Office of Evaluation and Oversight, OVE
Inter-American Development Bank

1300 New York Ave. N.W., Washington, D.C. 20577

RE-279

Oversight Note on the Performance Criteria for Allocating Concessional Resources

Office of Evaluation and Oversight

Officially distributed to the Board of Executive Directors on June 18, 2003.

TABLE OF CONTENTS

I. INTRODUCTION 1

II. EVOLUTION OF THE ALLOCATION CRITERIA 2

A. The 1994-2001 Criteria 3
B. Concerns Regarding Allocation Criteria 4
C. Features of the New Allocation Framework 5
D. Weights for Allocation Criteria 6

III. THE NEW PERFORMANCE ALLOCATION SYSTEM 8

A. The Impact of the Change in Criteria in Resource Allocation 8
B. Comparison with IDA 10

IV. METHODOLOGICAL ISSUES REGARDING PERFORMANCE 13

A. Unintended Bias 13
B. Incentive Effects 14
C. Transparency and Objectivity 15
D. Developmental Relevance 17

V. FINDINGS AND RECOMMENDATIONS 20

I. INTRODUCTION

1.1 In 2002, the Bank adopted new criteria for the allocation of concessional resources which integrated country performance measures with the traditional measures associated with need, equity and efficient resource utilization. The Board requested that this new allocation framework be evaluated in 2005, but a number of Chairs have expressed interest in receiving OVE's initial views on the new mechanism. Furthermore, the Bank is considering adjustments to its allocation formulae.

1.2 This note represents OVE's preliminary review of the new performance-related allocation criteria used by the Bank. There has not been sufficient time to determine the actual impact of the new procedures on either resource allocations or country performance, so the current note is confined almost exclusively to a methodological review of the allocative criteria and to a comparative analysis of the approaches used elsewhere for the performance-based allocation of scarce resources.

1.3 The limited scope of this note implies that important issues are not discussed, two of which Management may wish to consider in its own efforts to adjust the resource allocation framework.

a. Because the focus of this document was on the new performance-based criteria, we have not assessed the adequacy of the need indicators that the Bank has been using. It is possible that population, per capita GDP, and in the case of IFF, debt service ratios, may not be the optimal measures for determining country need. Accordingly, we would suggest that Management study whether other indicators (such as those that are poverty-related) would help to improve the existing methodology.

b. The report also does not focus on the issue of country absorptive capacity or the relative scarcity (or lack of scarcity) of concessional resources and its impact on country program and project prioritization. These issues should be considered by Management when revising the current allocation methodology and in the context of the preparation of Country Strategies and considered by Country Program Updates.

1.4 The next chapter discusses the evolution of allocation criteria within the Bank's methodology for allocating concessional resources. Chapter III analyzes the distributional impact of the new performance-based methodology and compares the Bank's criteria with the most important alternative criteria used to allocate aid: those developed by the International Development Association (IDA), of the World Bank. Chapter IV contains a methodological discussion of the Bank's framework. Chapter V presents OVE's conclusions and recommendations.

II. EVOLUTION OF THE ALLOCATION CRITERIA

2.1 Because concessional resources are scarce, and because they involve bestowing a subsidy upon the recipient, the Bank has always felt it necessary to have some explicit criteria to be used in the allocation of these resources. During the early years of the Bank, concessional resources were provided through two vehicles: the Fund for Special Operations (FSO) and the Social Progress Trust Fund. Until 1978 (i.e. until the Bank's Fourth Replenishment (IDB-4)), the Bank used two types of criteria for allocation: sectoral criteria and beneficiary criteria. Sectoral priorities were set in various concessional resource replenishment documents, and generally favored social sectors. Beneficiary criteria required the Bank to assess the poverty status of the persons receiving Bank concessional resources.

2.2 The Intermediate Financing Facility (IFF) was established during IDB-6 negotiations due to the reductions in FSO resources expected for the 1983-1986 period: *"The major objectives sought by the IFF were to mobilize additional resources toward an increase in the level of concessional financing, improve the average terms of overall Bank lending and through the extension of intermediate lending terms, assure a greater coverage of concessionality to potential borrowers and priority sectors (…) than a reduced FSO loan program alone could achieve."*[1]

2.3 Starting with the IDB-5 agreement, the Bank moved away from sectoral and beneficiary criteria and toward country criteria. Sectoral criteria became less viable as FSO became, de-facto, the only mechanism for funding the Bank's program in a country, while beneficiary criteria became less relevant as concessional resources were increasingly targeted to the poorest countries in the region. IDB-8 restricted FSO eligibility to the 5 poorest countries in the Bank's Group D classification,[2] and IFF eligibility to the C and D countries with a per capita income below US$1,600 (according to the Bank's 1993 Annual Report).[3]

2.4 As country criteria superceded sectoral and beneficiary criteria, the issue of how to properly allocate scarce resources came to be dominated by three issues: country need, distributional equity, and country performance. Although not couched in these terms formally, the allocation exercise was fundamentally a debate about what constituted a "just" distribution of Bank's scarce concessional resources.

2.5 The need issue was seen as best proxied by population, stating: *"population has been considered as an indicator of a country's estimated needs, in that more*

---

[1] "Historical Reference of the FSO and IFF: Concessional Resources of the IDB" (GN-2101. April 7, 2000).

[2] The D2 countries: Bolivia, Guyana, Haiti, Honduras and Nicaragua.

[3] In practice this implied that only Jamaica and Suriname (among C countries), and the D1 countries (Dominican Republic, Ecuador, El Salvador, Guatemala and Paraguay) accessed IFF resources.

resources should go to a larger population."[4] Even though distributional equity was partially addressed by the decision to limit eligibility to only the poorest, a second variable was introduced to measure relative poverty, which was expressed as follows: "*to reflect the principle of equity, it is proposed that more resources be authorized for countries with a lower per capita GNP*."[5]

2.6 In the case of the IFF, a third need-based criterion was added: "*the official debt service ratio, that is non-commercial debt service obligations as a percentage of the total value of exports of goods and services, reflecting both the burden to the country of official debt service and the country's official debt servicing capacity.*"[6] Although not explicitly discussed in the document, the rationale for including this variable was that since IFF was a variable and contingent subsidy on OC lending, the country was adding potential future exposure to OC rates, making debt carrying capacity a relevant measure of need.

2.7 These criteria were data-based and thus yielded an allocation formula which was transparent and empirically verifiable by both Bank and recipients. It was widely felt, however, that these criteria alone missed an important dimension of distributive justice: the *performance* of a country and its policy-makers in the pursuit of development.

2.8 The interest in performance was driven by three concerns. First, by the practical concern that a country might not actually make use of its allocation, thus depriving others of access to this scarce resource without obtaining any development gain. Second, by the concern that poor institutional and policy performance might diminish the developmental yield to the region (and to the Bank). Third, by the concern that need criteria alone provided no incentive structure to encourage countries to improve their performance.

2.9 In the end, the 1994 distribution criteria elected to address only the first concern. The allocation rules provided that countries that did not use their allocations would have their notional allocations reduced and distributed to others. This implementation of the "use it or lose it" principle was designed to ensure that funds allocated to countries actually got applied to approval of projects.

A. The 1994-2001 Criteria

2.10 The methodology for FSO resource allocation approved by the Board in 1994 (GN-1856) is set upon a "needs-based approach."[7] The two variables incorporated in the distribution formula were the population and the GNP per capita of each eligible country. It was assumed that the need for concessional

[4] "Distribution of FSO resources during the Eighth Replenishment Period," (GN-1856. November 23, 1994).
[5] Ibid.
[6] "Allocation Framework of IFF Resources under the Eighth General Increase in Resources (FN-263-8. September 5, 1999).
[7] The methodology was reiterated in GN-1856-1 (1995) and GN-1856-11 (1998).

financing would be greater in countries with larger populations, while need and equity concerns implied that more resources should be allocated to countries with lower GNP per capita.[8, 9]

2.11 For the allocation of IFF resources during IDB-8, the Bank adopted a methodology that albeit similar to the one used for FSO lending, introduced a new variable: the official debt service ratio. The final distribution coefficient is the result of the average of the shares of the three variables: population, (the inverse of) GNP per capita, and official debt service ratio.

B. Concerns Regarding Allocation Criteria

2.12 Between 1994 and 2000, the Bank allocated both FSO and IFF resources using this formulae. There was growing concern, however, that the prevailing allocative framework was not adequate for addressing the issue of country performance. When Management brought forward in 2000 a proposal to continue with the current allocation framework, *"[m]any Directors expressed the view that resource allocation should be based on how efficiently countries use their resources. Interest was expressed in developing incentives to encourage countries to cancel unused loan amounts."*[10] Directors asked that the following paragraph be included in Management's report on this issue:

> *"Because FSO resources are extremely scarce, it is important that they be allocated in a fashion designed to maximize their developmental impact. The present allocation framework is based on need. However, it is also important to account for the way resources are being used by individual countries. Therefore, Management shall submit a paper no later than September 30, 2000, which examines possible performance criteria that could be integrated into the FSO reallocation framework planned for 2001. In this regard, it is suggested that Management should seek performance indicators that are practical and based on data available to the Bank."*[11]

2.13 Management developed a document in response to this request in June of 2001. A year of discussion followed the presentation of this original report, and led to the approval in July 2002, of a paper that established a new allocation framework for FSO with a significantly increased weight to performance criteria. According to this document:

> *"The objective of a performance based allocation is to ensure that scarce concessional resources are used efficiently taking into account the country's absorptive capacity, therefore, when evaluating country*

[8] More recently, the Bank has seen GNP per capita as an indicator of "economic strength."
[9] For a description of the GNP per capita distribution formula, see Appendix I.
[10] "Fund for Special Operations. Resource Allocation Proposal for the Period 2000-2003. Final Revised Version. Report of the Chair of the Programming Committee," (GN-1856-19. July 18, 2000).
[11] "Fund for Special Operations. Resource Allocation Proposal for the Period 2000-2003. Final Revised Version," (GN-1856-18. July 10, 2000).

performance it is also important that internal procedures are in place to obtain results that are transparent, objective and reflect as closely as possible the achievements of each country in terms of portfolio execution, institutional and policy implementation."[12]

C. Features of the New Allocation Framework

2.14 The new FSO framework, and a similar one approved for the IFF in document FN-263-24, retain many of the features of the old allocation system, but add two new dimensions: one related to portfolio performance, and one related to country institutions and policies. Both of these new additions were heavily influenced by prevailing practice in other institutions, particularly the World Bank's IDA program.

