



منظمة الأغذية  
والزراعة  
للأمم المتحدة

联合国  
粮食及  
农业组织

Food  
and  
Agriculture  
Organization  
of  
the  
United  
Nations

Organisation  
des  
Nations  
Unies  
pour  
l'alimentation  
et  
l'agriculture

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

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**CONTENTS**

	Paragraphs
I. Introduction	1-2
II. Food insecurity and vulnerability: A conceptual framework	3-13
III. Guidelines for food security in Latin America and the Caribbean	14-28
IV. Food insecurity and vulnerability in Latin America and the Caribbean	29-52
V. Conclusions and policy implications	53-55
<i>APPENDIX I</i>	<i>Tables</i>
<i>APPENDIX II</i>	<i>Food security regional initiatives</i>
<i>APPENDIX III</i>	<i>The FAO Special Programme for Food Security in Latin America and the Caribbean</i>

## **I. Introduction**

1. The 1996 World Food Summit (WFS) focused world attention on food insecurity and the need for policies to improve food access by the poor. In the Rome Declaration on World Food Security, summit participants agreed to a set of commitments for eradicating food insecurity through national action and complementary international efforts. This paper examines how Latin American and Caribbean (LAC) nations have proceeded in addressing the issues of food insecurity and vulnerability. While the LAC region has not recently experienced widespread hunger on the scale of parts of Africa and Asia, food insecurity is still a problem for millions of people across the region.

2. Before discussing the state of food insecurity in LAC, a conceptual framework for food insecurity and vulnerability is presented. This is done to highlight the multiple dimensions of food insecurity and the multiple levels of policy intervention from the regional and national levels to the household and individual levels. Based on the conceptual framework a number of measures of food insecurity are discussed and data from LAC on food insecurity and vulnerability are presented. Finally, conclusions and policy implications are presented.

## **II. Food insecurity and vulnerability: A conceptual framework**

3. The concept of food security has evolved significantly since the 1974 World Food Conference. At that time, discussions of food security focused on the supply of food at the global and national level and more specifically on the ability of specific countries to obtain – through production, imports or stocks – an adequate supply of food to feed the country's population. The focus on national food self-sufficiency neglected the fact that quite often countries did have adequate food supplies at the national level but still faced widespread hunger. It became increasingly clear that while an adequate national food supply is a necessary condition for food security, it is not a sufficient condition. The coexistence of adequate aggregate food supplies and hunger led to a shift in emphasis from national supply to individual access to food. This shift is reflected in the definition of food security used in the 1996 Rome Declaration on World Food Security: "Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". The definition reflects the emphasis on access and the individual nature of food security, rather than national or global supply.

4. Developing appropriate policies to address food security issues requires considering multiple levels of intervention from the national and sub-national level to the household and individual level. However, nutrition is fundamentally an individual matter and to begin any analysis requires understanding food security at this unit of analysis. In this section, three dimensions of food security are addressed: a) entitlements, b) timing and c) uncertainty and risk.

### ***a) Entitlements***

5. The entitlement approach to food insecurity focuses on the ability of individuals to command food through production, trade, labour power, transfer or other methods. A person lacks adequate nutrition if she does not have adequate entitlements to food or does not use those entitlements to avoid undernutrition. The entitlement approach concentrates on examining an

individual's entitlement mapping and the existence of entitlement failure. This shifts the emphasis of food security to command over food, or food access, and away from food supply. The approach also concentrates on the individual and highlights the fact that she may experience hunger even though there is adequate food at the national, sub-national, community or even household level. At any level, including the household, even if adequate food is available there is no guarantee food will be distributed equitably<sup>1</sup>.

6. Understanding food insecurity then requires examining the various mechanisms that allow individuals to maintain command over food. Since entitlements vary across individuals it is not necessarily the case that a single event, such as a dramatic rise in the price of food or a reduction in the daily wage, will effect all individuals the same or to the same degree. Even neighbors within a community may have different entitlements. Furthermore, within households the entitlement may differ<sup>2</sup>. Across households, communities, provinces and countries, entitlements, and therefore the incidence of undernutrition, vary.

7. While entitlements do vary across individuals, similarities exist and are often closely related particularly among individuals in close geographic or social proximity. Thus, the effects of a change in social or economic conditions can affect individuals in similar ways. Community members with similar entitlements may also be affected by a shock in a comparable way<sup>3</sup>. As with the household, where intrahousehold relations matter, community interaction and institutions can be important in considering food security. Mutual assistance among community members has been well-documented and although the evidence suggests there is not full pooling of consumption risk within communities, such assistance may be directed at avoiding hunger. In the events where there is widespread entitlement failure, such institutions may not be adequate to cope with aggregate shocks<sup>4</sup>.

8. The focus thus far has been on the role of entitlements in food access and thus food security and little emphasis has been placed on the source of entitlements. Entitlements are based on the assets of the individual and the household. The term assets here is defined broadly to include not just physical assets such as land and machinery, but also human capital assets (eg. education, training), institutional assets (eg. credit access, technical assistance), social capital assets (eg. mutual assistance groups, migrant networks) and public assets (eg. infrastructure, government support)<sup>5</sup>. It is therefore not only necessary to understand the source of entitlement but also the basis, in terms of asset position, of the entitlement.

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<sup>1</sup>For example, if a household has just enough food to meet each household member's nutritional requirement then if one member takes more food than necessary then at least one other person will receive insufficient food. It is individual access, not supply, that is key to understanding food insecurity

<sup>2</sup> Empirical evidence suggests that food allocation within a household varies with certain members (males or females, adults or children, etc.) given priority over other members in food access.

<sup>3</sup> For example, drought may affect all members of an agricultural community if their entitlements are primarily production-based. An urban community where most individuals are wage earners will all be affected in a similar manner by a drop in real wages.

<sup>4</sup> There are a number of circumstances where multiple entitlement failures may occur. Hurricane Mitch, which caused major problems in Central America and particularly in Honduras and Nicaragua, provides one example. Mitch caused widespread crop failure leading to potential food security problems for those with production-based entitlements. But in addition to this, the hurricane-damaged infrastructure affecting trade-based entitlements, had a negative impact on wage-earning opportunities and real wages affecting own-labor entitlements, etc. The multiple entitlement failures of natural disasters or economic downturns can lead to widespread problems with hunger and even famine

<sup>5</sup> For example, two individuals may have the same type of entitlement in that they sell their labor and obtain food through trade. However, if one has a university degree (strong own-labor entitlement) and the other no schooling (weak own-labor entitlement) then the strength of the entitlement differs and the effect of an economic downturn on food security is likely to be different for each individual. Similarly, two urban dwellers may both live in slums and have

9. Assets are often held at the household rather than the individual level or, such as individual education, are not held by the household but can be used by the household to achieve food objectives. Therefore, the household is an extremely important institution for analysis of food security. Improving the overall asset position of the household can have important food security implications for all members.

**b) Timing**

10. Food insecurity is usually categorized as chronic, which implies an individual is consistently unable to obtain sufficient quantities of nutrients, and transitory, which is a temporary reduction in sufficient nutrient intake. Even those that are chronically food insecure are likely to experience fluctuations in the degree of insecurity across time. The source of these fluctuations is seasonality and uncertainty. Although uncertainty plays an important role (see below), much of the seasonality of food access is predictable<sup>6</sup>. Previous experience with seasonal fluctuations provides individuals with insights into the trends in food production and prices, real wages, etc. These factors create a situation where *periodic food insecurity*, often called a lean season, may occur. This season is normally related to the crop production cycle and is predictable. Individuals, and the households to which they belong, can take actions in response to mitigate negative effects. Thus, the food insecure may face a tradeoff between saving in this season to avoid later hunger and hunger in the present. Informed food security policy then requires understanding behavioral dynamics – that is, individual decision-making over time.

