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Guatemala: Human development progress towards the MDGs at the Sub-National Level

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Introduction

A general analysis of Guatemala's performance regarding the MDGs generates surprising results, in the sense that general improvements appear greater than expected, and provide hope that most goals may in fact be reached. The consideration of different alternatives or scenarios may lead to question this view. First, actual achievements appear limited when determining the gaps that still separate Guatemala from other, more developed, countries. Second, it is possible to argue that Guatemala's performance could have been better if adequate policies had been implemented, especially after the establishment of a democratic regime in 1986.

Another approach is to analyze the performance of different social groups and regions to determine to what extent the situation of privileged or under privileged groups or regions differs significantly from the national average. This paper follows this approach, based on a desegregated analysis of the Millennium Development Goals and targets for specific groups and regions. The analysis is based mostly on two household surveys (ENS 1989 and ENCOVI 2000) which had similar sample sizes and a considerable amount of common questions.¹ Although they are not totally comparable, their use for previous exercises² suggests that the risks of using them for the type of analysis undertaken here are relatively minor.

The paper is divided in three parts. There is a first very brief part on Guatemala's average progress in meeting the MDGs, based on the report prepared by the UN System in Guatemala. A second part analyzes progress taking into account different social groups (classified by gender, area or ethnic characteristics) and different regions. A final part explores the reasons behind inequality and asymmetries, focusing on land tenure, economic growth, employment, public policies and participation.

1. Guatemala's overall progress in meeting the MDGs

¹ The sample size is similar (9,270 households in 1989 and 7,276 in 2000), as well as the proportions corresponding to urban (41 and 47%) and rural (59 and 53%) populations. Similar questions were included regarding employment and most household characteristics, with some exceptions like the classification of economic activities and enrolment in schools.

² Both were used intensively in Guatemala's NHDRs of 2001 and 2002.

Guatemala had a generally positive evolution of development indicators during the nineties. Its human development, measured by the HDI, improved significantly during this period, increasing from 0.538 in 1989 to 0.634 in 2000.³ GDP per capita (PPP constant) experienced the greatest relative increase, followed closely by life expectancy improvements (see graph 1). Progress in the combined school enrolment ratio and literacy were lower. In other words, economic progress was slightly greater than social progress. Thus, the gap between social and economic development that has characterized Guatemala's history continued to exist. Furthermore, although social development contributed to reduce gaps between more and less privileged groups and areas, this did not necessarily occur in the case of economic growth, which in some cases exacerbated already existing gaps.

The gender-related development index also improved, from 0.502 in 1989 to 0.609 in 2000, with a more favorable position (100) than its HDI rank (120) in the latter year, but still close to the lower end of the countries with a medium level of human development.⁴ The gender empowerment measure increased from 0.389 to 0.460, a value that also corresponds to the same group of countries.

Regarding the MDGs Guatemala's performance was quite positive during the 1990s.⁵ Extreme poverty fell and if the same trend were to continue the MDG target for the year 2015 could be reached. The same reasoning may apply to the case of malnutrition from 1987 to 1998, though a serious drought and the impact of falling coffee prices increased unemployment and gave rise to severe cases of hunger and death by lack of food in certain regions in the year 2001. This clearly illustrates the limitations of projecting forward past trends. Primary education enrolment also increased during the nineties, and if the trend were to continue, Guatemala could meet this target. This also applies to infant and child mortality and to access to safe water. Literacy improved but the target could not be achieved even if the same trend were to be maintained, a situation shared by the ratio of girls to boys in primary and secondary education and in literacy, and the maternal mortality ratio which, in any case, is subject to serious measurement problems in Guatemala. Finally, reducing the prevalence of HIV/AIDS is probably one of the most difficult targets to be achieved, given the growing trend registered in recent years.

2. Progress in specific areas and social groups in Guatemala

a) Moderate economic progress and reduced social gaps

As can be seen in table 1, the regions with the highest HDIs (and lowest poverty rates) in the year 2000 were the Metropolitan area (which includes Guatemala City, with 12.3% of its population indigenous) and the Central region (which includes the departments of Sacatepéquez, Chimaltenango and Escuintla, with an average 13.3% of its population indigenous). Both regions were the most urban-oriented regions in

³ These indices are comparable, based mostly on household surveys (1989 and 2000) with comparable questions and samples. The GDP values were calculated on the basis of figures partly provided by the World Bank and discussed with staff members of this organization.

⁴ Ranks correspond to statistical annex of the (international) Human Development Report (2002), whereas actual figures were calculated on the basis of national primary sources. Figures do not diverge significantly, in any case.

⁵ What follows is a very tight summary of the main findings in Sistema de Naciones Unidas, **Metas del Milenio. Informe del Avance de Guatemala**. Serviprensa, Guatemala, 2002.

Guatemala in the year 2000. Regions with the lowest HDIs (and highest poverty rates) were the North region (which includes Alta and Baja Verapaz, with 82.5% of its population indigenous) and the North West region (which includes Huehuetenango and Quiché –the department most affected by the internal armed conflict⁶ in Guatemala– with 71.2% of its population indigenous). These were also largely rural regions in the year 2000.

Gaps between the social groups or areas with greatest and lowest levels of human development fell during the decade, particularly between urban and rural areas and between indigenous and non-indigenous groups (table 1). The most significant improvement took place among indigenous groups. Furthermore, those living in rural areas and indigenous groups evolved from being in a situation of low human development (with a HDI below 0.5) to one of medium human development, closer to Guatemala's average.

Table 1

HDI, Gender-related Development Index and Gender Empowerment Index, classified by groups and regions
1989 y 2000

	Human Development Index		Gender-related Development Index		Gender Empowerment Index	
	1989	2000	1989	2000	1989	2000
Nation	0.538	0.634	0.502	0.609	0.389	0.460
Urban	0.632	0.717	0.616	0.705	n. d.	n. d.
Rural	0.474	0.563	0.400	0.512	n. d.	n. d.
Indigenous	0.429	0.544	0.328	0.501	n. d.	n. d.
Non-indigenous	0.593	0.684	0.569	0.665	n. d.	n. d.
Metropolitan	0.643	0.732	0.627	0.719	0.327	0.604
North	0.427	0.529	0.350	0.476	0.310	0.579
North East	0.537	0.624	0.497	0.592	0.330	0.346
South East	0.534	0.607	0.471	0.561	0.294	0.335
Central	0.547	0.647	0.501	0.628	0.471	0.575
South West	0.506	0.608	0.465	0.581	0.312	0.340
North West	0.432	0.535	0.340	0.482	0.162	0.277
Petén	0.552	0.610	0.527	0.554	0.336	0.297

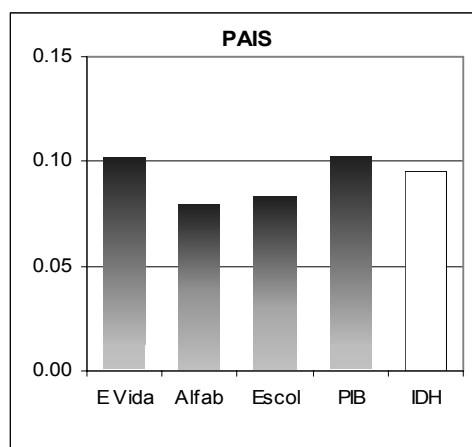
⁶ According to Guatemala's Truth Comisión, the department of Quiché concentrated more than half of all registered cases of displaced persons, destroyed homes, lost animals, expropriated and scorched land. It was followed by Huehuetenango, with 11% of displaced persons and lower percentages of the other indicators of the effects of Guatemala's war. See Comisión de Esclarecimiento Histórico, **Guatemala. La memoria del silencio. Tomo IV, Consecuencias y efectos de la violencia**. Litoprensa, Guatemala, 1999; page 217, table 9. The Commission estimated that the quantifiable effects of the war were equivalent to approximately 120% of Guatemala's GDP in 1990 (CEH, op.cit, page 226, table 16).