2.15 Portfolio Performance. The new allocation framework retains the old "use it or lose it" provision to reduce a country's allocation in the event that approvals were less than initial allocations. It adds, however, an explicit formula to influence initial allocations based on the performance of the approved loan portfolio. The portfolio performance indicator aims at rewarding countries with fewer undisbursed amounts classified as "problem" or "on alert." Since portfolio performance is inversely related to the proportion of undisbursed amounts classified as "problem" or "on alert," this indicator is calculated in a similar manner to the GNP per capita index. Both are described in Appendix I.

2.16 A country's institutions and policies, on the other hand, are to be assessed by 10 variables grouped in four major categories (see Table 2.1 below): a) economic management; b) structural policies; c) social inclusion/equity policies; and d) public sector management and institutions. These variables constitute the main elements of what has been termed "Country Institutional and Policy Evaluation" (CIPE).

Table 2.1: Country Institutional and Policy Evaluation (CIPE) Categories and Variables

Category	Variable
A. Economic management	1. Macroeconomic imbalances 2. Management of external debt
B. Structural policies	3. Trade and commercial policy 4. Banking and financial sector stability 5. Policies and institutions for environmental sustainability
C. Social inclusion/equity policies	6. Gender equity, indigenous and other minorities inclusion issues 7. Building human resources and social protection 8. Monitoring and analysis of poverty
D. Public sector management and institutions	9. Property rights, governance, and private sector development 10. Transparency and accountability in the public sector

[12] "Proposal for a performance based allocation of FSO resources. New Revised Version," (GN-1856-31. June 11, 2002).

2.17 Each of these variables receives a performance rating that varies from 1 (low performance) through 6 (high performance): *"A "5" rating corresponds to a status that is good today. If this level is sustained for three or more years, a "6" is warranted, signifying a proven commitment to and support for the policy. Similarly, a "2" rating represents a thoroughly unsatisfactory situation today. A "1" rating signifies that this low level has persisted for three or more years, and therefore that the resulting problems are likely to be more entrenched and intractable*" (GN-1856-31, Annex II). A "3" rating is defined as "moderately unsatisfactory," and a "4" rating as "moderately satisfactory."[13]

D. Weights for Allocation Criteria

2.18 Tables 2.2 and 2.3 display, for 2002 and 2003, the relative weights defined by the methodologies used for FSO and IFF allocation, respectively. As it can be seen, the relative weight of the performance-based indicators increases from 50% to 60% between 2002 and 2003. As a result, starting in 2003, the CIPE variables will determine 42% of the FSO allocation. The relative weights within each group of indicators remain the same throughout the two years in the following cases: a) 55% for population and 45% for GNP per capita (needs-based indicators for FSO allocation); b) equal distribution of weights among the three need IFF variables (population, income per capita and official debt service ratio); and c) among the performance indicators, portfolio performance receives a relative weight of 30% while institutional and policy performance (CIPE) variables receive a relative weight of 70%.[14]

Table 2.2: FSO Allocation Criteria: Weight Distribution of Major Groups of Indicators

2002			
Need		Performance	
50%		50%	
Population	GNP per capita	Portfolio	CIPE
27.5%	22.5%	15%	35%
2003			
Need		Performance	
40%		60%	
Population	GNP per capita	Portfolio	CIPE
22%	18%	18%	42%

Source: GN-1856-31 and GN-1856-33

[13] Intermediate scores can also be given.

[14] The choice of these relative weights can always be disputed since arbitrariness cannot be avoided. GN-1856-31 provides some hypothetical simulations with three different weights for need and performance. It must also be noted that throughout this document, the weight for portfolio performance is always assumed to be 40% and for CIPE 60%, it was the Programming Committee of the Board who later altered these weights to 30% and 70%, respectively (see GN-1856-32 Rev.).

Table 2.3: IFF Allocation Criteria: Weight Distribution of Major Groups of Indicators

2002				
Need			Performance	
50%			50%	
Population	GNP per capita	Debt service	Portfolio	CIPE
16.7%	16.7%	16.7%	15%	35%
2003				
Need			Performance	
40%			60%	
Population	GNP per capita	Debt service	Portfolio	CIPE
13.3%	13.3%	13.3%	18%	42%

Source: FN-263-24

2.19 The relative weights of each of the four major CIPE categories mentioned in paragraph 2.16 and Table 2.1 are as follows: economic management 15%; structural policies 20%; social inclusion/equity policies 35%; and public sector management 30%. Since each of the ten CIPE variables receive equal weight within each of the four categories, it is interesting to notice that social and environment factors represent approximately 42% of the CIPE (category C plus variable 5), governance 30% (category D), while the "purely economic" indicators receive the least relative weight: 28%.

III. THE NEW PERFORMANCE ALLOCATION SYSTEM

3.1 The new allocation framework can be evaluated from a number of different perspectives. This report will examine the changes in the distribution of country allocations arising from the application of the new method. Second, the report will compare the IDB performance allocation framework with the IDA experience. Finally, the report will examine a number of conceptual and methodological issues that arise in both the IDB and IDA attempts to allocate concessional resources on the basis of performance.

A. The Impact of the Change in Criteria in Resource Allocation

3.2 Tables 3.1 and 3.2 display the proposed allocations of FSO and IFF resources for 2001, the last year of the previous methodology, and 2002 and 2003 with the application of the new performance-based criteria.

Table 3.1: FSO Proposed Allocation (US$ Millions) and Country Shares. 2001-2003

Country	Year					
	2001		2002		2003	
	US$ Mil.	% Share	US$ Mil.	% Share	US$ Mil.	% Share
Bolivia	99.6	20.12	111.9	23.31	118.0	23.60
Guyana	44.7	9.03	62.2	12.96	69.5	13.90
Haiti	140.6	28.40	90.5	18.85	86.5	17.30
Honduras	94.0	18.99	110.8	23.08	119.4	23.88
Nicaragua	116.1	23.45	104.6	21.79	106.6	21.32
Total	495.0	100.00	480.0	100.00	500.0	100.00

Table 3.2: IFF Proposed Allocation (US$ Millions) and Country Shares. 2001-2003

Country	Year					
	2001		2002		2003	
	US$ Mil.	% Share	US$ Mil.	% Share	US$ Mil.	% Share
Dominican Republic	32.6	13.04	30.2	12.08	30.2	12.08
Ecuador	52.7	21.08	45.9	18.36	44.2	17.67
El Salvador	37.0	14.8	38.7	15.48	39.2	15.67
Guatemala	43.3	17.32	39.3	15.72	38.3	15.31
Jamaica	40.7	16.28	34.1	13.64	34.7	13.87
Paraguay	24.5	9.80	35.2	14.08	36.0	14.39
Suriname	19.2	7.68	26.6	10.64	27.5	11.00
	250.0	100.00	250.0	100.00	250.1	100.00

Sources: FSO: GN-1856-18, GN-1856-21, GN-1856-33; IFF: FN-263-21, 263-24.

3.3 The data in the tables above and the charts and tables in Annex II show that introduction of the performance-based criteria had the following impact on the allocation of FSO resources:

i. In both 2002 and 2003, the poorest countries, i.e. Haiti and Nicaragua, were the countries that lost the most with the introduction of the performance-based criteria. There was a substantial decline in resources allocated to Haiti (–29% in 2002 and –35% in 2003). In the case of

Nicaragua the decline was somewhat more moderate: –13% in 2002 and –14% in 2003 (See Charts 1 and 2 in Annex II).[15, 16]

ii. Guyana was the greatest beneficiary of the new criteria: the resources allocated to this country increased 47% in 2002 and 58% in 2003, relative to what it would have received with the previous criteria (Charts 1 and 2).

iii. In per capita terms the numbers are even more striking: with the new criteria Guyana would receive in 2003 more than 8 times the per capita allocation to Haiti and approximately 6.5 times that of Bolivia, while these differences would be approximately 3.5 times and 4.5 times if the needs-based criteria were to be applied (see Table 1 in Annex II).

iv. In relation to the GDP per capita of each country, Table 2 in Annex II shows that the new allocation of concessional resources represents an increase from approximately 6.8% to over 10% of the annual per capita income of Guyana in 2003. In the case of Haiti, on the other hand, the performance-based criteria halves, in terms of proportion of per capita GDP, the resources it receives.

v. The change in criteria also alters the relative position of the five eligible countries (see Chart 3 in Annex II): Haiti moves from being the largest (potential) beneficiary of FSO resources to become the fourth ranked in 2002 and 2003. Honduras, on the other hand, becomes in 2003 the country to (potentially) receive the largest share of FSO resources (from fourth place throughout most of the previous period).

vi. It is interesting to note that while the performance-based criteria have reduced substantially the dispersion of the shares allocated to each country this change has increased the variation in per capita allocation (see Table 1 in Annex II). Thus while the relative portions of FSO resources that each country can potentially receive with the new criteria have become much closer to each other (Chart 4 in Annex II), the per-capita variation has widened significantly.[17]

3.4 Similarly the impact brought by the introduction of performance-based indicators into the IFF allocation can be summarized as follows:

i. In general terms the changes were not as dramatic as the ones observed with FSO.

ii. Charts 5 and 6 (also Annex II) show that Ecuador and Guatemala were the countries to have the largest reductions in (potential) IFF funding. The

[15] The comparisons are relative to what the country would have received if the previous needs-based criteria had continued to be applied.

[16] The figures used in al charts consider only the theoretical allocation of resources, i.e. the direct application of the formulae. In this sense it does not reflect actual distributions that result from other factors such as absorptive capacity and use of FSO and IFF reserves.

[17] The variance in the percentage allocation of FSO resources is reduced from 51% in 2000 and 2001 to approximately 19% in 2002 and 2003.

declines were, however, not as large as for Haiti. Conversely, Suriname and Paraguay were the greatest beneficiaries of the new criteria.

iii. There were no drastic changes in the countries' relative positions (see Chart 7 in Annex II). The major beneficiaries here were El Salvador, which moved from the fourth position to second, and Paraguay from sixth to fourth. Jamaica, on the other hand, "lost" two positions, moving from third ranked to fifth.

iv. In per capita terms, Table 3 in Annex II show that the new performance-based criteria increased the allocation of IFF resources to Suriname from approximately US$ 46 in 2001 to almost US$ 66 in 2003. It must be noted that, again, the changes were not as dramatic as with the FSO allocation.

v. Table 4 in Annex II shows that in relation to the countries' GDP per capita, the move from the needs-based criteria to the performance-based one, did not represent major changes. With the exception of Suriname, whose share of IFF resources represents more than 6% of its GDP per capita, the allocation to the other countries represent less than 1% of their annual per capita income.

vi. As with FSO, the introduction of performance-based criteria reduced the dispersion of the shares (Chart 8 in Annex II),[18] but increased the variation in terms of per capita allocation (Table 3 in Annex II).