**c) Uncertainty and risk**

11. At any given point in time, due to multiple sources of uncertainty<sup>7</sup>, individuals face a probability of becoming food insecure. This is often referred to as the *vulnerability* of the individual. The individual's vulnerability depends on her entitlements, and hence her asset position<sup>8</sup>, and forces of nature. When an undesirable outcome, such as low wages or low production, occurs then the individual may become food insecure. This type of food insecurity is also transitory but its source is different from periodic food insecurity in that it is the result of risk. It can be labelled *sporadic*, as opposed to periodic, because it occurs repeatedly but not necessarily at certain intervals and is associated with risk exposure not seasons. Of course, individuals are unlikely to face the same distribution of food outcomes in a given year or even from year to year — timing and uncertainty are inextricably related.

12. Given this risky environment, individuals are likely to take actions to avoid or minimize undesirable outcomes. Both *ex post* actions for coping with food risk and *ex ante* management strategies may be employed. If insurance or credit markets function properly then individuals could insure against the probability of food insecurity (at some cost). However, market imperfections often limit the ability to cope with risk through formal markets. Hence, informal

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similar entitlements but only one may have direct access to government services – that is, the strength of their public assets differ.

<sup>6</sup> For example, in agricultural based economies the crop cycle dictates the timing of food availability and influences agricultural wages and food prices. It also influences what is available in terms of stocks and the current state of the food market.

<sup>7</sup> Food prices, real wages, food production and supply, food import supply and prices and household income are all uncertain.

<sup>8</sup>For example, an individual with an entirely production-based entitlement is particularly susceptible to crop production uncertainty caused by pest outbreaks or inclement weather. An individual who obtains income through wages is dependent on fluctuations in the labor market.

insurance mechanisms exist within households, communities or kinship groups in many developing countries<sup>9</sup>. In addition to these coping strategies, individuals and household may also try to manage risk<sup>10</sup>. These actions may limit risk but often at a cost to average food intake and are generally imperfect mechanisms.

13. The ability of an individual to cope with and manage risk is referred to as *resilience*. The resilience of an individual is largely dependent on assets<sup>11</sup>. An individual with substantial assets and/or a diversified asset portfolio is generally more able to manage and cope with risk and is thus more resilient than an individual with limited assets.

### **III. Guidelines for Food Security Policy in Latin America and the Caribbean**

14. Although the focus of the conceptual framework is on the individual, there are numerous implications for the different levels of intervention in LAC (regional, national, sub-national, community, household and individual). In this section, a policy matrix (Table 1) is developed which considers at each level of intervention the relevant issues to consider, the information that is necessary to inform policy, and potential and actual policy interventions within LAC.

#### **a) Individual**

15. The ultimate objective of food security policy is to insure that all individuals have sufficient food at all times for an active and healthy life. To achieve this they must get access to food through their entitlements. Entitlements are often household-based and the distribution of food depends on intrahousehold relations. Intrahousehold allocation of resources depends on the asset position of each individual in the household and the individual labour activities as well as other factors such as gender. Understanding these issues is key to determining whether individuals are able to maintain sufficient food intake, thus information gathering on intrahousehold relations and individual assets is essential for developing policies.

16. If inequities in household allocation are detected, then focusing on key members of the household is crucial. This can be done through improving the position of individual household members through programs that, for example, empower women by improving their asset holdings and their legal title to such holding and actively considering the gender implications of development policies.

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<sup>9</sup>For example, communities often develop informal systems of insurance whereby if a member of the community faces a food shortfall then other community members provide assistance with the understanding that they too would receive assistance if required in a future crisis.

<sup>10</sup> For example, maintaining a portfolio of income generating activities, keeping a minimal amount of land in basic staple food crops production, maintaining food stocks and other *ex ante* actions

<sup>11</sup> For example, an individual with substantial physical assets can use these to cope with risk (by selling off assets in time of need). An individual with social capital assets such as migrant networks may temporarily migrate to diversify activities and be less susceptible to agricultural risk.

**b) Household**

17. Household assets<sup>12</sup> determine its capacity to generate income, obtain food and manage risk. Along with asset position the timing of entitlements and the sources of uncertainty determine the vulnerability and resilience of the household.

18. Identifying the household's asset position, understanding the dynamics of food access and examining household strategies for coping and managing risk are therefore key to understanding food security. Household-level interventions must focus on facilitating asset accumulation, promoting alternative income-generating activities and facilitating risk management. Ultimately, the objective of interventions at this level is to combat both income and asset poverty in order to reduce household food insecurity and vulnerability.

**c) Community**

19. Addressing food security issues at the community level requires understanding how community characteristics affect the food security of individual community members<sup>13</sup>. Community resource access and management of common property may assist or hinder members' food security. Market integration and access to public services, which is dependent on how remote a community is or its political connections, also influence members's food security.

20. Intervention at the community level requires understanding community characteristics and requires obtaining information about community assets, heterogeneity and members' economic activities. Policies must be based on specific community needs. This requires facilitating channels of communication between the community and public sector and adopting a participatory approach to intervention.

**d) Sub-national**

21. At the sub-national level, the relationship and differences between the urban and rural sectors need to be considered. There are number of distinct characteristics of urban life that have implications for food security<sup>14</sup> and, together with the high levels of urbanization in LAC, call for policy makers to directly address urban food security. Some policies, such as food price policies, may affect vulnerable rural and urban dwellers differently and certain policies may even have opposite effects on each group.

22. A second consideration in sub-national food security policy is aggregate risk which has the potential to hurt a number of people by affecting their entitlements in similar ways and can also lead to multiple entitlement failures. Determining the sources of risk for parts of a country is important in preparing for possible problem<sup>15</sup>.

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<sup>12</sup> Including physical, human, institutional, social and public capital.

<sup>13</sup> For example, social institutions such as informal insurance arrangements may differ by community and the presence or absence of such institutions affects the ability of community members to cope with risk

<sup>14</sup> Among others: 1) greater dependence on cash income; 2) weaker informal safety nets; 3) greater female labor force participation; 4) lifestyle differences; 5) greater availability of social services but questionable access by the poor; 6) greater exposure to environmental contamination; 7) governance by a different, and possibly non-existent, set of property rights.

<sup>15</sup> For example, if a region is particularly susceptible to hurricanes then the potential consequences of such an event should be determined as well as strategies for managing and coping with such events.

23. A third sub-national consideration is the food distribution network. Even if national supplies are adequate to provide food for all people at all times, it may be the case that certain parts of the country do not receive adequate supplies or the cost of transportation are such that the price of food is high. Examining the market structure and establishing adequate supply channels are extremely important. Resolving such problems may require investing in transportation networks that allow adequate food distribution to remote regions.

24. Finally, to guide policy it is important to identify certain areas of the country where widespread food insecurity is a problem or could potentially be a problem. Vulnerability maps highlight where national disasters and other risks, isolation and areas of low entitlement may lead to food security problems.

*e) National*

25. Historically, policy interventions for food security have focused on maintaining food supplies at the national level. While this is not sufficient to ensure food security for all people at all times, it remains an important consideration. Maintaining a stable and secure supply of food through production, imports and storage can avoid widespread problems. This can be done through identifying and responding to bottlenecks in supply and distribution including employing policies that facilitate food imports when required. In order to maintain domestic supplies, agricultural policies should ensure that agricultural productivity is consistently increasing.

26. The overall macroeconomic environment and state of the economy are extremely important for food security. A growing economy is much more likely to lead to poverty reduction and certain growth paths are more conducive to poverty reduction than others. Policies that promote such growth create an environment conducive to food security and limits vulnerability. Finally, a major cause of food insecurity is social instability. Civil war and crime can cause regional isolation and divert important resources causing entitlement failure. A socially stable and secure environment is necessary for food security.