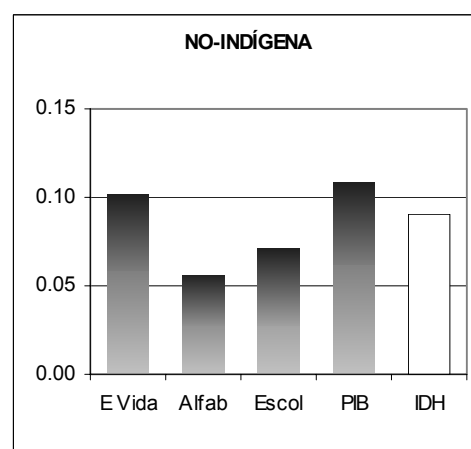
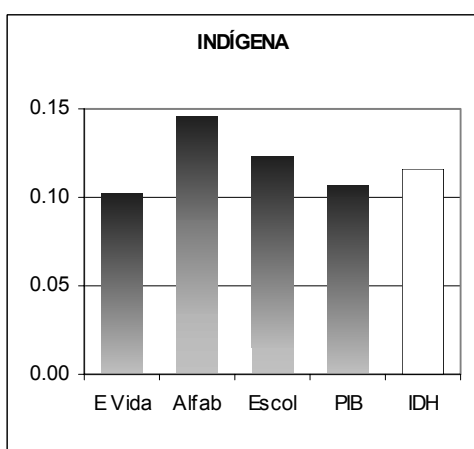
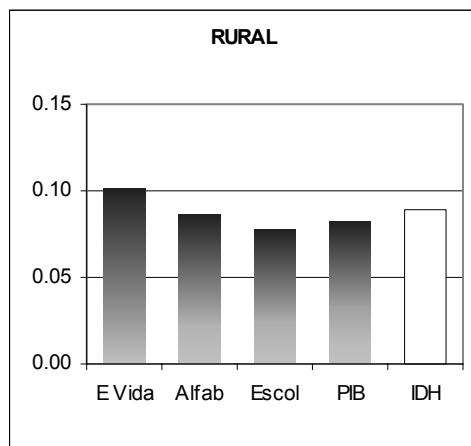
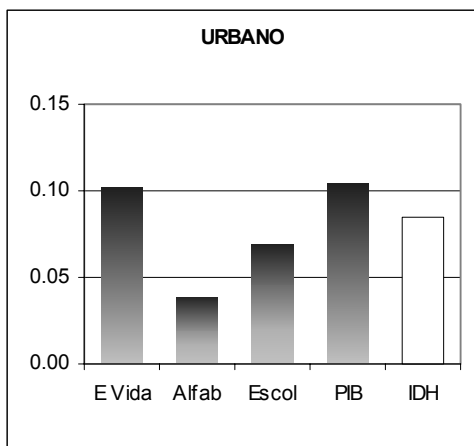
Sources: Own estimates based on the Encuesta Nacional Sociodemográfica 1989, Encuesta Nacional de Condiciones de Vida 2000, Celade, Banguat, World Bank, Tribunal Supremo Electoral and UNDP.

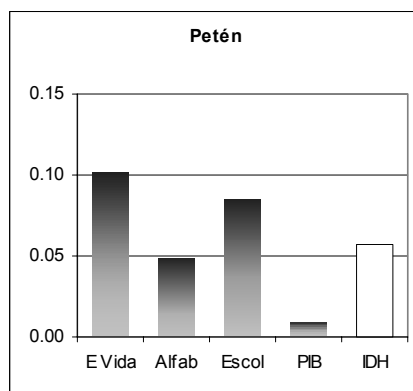
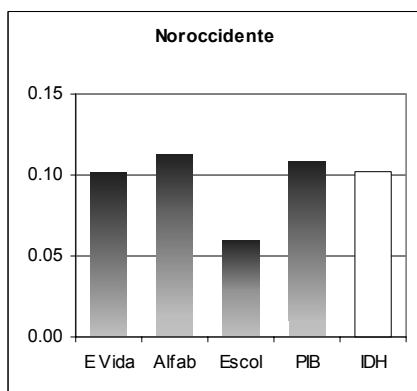
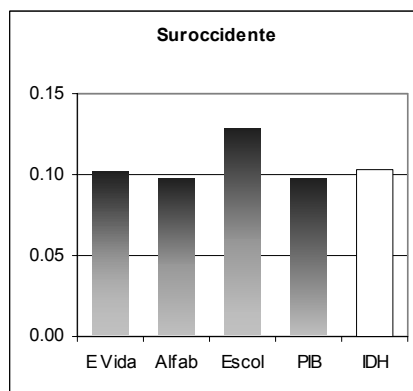
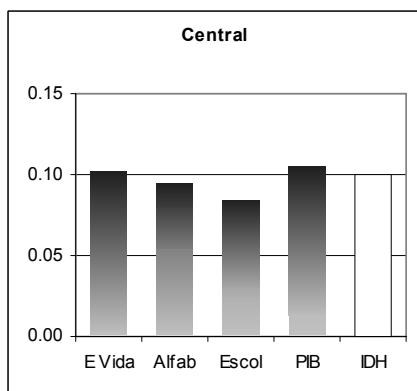
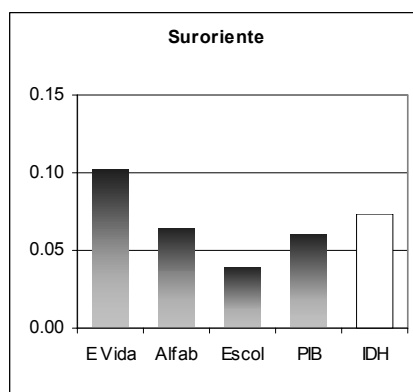
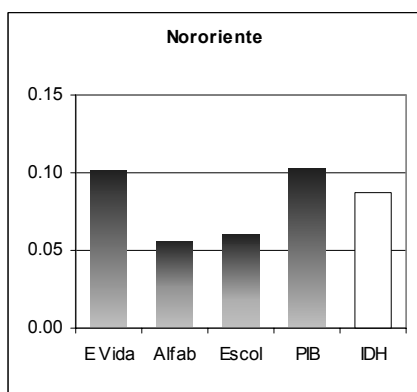
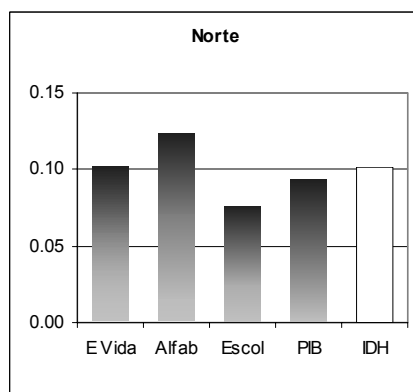
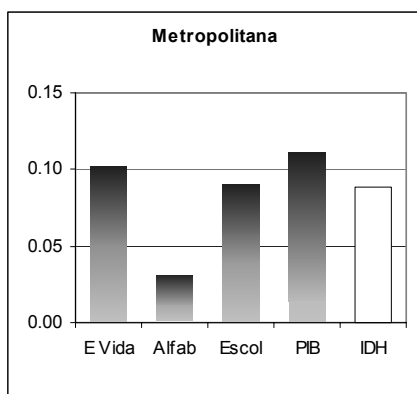
Available evidence suggests that improvements in life expectancy were very similar among groups, but significant differences exist regarding progress in income per capita or education. The following graphs (graph 1) illustrate the changes in the HDI together with the changes of each one of its components, first by distinguishing between urban and rural areas and indigenous and non-indigenous groups, and later by distinguishing among Guatemala's eight different regions.