B. Comparison with IDA

3.5 The purpose of this section is to present the methodology used by the International Development Association (IDA), to allocate its resources.[19] IDA provides loans with zero interest and long grace and maturity periods to countries with per capita income below US$885.[20] Currently the same IDB member countries eligible for FSO lending, i.e. Bolivia, Guyana, Haiti, Honduras and Nicaragua, are also eligible to receive IDA loans.[21]

3.6 IDA's "Country Policy and Institutional Assessment" (CPIA) contains 20 variables, each with a 5% weight, grouped in the same four major categories used by the IDB: a) economic management; b) structural policies; c) social inclusion/equity policies; and d) public sector management and institutions. The relative weights given to the four CPIA categories is, however, different from the

[18] The variance in the percentage allocation of IFF resources is reduced from 21% in 2000 and 2001 to approximately 6% in 2002 and 5% in 2003.

[19] IDA is the concessional lending window of the World Bank Group. Since IDA's framework was the basis for the development of the Bank's and other multilateral and bilateral agencies performance assessment methodologies. The Asian Development Bank, for instance, incorporates performance-based as well as need indicators in its methodology. This paper limits its analysis to IDA's framework.

[20] Limited or no access to the capital market is also an eligibility criterion.

[21] The other countries of Latin America and the Caribbean eligible for IDA lending are: Dominica, Grenada, St. Lucia and St. Vincent. There are 80 countries worldwide eligible for IDA assistance.

one used by the Bank: economic management represents 20%; structural policies 30%; social inclusion/equity policies 25%; and public sector management and institutions 25%. In direct contrast to the IDB, IDA gives its greatest weight (45%) to economic variables.[22] Table 3.3, below, contrasts the relative weight received by the major set of indicators within IDA and IDB formulas.

Table 3.3: Relative Weight Given by IDA in its CPIA and IDB in its CIPE

Type of Indicator	IDA		IDB	
	Weight	Ranking	Weight	Ranking
Economic[1]	45%	1	28%	3
Social and environmental[2]	30%	2	42%	1
Governance[3]	25%	3	30%	2

Sources: "Country Policy and Institutional Assessment 2002. Assessment Questionnaire," IDA 2002; and GN-1856-31.

Notes: 1: Economic management and structural policies categories minus the variable "policies and institutions for environmental sustainability;"

2: Social inclusion/equity policies category plus the variable "policies and institutions for environmental sustainability;"

3: Public sector management and institutions category.

3.7 A country's overall performance rating is given by the combination of the annual report on portfolio performance (weight of 20%) and the CPIA (weight of 80%).

3.8 It must be noted that IDA substantially increases the final weight of governance by the introduction of a so called "governance factor."[23] This governance factor is applied to (multiplies) the country's overall performance rating, thus benefiting countries with governance scores above the mid-point and penalizing those below. The clear objective of this factor is to provide an additional incentive for CPIA countries to focus on governance issues.

3.9 As of 2001, the per capita allocation of IDA resources for country *i* (PCA_i) *is* given by the following expression:

$$PCA_i = f[(PR_i)^2, (y_i)^{-.125}]$$

Where PR_i is country's *i* overall performance rating and y_i is its per capita income. A country's population times its *PCA* will determine its allocation. The application of a quadratic exponent to the performance rating clearly implies that this element is the critical factor in IDA's allocation criteria. It is also clear that, ceteris paribus, the larger the country's population the larger will be its allocation. Finally, as IDA notes, the exponent of –0.125 in the GNP per capita gives a "*modest upward bias for poorer countries: a country with a GNP per capita of US$100 cet. par., will receive an allocation about 33% higher than a country with a GNP per capita of US$1,000.*"[24]

[22] As seen in paragraph 2.19, in the IDB CIPE framework, economic indicators receive the least relative weight (28%), while social and environmental variables receive the greatest weight.

[23] The governance factor is calculated by dividing a country's average governance rating by the mid-point 3.5, and then applying an exponent of 1.5 to this ratio.

[24] Quoted from IDA in GN-1856-31, Annex I.

3.10 The formula described above and the distribution weights imply, therefore, that IDA's framework tends toward being almost purely performance-based (16 times more weight than need), with the larger weights given to economic and governance performance.

3.11 The emphasis on performance has an important impact on IDA's resource allocation. In 2001, the (population weighted) average performance rating achieved by the countries in the fifth quintile of performance was 1.53, compared to 4.12 for the first quintile, and to a 2.94 average overall rating. As a result of these differentials, the resources allocated between 1999 and 2001 to first quintile countries were 3 times greater than those distributed for the countries in the fifth quintile. Furthermore, the scores decline significantly (more than 40%) from the fourth to the fifth quintile: from 2.65 to 1.53.

3.12 It is interesting to notice that in IDA's classification among IDB member countries, Bolivia appears in the fourth quintile (which has an average score of 2.65), while it ranks first in the Bank's CIPE scoring with 3.6, which would put it within IDA's second quintile. Honduras is ranked in the first quintile in IDA's (average score 4.12), and second in the IDB (CIPE score of 3.1). Guyana and Nicaragua are in the third quintile (average score 3.04), and are third in the CIPE score (both with the same 2.8 score). Haiti is in the fifth quintile (average score 1.53) and also fifth ranked by the IDB (CIPE score of 1.8). Even though most results are similar in the two exercises, the Bolivia case is difficult to understand, and may be an indication of the subjectivity of the scoring criteria, as will be discussed in the next Chapter.

IV. METHODOLOGICAL ISSUES REGARDING PERFORMANCE

4.1 The analysis above establishes the point that the IDB allocation system assigns more weight to need than does IDA, but that both systems give great weight to the institutional and policy environment in a country in determining scores on the dimension of "country performance." Given the large influence on distribution that judgments regarding institutional and policy environment have, it is important to explore in some detail whether the method used to conduct these assessments is sound and meets the expectations set by the Board and Management in their approach to the performance allocation issue.

4.2 In this regard, OVE has found 4 elements in the CIPE assessment system that are potentially problematic: unintended bias, incentive effects, transparency and objectivity, and developmental relevance.

A. Unintended Bias

4.3 The IDB allocation method is formally biased in favor of performance as measured by the CPIE process. Such a bias is intentional, and in fact, is the fundamental design objective of a performance based allocation system. It appears, however, that, ceteris paribus, the method chosen has an unintended bias against (relatively) lower-income and/or more populous countries, i.e. countries that would present relatively "high need" indicators.

4.4 A simulation exercise carried out for this evaluation reveals the problem. An increase in a country's CIPE score by one third (from 3 to 4, for example), would have different impacts depending on the initial characteristics of that country. Data from the five FSO countries, indicate that in 2002 a country with high need and low performance would have seen its overall score increase by approximately 5%, while a country with low need, but high CIPE score, would have its overall score increased by more than twice this percentage, by 12%, even though both countries experienced *the same (percentage) increase* in performance, as Tables 2.4 and 2.5 illustrate for 2002 and 2003 respectively.[25]

4.5 Most important, however, is the fact that if two countries with original equal performances but different need indicators[26] experience the same (percentage) increase in performance, the country with lower need will have a greater (percentage) increase in its overall score than the higher need one.[27] In some

[25] The simulation combines actual data (population, GNP per capita and CIPE scores) used by the Bank for the 5 countries to generate four general types of countries: low need-low performance, low need-high performance, high need-low performance, and high need-high-performance. In all cases the portfolio performance score is the average of the five, in order for the change in performance to reflect only the change in CIPE score.

[26] For example, a low need-high performance country vis-à-vis a high need-high performance one; or a low need-low performance country compared to a high need-low performance one.

[27] Or in other words, the methodology will "benefit more" a low need country than a high need one, even if they have exactly the same performance scores and experience exactly the same performance improvement.

cases, as is the one shown in the tables below, this bias against high need countries appears even when comparing a **low need-low performance** country with a **high need-high performance** one, i.e. even in this extreme case, the former type of country will experience a larger increase in score than the latter (northwest versus southeast cells in Tables 4.1, 10.3% compared to 6.9%, or Table 4.2, 11.6% relative to 8.5%). These results are demonstrated algebraically for the general case in Appendix III.

Table 4.1: % Change in Overall Score by a 33% Increase in CIPE Score - 2002

		Performance	
		Low	**High**
Need	**Low**	10.3	11.9
	High	5.1	6.9

Note: Uses combination of actual values of FSO countries to define each of the cells, with the exception of portfolio performance score that is maintained constant at the average level of the 5 countries.

Table 4.2: % Change in Overall Score by a 33% Increase in CIPE Score - 2003

		Performance	
		Low	**High**
Need	**Low**	11.6	12.9
	High	6.6	8.5

Note: Uses combination of actual values of FSO countries to define each of the cells, with the exception of portfolio performance score that is maintained constant at the average level of the 5 countries.

4.6 Thus although the formal rationale for resource allocation attempts to balance need and performance, the actual interaction among ratings causes a greater bias against the need criteria than the weights alone would suggest. This is particularly worrisome, since countries are being "penalized" for a endowment variable beyond their control, population, or by external shocks that negatively impact their per capita income.

B. Incentive Effects

4.7 Part of the reason for the results described above is that the CIPE methodology distributes resources on the basis of a country's current level of performance on the CIPE. High scoring countries get greater allocations. In theory, this is a possible incentive for countries to improve their relative CIPE rankings, but these incentive effects are confounded significantly by the CIPE method itself.

4.8 To improve its resource allocation, a country must improve its CIPE score relative to all other countries in the pool. If all are improving somewhat, and the CIPE score gap is wide, it may be impossible for a country to improve its relative position over time, thus attenuating incentive effects.

4.9 This result is produced by a method that uses levels of CIPE ratings rather than changes as the scoring criterion. A levels-based metric assumes that resources should flow to the better performers; a changes based approach assumes resources should flow to the better improvers. While both approaches can be defended, a levels-based approach is harder to reconcile with the essentially dynamic logic of development. Furthermore, as noted in the previous sub-section, a levels-based approach discriminates on the basis of circumstances and initial conditions that are beyond the control of a country (e.g. its population).