*f) Regional*

27. Governments have the primary responsibility for creating an economic and political environment conducive to assuring food security of their citizens. However, in an increasingly integrated region, regional initiatives can make an important contribution to the goal of food security. The international community supports regional initiatives and thus plays a role in achieving the commitments of the World Food Summit Plan of Action to overcome food insecurity and poverty.

28. There exists a number of regional issues and concerns that can have direct or indirect effects on the evolution of food security and poverty in the region, and for which it might prove advantageous for governments and the international community to cooperate. Among others, the following issues are especially relevant:

- *Natural disaster preparedness and relief coordination efforts*
- *Normalization of procedures to collect information relevant for food security monitoring.*
- *Facilitate the collection and transmission of information and country experiences in their fight to overcome food insecurity and poverty*

These issues are explored further in Appendix II with particular emphasis on recent initiatives.

#### **IV. Food insecurity and vulnerability in Latin America and the Caribbean**

29. The Food Security Policy Matrix (Table 1) emphasizes the importance of information gathering to inform food security policy at each level of intervention. The definition of food security presents a dilemma in this regard since it is difficult to quantify. How can “sufficient food” be measured? Determining the presence of food insecurity and vulnerability necessarily requires using indirect measures. The evolution of the concept of food security from concerns about aggregate level of food supply to the current inclusion of access to proper nutrition by vulnerable individuals has been closely followed by practitioners’ attempts to measure food security at all relevant levels<sup>16</sup>. This has led to the development of a great diversity and number of indicators. The underlying purpose of all indicators has generally included one or more of the following aspects:

- Estimation of prevalence: number of vulnerable units.
- Screening: identify specific vulnerable units for possible intervention.
- Identification of causes: what makes one unit more vulnerable than another?
- Monitoring: track the evolution of the problem for the selected vulnerable units.
- Evaluation of intervention: who has benefited and how?

30. Table 3 summarizes the most commonly used indicators. The various indicators and measures of food insecurity represent different ways to answer the question of who is food insecure and vulnerable. By using a variety of methods and measures, it is possible to get a picture of food insecurity in a country or region.

31. The objective of this section is to examine indicators of food insecurity and vulnerability in LAC using currently available data.

##### ***a) Aggregate picture***

32. Table 4 presents the latest available information on aggregate undernourishment for LAC countries. The region as a whole has experienced a modest decrease in the overall number of its citizens suffering from undernourishment in recent years (1990/92 to 1995/97), from 58.6 to 53.4 million, after experiencing a substantial rise in the previous decade. The rise in the 1980s corresponds to the debt crisis, which led to a general economic downturn in much of LAC. The regional trend masks important differences between sub-regions and countries. In fact, the only sub-region that has experienced a decline in the number of undernourished in recent years has been South America. Central America has seen its number of undernourished increase, while its proportion has remained constant, and the Caribbean sub-region has seen a marked increase in the number and proportion of its population suffering from undernourishment.

33. Table 5 summarizes the changes in the number and proportion of the population affected by undernourishment in the LAC region from 1990-92 to 1995-97.

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<sup>16</sup> That is, at the individual, household, community, sub-national, national, and even regional/global level.

34. With the exception of Bolivia and Venezuela, all South American countries have been successful in reducing the absolute number of undernourished people in recent years. Impressive achievements have been made by Peru, which has almost halved the number of its undernourished, from 8.9 to 4.6 million; by Colombia, which has reduced the number of undernourished from 6.1 to 4.9 million; and by Brazil, which has reduced the number of undernourished from 19.4 to 16.2 million. South America's achievements in reducing its absolute number of undernourished in the current decade, as impressive as they are, however are just sufficient to make up for lost ground in the previous decade, where the sub-region saw the number of undernourished climb from 33.8 million in 1980 to 42.1 million in 1990. South America's future aggregate improvements are largely dependent on Brazil's situation, where nearly half of the sub-continent's undernourished live.

35. Central America witnessed a moderate reduction of the proportion of undernourished in the previous decade, however from the 1990/92 period to 1995/97 there has been no change. In fact, the absolute number of undernourished has increased by over 15% in the current decade. No Central American country has seen its absolute number of undernourished decrease, and except for Honduras and El Salvador, they have all had the proportion of undernourished go up. The lack of improvement in the sub-region can largely be attributed to the marked increase in Guatemala, where about one third of the Central American undernourished still live. Guatemala is just emerging from decades of civil conflict, which undoubtedly was a contributing factor in the lack of progress. Although Honduras has made remarkable progress since 1980, the proportion of undernourished people is still quite large, at 21 percent. Nicaragua is by far the Central American country with the largest proportion of undernourished, almost one third of its population and the situation continues to worsen.

36. The Caribbean sub-region has experienced an alarming increase in the number and proportion of undernourished people. In recent years, the number of undernourished in the Caribbean has increased by 2 million, while the proportion has gone from 25 to 31 percent. This is in addition to a 2.7 million (6 percent) increase in the undernourished population in the previous decade. With nearly two thirds of its population undernourished, Haiti's food insecurity situation is so acute it's comparable to some African countries. However, the large increase in the number of undernourished in the Caribbean sub-region can mainly be attributed to the sharp deterioration of the food security situation of Cuba. Cuba's loss of its most important trading partner, the former USSR, and the continued trade embargo imposed by the United States are the primary factors behind a steep decline in food imports and the corresponding sharp increase in its number of undernourished, 1.8 million. Other Caribbean countries have managed to make modest improvements in the proportion of the affected population, but none has seen its absolute numbers decrease.

***b) Screening and identification: Aggregate measures***

37. As noted earlier, one important reason for obtaining information on food insecurity is to identify vulnerable units for intervention and examine some of the causes of food insecurity. In this section, the characteristics of the food insecure in LAC are examined using aggregate data.

38. The UN estimates that by the year 2000, three quarters of the population of LAC will be living in urban areas. Many analysts believe that globally the locus of poverty and undernutrition is gradually shifting from rural to urban areas. The latest available regional figures corroborate this insight as far as poverty is concerned. The number of urban poor far outweigh the rural poor, 126 million to 78 million, and while the number of rural poor has remained relatively constant since 1990, the number of urban poor has increased by over 4 million from 1990 to 1997. This

rise in urban poverty will undoubtedly be related with an increase in food insecurity in urban areas.

39. Table 6 presents the prevalence of children suffering from undernutrition in rural and urban areas for several countries of the region and survey years. For nearly all countries presented in the table, the prevalence of underweight, stunted and wasting children is greater in rural areas. However, for many countries the difference between urban and rural prevalence of undernutrition in children is not large. For the countries for which data availability allows comparison over time, all have managed to reduce the prevalence of urban undernutrition in children except for Nicaragua. The prevalence of undernutrition in rural children has increased in Nicaragua, Honduras and El Salvador. Another interesting finding is that by looking at the ratios of rural to urban prevalence over time, there seems to be a clear bias in favour of the urban undernourished among the countries for which intertemporal comparison is possible. In other words, the prevalence of undernourished children in urban areas is decreasing (increasing) faster (slower) than the prevalence in rural children.

40. The information available shows that undernutrition in children is more widespread in rural areas. However, the problem is also present, and importantly so for many countries, in urban zones. For some countries, due to the demographic distribution of the population, the percentage of all underweight children in urban areas may actually be greater than the percentage in rural areas. Table 7 shows estimates of the absolute number of stunted (low height-for-age) children, as well as the percentage of all stunted children, in urban and rural areas for selected countries. For Bolivia, Peru, Venezuela, Colombia and Brazil the percentage of all stunted children living in urban areas is greater than 40%. For Colombia, Venezuela and Brazil, the majority of stunted children live in urban areas.