In general, it is possible to find a pattern where the improvement of the human development situation of those with lowest incomes was due mostly (in relative terms) to improvements in education whereas in higher income groups the contribution to the improvement of human development conditions resulted mostly from growth in income. Thus, the most important contributor to the reduction of social gaps was the improvement of literacy and enrolment among indigenous households, whose education improved to a greater (relative) extent than their income. Educational improvements were also important in rural households in general, though they were not as important as income gains. On the other hand, in urban households and in the metropolitan area human development improvements were explained mostly by gains in income.

Graph 1







Regarding different regions, a few facts stand out. First, the HDI improved in all regions, though to a greater extent in regions (North, South Western and North Western) where indigenous and rural populations tend to predominate. Second, life expectancy increased in all regions by a similar proportion. It does not provide, in fact, an adequate idea of how health conditions have evolved in Guatemala, either in terms of social groups or of geographical areas. Third, all components of the HDI improved in all regions, though the main factors accounting for differences are progress in education followed by increased income.

The evolution of the gender-related development index points in the same direction. There were overall improvements but these were greater among indigenous groups and among people living in rural areas. The gender empowerment measure, on the other hand, did vary significantly from region to region, and even fell in one region (Petén), pointing to a (political) trend that would not appear to be as strong as in the case of the more “structural” progress of the HDI and the GDI. Overall, however, the evidence from Guatemala’s experience is that human development gaps between groups or regions actually fell during the 1990s. Both ethnic and gender variables are crucial to understand how this occurred.

b) Poverty and extreme poverty

Trends regarding the proportion of poor households of different groups followed a similar pattern to those of human development, although not as strongly, given the fact that poverty measures are a result of income differentials (together with their distribution), thereby capturing the effect of only one of the human development dimensions. Since income differentials did not vary as much as literacy and enrolment, poverty differentials were not as large.

In any case, the greatest reduction (in percentage points) of extreme poverty took place among indigenous households (from 32.3% to 26.4%) and among households headed by women (18.1% to 9.8%), confirming the importance of ethnic and gender variables as important categories required to understand what happened during the decade (table 2). In fact, there was a significant increase in the employment of indigenous women during the decade, as will be seen below. However, greater earnings resulting from growing employment of indigenous women were not sufficient to reduce the proportion of households headed by women in a situation of *non-extreme* poverty to the same extent (this proportion fell to the same extent as in the case of other groups), resulting from informal, low productivity employment. Non-extreme poverty of indigenous groups, on the other hand, did fall to a greater extent than among other groups.

Table 2

Poverty rates for different groups and regions1989 y 2000
(percentages)

	Population with less than 1 U\$PPP		Extreme poverty		General poverty	
	1989	2000	1989	2000	1989	2000
Total	20.5	15.6	18.1	15.7	62.8	56.1
Urban	9.3	5.4	4.3	2.8	27.6	27.1
Rural	26.4	21.9	25.3	23.8	81.3	74.5
Indigenous	31.0	23.6	32.3	26.4	88.0	76.0
Non indigenous	14.0	9.5	9.2	7.7	47.2	41.4
Male household	20.1	16.1	18.2	16.7	64.3	57.7
Female household	22.2	12.4	17.0	9.8	52.8	47.4
Metropolitan	6.3	2.8	2.5	0.6	20.5	18.0
North	31.3	26.3	33.6	39.1	86.8	84.0
North East	20.6	9.4	14.8	8.9	62.5	51.8
South East	21.6	19.6	12.6	20.1	63.7	68.6
Central	20.9	10.0	12.0	8.7	63.3	51.7
South West	19.9	19.2	21.9	17.0	74.4	64.0
North West	36.1	26.9	36.6	31.5	88.9	82.1
Petén	20.6	20.5	17.9	12.9	69.0	68.0

Fuente: Own calculations on the basis of ENS 89 and Encovi 2000.

There is a close association between regions in which poverty fell to a greatest degree (Central, North Eastern and North Western) and those in which income per capita had increased most, though the correlation is not perfect, pointing to changes in income distribution as an additional explanatory variable of changes in poverty. The third part of this paper develops this theme further.

c) Malnutrition

Malnutrition in Guatemala is among the highest in Latin America.⁷ Measured by height-for-age (values ≤ -2 Standard Deviations) it fell, overall, during the nineties. However, progress was uneven, and malnutrition even increased in some regions. There is no clearcut correlation between the reduction of extreme poverty (measured by means of a national basket including basic foodstuffs) and the reduction of malnutrition (table 3). However, there is a close link between malnutrition, growth of consumption (a proxy

⁷ R. van Haften. **An Assessment of the Food Security Situation in Guatemala**. Prepared for USAID/Guatemala, USAID/LAC/RSD/BBEG, Guatemala, 2000.

for income) and its distribution. Specifically, those regions where malnutrition fell the most were those in which both growth and the reduction of inequality took place (Central region and Metropolitan area, as analyzed in part 3), whereas those regions in which malnutrition increased (North, North West and North East) tend to coincide with regions in which concentration increased (North and North West). The latter are also the regions with the highest levels of poverty. This suggests that progress in education and health have not been sufficient to contribute to overcome one of the most dramatic manifestations of underdevelopment.

Table 3
Malnutrition and extreme poverty
(percentage points)

	Malnutrition 1987	Malnutrition 1998/9	Change in malnutrition 1987-1999	Change in extreme poverty 1989-2000
Total	58.0	46.0	-12.0	-2.4
Urban	47.0	32.0	-15.0	-1.5
Rural	62.0	54.0	-8.0	-1.5
Regions				
Metropolitan	45.0	29.0	-16.0	-1.8
North	50.0	57.0	7.0	5.4
North East	43.0	49.0	6.0	-5.9
South East	54.0	46.0	-8.0	7.5
Central	68.0	46.0	-22.0	-3.2
South West	63.0	55.0	-8.0	-5.0
North West	68.0	69.0	1.0	-5.1
Petén	nd	nd	nd	-5.0

Source: ENSMI 1987 and 1999, ENS 1989 and ENCOVI 2000.