4.10 This can be seen clearly in the case of IDA. The quintile distributions of IDA resources discussed earlier (paragraph 3.11), show significantly less resource allocation to countries with low levels of basic institutional capacity. By effectively limiting access to concessional resources to such countries, the IDA allocation framework does little to move these countries out of their low standards and tends to reinforce cross-country disparities. For example, if countries with relatively stronger institutional and policy-making capacities (i.e. high CIPE or CPIA scores) are indeed the ones most likely to receive lending, it would not be surprising to see (over time) an overall decline in the proportion of projects at risk. The positive returns of development assistance become a self-fulfilling prophecy.

C. Transparency and Objectivity

4.11 In designing the new allocation framework, Management issued guidelines designed to ensure that: *"The internal procedures established are geared to obtain results that are transparent, [and] objective."*[28] Of the two new criteria, the portfolio performance indicator is clear and partly based on objective data (PAIS rankings). There is an element of subjectivity in the indicator, since declaring a project to be "problematic" relies on the judgment of field office staff regarding either implementation progress or probability of achieving development objectives. While containing an element of subjectivity, these ratings have been used for a number of years by the Bank, rely on more objective data and well-defined institutional guidelines, and therefore are generally well understood by the borrowing countries, and thus are reasonably transparent.

4.12 The same cannot be said for the indicators relating to the CIPE assessment. With few exceptions, the *rating dimensions* used in the CIPE do not define data based indicators and ranges, thus representing judgments made by the Regional Departments, DPP and RES. Recognizing this problem, the guidelines for the

[28] CC-5819 p. 2.

CIPE assessments provide a number of layers of review and discussion internally:[29]

i. *"The Regional Operational Departments provide the basic country information to the process for each of the CIPE variables. The evaluation of each of the CIPE variables will be explained and justified, representing a Departmental evaluation of each of the eligible countries. These evaluations,* ***which are confidential****, are then made available to the Research Department (RES) by the respective Manager of the Regional Operations Department. RES has the basic responsibility of the overall quality control of the scoring and assessing process, based on availability of comparative information from other sources and in consultation with SDS or other relevant Departments when required"* (p. 2, emphasis added).

ii. Score consistency within and across countries is to be achieved through *"a process of institutional review of all country ratings made by an interdepartmental Working Group, or CIPE Group, composed by staff directly involved in the evaluations from RES and the Regional Operations Department, and chaired by DPP. The CIPE Group oversees the process and meets regularly to follow up and discuss all aspects related to this exercise before submitting a final recommendation to Senior Management"* (p.3).

4.13 These measures recognize the inherent element of judgment contained in the process, and while the role of RES is critical to reducing individual reviewer variation and increasing consistency, they do not remove the fundamental subjectivity of the rating process. An example will help clarify this point.

4.14 Consider the variable "macroeconomic imbalances", which attempts to assess whether a country has a consistent macroeconomic program (in terms of monetary and fiscal policy). The score ratings for this variable are classified as follows: 2 "*Needs a consistent macroeconomic program, or have stopped one with no immediate prospect of resumption*"; 3 *"Sporadically or partially attempt to correct major imbalances"*; 4 *"Applies measures to address major imbalances, but program is not fully consistent*"; and 5 "*Is implementing a consistent macroeconomic program, and in the absence of shocks is expected to remove imbalances within the next 1-2 years*" (GN-1856-31, Annex II). What is meant by "consistency"? How many measures (and which ones) to correct imbalances are necessary to obtain a score of 4? A score of 3? And so on. These definitions are not made explicit by the methodology.

4.15 While this problem affects all dimensions of the rating process, it is particularly acute when assigning rating scores in the middle of the range. As noted earlier, there is a material difference in the distributional effect of a score of 3 versus a

[29] Ibid.

score of 4, but clear criteria to distinguish "3 worthy performance" from "4 worthy performance" do not exist.

4.16 These issues become much more problematic by the confidentiality of the rating process described in the guidelines (see paragraph 4.12 above), which: a) violates the stated goal of transparency; b) limits if not eliminates possible incentive effect of the performance framework; and c) prevents countries from knowing where improvements can be made and where they would be more effective. These factors can substantially reduce the potential effectiveness and value of the evaluation effort.

4.17 Although, the ratings guidelines used by IDA may also lead, in several instances, to subjective assessments and interpretations, in other cases quantitative and data-based indicators are used to help derive the scores, as with the variable policies and institutions for environmental sustainability, for example, where data from the World Development Indicators (e.g. deforestation, access to safe water and sanitation, protected areas, air pollution in major cities, etc.).

4.18 The discussions on the methodology proposals for the US Government's Millennium Challenge Account (MCA), for example, are relying much more heavily on data-based indicators that are readily available.[30] On governance, for instance, it proposes to use the set of indices developed and compiled by the World Bank Institute and Pablo-Zoido-Lobatón from Stanford University.[31] On human resources and social protection, the proposed indicators are public primary education spending as share of GDP, immunization rates of DPT and measles. The macroeconomic variables include, for instance, budget deficits and inflation. Even if the data and indicators are not perfect, the transparency of a data-based process ensures the independence of those involved in such an evaluation effort.

D. Developmental Relevance

4.19 When the Board directed Management to work on a new allocation framework, its key assumption was that the changes would allocate scarce concessional resources "in a fashion designed to maximize their development impact." To meet this goal, the new framework would need to be based on performance indicators that measured actual development impact. Instead, the variables chosen for the CIPE are measures of inputs, or efforts, rather than results, or performance.

---

[30] The Millennium Challenge Account (MCA) is the instrument recently created by the US Government to fund its aid initiatives. See, for instance, Steve Radelet – "Qualifying for the Millennium Challenge Account," Center for Global Development, December 2002. It must be noted that in the case of the MCA, the performance criteria would be used to define eligible countries and not the distribution of resources.

[31] See for instance, for the case of Latin America and the Caribbean, Dani Kaufmann and Aart Kraay – "Growth Without Governance," World Bank Institute, 2002. There are indices for 6 areas: a) voice and accountability; b) political stability/no violence; c) government effectiveness; d) regulatory quality; e) rule of law; and f) control of corruption. These indicators are accessible through the World Bank Institute website: www.worldbank.org/wbi/governance.

4.20 If policy instruments and institutions – for example monetary and fiscal policies, trade and commercial policies, institutions for environmental protection, activities in health prevention and social protection, etc. – are understood as inputs to generate (as outputs) lower inflation, lower budget deficits, more exports, less pollution, more people vaccinated, greater access to pre-natal care, etc., and finally outcomes (in terms of higher growth, better income distribution (lower inequality), lower poverty rates, lower morbidity and mortality rates, improved literacy rates, etc.) then performance should be measured by changes in the latter type of indicators, not the former, i.e. in terms of improvements in (development) effectiveness or outcomes.[32] This relates directly to the development effectiveness recommendations that emerged from OVE's work (see for instance RE-258-1).

4.21 Neither the IDB nor IDA undertake such an exercise, and instead focus on the presence or absence of policy and institutional variables *generally deemed to be correlated with good development performance.* In so doing, they abandon the measurement of real results in favor of measurement of compliance with current policy orthodoxy. This choice has the consequence of pushing FSO and IFF loans in the direction of becoming *de facto* policy-based loans (PBL).

4.22 This might be an acceptable methodological shortcut if the evidence of correlation between policy variables and real results were compelling, but this is unfortunately not the case.

4.23 Recent empirical research has called into question the link between policy and institutional variables and development performance. The generally disappointing results obtained from adopting the "Washington Consensus" policy model have been part of this literature, but an even more troubling critique comes from recent work at the World Bank, which concludes that if your goal is poverty reduction, it is more effective to allocate resources on the basis of poverty rather than on the basis of policy and institutional variables.[33] The evidence from Collier and Dollar's own work suggests that reallocating aid based on poverty criteria could explain almost 70% of the reduction in poverty incidence due to a better allocation of aid resources, while policy-based reallocation would explain approximately 20%. Furthermore, the policy threshold below which aid would be ineffective is actually quite low.[34]

---

[32] It must be recognized that this is not a trivial task, since indicators must be compatible with the time frame relevant for the resource allocation instrument.

[33] See P. Collier and D. Dollar – "Aid Allocation and Poverty Reduction," World Bank Policy Research Working Paper 2041, 1999; P. Collier and D. Dollar – "Can the World Cut Poverty in Half? How Policy Reform and Effective Aid Can Meet the International Development Goals," World Bank Policy Research Working Paper 2403, 2000.

[34] J. Beynon, "Policy Implications for Aid Allocations of Recent Research on Aid Effectiveness and Selectivity." Paper presented at the Joint Development Centre/DAC Experts Seminar on "Aid Effectiveness, Selectivity and Poor Performers," OECD, 2001.

4.24 In addition, assessment of performance needs to take external shocks into account. There are two reasons for this. First, research has established that there is a high payoff to aid aimed at compensating for external shocks. Second, there is evidence that external shocks make it harder for countries to maintain sound policies.[35] This is particularly important in the Latin American and Caribbean context where countries have been frequently subject to external shocks and to the fact that these shocks have major negative growth impacts.[36] Thus "*[i]f shocks have effects on growth, their omission from the analysis of aid effectiveness is potentially problematic. If macroeconomic policy deteriorates during shocks, potentially the result that aid is more effective the better is macroeconomic policy is spurious: policy might simply be proxying shocks. In this case the Collier-Dollar aid allocation formula would be misleading. Further, aid might be effective in ameliorating the effect of shocks. In this case the Collier-Dollar formula would be inadequate: a poverty-efficient aid allocation formula would need to take shocks into account*."[37] Despite the strong theoretical arguments for including shock variables in the allocation framework, neither the Bank nor IDA consider external shocks in their methodologies for concessional resource allocation.

[35] "*The implied pay-off to aid targeted to shock compensation is large relative to its normal growth-enhancing effects, and is also large relative to the improvements in aid effectiveness achievable from targeting onto better policy environments*." P. Collier and J. Dehn – "Aid, Shocks and Growth," World Bank, Development Research Group, 2001.

[36] See, for instance, P. Collier, J.W. Gunning and Associates (eds.) – *Trade Shocks in Developing Countries*, Oxford University Press, 1999.