41. Table 8 summarises the changes over time in urban prevalence of stunted children for some countries in the region.

42. Except for Guatemala and Peru, the share of undernourished children living in urban areas is on the increase, which points to a shift in the locus of undernourishment from the rural to the urban for these countries. However, the Dominican Republic and Colombia have been successful in combating this shift as evidenced by the decrease in the absolute number of urban undernourished children. Given that in absolute numbers the population, and the poor in particular, in urban areas are rapidly increasing, the food security situation in urban areas merits special attention. Particularly since food security and malnutrition have not appeared as major items on the urban research or policy agenda in the past or present.

43. Considerable attention has been given to the possible existence of a nutritional gender gap, particularly in the African continent. In Table 9, this issue is addressed in the LAC context using national anthropometric measures for girls and boys to detect any significant differences in nutritional status. As evidenced by the female to male ratios of prevalence of the different measures, there appears to be little or no nutritional gender bias among children in the region as a whole. However, as with aggregate nutritional status, caution should be exercised since the aggregate information presented here might mask some important differences in gender nutritional status at a more micro level, or even at the rural versus urban level. The data does suggest that in some cases girls are more likely to suffer from undernutrition than boys are and in other cases the opposite is found.

44. In general, poverty has been considered the key cause of food insecurity. Table 10 presents changes in poverty estimates for several LAC countries. Given the different sources of the data, inter-country comparisons are not reliable. However, poverty trends within each country

are, and these can be used for comparison with trends in undernourishment prevalence. A summary for countries for which the data allow a reasonable time comparison of both poverty and undernourishment is presented in Table 11.

45. Table 11 makes a strong case for the correlation between poverty and undernourishment at the aggregate national level. Countries, such as Brazil, Chile, Colombia, Peru and Panama have achieved a significant decrease in the prevalence of poverty and undernourishment. On the other hand, Mexico, Nicaragua and Venezuela have witnessed an increase in the prevalence of both poverty and undernourishment.

46. Another possible link worth exploring is between the evolution of public social expenditure and undernourishment prevalence. Table 12 presents the evolution of social public expenditure as a percentage of GDP and as a percentage of total public expenditure for 12 countries in the region between 1990-91 and 1994-96. Except for Ecuador and El Salvador, all countries show an increase in public social expenditure as a percentage of GDP. Colombia particularly shows an impressive increase, nearly doubling social expenditure as percentage of GDP. Except for Costa Rica and Nicaragua, all countries that show an increase in public social expenditure as percentage of GDP also show an increase in social expenditure as percentage of total public expenditure. Table 13 summarises the evolution of prevalence of undernourishment and social expenditure (as percentage of public expenditure).

47. Countries such as Colombia and Brazil, who show significant increases in social expenditure, also experienced strong gains in reducing undernourishment. Countries such as Costa Rica and especially Nicaragua, who show a decrease in the importance of social expenditure compared to other public expenditure, show a marked increase in the prevalence of undernourishment.

### *c) Screening and identification: Case studies*

48. Aggregate measures provide broad insights into food insecurity but do not examine the individual and household level factors that influence food insecurity in LAC. For this, case studies conducted throughout the region are reviewed. The case studies presented explore the relationship between food insecurity (measured as undernourishment and undernutrition using anthropometric indicators) and household or individual characteristics.

49. A result that comes through in numerous studies is the strong positive relationship between income level and food security. Studies from Mexico, Nicaragua, Jamaica and Brazil highlight the importance of household income on food security. Correspondingly, some studies note the importance of household wealth, such as animal ownership, home value and land ownership, on food security. Poverty is therefore strongly related to food insecurity and relieving food insecurity requires poverty alleviation. An important path out of poverty is improving the asset position of poor households. In addition to the amount of income earned, evidence suggests that how households generate incomes also influences nutrition<sup>17</sup>.

50. Within the household, allocation of resources is partly dependent on the percent of household income earned by the adult female in the household. This is shown in studies from

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<sup>17</sup> For example, one study shows if migrant remittances are an important component of income then households tend to spend less of a proportion of their income on food compared with households that earn income through cash cropping. The reason is that remittance income is often sporadic and lumpy (coming in large quantities) and households tend to indulge in the short-run and economize in the long-run as they wait for additional remittances.

Guatemala, Nicaragua and the Dominican Republic, where an increasing share of female earnings out of total household income increased the nutritional status of children in the household. Furthermore in a study from Brazil, women's non-labour income was found to help daughters health but not the son's health suggesting some bias in the allocation of resources by gender. Other factors such as the mother's schooling are positively related to child nutrition even when income and other considerations are controlled for. This is shown consistently across the region. A study in Bolivia finds that the children of urban women of rural origin are more likely to suffer from undernutrition than the children of urban women born in an urban area. This is partially related to the lower schooling levels of women of rural origin. Finally, some studies note a negative relationship between the age of the mother and child nutrition. Overall, this evidence suggests that intrahousehold allocation of resources in LAC and thus individual nutrition levels are largely dependent on household dynamics and the characteristics of the adult female in the household.

51. A number of characteristics of the children themselves may make them more or less vulnerable to undernutrition. While some studies show there is gender bias in food allocation to children, most find that there is no gender bias or that the evidence is inconclusive. This evidence corresponds to the aggregate measures on gender presented previously. However, there is evidence that the number of children in the household and the position in the household in terms of birth order are important factors with children in larger households and the youngest children being more likely to experience undernutrition. Finally, the adequacy of care a child receives is related to nutrition, with inadequate care (eg., being left with another child or brought to work with the mother) associated with lower nutrition.

52. The health and nutrition of children is also influenced indirectly and directly by community and other external factors. A study in Brazil notes that community factors such as availability of modern sewage, piped water and electricity are positively related to child height, that higher prices for dairy products and sugar are negatively associated with child height and that urban children tend to be taller than rural children, particularly if their mothers have minimal education.

## **V. Conclusions and policy implications**

53. In confronting food insecurity and vulnerability in LAC, it is important to understand the basic causes of the problem. The entitlements, or asset position, of the individual and the ability to command access to food are key to understanding and developing policies to mitigate food insecurity and vulnerability. Additionally, the uncertainty faced by an individual and the ability to cope with and manage risk is another important consideration. Given these considerations, food insecurity and vulnerability can be addressed at multiple levels, from the individual and household level to the national and regional levels, and policies should be co-ordinated to deal with the full spectrum of food security.

54. While LAC has made important gains in recent years in improving food insecurity and vulnerability, over 50 million people are still estimated to be food insecure and a substantially larger number are likely to be vulnerable to food insecurity at any given point in time. Certain sub-regions, countries and sectors within countries continue experiencing alarming levels of food insecurity and are not in pace to meet the goal set by the WFS of reducing the total number of hungry people by half by the year 2015. Gains will only continue to be made in LAC if these countries develop comprehensive policies to address food insecurity and vulnerability. Poverty reduction through direct interventions, such as social investment, and through equitable economic growth are key in this endeavour. Additionally, actions must be taken to avoid widespread

problems such as those associated with natural disasters. While a number of initiatives have been undertaken in the wake of Hurricane Mitch in Central America, these activities need to continue and expand to other parts of the region.

55. To ensure the effectiveness of policies, monitoring of the food insecurity situation in LAC at every level of intervention must continue. This allows appropriate targeting as well as a mechanism for evaluating policies. Efforts must also be geared to improving the measurement and understanding of food insecurity. Micro-level studies in LAC are limited, particularly broad-based studies, and this prevents much analysis of the causes of food insecurity. Studies should be stratified in a manner that allows the examination of the number of different situation that exist in LAC. Studies should focus on the urban versus rural population, different sectors of the country, different potentially vulnerable groups, etc. Furthermore, more effort should be made to improve aggregate measure of food insecurity and vulnerability. When household or individual level data is available this may be used to develop more accurate measures of food insecurity.