Furthermore, in 2001 the combination of falling coffee prices and severe drought gave rise to a deteriorating situation that resulted in hunger and death of children caused by insufficient food. This occurred in some of the poorest departments belonging to the South West region (Chiquimula and Santa Rosa), North West (Huehuetenango), South West (San Marcos, Sololá) and North regions (Alta Verapaz). Thus, not only has progress in terms of malnutrition been uneven, but there have also been important reversals regarding the originally positive trends identified in the nineties.

d) Primary education and enrolment

Disaggregated data on primary school enrolment provides evidence of unequal progress in this area during the nineties. First, the gap between the enrolment rate of girls and

boys increased during the decade (1991-2000). Whereas the rate of enrolment of boys in primary school increased from 72 to 86%, it grew from 71 to only 82% in the case of girls. This is a surprising result, given the efforts made to favor greater participation of girls in primary school in recent years, and provides evidence of continuing gender discrimination in spite of public policies that include elements of positive discrimination.

Table 4

**Net rate of primary school
enrolment
(percentages)**

	1991	2000
Total	72.0	84.0
Urban	72.0	86.0
Rural	71.0	82.0
Region		
Metropolitan	91.0	85.0
North	45.0	68.0
North East	72.0	82.0
South East	82.0	91.0
Central	76.0	89.0
South West	74.0	88.0
North West	50.0	77.0
Petén	61.0	103.0
Source: Statistical year books of 1991 and 2000 from the Ministry of Education		

Second, the rate of enrolment fell in the Metropolitan area from 91 to 85% during the same period, no longer being the region with the highest rate of enrolment in 2000. This can be associated, at least partly, with the increasing difficulty of reaching targets which are already close to being met. It also illustrates the possibility of reversals in target achievement. Third, rates of primary enrolment continued (2000) to be low in regions with a greater proportion of indigenous population (North with 68% and North West with 77%), although these regions were those in which improvements were highest during the decade. This is also associated with the greater ease with which progress occurs in cases in which targets are more distant.

e) Literacy⁸

Literacy rates (15-24 year olds) usually grew fastest among those groups or regions with the lowest initial (1989) rates, such as indigenous groups in general, whose literacy rates increased from 54.2 in 1989 to 69.8% in 2000, indigenous women, whose literacy rates rose from 41.1% to 59.4%, and the rural population, whose literacy rates rose from 65.8 to 74.1%. Therefore, there was a gradual process of convergence, given that Guatemala's total literacy rate increased from 74.8% to only 81.7%. Nevertheless, there were exceptions, pointing to certain groups or regions that remained behind in spite of overall progress (table 5).

Table 5

Literacy rates (15.24 years old) according to gender, region, area and ethnic group
1989 y 2000
In percentages

	1989			2000		
	male	female	Total	male	female	Total
Total	82.8	67.5	74.8	87.7	76.3	81.7
Urban	95.5	85.2	89.8	95.8	90.9	93.1
Rural	75.8	56.1	65.8	82.7	65.8	74.1
Indigenous	69.1	41.1	54.2	81.7	59.4	69.8
Non indigenous	90.1	82.1	85.9	91.3	87.0	89.0
Metropolitan	93.1	84.3	88.3	96.8	91.7	94.1
North	63.1	39.6	50.1	71.6	52.2	61.8
North East	80.9	77.2	79.1	76.3	73.9	75.0
South East	88.6	73.5	80.1	88.8	82.1	85.3
Central	88.6	74.4	81.4	92.5	86.0	89.3
South West	82.2	59.5	70.5	91.3	76.9	83.5
North West	67.5	47.5	57.2	78.9	50.1	63.9
Petén	82.1	74.3	78.3	84.1	84.2	84.2

Source: Elaborated with data of ENS
89 y Encovi 2000.

In one case (women in the North Western region) the rate of literacy remained almost constant (increasing from 47.5 to 50.1%) in spite of the very low base level. The gap between men and women also grew, as opposed to other regions, amounting to almost 30 percentage points in 2000. In another case (North West) there was an actual reduction of the literacy rate (from 79.1 to 75.0%), both of women and of men, which may be attributable to migration from the neighboring North region, which had the second lowest literacy rate in Guatemala in 2000 (and the first one in 1989). In any case, both regions are causes for special concern, given the apparent difficulty of reducing high levels of illiteracy.

⁸ The evolution of literacy rates of given age groups (15-27 years old, whose literacy rate is a MDG target) differs from the evolution of overall literacy rates as considered in the HDI. The MDG target variable covers a smaller proportion of the population (excluding children) and therefore may produce different results. This is the case of the North Western region, where the broader indicator, used for the HDI, increased, in contrast to the literacy rate of the 15-27 year old age group, which fell during the same period of time in that region.

f) Gender ratios

The analysis of trends of literacy and enrolment gender ratios (table 6) makes it clear that there was significant progress regarding these subjects in almost all regions, with greater improvements in the most backward regions (especially in the North and North West), although in the year 2000 they still remained behind other regions. The improvement in the gender ratio corresponding to total (primary and secondary education) enrolment was particularly significant in the case of the indigenous population (from 0.59 in 1989 to 0.73 in 2000), though the difference with non-indigenous population in the year 2000 (0.95) was still wide. Significantly, although enrolment conditions for women improved in rural areas, the gap with urban areas remained the same over the period. This implies that improvement in gender conditions was greater among indigenous women in rural areas than in the case of the rest of non-indigenous women in the same areas. Employment of women in non agricultural activities increased over the decade, this also being particularly important among indigenous women, consistent with a general increase of employment among them, as will be seen below.

Table 6

Gender ratios: primary and secondary enrolment and literacy, and percentage of women in non agricultural activities

	Total enrolment		Literacy		% women in non-agricultural activities	
	1989	2000	1991	2000	1989	2000
Nation	0.82	0.87	0.88	0.92	35.0	36.7
Urban	0.89	0.95	n.a.	n.a.	38.7	41.3
Rural	0.74	0.80			25.8	27.7
Indigenous	0.59	0.73	n.a.	n.a.	29.5	35.0
Non-Indigenous	0.91	0.95	n.a.	n.a.	36.0	37.3
Regions						
Metropolitan	0.91	0.95	0.95	0.93	38.5	40.1
North	0.63	0.73	0.72	0.80	30.7	31.5
North East	0.96	0.97	0.96	0.99	33.3	35.5
South East	0.83	0.92	0.92	0.94	33.1	30.3
Central	0.84	0.93	0.91	0.95	28.8	35.7
South West	0.72	0.84	0.82	0.92	32.0	33.0
North West	0.70	0.63	0.73	0.84	35.7	38.6
Petén	0.90	1.00	0.91	0.99	24.6	35.9

Source: Own estimates based on ENS (1989) and Encovi (2000), as well as Ministry of Education Statistical Annual Reports (1991 and 2000).

g) Infant and child mortality rates

Health statistics are highly unsatisfactory in Guatemala, so the data in table 7 are indicative, at best. In general, it appears that infant mortality rates fell among all groups in all areas, although to a greater extent in rural areas, among non-indigenous populations, and in the South West and Central regions. Infant mortality appears to have fallen less among indigenous groups and in the Norther region, though in both cases the initial level (in 1987) of infant mortality appears suspect and may reflect under registration. In any case, progress in this area may reflect increased access to basic health services in rural areas, implemented during the second half of the 1990s in particular.