[37] P. Collier and J. Dehn (op. cit.).

V. FINDINGS AND RECOMMENDATIONS

5.1 This initial evaluation has found the following aspects of the new performance based evaluation system which OVE believes should be brought to the attention of the Board:

a. The IDB performance allocation system assigns primary weight to performance variables, but at the same time assigns considerably more weight to need factors than does the comparable methodology used by IDA. However, there are unanticipated biases in the distributions produced by the interaction of the various allocative criteria. Most important, there appears to be a bias against countries with relatively high levels of need. Equal improvements in CIPE scores reward countries with different need scores differently.

b. IDB need indicators (population and per capita income [and debt burden in the case of IFF]) are data-based and reasonably objective indicators of the concept they propose to represent.[38]

c. IDB portfolio performance indicators have a significant subjective element, but subjectivity is complemented by certain data-based indicators (PAIS scores), and tempered by well-institutionalized procedures. Together these factors make the portfolio performance indicator a reasonably objective measure of the concept it purports to measure.

d. The rating process of CIPE indicators, on the other hand, is highly subjective and does not rely on objective data. Much the same can be said for the analogous policy and institutional indicators used by IDA, however IDA has been making an effort to increase the objectivity of their measures.

e. The CIPE rankings are arrived at by an internal process where individual subjectivity is checked by peer reviews, in which RES plays an important cross-check role, but this checking is not transparent to those outside of the review group. As a result, CIPE rankings exhibit high collective subjectivity even though individual subjectivity may be limited.

f. The lack of clarity in the CIPE ratings process may render difficult a clear understanding of the evaluation criteria to the countries whose allocations are affected by it. This would limit possible "incentive effects" which might arise from the use of performance-based allocative criteria.

g. The adoption of the new criteria has substantially reduced the variance in the (potential) allocation of resources in terms of a country's share, but increased (substantially in the case of FSO), the differences in per capita

[38] Their adequacy, however, is not being addressed here.

terms. It is not immediately clear why the new allocation formula produces this result, nor is there an apparent substantive rationale that would deem such an outcome desirable.

h. The criteria used to rate country performance are based on inputs (adoption of policies seen as desirable) rather than either outputs or developmental results.

5.2 On the basis of these findings, OVE would offer the following recommendations:

a. IDB performance-based criteria for allocating concessional resources should be regarded by both Management and the Board as a "work in progress" rather than a settled issue.

b. Steps should be taken to make performance indicators more data-based and objective. Management should analyze, at a minimum, the steps taken by IDA and those being proposed for the Millennium Challenge Account to develop such criteria and propose changes to the IDB allocative framework to move in this direction.

c. These steps should help Management and the Board to jointly move towards the goal of full transparency in all judgments relating to scores used to influence resource allocation. Countries must know, in precise detail, what behavior earns a high score and what a lower one. Furthermore, a more objective and data-based process would ensures the Bank's independence in such an evaluation effort.

d. Analytical work should be done on the interaction among allocative criteria to identify and eliminate any unforeseen and unintended bias among countries.

e. To enhance the incentive effects of the performance criteria, scores on performance variables should move in the direction of greater reliance on within-country changes over time, rather than cross-country level. A baseline could be established from which annual changes could be measured to define resource allocation.[39]

f. Since compensation for external shocks has been shown to have a high payoff in terms of development effectiveness, Management should consider incorporating this issue into the allocation framework.

g. It is important to establish a link between the resource allocation formula and the actual development results obtained from past Bank funding in eligible countries. The Bank is allocating resources among countries, and the allocated resources will be used to finance Bank projects. Results-

[39] Such a suggestion was presented to the CIPE Working Group and was not adopted due to the requirement that performance based allocations needed to be implemented immediately.

focused performance criteria, therefore, ought to include data on the results obtained from past Bank projects in eligible countries, not simply data on overall country performance. Data on the results achieved from Bank activities in each eligible country should be reported every two years as part of the country strategy update process. These data should be used to calculate the relative developmental productivity of Bank lending in each eligible country and use this assessment as one factor in the performance rating equation. Country Program Evaluations and ex post evaluations are important elements to assess these changes.

h. Finally, any resource-allocation framework is based upon some concept of distributive justice.[40] All allocation decisions are driven by a desire to produce an allocation of scarce resources seen as "fair" by all concerned. However, up to this point, the distributive justice concepts employed by the Bank have not been made explicit in any of the Bank's discussions and documents. In this regard, in its future methodological revisions, the Bank should incorporate an analysis of alternative models of distributive justice and their implications for resource allocation.

[40] For an excellent compilation of articles on distributive justice, see G. Brosio and H.M. Hochman (eds.) – *Economic Justice*, Elgar Reference Collection, Cheltenham, UK, 1999. See also J.E. Roemer – *Equality of Opportunity*, Harvard University Press, Cambridge, MA, 1998; H.G. Llavador and J.E. Roemer - "An Equal Opportunity Approach to the Allocation of International Aid," *Journal of Development Economics*, vol. 64, pp. 147-171, 2001; and B.R. Opeskin – "The Moral Foundations of Foreign Aid," *World Development*, 24(1), pp. 21-44, 1996.

GNP per capita Distribution Formula

The distribution formula adopted by the Bank for the GNP per capita variable generated, for each country *i*, a (distribution) coefficient $ß_i$ given by the average between its population share and the inverse of its GNP share among all five eligible countries, i.e.:[41]

$$b_i = \frac{p_i + s_i}{2} \quad \text{and} \quad \sum_{i=1}^{5} b_i = 1$$

Where p_i is country's *i* share of the population (*P*) of all eligible countries, i.e.:

$$p_i = \frac{P_i}{\sum_{i=1}^{5} P_i} \quad \text{and} \quad \sum_{i=1}^{5} p_i = 1$$

And s_i is the relation of the inverse of country's *i* per capita income y_i to the sum of the inverse of the per capita incomes of all eligible countries:

$$s_i = \frac{a_i}{\sum_{i=1}^{5} a_i}, \text{ with } a_i = \frac{1}{y_i} \quad \text{and} \quad \sum_{i=1}^{5} s_i = 1$$

Portfolio Performance Distribution Formula

If $?_i$ is country's *i* the ratio of the undisbursed amount of projects classified as "problem" or "on alert" over total amount undisbursed, then, the portfolio performance indicator *f* is:[42]

$$j_i = \frac{r_i}{\sum_{i=1}^{5} r_i}, \text{ where } r_i = \frac{1}{g_i},$$

[41] See GN-1856-18, Annex A.

[42] It must be noted that there is an editorial problem in the way in which the calculation of this variable is explained in GN-1856-31 (paragraph 3.6) and in FN-263-24 (paragraph 2.5): since it does not mention that the final indicator is calculated using the inverse of the proportion of undisbersements, the way the calculation is presented would imply rewarding countries with poorer portfolio performance.

Chart 1: Theoretical Allocation of FSO Resources 1994-2003

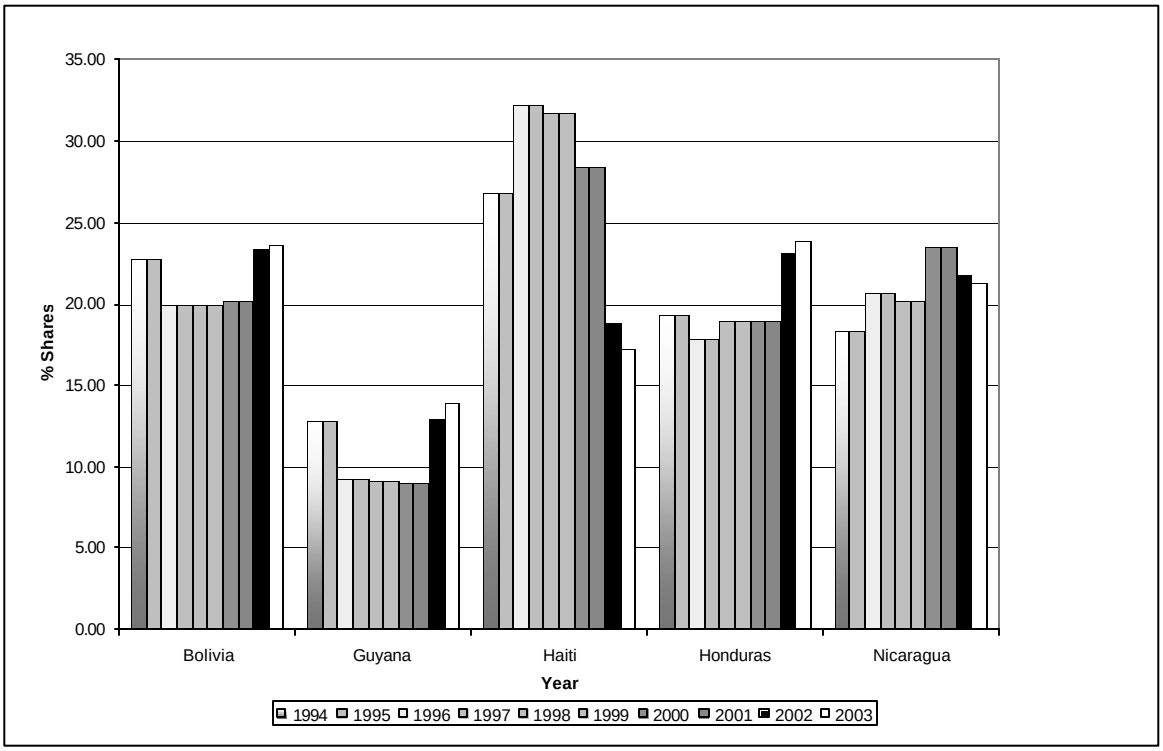


Chart 2: FSO Distribution in 2002-2003: Performance-Based x Needs-Based (Needs-Based Allocation As Basis)