*APPENDIX I***TABLES**

**Table 1: Food Security Policy Matrix**

<b>Unit of Intervention</b>	<b>Issues:</b> Important factors to consider	<b>Information:</b> Identify vulnerable units for intervention	<b>Policies:</b> Targeting vulnerable units
<i>(a) Individual</i>	<ul style="list-style-type: none"> <li>individual entitlements</li> <li>intrahousehold relations</li> <li>household labor and food allocation</li> </ul>	<ul style="list-style-type: none"> <li>objective indicators</li> <li>subjective indicators</li> <li>household assets, labor allocation and resource distribution</li> </ul>	<ul style="list-style-type: none"> <li>empowering women through improved asset holdings</li> <li>considering intrahousehold implications of policies</li> <li>targetting through supplemental feeding programs</li> </ul>
<i>Household</i>	<ul style="list-style-type: none"> <li>household entitlements (assets)</li> <li>timing of entitlements</li> <li>sources of uncertainty</li> </ul>	<ul style="list-style-type: none"> <li>household consumption and expenditure</li> <li>household asset position</li> <li>coping and management strategies</li> </ul>	<ul style="list-style-type: none"> <li>facilitate asset accumulation</li> <li>promote income generating activities</li> <li>promote microfinance schemes</li> </ul>
<i>Community</i>	<ul style="list-style-type: none"> <li>market integration</li> <li>social institutions</li> <li>resources and management</li> </ul>	<ul style="list-style-type: none"> <li>community assets</li> <li>heterogeneity</li> <li>portfolio of economic activities</li> </ul>	<ul style="list-style-type: none"> <li>facilitate channels of communication</li> <li>participatory infrastructure development</li> <li>promote sustainability</li> </ul>
<i>Sub-national</i>	<ul style="list-style-type: none"> <li>rural vs. urban</li> <li>food distribution channels</li> <li>aggregate risk</li> </ul>	<ul style="list-style-type: none"> <li>rural vs. urban entitlements</li> <li>vulnerability maps</li> <li>food market structure</li> </ul>	<ul style="list-style-type: none"> <li>appropriate food price policy</li> <li>national disaster preparedness and relief networks</li> <li>improve food transport systems</li> </ul>
<i>National</i>	<ul style="list-style-type: none"> <li>food supply (national production and imports)</li> <li>enabling macro environment</li> <li>social stability and security</li> </ul>	<ul style="list-style-type: none"> <li>sources of supply</li> <li>national statistics</li> <li>sources of foreign exchange</li> <li>food aid programs</li> </ul>	<ul style="list-style-type: none"> <li>promote equitable growth and poverty reduction</li> <li>increase agricultural productivity</li> <li>establish adequate supply channels</li> </ul>
<i>Regional</i>	<ul style="list-style-type: none"> <li>regional risks</li> <li>regional food commerce</li> <li>role of international organizations</li> <li>WFS activities</li> </ul>	<ul style="list-style-type: none"> <li>sources of regional risk</li> <li>comparable national data</li> <li>regional trade links</li> <li>degree of regional cooperation</li> </ul>	<ul style="list-style-type: none"> <li>regional disaster preparedness</li> <li>normalization of information collection</li> <li>promote trade and cooperation</li> <li>facilitate regional information flow</li> </ul>

**Table 2: FIVIMS Activities in LAC**

<b>Region/Country</b>	<b>Main Funding and Technical Partners</b>	<b>FIVIMS Activities Completed and/or Planned</b>
LAC: Barbados	EC (proposed)	FIVIMS “Start-up Package” *
Ecuador	WFP, UNDP, FAO, UNICEF	Work with WFP/VAM
Central America Region	Navarra Region, Spain (proposed)	Regional support to national FIVIMS in Central America to be discussed with Navarra delegation October 14-15, as part of “food security support package” under negotiation
Haiti	EC (proposed), UNDP	FIVIMS “Start-up Package” *

\* **FIVIMS “Start-up Package”**: This involves a three phase process over approximately two years:

- (a) diagnostic study and definition of user information needs;
- (b) improving national food security information products on a pilot basis; and
- (c) design of subsequent system investment.

The proposed EC funding is similar to that of the FAO TCP program in level and catalytic role.

**Table 3: Selected measures of food insecurity**

<b>Measure/Indicator</b>	<i>(i) Basis</i>	<i>(a) Limitations</i>	<i>(i) Usefulness</i>
<i>Undernourishment Aggregate</i>	<ul style="list-style-type: none"> <li>• aggregate food intake versus nutritional requirements.</li> <li>• assumptions about distribution.</li> </ul>	<ul style="list-style-type: none"> <li>• based on aggregate supply.</li> <li>• difficult to determine nutritional requirements</li> <li>• distributional assumptions</li> </ul>	<ul style="list-style-type: none"> <li>• estimate of global and regional food insecurity</li> <li>• cross-country comparisons</li> <li>• highlights problem of food insecurity</li> </ul>
<i>Undernourishment Micro-level</i>	<ul style="list-style-type: none"> <li>• household or individual food intake</li> </ul>	<ul style="list-style-type: none"> <li>• difficult to determine nutritional requirements</li> <li>• problems with measuring food intake</li> <li>• captures short-term food insecurity and not long-term or vulnerability</li> </ul>	<ul style="list-style-type: none"> <li>• more precise measure of food intake</li> <li>• able to link food security with poverty and assets</li> <li>• allows prediction of food insecurity</li> </ul>
<i>Undernutrition</i>	<ul style="list-style-type: none"> <li>• anthropometric measures such as wasting, stunting, underweight</li> </ul>	<ul style="list-style-type: none"> <li>• unable to separate food intake and health, etc. effects</li> <li>• high data requirements</li> </ul>	<ul style="list-style-type: none"> <li>• captures long-term effects of food insecurity</li> <li>• able to link food security with poverty and assets</li> <li>• allows prediction of food insecurity</li> </ul>
<i>Coping strategies</i>	<ul style="list-style-type: none"> <li>• analyzes strategies to counter food insecurity</li> </ul>	<ul style="list-style-type: none"> <li>• location specific nature of risk-coping</li> <li>• difficult to monitor beyond micro level</li> </ul>	<ul style="list-style-type: none"> <li>• better understanding of responses to food insecurity</li> <li>• provides information for intervention</li> </ul>
<i>Indirect</i>	<ul style="list-style-type: none"> <li>• predict food security based on sets of characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• dependent on understanding of characteristics of food insecure</li> </ul>	<ul style="list-style-type: none"> <li>• lower information requirements</li> <li>• can predict which individuals are vulnerable</li> </ul>
<i>Subjective</i>	<ul style="list-style-type: none"> <li>• participatory methods to assess food security</li> </ul>	<ul style="list-style-type: none"> <li>• high information requirements limit widespread application</li> <li>• not conducive to statistical analysis</li> </ul>	<ul style="list-style-type: none"> <li>• better and more detailed information</li> <li>• greater understanding of needs of food insecure</li> </ul>