Table 7
Infant mortality rate
1987 and 1998/99

(Dead for each thousand born live, for 10 years preceding the survey)

	1987	1998/99
Total	79	49
Area		
Urban	65	49
Rural	84	49
Ethnic group		
Indigenous	76	56
Non-indigenous	85	44
Region		
Metropolitan	72	46
North	48	40
North- Eastern	84	54
Sourth East	85	29
Central	119	57
South West	72	58
North-Western	75	50

Source: ENSMI 1987 and ENSMI 1998/99.

h) Maternal mortality rate

Guatemala does not have adequate figures on maternal mortality rates. Only gross estimates exist at a national level, and Government authorities are still analyzing data in order to have a definitive figure for the year 2000 at a national level.⁹

i) HIV/AIDS

Although there is a serious effort to improve statistics on HIV/AIDS prevalence, data for all regions is not yet available. Nevertheless, there is evidence of greater prevalence in areas linked to international communications networks, specially ports and areas close to main highways.

⁹ This process was stimulated by the preparation of the MDG report in Guatemala.

j) Access to safe water

As in the case of education, access to safe water¹⁰ improved in the case of those groups with lower initial access, but they remained significantly below Guatemala's average. Thus, between 1989 and 2000 indigenous households without access to safe water decreased from 34.9 to 20.9% (14 percentage points), and rural households without access to safe water fell from 28.2 to 18.9% (10 percentage points), in contrast to the situation of Guatemala's total households, which passed from 26.0 to 16.1% (ten percentage points) during the same period.

Table 8

	Access to water		
	Households with "satisfied" water access needs		
	1989	2000	Change
	74.9	84.8	10.0
Urban	79.1	89.2	10.0
Rural	72.3	81.5	9.2
Indigenous head	64.9	78.8	13.9
Non-indigenous head	80.4	88.6	8.3
Male headed household	74.3	84.1	9.8
Female headed household	77.5	88.0	10.5
Metropolitan	81.2	90.0	8.7
North	55.4	62.2	6.9
North East	77.5	71.3	-6.2
South East	69.9	88.4	18.4
Central	83.3	89.6	6.3
South West	78.6	91.0	12.4
North West	60.4	80.6	20.2
Petén	74.8	72.3	-2.5

Source: ENS (1989) and ENCOVI (2000)

There is a greater amount of differences regarding the evolution of households' access to water in different regions in the nineties. Variations range from a reduction of approximately 20 percentage points of households without access to safe water in two regions (South East and North West regions), where access was extremely low, to two regions (North East and Petén) where the number of households without access to safe water actually increased. In the case of the latter there has been a significant inflow of migrants, which explains deteriorating ratios regarding access to water and to social services. As a result, important regional gaps remain, with 3 regions (North, North East and Petén) in which the proportion of households without access to safe water varied between 30 and 40%, 2 or 3 times more than the nation's average.

¹⁰ This refers to access to a river or lake in rural areas, or to a well or public water source in urban areas.

3. Reasons for inequality and asymmetries

a) Land tenure and diversification

Guatemala's history has been conditioned by a very conservative landowning elite which has remained as an extremely influential group in the economic and political arenas. As noted by J. M. Page regarding the first half of the XXth Century: "The Guatemalan elite was overwhelmingly landed and agrarian, with a relatively weak agro-industrial fraction. Debt servitude, serfdom, and other forms of legal bondage created class relations similar to those of the European feudal manor: the Spanish and European immigrant landlord class ruled over an unfree labor force."¹¹ Furthermore, as opposed to the case of other Central American countries, and in spite of an important process of economic transformation between 1950 and 1980 that included the development of an industrial sector and of export crops like sugar, beef and cotton, a new agro-industrial elite did not rise to preeminence. Instead, a mixed system developed, combining agro-industrialists and a growing semi-proletariat together with an agrarian order of landlords and serfs.¹²

The landowning elite has continually struggled to avoid social and economic reform,¹³ establishing Guatemala as the only Latin American country -with the exception of Haiti- that has not experienced an agrarian reform. The only agrarian reform implemented in 1952 was aborted when the government promoting it was overthrown by a coup sponsored by the United States government.¹⁴ Since then there have been no significant programs of land redistribution. Furthermore, the process of rapid growth that took place during the sixties and seventies, unaccompanied by social progress and participatory processes,¹⁵ and in a Cold War context, is one of the basic reasons why Guatemala was subject to an armed internal conflict that began in the early sixties and only ended with the Peace Accords of 1996.

Land concentration increased slightly between 1979 and 2000 in Guatemala.¹⁶ The largest farms ("fincas multifamiliares"), in excess of one "caballería", accounted for 64.5% of total land in 1979 and 62.4% in 2000. They also represented 1.3% of the

¹¹ Paige, J.M. **Coffee and Power. Revolution and the rise of Democracy in Central America**. Harvard University Press, Cambridge Massachusetts and London England, 1997; page 87.

¹² Paige, op.cit. page 94-95.

¹³ This also extends to fiscal reform, constantly opposed by Guatemala's private sector, and which explains the very low tax burden (10% of GDP) in Guatemala. See Palencia, M. **El Estado del Capital**, FLACSO, Guatemala, 2003.

¹⁴ Before the coup that gave rise to the new government that returned expropriated land, about one quarter of arable land had been expropriated, including uncultivated land of the United Fruit Company. See Gleijeses, P. **Shattered Hope. The Guatemalan Revolution and the United States, 1944-1954**, Princeton University Press, New Jersey, 1991. Chapter 8.

¹⁵ This is a very clear and dramatic example of economic growth without human development. Guatemala during the sixties and seventies is a clear example of a development path biased toward (unsustainable) economic growth which eventually leads to a vicious circle in which neither growth promotes human development nor human development promotes growth. See Ranis, G. and F. Stewart, "Crecimiento económico y desarrollo humano en América Latina" Revista de la CEPAL 78, diciembre de 2002. Guatemala is also a more recent example of how not addressing equity questions leads to increased conflict and populist policies that harm economic growth.

¹⁶ Baumeister (2002). Information in this section is based on this paper.

total number of units in 1979 and 3.6% of the total in 2000. At the other end of the spectrum, the smallest farms (“microfincas” and “fincas subfamiliares” accounted for 16.5% in 1979 and 18.6% in 2000, and represented 88.2% of the total amount of farms in 1979 and 94.1% of the total in 2000. In fact, the most important change during the period was the greater fragmentation of small units. In other words, land ownership, traditionally the main source of income and growth in Guatemala, remains concentrated in the hands of a limited number of persons and did not change significantly in the past decades.

However, the importance of agriculture as a source of income and employment differs from region to region and has fallen over time, allowing income generated by other sectors to affect income distribution. In other words, diversification away from agriculture has reduced the importance of land tenure as a basic determinant of income distribution. In 2000 the proportion of households that combined land ownership and agricultural activity ranged from 34.0% in the Metropolitan area to 78.1% in the North West region, and employment in agriculture as a proportion of total employment fell from 50% of total employment in 1989 to 38% in 2000.¹⁷

Thus, although there is no direct correlation between employment in agriculture and ownership of land on the one hand, and income (or consumption) concentration on the other, there is a clear relationship between the change in income (or consumption) concentration¹⁸ and employment in agriculture. Specifically, the regions¹⁹ with the largest proportion of households that work in the agricultural sector (North West and North) and own land were also the regions with the highest increase in (income and consumption) concentration between 1989 and 2000. These were also the poorest regions, with highest proportions of indigenous populations, still close to the agrarian order of landlords and serfs identified by Paige. Alternatively, the regions with the lowest proportion of households that work in agriculture and own land (Metropolitan area, North East and Central region) were also those where concentration fell. Other regions had relatively minor variations in their Gini coefficients (consumption). In sum, the use and property of land continued to be the main conditioner of concentration trends in Guatemala during the nineties, though diversification has gradually eroded its importance in some regions.