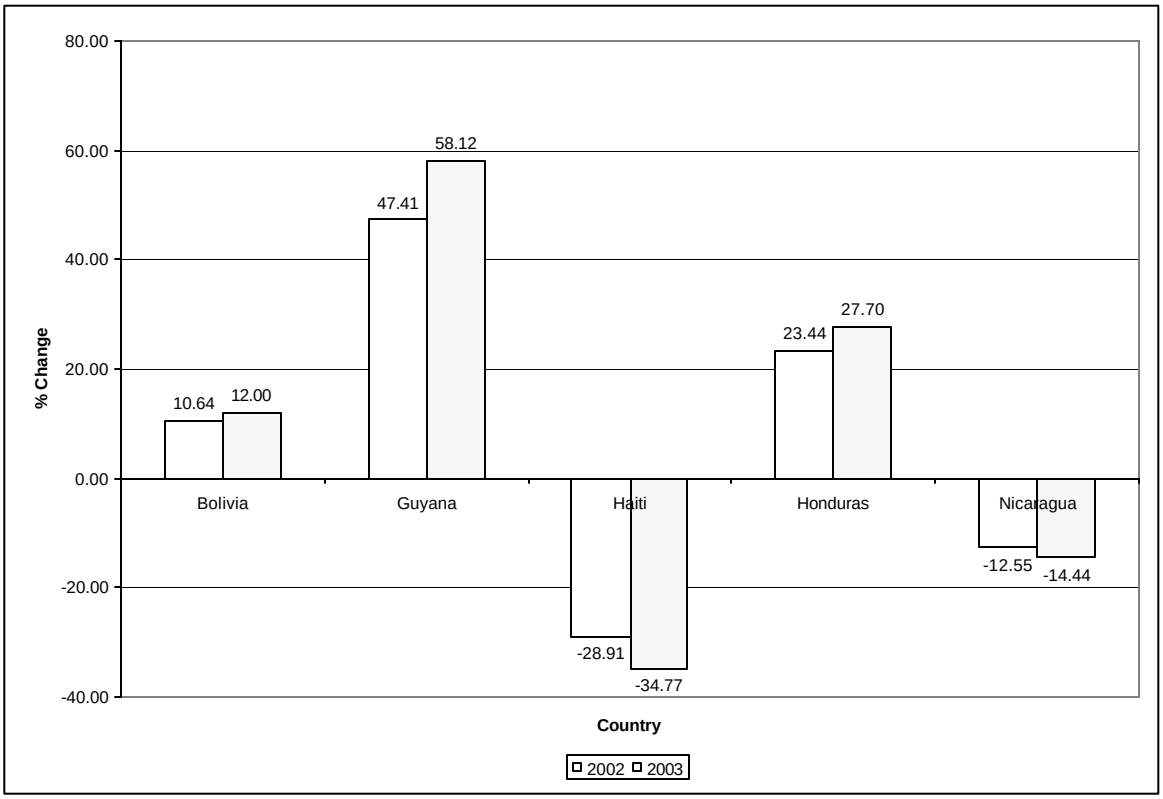


Chart 3: Ranking: Theoretical Allocation of FSO Resources 1994-2003

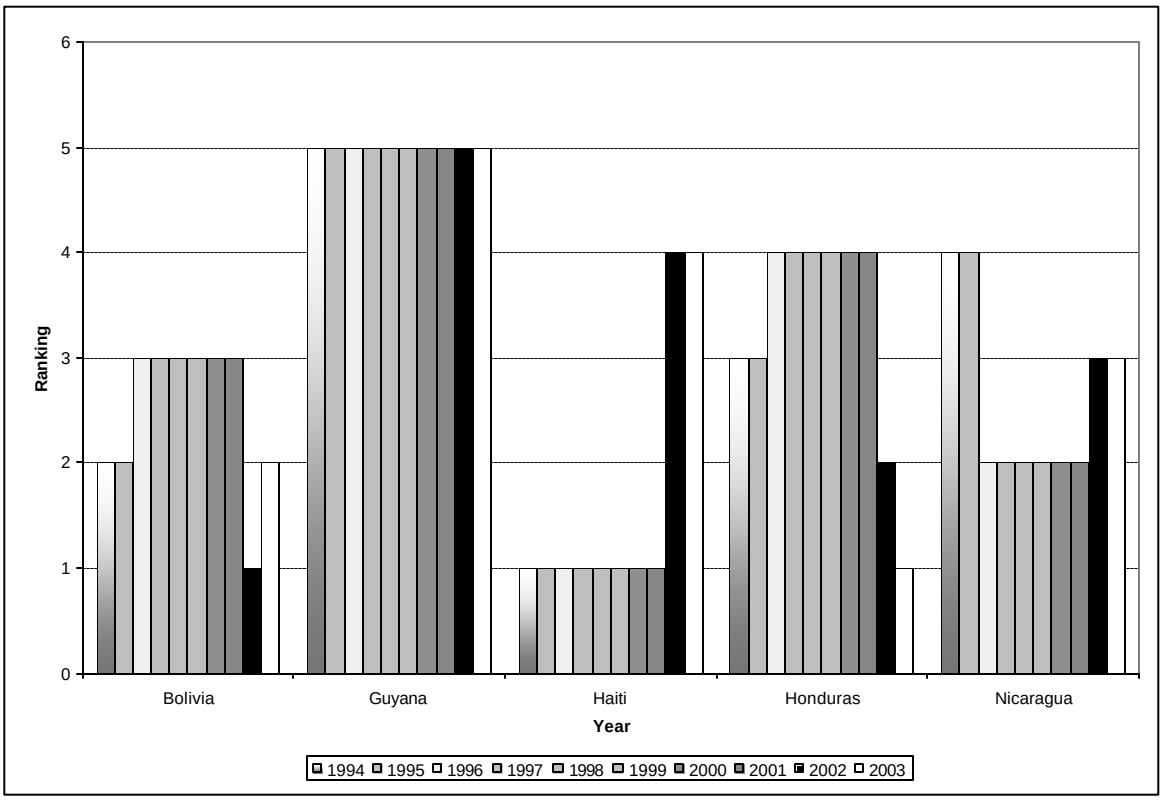


Table 1: Per Capita Allocation of FSO Resources (US$)
2001-2003, 2002-2003

Country	Actual Allocation			Needs-Based Allocation	
	Year			Year	
	2001	2002	2003	2002	2003
Bolivia	12.52	13.44	14.17	12.14	12.65
Guyana	52.62	81.73	91.33	55.45	57.76
Haiti	17.68	11.37	10.87	15.99	16.66
Honduras	15.29	17.27	18.61	13.99	14.57
Nicaragua	24.15	20.63	21.02	23.59	24.57
Ratio of Guyana's Allocation In Relation to The Other Countries					
Country	Actual Allocation			Needs-Based Allocation	
	Year			Year	
	2001	2002	2003	2002	2003
Bolivia	4.20	6.08	6.45	4.57	4.57
Guyana	1.00	1.00	1.00	1.00	1.00
Haiti	2.98	7.19	8.40	3.47	3.47
Honduras	3.44	4.73	4.91	3.96	3.96
Nicaragua	2.18	3.96	4.34	2.35	2.35

Table 2: Allocation of FSO Resources As % of Countries' GDP Per Capita 2001-2003

Country	Year		
	2001	2002	2003
Bolivia	1.25	1.36	1.43
Guyana	6.83	9.50	10.62
Haiti	4.31	2.23	2.13
Honduras	2.09	2.01	2.16
Nicaragua	6.19	5.16	5.26