**Table 4: Prevalence of undernourishment  
Latin America and the Caribbean**

Country	Number of undernourished (million)			Proportion of undernourished (%)		
	1979-81	1990-92	1995-97	1979-81	1990-92	1995-97
<b>LATIN AMERICA AND THE CARIBBEAN</b>	<b>46.0</b>	<b>58.6</b>	<b>53.4</b>	<b>13</b>	<b>13</b>	<b>11</b>
<b>NORTH AMERICA</b>	3.1	4.4	5.1	5	5	6
Mexico	3.1	4.4	5.1	5	5	6
<b>CARIBBEAN</b>	4.6	7.3	9.3	19	25	31
Cuba	0.3	0.3	2.1	3	3	19
Dominican Rp	1.4	2.0	2.1	25	28	26
Haiti	2.6	4.5	4.7	47	63	61
Jamaica	0.2	0.3	0.3	8	12	11
Trinidad Tob	0.1	0.1	0.1	5	12	11
<b>CENTRAL AMERICA</b>	4.5	4.8	5.6	20	17	17
Costa Rica	0.2	0.2	0.2	8	6	7
El Salvador	0.8	0.6	0.6	17	12	10
Guatemala	1.2	1.3	1.7	18	14	17
Honduras	1.1	1.1	1.2	31	23	21
Nicaragua	0.8	1.1	1.4	26	29	31
Panama	0.4	0.4	0.5	22	18	17
<b>SOUTH AMERICA</b>	33.8	42.1	33.3	14	14	10
Argentina	0.2	0.7	0.5	*	*	*
Bolivia	1.4	1.7	1.8	26	25	23
Brazil	18.2	19.4	16.2	15	13	10
Chile	0.7	1.1	0.7	7	8	5
Colombia	6.2	6.1	4.9	22	17	12
Ecuador	0.9	0.8	0.6	12	8	5
Guyana	0.1	0.2	0.1	13	24	16
Paraguay	0.4	0.8	0.6	13	18	13
Peru	4.9	8.9	4.6	28	40	19
Suriname	0.1	0.0	0.0	17	11	9
Uruguay	0.1	0.2	0.1	3	7	4
Venezuela	0.6	2.2	3.3	4	11	

Source: FAO Statistics Division

\* Not available

**Table 5. Changes over time in undernourishment, LAC countries 1990-92 to 1995-97**

	Absolute number of undernourished increased	Absolute number did not change	Absolute number of undernourished decreased
Proportion of undernourished increased	Mexico <b><i>Caribbean</i></b> Cuba Guatemala Nicaragua Costa Rica Venezuela		
Proportion did not change	<b><i>Central America</i></b>		
Proportion of undernourished decreased	Dominican Rep. Haiti Honduras Panama Bolivia	Jamaica Trinidad Tob. El Salvador	<b><i>LAC South America</i></b> Argentina Brazil Chile Colombia Ecuador Guyana Paraguay Peru Surinam Uruguay

**Table 6: Urban and Rural prevalence of underweight, stunted and wasted children**

Country	Survey Year	Area	Age Range (years)	Wasting		Stunting		Underweight	
				<-2SD	Rural/Urban ratio	<-2SD	Rural/Urban ratio	<-2SD	Rural/Urban ratio
Haiti	1994-95	Urban	0-4.99	7.8	1.0	24.2	1.5	22.1	1.3
		Rural	0-4.99	7.9		35.1		29.8	
Nicaragua	1993	Urban	0-4.99	1.8	1.1	15.5	1.9	7.7	1.9
		Rural	0-4.99	2.0		29.5		14.3	
Dom. Republic	1997-98	Rural	0-4.99	1.8	1.4	19.0	1.7	9.9	1.5
		Rural	0-4.99	2.6		31.5		14.7	
	1991	Rural	0-4.99	1.3	1.2	12.0	1.9	7.6	1.9
		Rural	0-4.99	1.5		22.8		14.1	
Bolivia	1996	Rural	0-4.99	1.3	0.9	7.3	2.1	3.9	2.2
		Rural	0-4.99	1.2		15.2		8.5	
	1998	Rural	0-4.99	1.2	1.2	21.1	1.8	5.9	1.9
		Rural	0-4.99	1.4		37.7		11.1	
Honduras	1991-92	Rural	0-4.99	1.1	1.5	18.9	2.0	5.1	2.2
		Rural	0-4.99	1.6		37.8		11.0	
	1996	Rural	0-4.99	1.3	1.3	23.7	1.8	11.5	1.9
		Rural	0-4.99	1.7		43.7		21.8	
Peru	1991-92	Rural	0-4.99	1.2	1.2	20.9	2.2	10.1	3.0
		Rural	0-4.99	2.0	0.7	34.0	1.3	23.2	1.3
	1996	Rural	0-4.99	1.4		45.0		30.0	
		Rural	0-4.99	1.5	1.3	21.6	2.2	6.4	2.8
Guatemala	1987	Rural	0-4.99	1.9		48.1		17.6	
		Rural	0-4.99	1.7		40.4		13.7	
	1995	Rural	0-4.99	0.8	2.1	16.2	2.5	3.9	3.5
		Rural	0-4.99	1.3	1.0	47.0	1.3	25.2	1.4
Venezuela	1987	Rural	0.25-2.99	1.3		62.0		36.2	
		Rural	0.25-2.99	1.3		62.0		36.2	
	1995	Rural	0-4.99	2.7	1.3	35.3	1.6	18.2	1.7
		Rural	0-4.99	3.5		56.6		30.6	
Paraguay	1990	Rural	0-4.99	1.4	1.4	3.6	2.1	3.4	2.3
		Rural	0-4.99	2.0		7.7		7.8	
Paraguay	1990	Rural	0-4.99	0.2	2.5	8.9	2.0	2.8	1.5
		Rural	0-4.99	0.5		17.9		4.3	

*NB: Table continues next page*

**Source:** WHO Global Database on Child Growth and Malnutrition.

- <sup>a</sup>Other urban areas  
<sup>b</sup>Tegucigalpa  
<sup>c</sup>Metropolitan Area  
<sup>d</sup>Coast Region  
<sup>e</sup>Sierra Region

**Table 6 (cont'd): Urban and Rural prevalence of underweight, stunted and wasted children**

Country	Survey Year	Area	Age Range (years)	Wasting		Stunting		Underweight	
				<-2SD	Rural/Urban ratio	<-2SD	Rural/Urban ratio	<-2SD	Rural/Urban ratio
Colombia	1986	Rural	0.25-2.99	1.5	0.7	25.1	1.3	10.0	1.5
		Rural	0.25-2.99	1.0		31.4		14.9	
	1995	Rural	0-4.99	1.0	2.1	12.5	1.5	6.6	1.7
		Rural	0-4.99	2.1		19.1		11.4	
Jamaica	1989	Rural	0-4.99	3.4	1.0	6.8	1.5	5.9	1.4
		Rural	0-4.99	3.4		10.1		8.1	
Trin. and Tob.	1987	Rural	0.0-2.99	2.4	1.9	5.0	0.9	4.4	1.9
		Rural	0.0-2.99	4.6		4.6		8.2	
El Salvador	1993	Rural	0-4.99	0.3	6.0	13.6	2.1	7.2	1.9
		Rural	0-4.99	1.2	1.5	20.1	1.4	9.1	1.5
		Rural	0-4.99	1.8		28.1		14.0	
	1994	Rural	0-4.99	0.0		7.7	4.5	1.8	11.2
		Rural	0-4.99	5.7	0.4	21.0	1.6	12.6	1.6
		Rural	0-4.99	2.4		34.4		20.1	
Brazil	1996	Rural	0-4.99	2.3	1.1	7.8	2.4	4.6	2.0
		Rural	0-4.99	2.6		19.0		9.2	
Costa Rica	1996	Rural	1-6.99	2.2	1.4	6.6	1.0	4.0	1.7
		Rural	1-6.99	1.5	2.1	5.1	1.3	4.2	1.6
		Rural	1-6.99	3.1		6.5		6.7	
Ecuador	1986	Rural	0-4.99			41.8	1.1	31.7	1.3
		Rural	0-4.99			50.2	1.4	35.1	1.5
		Rural	0-4.99			47.1		41.1	
		Rural	0-4.99			69.8		51.9	

Source: WHO Global Database on Child Growth and Malnutrition.