¹⁷ The percentages of households that work in the agricultural sector and own land in each region were the following: Metropolitan area 34.0, North 76.4, North East 42.8, South East 70.0, Central 45.3, South West 78.1 and Petén 75.5. Source: Baumeister (2002). Data on employment are from the household surveys of 1989 (Socio demographic conditions) and 2000 (Life Conditions).

¹⁸ Since the most trustworthy data in the household surveys refers to expenditure rather than to income, concentration coefficients in this paper normally refer to consumption (or expenditure). This is also the case regarding the measurement of poverty.

¹⁹ With the exception of Petén, that is atypical because of its very large area while at the same time it is the main destiny of internal migrants.

Table 9
**EMPLOYMENT IN AGRICULTURE
AND CHANGES IN POVERTY AND INEQUALITY**

	Change in extreme poverty	Change in Gini coefficient	Change in medium consumption pc	Households with agricultural activity and land
Total	-2.4	2.3	21.6	n.a.
Urban	-1.5	-0.5	19.3	n.a.
Rural	-1.5	-0.4	11.9	n.a.
Indigenous	-5.9	12.2	24.9	n.a.
Non-indigenous	-1.5	1.0	25.6	n.a.
Metropolitan	-1.8	-3.0	24.5	34.0
North	5.4	13.9	2.4	76.4
North Eastern	-5.9	-0.6	27.5	42.8
South East	7.5	0.5	-1.5	70.0
Central	-3.2	-2.4	27.0	45.3
South West	-5.0	0.1	19.9	53.6
North West	-5.1	4.9	13.9	78.1
Petén	-5.0	-0.3	5.3	75.5

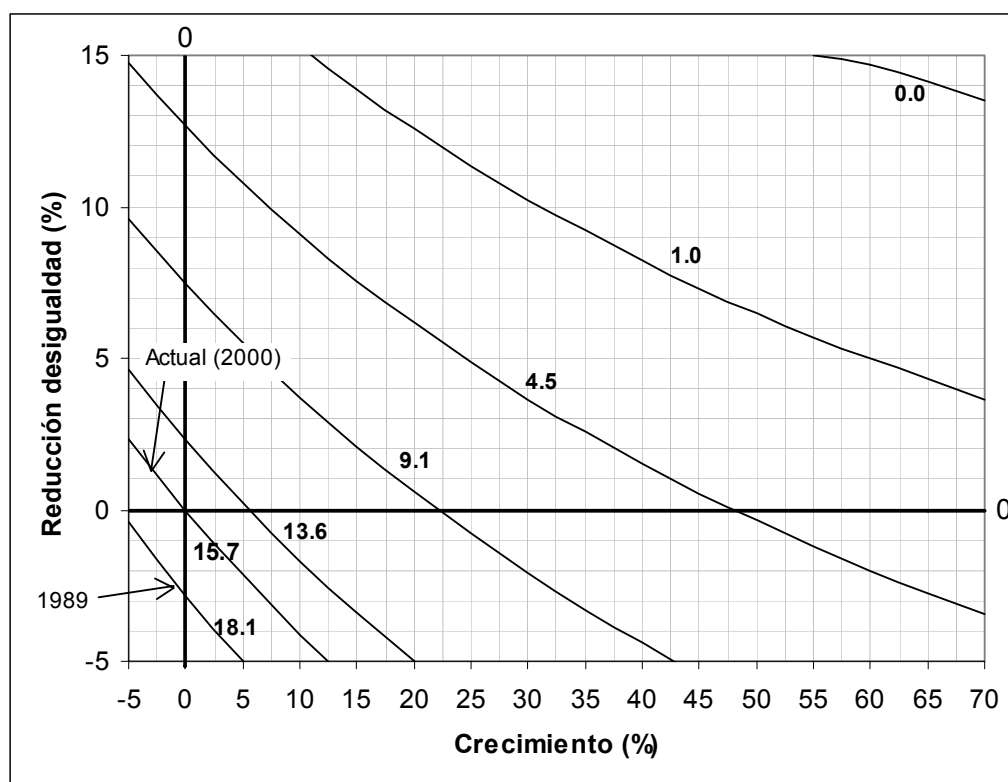
Source: Elaborated with data from the ENS 89 and Encovi 2000.

b) Economic growth

Guatemala's economy grew moderately during the nineties, averaging an annual growth rate of GDP of approximately 4%, equivalent to 1.4% in per capita terms. This was lower than the 6% growth rate target established by the Peace Agreements. It is also below the growth rate observed during the 1960s and 1970s. Furthermore, the growth rate gradually fell during the second half of the decade, until it became negative (in per capita terms) in 2001.

During this period income distribution apparently improved though more precise data on consumption points to a slight increase in its concentration. The combined effect of growth and a slight increase in concentration was to reduce both poverty and extreme poverty, independently of how they are measured. The relationship between growth and distribution (of consumption) and extreme poverty (measured by a basic consumption basket) can be observed in graph 2, for Guatemala as a whole.

Graph 2: Isopoverty curves in Guatemala



Fuente: Calculated on the basis of Encovi 2000.

The graph was built using the methodology developed by IPEA/ECLAC/UNDP.²⁰ It illustrates how advancing from the situation existing in 1989 (18.1% of extreme poverty) to the one existing in 2000 (15.7% of extreme poverty), could have been achieved through different combinations of growth (of consumption, on the X axis) and redistribution (also of consumption, measured by means of the Gini coefficient, on the Y axis). In fact, from 1989 to 2000 consumption per capita increased by 21.3%, but the Gini coefficient increased by 2.3%, thereby reducing the potential effect of consumption growth on the reduction of poverty. Had the distribution of consumption remained unchanged, extreme poverty would have fallen to approximately 12% instead of 15.7%. This also illustrates how changes in extreme poverty are quite dependent on changes in distribution, as opposed to changes in non-extreme poverty, which are relatively more dependent on growth.²¹

The evolution of growth and redistribution of different social and geographic sectors during the nineties was diverse, and gives rise to interesting contrasts. Thus, whereas concentration did not increase among rural households, relatively lower growth of consumption of these households resulted in a reduction in poverty that was lower than the (national) average reduction in extreme poverty (table 9). Among indigenous

²⁰ UNDP/CEPAL/IPEA, "Meeting the Millenium Poverty Reduction Targets in Latin America" (Discussion draft), May 2002.

²¹ Guatemala's NHDR of 2001 includes simulations demonstrating this conclusion. See Sistema de Naciones Unidas, Guatemala: el financiamiento del desarrollo humano, Artgrafic de Guatemala, Guatemala, 2001, pages 90-96.

households concentration did not increase either, but growth was higher than the average, leading to a greater reduction in their extreme poverty than the average.²²

The evolution of growth and inequality was also diverse among regions. Since consumption grew in almost all of them (it fell by 1.5% in the South East region), it is possible to classify three groups according to whether concentration remained constant, increased or fell. In the largest number of regions concentration remained virtually constant (North East, South West, South East and Petén), consistent with a pattern of land concentration that did not change significantly in the past decades.²³ In these regions, where income or consumption concentration did not change significantly, changes in poverty depended on growth.