Chart 4: Theoretical Allocation of FSO Resources 1994-2003

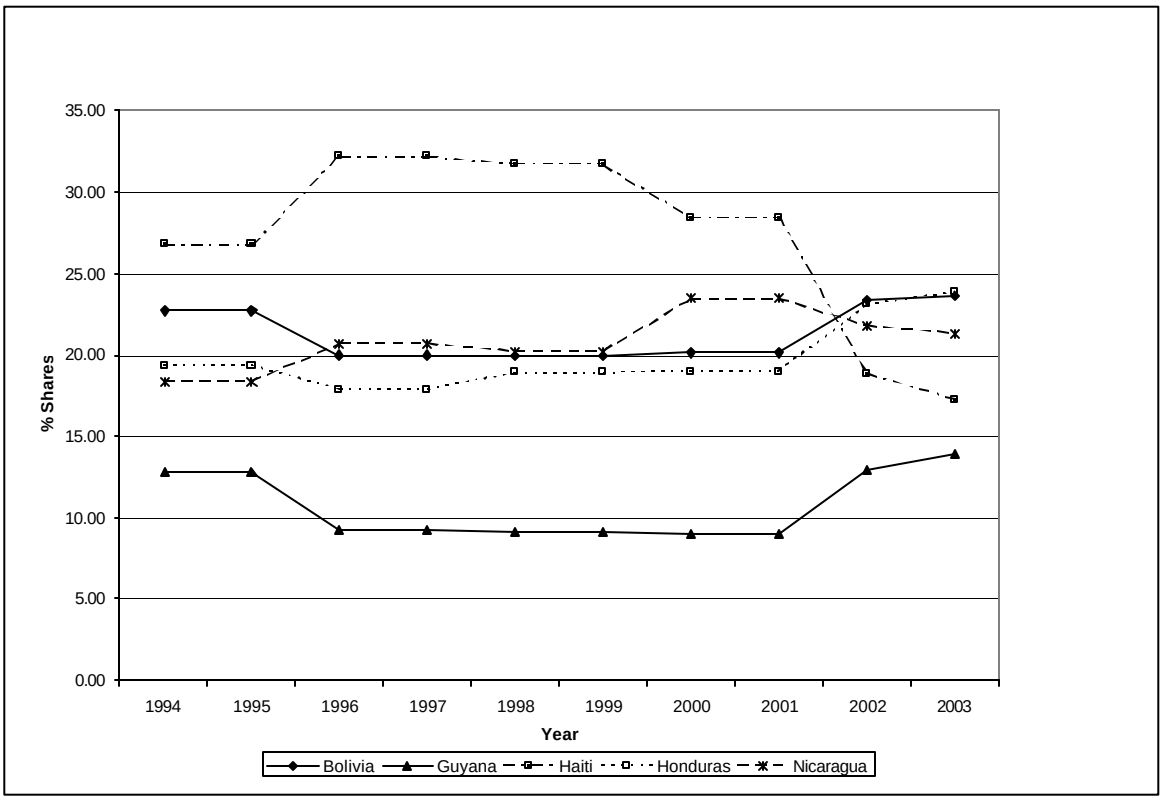


Chart 5: Theoretical Allocation of IFF Resources 1996-2003

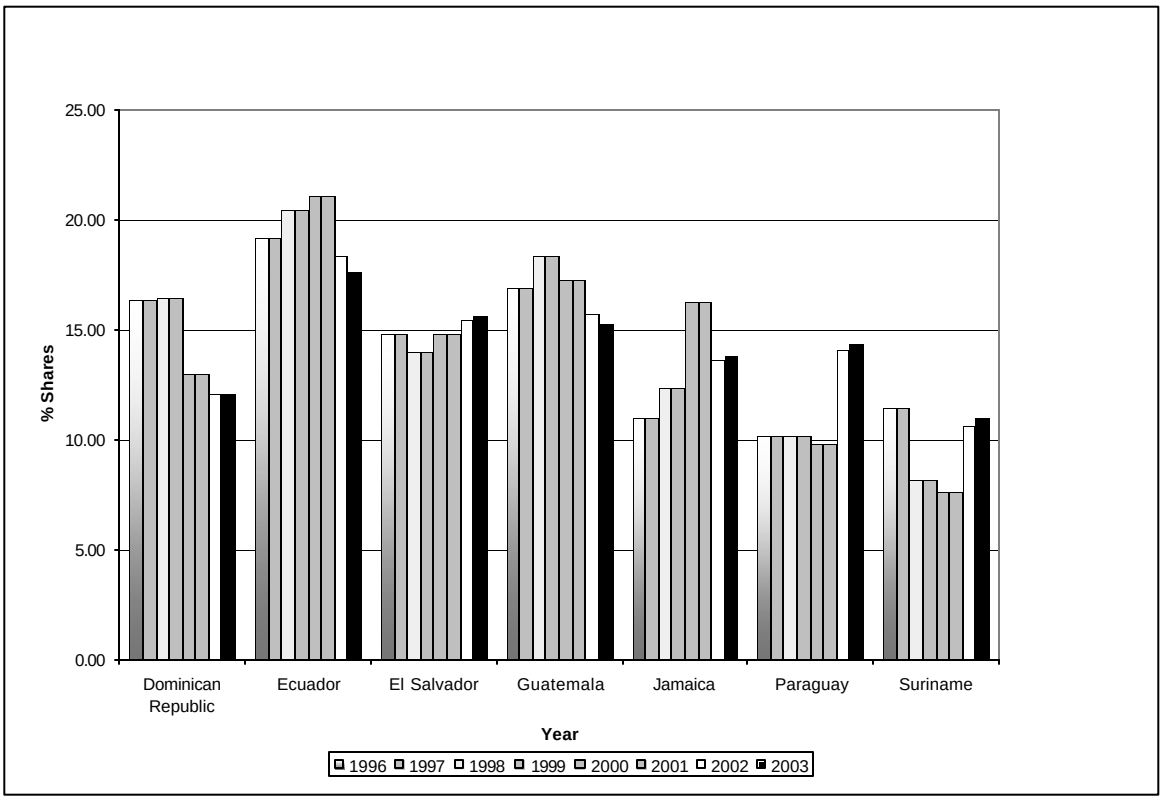


Chart 6: IFF Distribution in 2002-2003: Performance-Based x Needs-Based (Needs-Based Allocation As Basis)

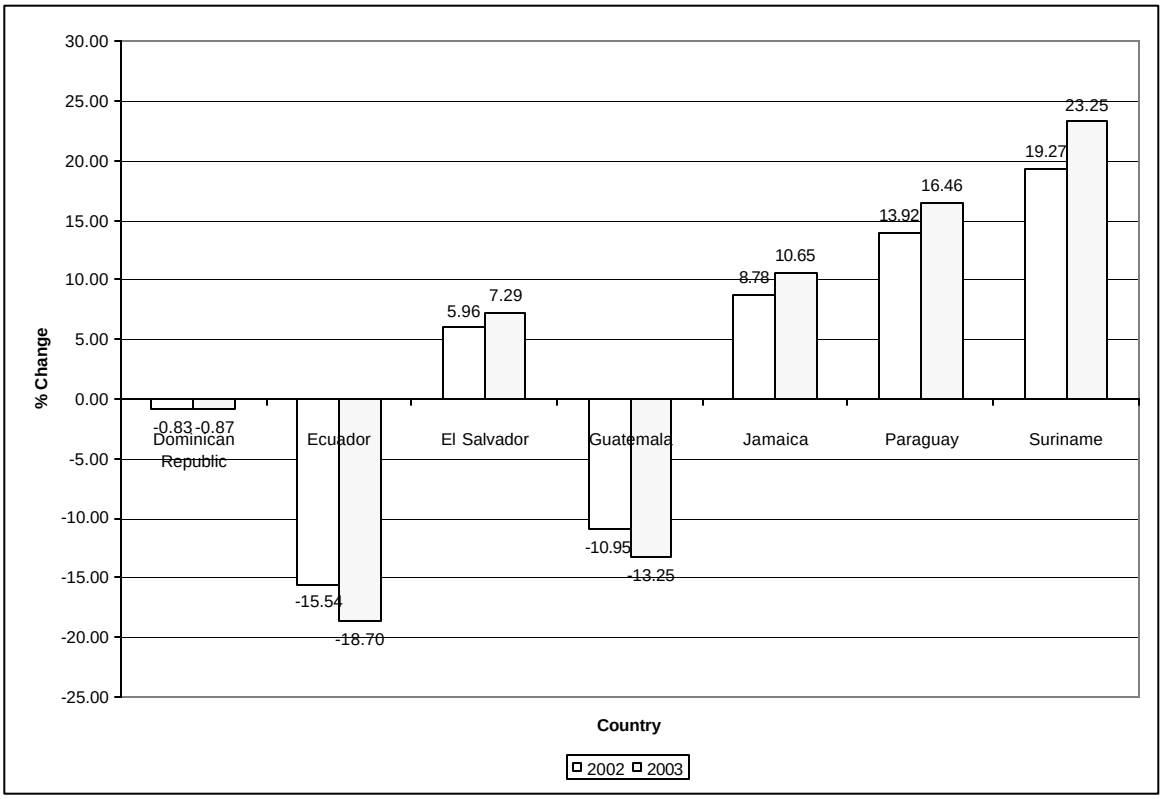


Chart 7: Ranking: Theoretical Allocation of IFF Resources 1996-2003

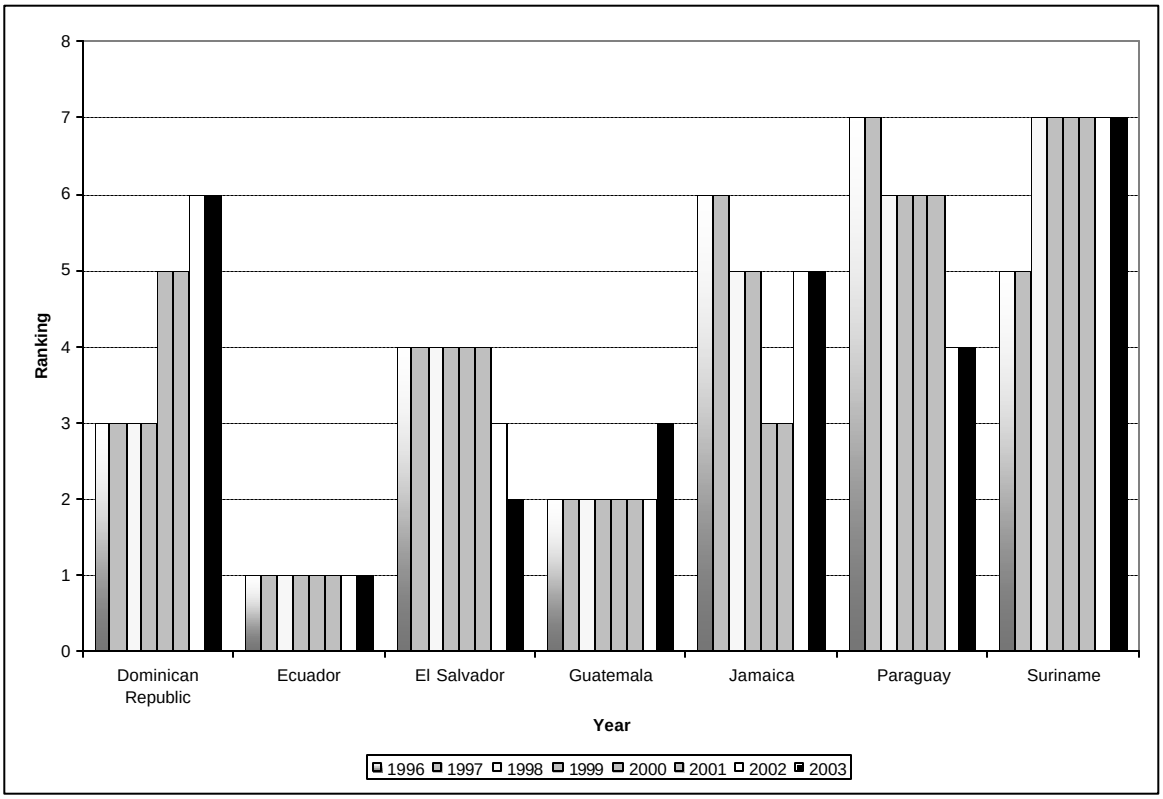


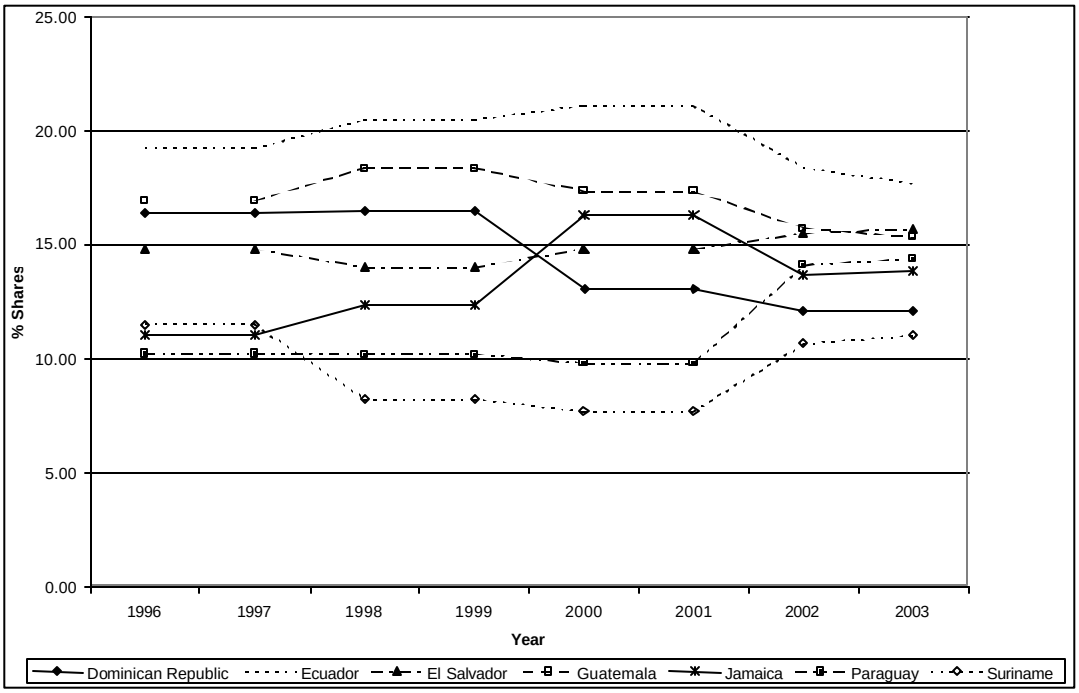
Table 3: Per Capita Allocation of IFF Resources (US$)
2001-2003, 2002-2003

