmentally sustainable
  - What is appropriate role for communities, cooperatives, and large scale enterprises in managing the plantation and forestry and plantation sectors.

- Crisis is increasing both economic and political uncertainty. May result in short run management approaches -- more environmentally harmful resource management practices.

- Decentralization: Economics will push political process of decentralization of control of resource earnings.

- Concentration: Urban poor and working classes will be hardest hit by the crisis. In absolute terms, Java is hardest hit. Raises concerns about distribution of resources and increasing equity.

NATURAL RESOURCE IMPACTS OF INDONESIA'S FINANCIAL CRISIS



5. SUMMARY OF OPPORTUNITIES COMING FROM CRISIS

- Since many Plantations/Estate Crops are managed by small holders, this contributes to social safety net
- Chance to advance and reform policies to extend and sustain benefits to export-oriented agricultural subsectors
- Chance to stabilize land tenure and consider land reallocation and reform, as an economic and environmental initiative
- Opportunity to combine land reform, social safety net, and conservation measures
- Opportunity to restructure forest-based industry toward outcome based management, greater efficiency
- Privatization and investment initiatives should focus on sectors with economic potential, based on output and earnings data and projections of market trends.
- Opportunity for improved definition of provincial governments authorities and decisions