Thus, the reduction in extreme poverty was high (above or equal to 5 percentage points) in the North East and the South East, where growth was high. The opposite was the case of the South East, where the growth of consumption was negative, thereby resulting in a significant increase of extreme poverty. Petén is a special case, in which the Gini coefficient's evolution does not reflect a change in distribution whereby the first two decils gained a greater proportion of consumption while the next four lost part of their share.²⁴ This "redistribution among the poor" explains the reduction of extreme poverty in this region, while overall poverty remained virtually stable in this region during the nineties. In sum, only two of the four regions in which concentration remained more or less constant experienced significant reductions of extreme (and overall) poverty. They were ranked third and fourth among the total of eight regions. The region where extreme poverty increased, the South East, ranked sixth, threatening to remain further behind.

The regions in which concentration fell were the Central region and the Metropolitan area where, as noted earlier, only a minority of households worked in agricultural activities and had access to land. Extreme poverty fell by more in the Central region (by more than 3 percentage points), but was significant in the Metropolitan area (it fell from 2.5 to 0.6%) if account is taken of the fact that it was already low. These regions ranked first and second in terms of the HDI, and have concentrated the maquila exporting activities that boomed during the nineties.

The remaining two regions (North and North West) experienced growing concentration. More than two thirds of the total amount of households in these regions were employed in agricultural activities and had land in 2000. The reduction in extreme poverty was high in the North West region (5 percentage points) but extreme poverty actually increased in the North (by more than 5 points). The reasons are clear: concentration increased by a much greater extent in the North, and growth was much greater in the North West. This relatively high rate of growth resulted, at least partly, from the fact that this was the region most affected during the eighties by the armed conflict experienced by Guatemala during many decades.²⁵ Peace in the nineties allowed it to grow from a very low base, and extreme poverty was still highest among all regions in the North (39.1%) and the North West (31.5%) in 2000.

²² This would also imply that non-indigenous groups in rural areas had small increases in income (consumption).

²³ See Baumeister (2002)

²⁴ This explains the fact that extreme poverty fell from 17.9 to 12.9% while overall poverty fell from 69.0 to only 68.0%.

²⁵ The departments most affected were Huehuetenango and, specially, Quiché. See foot note 6.

In sum, greatest progress in reducing extreme poverty took place in those regions (Central and North Western, and to a certain extent in the Metropolitan area) with the highest levels of human development. The exception was the North West region, where the end of armed conflict contributed to economic reactivation, but starting from a very low base of activity.

c) Employment

During the 1990s the proportion of the population employed increased by almost six percentage points, of which most was informal (4.5 points), that is, employed in productive units of 5 or fewer employees. This increased participation in employment was the result mostly of growth of the commercial sector and, specifically, of a significant increase of employment of women in rural areas in trade. Specifically, employment of women in rural areas increased by 13.4 percentage points between 1989 and 2000, and indigenous women increased their participation in the informal labor force by 16.3 percentage points during this period. This phenomenon was particularly important in the Central (25.4 percentage points), North West (20.1) and South West (18.1) regions. The fact that this phenomenon was based on the expansion of the commercial sector suggests a combination of stagnation in agriculture without new dynamic productive sectors in rural areas. It explains to a significant extent the growth of income and the reduction of poverty, mostly of extreme poverty, in these regions²⁶ (table 10).

Table 10
Changes in employment, 1989-2000
(percentage points
of employment/ working population ratio)

	Indigenous		Non-indigenous	
	Informal	Formal	Informal	Formal
Men	-6.6	6.2	0.7	-2.3
Metropolitan	-8.7	5.5	0.4	-3.5
North	-5.9	6.8	8.8	5.2
North East	-18.3	22.6	3.0	-1.3
South East	-11.7	9.8	-5.0	4.2
Central	-10.8	12.6	-2.4	1.7
South West	-1.5	-0.3	4.6	-9.3
North West	-6.6	5.1	-0.2	1.3
Petén	-11.1	14.0	-2.4	1.3
Women	16.3	4.7	5.9	0.1
Metropolitan	-3.3	11.9	2.9	-0.1
North	9.0	1.0	3.1	4.3
North Eastern	5.2	0.9	5.9	2.2
South Eastern	-11.3	3.0	6.1	0.8
Central	25.4	9.3	3.9	2.5
South Western	18.1	5.0	10.4	-3.6
North Western	20.1	2.5	8.7	-3.4

²⁶ Data in this section is from ENS (1989) and ENCOVI (2000). See also Sistema de Naciones Unidas, **Desarrollo Humano, Mujeres y Salud**, Litografía Van Color, Guatemala, 2002. Pages 89-98.

Petén	0.5	2.6	7.0	2.0
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Source: ENS 89 Y ENCOVI 2000.

In the case of indigenous males, there was an important shift from informal to formal employment, since formal employment of indigenous males increased by 6.2 percentage points whereas informal employment fell by 6.6 points. This suggests the possibility of an increasing integration of the indigenous population to Guatemala's labor market, apparently by stages, in which indigenous males are in a more favorable situation than indigenous females.

The evolution of the non-indigenous population was different. Specifically, informal employment of women also grew, but formal employment of males fell. The combination of these processes explains the greater reduction of poverty –both general and extreme- among the indigenous than among non-indigenous population. It also explains the greater reduction of extreme poverty among households headed by women, who to a significant degree were able to get out of their condition of extreme poverty but not of general poverty, given the low income generated by their informal employment

d) Public policies

Guatemala has combined a generally orthodox economic development strategy involving stabilization (domestic adjustment, mostly through restrictive monetary policies) and external adjustment based on growing exports, with a very weak social policy that has gradually gained strength because of greater expenditure and of decentralization. Guatemala's tax burden has been among the lowest in Latin America (below 10% in 2001), which has limited public social expenditure. Consequently, Guatemala's public social expenditure per person in 1998/9 amounted to a fifth of what the average Latin American country spent, and was among the countries with the lowest public social expenditure as a proportion of GDP.²⁷

Nevertheless, the Peace Agreements signed in 1996 set higher public social expenditure targets (largely met) and a higher tax burden (only partly met). This resulted in public expenditure on health and education increasing from 2.4% of GDP in 1996 to 4.1% in 2001. Furthermore, two important decentralized programs, including the provision of basic health services (SIAS) and of primary school (PRONADE) with greater local participation and NGO involvement, have been successful in extending these basic services, especially in rural areas. PRONADE, which began by covering only 27 thousand children in 1996, had extended its coverage to 272 thousand by the year 2000, and the SIAS had extended its coverage from 450 thousand in 1997 to more than 3 million persons in 2001.

Available information on public expenditure on education suggests two positive trends in the 1990s. First, there were improvements in its distribution within regions, particularly regarding the distribution between the Metropolitan region and the rest of regions (table 11). Nevertheless, public per capita expenditure in the year 2000 was still lowest in the North and North West, demonstrating the continued existence of negative

²⁷ CEPAL, Panorama Social de América Latina, Santiago, 2001, page 117.

discriminatory patterns when available evidence on social indicators would justify positive discrimination. Second, public per capita expenditure on education increased in real terms by 67.7% during the same period, partly explained by meeting the targets established in the Peace Accords.²⁸ Although similar desegregated data on public expenditure on health is not available, it also grew in real terms by 53.8% between 1992 and the year 2000.