Country	Actual Allocation			Needs-Based Allocation	
	Year			Year	
	2001	2002	2003	2002	2003
Dominican Republic	3.96	3.61	3.61	3.64	3.64
Ecuador	4.33	3.63	3.50	4.30	4.30
El Salvador	6.13	6.17	6.25	5.82	5.82
Guatemala	4.01	3.45	3.36	3.88	3.88
Jamaica	16.03	12.95	13.18	11.91	11.91
Paraguay	4.69	6.40	6.55	5.62	5.62
Suriname	46.40	63.79	65.95	53.48	53.50
Ratio of Suriname's Allocation In Relation to The Other Countries					
Country	Actual Allocation			Needs-Based Allocation	
	Year			Year	
	2001	2002	2003	2002	2003
Dominican Republic	11.72	17.69	18.28	14.71	14.71
Ecuador	10.72	17.57	18.87	12.45	12.45
El Salvador	7.56	10.34	10.56	9.19	9.19
Guatemala	11.57	18.48	19.60	13.80	13.80
Jamaica	2.89	4.93	5.00	4.49	4.49
Paraguay	9.89	9.96	10.07	9.51	9.51
Suriname	1.00	1.00	1.00	1.00	1.00

Table 4: Allocation of IFF Resources As % of Countries' GDP Per Capita 2001-2003

Country	Year		
	2001	2002	2003
Dominican Republic	0.35	0.17	0.17
Ecuador	0.32	0.26	0.25
El Salvador	0.47	0.37	0.37
Guatemala	0.39	0.24	0.23
Jamaica	0.97	0.68	0.70
Paraguay	0.32	0.38	0.39
Suriname	6.03	6.50	6.72

Chart 8: Theoretical Allocation of IFF Resources 1996-2003



Algebraic Demonstration of The Relative Impact of Performance Increase

The simulations presented in Chapter IV of the text indicate that the Bank's performance criteria for resource allocation may discriminate against high need countries. The exercise below demonstrates, for the generic case, why that would be the case.

For simplicity, let us assume that there are two general indicators for classifying countries: need (N) and performance (P). Accordingly, there are 4 possible general combinations in which countries can be divided: a) low need-low performance; b) low need-high performance; c) high need-low performance; and d) high need-high performance, as shown in the matrix below:

		Performance	
		Low	**High**
Need	**Low**	A	B
	High	C	D

The Bank's methodology assigns weights (a and $ß$, respectively) to these indicators that define the final (total) scoring (s) and the relative distribution of resources. Thus:
$aN + ßP = s$

A. Comparison of Cells A x C, or B x D

The two equations below show the scoring expressions of high need (N_H) and low need (N_L) countries with equal performance ratings (P), i.e. countries that would fit in cells A and C, or B and D, in the matrix:

$aN_L + ßP = s_L$ and $aN_H + ßP = s_H$ with $N_L < N_H$

Assume that both countries obtain the same increase in performance ($?P$), leading to new overall scoring levels, s_L' and s_H':

$aN_L + ß[P(1+?P)] = s_L'$ and $aN_H + ß[P(1+?P)] = s_H'$

The percentage changes in their scorings are given by:

$$\frac{s_L' - s_L}{s_L} = \frac{bP\Delta P}{s_L} = r_L$$ for the low-need country, and

$$\frac{s_H' - s_H}{s_H} = \frac{bP\Delta P}{s_H} = r_H$$ for the high-need country

Since by definition $s_H > s_L$ it is clear from above that $?_L > ?_H$, which is the result obtained by the simulation (q.e.d.).

Thus indeed the methodology discriminates against high-need countries in the sense that an increase in performance in this type of country will generate a smaller (percentage) increase in its overall score than an equal improvement in a low-need one with an identical "original" performance rating.

B. Comparison of Cells A x D

It is also interesting to note that under some conditions, as was the case presented in the simulation, even a low-need/low-performance country (cell A) would experience a greater increase in its overall score than a high-need/high-performance one (cell D).

Following the same notation, the scores of the low-need/low-performance and high-need/high-performance countries are, respectively, described by the two expressions below:

$aN_L + ßP_L = s_L$ and $aN_H + ßP_H = s_H$ with $N_L<N_H$ and $P_L<P_H$

As before, assume that both countries obtain the same increase in performance ($?P$), leading to new overall scoring levels, s_L' and s_H':

$aN_L + ß[P_L(1+?P)] = s_L'$ and $aN_H + ß[P_H(1+?P)] = s_H'$

The percentage changes in their scorings are given by:

$$\frac{s_L' - s_L}{s_L} = \frac{bP_L \Delta P}{s_L} = r_L$$ for the low-need/low-performance country, and

$$\frac{s_H' - s_H}{s_H} = \frac{bP_H \Delta P}{s_H} = r_H$$ for the high-need/high-performance country.

For $?_L > ?_H$, it would be required that:

$$\frac{bP_L \Delta P}{s_L} > \frac{bP_H \Delta P}{s_H} \Rightarrow \frac{s_L}{s_H} < \frac{bP_L \Delta P}{bP_H \Delta P} \Rightarrow \frac{s_L}{s_H} < \frac{P_L}{P_H} \Rightarrow aN_L P_H + bP_L P_H < aN_H P_L + bP_H P_L$$

Which reduces to:

$$\frac{N_H}{N_L} > \frac{P_H}{P_L}$$

Thus, for a given ratio of performances, the higher the difference in needs between the countries, the more likely it is that the high-need country will experience a smaller increase in performance (for an identical improvement in performance). Or in other words, if the difference in performances is not very large while the difference in needs is; it is (more) likely that the (percentage) increase in score of the high-need country will be smaller than the low-need one.

These statements can also be formally seen from the fact that:

$$\frac{\partial(r_L - r_H)}{\partial N_H} = \frac{a\,b\Delta P}{(s_H)^2},$$ which is greater than zero.

C. Comparison of Cells B x C

The cases of cells B and C, i.e. low-need/high-performance and high-need/low-performance are more intuitive given the methodology's greater weight on performance than on need, i.e. given the weights given by the methodology, we would expect to see a relatively large (percentage) increase in the score of a country in cell B than on cell C (considering an identical increase in performance). Formally, the low-need/high-performance and high-need/low-performance countries are, respectively, described by the expressions:

$aN_L + ßP_H = s_{LH}$ and $aN_H + ßP_L = s_{HL}$ with $N_L<N_H$ and $P_L<P_H$

If both countries obtain the same increase in performance (*?P*), leading to new overall scoring levels, s_{LH}' and s_{HL}':

$aN_L + ß[P_H(1+?P)] = s_{LH}'$ and $aN_H + ß[P_L(1+?P)] = s_{HL}'$

The percentage changes in their scorings are given by:

$$\frac{s'_{LH} - s_{LH}}{s_{LH}} = \frac{bP_H\Delta P}{s_{LH}} = r_{LH}$$ for the low-need/high-performance country, and

$$\frac{s'_{HL} - s_{HL}}{s_{HL}} = \frac{bP_L\Delta P}{s_{HL}} = r_{HL}$$ for the high-need/low-performance country.

For $?_{LH} > ?_{HL}$, it would be required that:

$$\frac{bP_H\Delta P}{s_{LH}} > \frac{bP_L\Delta P}{s_{HL}} \Rightarrow \frac{s_{LH}}{s_{HL}} < \frac{P_H}{P_L} \Rightarrow aN_LP_L + bP_HP_L < aN_HP_H + bP_LP_H$$

Which simplifies to:

$N_LP_L < N_HP_H$ which is true by definition (q.e.d.).

D. Comparison of Cells A x B, or C x D

The case of cells A and B (or C and D) is also intuitive since the comparison here is between a low-need/low-performance country with a low-need/high-performance one (or high-need/low-performance and high-need/high-performance), which by the definition of the weights would imply a larger (percentage) increase in score in the case of the low-need/high-performance (or high-need/high performance). It must also be noted, however, that these cases are not related the anti-high-need bias discussed in the text and are only presented here for sake of completeness.

The low-need/low-performance and low-need/high-performance countries are, respectively, described by the expressions (the case of cells C and D (high-need/low performance x high-need/high performance) is identical):

$aN_L + ßP_L = s_{LL}$ and $aN_L + ßP_H = s_{LH}$ with $P_L<P_H$

As in every case, assuming that both countries obtain the same increase in performance (*?P*), leading to new overall scoring levels, s_L' and s_H':

$aN_L + ß[P_L(1+?P)] = s_{LL}'$ and $aN_L + ß[P_H(1+?P)] = s_{LH}'$

The percentage changes in their scorings are given by:

$$\frac{s_{LL}' - s_{LL}}{s_{LL}} = \frac{bP_L \Delta P}{s_{LL}} = r_{LL}$$ for the low-need/low-performance country, and

$$\frac{s_{LH}' - s_{LH}}{s_{LH}} = \frac{bP_H \Delta P}{s_{LH}} = r_{LH}$$ for the low-need/high-performance country.

In this case it is expected that $?_{LH} > ?_{LL}$, or:

$$\frac{bP_H \Delta P}{s_{LH}} > \frac{bP_L \Delta P}{s_{LL}} \Rightarrow \frac{s_{LH}}{s_{LL}} < \frac{P_H}{P_L} \Rightarrow aN_L P_L + bP_H P_L < aN_L P_H + bP_L P_H$$

Which simplifies to:

$N_L P_L < N_L P_H$ which is true by definition (q.e.d.).