<sup>a</sup>Other urban areas

<sup>b</sup>Tegucigalpa

<sup>c</sup>Metropolitan Area

<sup>d</sup>Coast Region

<sup>e</sup>Sierra Region

**Table 7: Stunted children in urban and rural areas, selected countries**

Country	Survey year	Age Range (yrs)	Urban <sup>a</sup> Stunting prevalence	Number <sup>b</sup> Stunted in urban areas (000s)	Rural <sup>a</sup> Stunting prevalence	Number <sup>b</sup> Stunted in rural areas (000s)	Percentage of all stunted children in urban areas	Percentage of all stunted children in rural areas
<b>Haiti</b>	1994-95	0-4.99	24.2	77.7	35.1	275.2	22	78
<b>Nicaragua</b>	1993	0-4.99	15.5	46.0	29.5	103.3	30.8	69.2
	1997-98	0-4.99	19	67.9	31.5	126.0	35	65
<b>Dom. Rep.</b>	1991	0-4.99	12	58.3	22.8	105.5	35.6	64.4
	1996	0-4.99	7.3	38.0	15.2	66.0	36.6	63.4
<b>Bolivia</b>	1996	0-4.99	21.1	135.0	37.7	188.9	41.7	58.3
	1998	0-4.99	18.9	138.4	37.8	180.9	43.3	56.7
<b>Honduras</b>	1991-92	0-4.99	23.7	70.3	43.7	235.7	23	77
	1996	0-4.99	25.3	91.1	45	254.8	26.3	73.7
<b>Peru</b>	1991-92	0-4.99	21.6	385.8	48.1	533.4	42	58
	1996	0-4.99	16.2	297.6	40.4	430.3	40.9	59.1
<b>Guatemala</b>	1987	0.25-2.99	47	212.6	62	590.1	26.5	73.5
	1995	0-4.99	35.3	198.0	56.6	640.7	23.6	76.4
<b>Venezuela</b>	1987	0-4.99	3.6	70.4	7.7	40.7	63.4	36.6
<b>Paraguay</b>	1990	0-4.99	8.9	25.8	17.9	69.8	27	73
<b>Colombia</b>	1986	0.25-2.99	25.1	675.6	31.4	485.1	58.2	41.8
	1995	0-4.99	12.5	404.3	19.1	289.7	58.3	41.7
<b>El Salvador</b>	1993	0-4.99	17.2	52.7	28.1	111.5	32.1	67.9
<b>Brazil</b>	1996	0-4.99	7.8	917.5	19	847.6	52	48
<b>Costa Rica</b>	1996	1-6.99	5.8	10.9	6.5	14.9	42.3	57.7

<sup>a</sup>Source is the WHO Global Database on Child Growth and Malnutrition WWW.WHO.ORG

Stunting is defined as height-for-age <-2SD compared to reference standards.

<sup>b</sup>The number of stunted children in urban (rural) areas is calculated as the number of urban (rural) children less than 5 years old (from ECLAC, 1999b) X the prevalence of stunting in urban (rural) areas. The population year was matched

**Table 8. Changes over time in prevalence of stunted urban children**

	Absolute number of urban stunted children increasing	Absolute number of urban stunted children decreasing
Share of urban stunted children increasing	Nicaragua (1993-98) Bolivia (1996-98) Honduras (1991-96)	Dom. Republic (1991-96) Colombia (1986-95)
Share of urban stunted children decreasing	Guatemala (1987-95)	Peru (1991-96)

**Table 9: Prevalence of underweight, stunted and wasted girls and boys**

Country	Survey Year	Area	Age Range (years)	Wasting		Stunting		Underweight	
				<-2SD	F/M ratio	<-2SD	F/M ratio	<-2SD	F/M ratio
<b>Haiti</b>	1994-95	Male	0-4.99	8.4	0.9	31.8	1.0	26.9	1.0
		Female	0-4.99	7.2		32.0		28.0	
<b>Nicaragua</b>	1997-98	Male	0-4.99	2.2	1.0	26.5	0.9	13.1	0.9
		Female	0-4.99	2.1		23.4		11.3	
<b>Dom. Republic</b>	1996	Male	0-4.99	1.6	0.6	12.0	0.8	6.4	0.8
		Female	0-4.99	0.9		9.4		5.3	
<b>Bolivia</b>	1998	Male	0-4.99	1.5	0.7	27.3	1.0	7.6	1.0
		Female	0-4.99	1.1		26.3		7.6	
<b>Honduras</b>	1996	Male	1-4.99	1.9	0.4	39.3	1.0	24.0	1.1
		Female	1-4.99	0.8		38.5		26.8	
<b>Peru</b>	1996	Male	0-4.99	1.2	0.9	26.4	1.0	8.1	0.9
		Female	0-4.99	1.1		25.1		7.4	
<b>Guatemala</b>	1995	Male	0-4.99	3.6	0.8	50.4	1.0	25.9	1.1
		Female	0-4.99	2.9		49.1		27.3	
<b>Venezuela</b>	1997	Male	0-4.99	2.9	1.0	16.3	0.8	5.2	0.9
		Female	0-4.99	3.0		13.5		4.9	
<b>Paraguay</b>	1990	Male	0-4.99	0.2	2.0	14.3	0.9	3.2	1.3
		Female	0-4.99	0.4		13.5		4.1	
<b>Colombia</b>	1995	Male	0-4.99	1.4	0.9	16.2	0.8	9.1	0.8
		Female	0-4.99	1.3		13.7		7.6	
<b>Jamaica</b>	1989	Male	0-4.99	3.3	1.1	12.4	0.4	8.9	0.6
		Female	0-4.99	3.5		5.1		5.6	
<b>Trin. and Tob.</b>	1987	Male	0.0-2.99	3.7	1.0	4.9	0.9	5.9	1.3
		Female	0.0-2.99	3.7		4.6		7.4	
<b>El Salvador</b>	1994	Male	0-4.99	5.1	0.5	27.5	0.8	15.7	0.9
		Female	0-4.99	2.6		23.1		13.8	
<b>Brazil</b>	1996	Male	0-4.99	2.3	1.0	11.5	0.8	5.9	0.9
		Female	0-4.99	2.4		9.4		5.4	
<b>Costa Rica</b>	1996	Male	1-6.99	3.7	0.3	5.8	1.1	6.2	0.6
		Female	1-6.99	1.0		6.5		4.0	
<b>Argentina</b>	1994	Male	0-4.99	1.8	0.2	7.4	0.3	3.4	0.1
		Female	0-4.99	0.3		2.2		0.5	

Source: WHO Global Database on Child Growth and Malnutrition.

**Table 10: Changes in poverty prevalence in the 1990's**

Country	Years	Earliest (%)	Latest (%)
Argentina (B. Aires)	90-97	16	13
Bolivia	90-97	47	44
Brazil	90-96	41	29
Chile	90-96	39	20
Colombia <sup>a</sup>	88-95	23	15
Costa Rica	90-97	24	20
Dom. Rep. <sup>a</sup>	86-92	33	34
Ecuador	90-97	56	50
El Salvador <sup>a</sup>	91-96	60	52
Honduras	90-97	75	74
Jamaica <sup>a</sup>	89-95	25	22
Mexico	89-96	39	43
Nicaragua	85-93	73	76
Panama	91-97	36	27
Paraguay (Asuncion)	90-96	37	40
Paraguay (rural) <sup>a</sup>	92-95	53	60
Peru <sup>b</sup>	91-96	55	46
Uruguay	90-97	12	6
Venezuela	90-97	34	42

Source: ECLAC, 1999a

<sup>a</sup>Morley (1998)

<sup>b</sup>Escobal et al (1998)

**Table 11: Changes in undernourishment and poverty prevalence in the 1990's**

	Prevalence of undernourishment increased	Prevalence of undernourishment decreased
Prevalence of poverty increased	Mexico Nicaragua Venezuela	Paraguay
Prevalence of poverty decreased	Costa Rica	<i>LAC</i> Argentina Bolivia Brazil Chile Colombia Ecuador El Salvador Honduras Jamaica Panama Peru Uruguay