Table 11
Public per capita Expenditure on Education
(Indices)

Region	1992	2000
Metropolitan	100	100
North	14.5	50.4
North East	19.3	68.6
South East	17.3	64.2
Central	17.2	58.1
South West	16.0	63.1
North West	15.0	52.5
Petén	25.0	78.3

Source: Own estimates based on Ministry of Finance reports

Regarding public investment, data from household surveys suggests that during the nineties there were significant improvements in access to electricity and to sewage systems (table 12). This was partly the result of the central government's initiatives, often complemented by community or individual household initiatives. In any case, table 12 provides evidence of significant improvements in the case of access of rural and indigenous households to sewage systems and especially to electricity.

The difficulty faced by the North region and Petén in terms of growth could be associated with limited access to electricity in both regions. In these cases it would appear that public investment in infrastructure (taking electricity as a proxy) has not favored growth. In other regions, the situation varies. Very large increases in coverage of electricity in the North West (though still at a low level) and South West are only partly correlated with growth. On the other hand, the situation of sewage systems suggests a more homogeneous and less discriminatory pattern of investment, which could be one of the explanations for the general improvement in health indicators during the nineties.

The pattern of construction of roads also points to the relative neglect of the North and North West region, in addition to the North East region, when compared to other regions. The case of Peten is special because of its very large relative size and its very low population density.

²⁸ Obtained by deflating current expenditure figures, from the Ministry of Education.

Table 12
Expenditure by Social Funds and Roads

	Social Funds Total expenditure/pop	Roads (m/Km2)	
	1996-2001	1990	2000
Metropolitan	625.9	353.7	373.5
North	887.7	115.0	132.9
North East	906.2	113.9	112.4
South East	735.7	231.8	235.2
Central	899.5	234.9	252.5
South West	548.4	256.3	283.7
North West	891.5	118.7	132.3
Petén	1153.9	25.0	28.8

Source: M. of Finance, of Communications, INE

Note: Expenditure of Social Funds involves accumulated expenditure per capita for the 1996-2001 period and is expressed in current quetzales.

Social investment funds do not appear to have followed this pattern in the recent past. Data on the accumulated investment (per capita) of these funds over the 1996-2001 period (first column of table 12) point to a more balanced pattern of expenditure, with the exception of the South West region, which is predominantly indigenous though it is also a very heterogeneous region. The more balanced pattern of social investment –as opposed to the discriminatory pattern of accumulated investment in roads- suggests that the special effort to favor war torn regions (North West, followed by the North and by the Central regions, with large proportions of indigenous populations) partly neutralized past discriminatory public expenditure trends. This may also explain, to a certain extent, the relative improvement of social indicators corresponding to the indigenous population during the 1990s.

e) Participation

A history of traditional agrarian order characterized by landlords and serfs still weighs heavily in the countryside, especially in regions like the North and North Western ones. Furthermore, the 36 years of internal conflict that Guatemala lived had lasting psychological, social and political consequences. Apart from the assassination of local and national leaders, a systematic campaign of State terrorism that included impunity, systematic criminalization of opposition leaders and forced participation of local communities in violent actions resulted in lasting fear and conformism, and destroyed all types of organizations. This blocked the growth of social capital and became an enduring obstacle faced by Guatemala's development.²⁹

There has been no clear trend regarding the degree of participation in elections at a national level after the establishment of a democratic regime, still with restrictions, in

²⁹ Comisión de Esclarecimiento Histórico, **Guatemala, Memoria del Silencio, Tomo IV, Consecuencias y efectos de la violencia**. Litoprensa, Guatemala, 1999. Pages 42-3 and 87-97.

Guatemala in 1985. Participation was highest in 1986 after more than 15 years of military regimes, and then fell in the national elections of 1990 and 1995. It rose again in 1999, after the Peace Accords in 1996 had eliminated restrictions on political participation based on ideological criteria, but without reaching the levels existing in 1986.³⁰

The pattern of participation observed during the 1999 national elections suggests a strong correlation between ethnic composition of the population, poverty, dependency on agriculture and participation in elections. Specifically, the North and North West regions, with the highest proportion of indigenous populations (above 70%) and of extreme poverty (above 30%), also had the lowest total voter turnout (below 20% of total population³¹) and lower participation of women –as a proportion of total voters- in elections in 1999 (table 13). The opposite was the case in the Metropolitan and Central regions. However, causality relations are complex in this field, since poverty and ethnic variables are associated with other variables such as communications, literacy, general education and other institutional variables that are important determinants of participation.

Table 13
Ethnic composition of regions and voting in 1999

	% Indigenous population	% Total voting population	% Women vote	% Extreme poverty, 2000
Metropolitan	12.3	24.3	46.8	0.6
North	82.5	15.2	22.4	39.1
North East	18	23.6	38.4	8.9
South East	13.3	24.6	39.3	20.1
Central	13.3	24.6	39.3	8.7
South West	60.2	21.2	34.4	17
North West	71.7	17.6	31.2	31.5
Petén	26.2	18.7	31.6	12.9
National	39.6	21.7	37.8	15.7

Source: 1994 Census, INE population trends,
Tribunal Supremo Electoral (1999)

Bad communications, illustrated by a poor road network, provide evidence of relatively greater difficulties for potential voters in the North and North Western regions. This is further exacerbated by the fact that voting polls are located only in the capitals of each department, making it more difficult for people to vote, given the largely rural and decentralized demographic characteristics of Guatemala.

However, according to different surveys physical distance is only one of the various factors affecting participation in elections, and there are other cultural and intellectual “distances” that also affect participation. “Lack of trust”, inadequate personal

³⁰ See Borneo, H. and E. Torres-Rivas, *¿Porqué no votan los guatemaltecos?* Estudio de participación y abstención electoral, IDEA-TSE-PNUD, F y G Editores, Guatemala, octubre 2000. table 7, page 181.

³¹ This ratio is only a proxy for electoral participation since total population includes minors, not eligible to vote.

documentation and insufficient information have also been pointed out as causes of limited participation in elections in Guatemala.³²

Voter registration requirements appear to be a particularly important cause of limited participation, since available evidence suggests that once voters are registered ethnic differences are not significant explanatory variables of different degrees of participation.³³ On the other hand, growing heterogeneity within indigenous groups and an increasing number of indigenous leaders suggests that ethnicity per se is becoming less significant as a determinant of electoral participation.

An important exception is the case of women, since there is evidence of a significant correlation, at the municipal level, between their participation and their ethnic origin.³⁴ Specifically, the participation of indigenous women has been affected by their greater cultural isolation (including lack of knowledge of Spanish and of other symbols of “modernity”), and the greatest proportion of non voters can be found among illiterate indigenous women.³⁵ This obviously limits their possibilities of inducing reforms that may contribute to improve their situation. On the other hand, other less formal forms of participation of women have increased in the past years. A Forum of Women was established as a result of the Peace Accords and has had significant influence on the introduction of legislation favoring women, and a new government secretariat responsible for women affairs, with a Ministerial rank, was introduced in the year 2000.

³² Borneo and Torres-Rivas, op.cit., pages 131-139.

³³ Ibid, pages 82-3.

³⁴ Ibid, page 84.

³⁵ Ibid, page 94-5.