	Social expenditure as % of GDP		Social expenditure as % of public expenditure	
	1990-91	1994-96	1990-91	1994-96
Bolivia	6	9.8	30.5	37.1
Brazil	9.4	11.2	27.2	33.9
Chile	13.8	14.4	58.1	61.8
Colombia	7.9	13.3	28.7	39.3
Costa Rica	17.7	19.6	63.6	61.9
Dom. Rep.	3.7	5.4	35	32.4
Ecuador	8.3	7.8	38.7	32.4
El Salvador	4.1	3.6	29.9	23.8
Guatemala	3.3	3.9	29.9	37.9
Jamaica	11.6	11.7	26.8	31.9
Nicaragua	11.5	13.4	33.7	29.8
Peru	2.2	3.3	13.8	18.6

Source: ECLAC, 1999c

**Table 13: Changes in undernourishment and social expenditure in the 1990's**

	Prevalence of undernourishment increased	Prevalence of undernourishment decreased
Social expenditure as percentage of public expenditure increased	Guatemala	Bolivia Brazil Chile Colombia Jamaica Peru
Social expenditure as percentage of public expenditure decreased	Costa Rica Nicaragua	Ecuador El Salvador

*APPENDIX II***Food Security Regional Initiatives**

1. Because natural disasters often hit multiple countries in a region, regional cooperation in preparedness and relief coordination can help avoid food security problems and facilitate delivery of assistance to the food insecure. A number of sub-regional accords have surfaced recently to deal with natural phenomena and the potential negative effects they could have on food security. The Central American (CA) community is perhaps the most organized, but important efforts also exist in the Andean countries (particularly Ecuador and Peru) to monitor the El Niño phenomenon and between Argentina, Bolivia and Paraguay to face the problems of desertification and drought in the Great American Chaco. The CA sub-region has organized to deal with El Niño through the creation of the “Action Plan to mitigate and face the effects of El Niño in CA”<sup>18</sup>.

2. As a further testament to CA’s sub-regional efforts to mitigate the impact of natural disasters, the presidents of the CA countries in their ordinary session held in Guatemala City during the 18 and 19 of October of 1999, declared the next five years as the “Quinquenio Centroamericano para la Reducción de Vulnerabilidades y el Impacto de los Desastres.” At the same meeting, the CA governments decided to adopt the “Marco Estratégico para la Reducción de Vulnerabilidades y Desastres en Centroamérica.” This framework will be an integral component of the transformation process and sustainable development of the region for the next millennium and will include preventive and damage mitigating policies, as well as policies and actions for emergency management.

3. At the WFS, governments committed to develop a national food insecurity and vulnerability information and mapping system. For such a system to be effective and useful in making cross-county comparisons and to provide an information exchange network, it is necessary that governments coordinate these activities and agree to a common set of procedures. To assist governments in this task an inter-agency working group (IAWG), with FAO as its secretariat, has established the Food Insecurity and Vulnerability Information and Mapping System (FIVIMS) initiative to gather, analyze and share knowledge that can guide policies to increase food access for all. FIVIMS can go a long way in improving monitoring of food security in the region. Among the main areas of current activity of FIVIMS are:

- FIVIMS pilot activities at country and sub-regional level, which are under way, or proposed for donor funding. Recent activities have been undertaken in Barbados, Ecuador, Haiti and the CA region (see Table 2 for more details). Preparation of a Common International Database (CID) on food insecurity indicators, as part of the development of a “global FIVIMS”.
- Development of common methodologies for identification of food insecure and vulnerable groups at sub-national level, and practical steps for the use of this information to enhance action

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<sup>18</sup> This plan forms part of the Regional Plan for Disaster Reduction. The responsible bodies for the general coordination of the plan are the SG-SICA and the CEPREDENAC (Coordination Center for the Prevention of Natural Disasters in Central America). At the regional level, the plan is part of the regional policies established in The Alliance for Sustainable Development (ALIDES), The Regional Plan for Disaster Reduction (PRRD), the Tratado Marco de Seguridad Ciudadana (TMSC), and the Plan de Acción Centroamericano para el Manejo Integral de los Recursos Hídricos (PACADIRH).

programs to address food insecurity and poverty. The first inter-agency product of this nature was the publication, "Guidelines on Establishing National FIVIMS".

- Enhancing information dissemination, especially through the establishment of an IAWG website ([www.fivims.net](http://www.fivims.net)) and printed publications produced both by the IAWG (eg. the Guidelines) or its individual members.

4. In addition to support provided by the FAO regional, subregional and country offices, other UN agencies and IAWG partners were also supporting the FIVIMS program: focal points had been designated in 63 countries and all developing countries had received a questionnaire on the status of national food information systems. In 14 countries, the ACC Thematic Groups on Rural Development and Food Security had made FIVIMS a principal activity. FIVIMS was strongly supported by UNDP, which considered it a major contribution to the common UN country planning. Moreover, FIVIMS trust fund projects amounted to some US\$ 3 million, while international and bilateral partners were considering proposals for some US\$ 7 million. So far in the region, nutritional profiles have been developed for a number of countries contributing to the overall goal of FIVIMS.

5. Since countries in LAC share many characteristics, food security programs and policies in one country may provide useful lessons for other countries. Additionally, food security problems may be similar across the region. Coming up with solutions to food insecurity and vulnerability, will be aided by the transmission of information across the region. A number of initiatives relevant to the collection and sharing of information between countries of the region that could have important implications for food security have recently taken place or are coming up. Many of these regional initiatives have been sponsored by international organizations. Among others, the following bear special mention:

- International Seminar on Rural Non-Farm Employment Development. Organized by FAO, IDB, ECLA and RIMISP. Santiago de Chile, 6-8 of September 1999.
- Seminar on Rural Poverty Alleviation: Experiences and Lessons from Experiences. Organized by FAO and ECLAC. February 2000.
- Conference of the Rural Economy and Poverty Reduction in LAC. Scheduled to take place in New Orleans on March 24, 2000 within the framework of the Assembly of Governors of the InterAmerican Development Bank.
- Regional Training Courses on Trade Negotiations. Organized and conducted by FAO under the TCP umbrella.

6. In addition to the aforementioned initiatives, the Inter-American Board of Agriculture, at its Tenth Regular Meeting, held in Salvador, Brazil from the 16 to 29 of October 1999 resolved to charge IICA, and request support from the IDB, IFAD, ECLAC, GTZ and FAO, with preparing together and in consultation with the governments, a proposal for an Inter-American Agenda for Financing the Rural Economy and Combating Rural Poverty<sup>19</sup>. Such initiatives allow countries to learn from neighbouring countries and to share experiences.

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<sup>19</sup> The purpose of the Agenda would be to establish priority areas for expenditures and investments, and a plan of action involving joint action among the cooperation agencies for complying with the agenda.

*APPENDIX III***The FAO Special Programme for Food Security  
in Latin America and the Caribbean*****BACKGROUND, OBJECTIVES AND MAIN CHARACTERISTICS***

1. The Special Programme for Food Security (SPFS) was launched after its unanimous approval by the FAO Council in 1994. It was further endorsed by the World Food Summit (WFS) in November 1996, when the Heads of States and Governments committed themselves to making food security a priority of their national development efforts (beneficiary countries) or of their development supporting policies (donor countries). The Summit further agreed to Seven Basic Commitments aim at reducing by half the world undernourished people by year 2015. The SPFS main objectives are to assist LIFDCs to rapidly increase food production and productivity on sustainable basis, reduce the year-to-year variability of production, and improve access to food, as a contribution to equity and poverty alleviation. The Programme is therefore expected to contribute substantially to the implementation of the WFS Plan of Action Basic Commitments, in particular the following three:

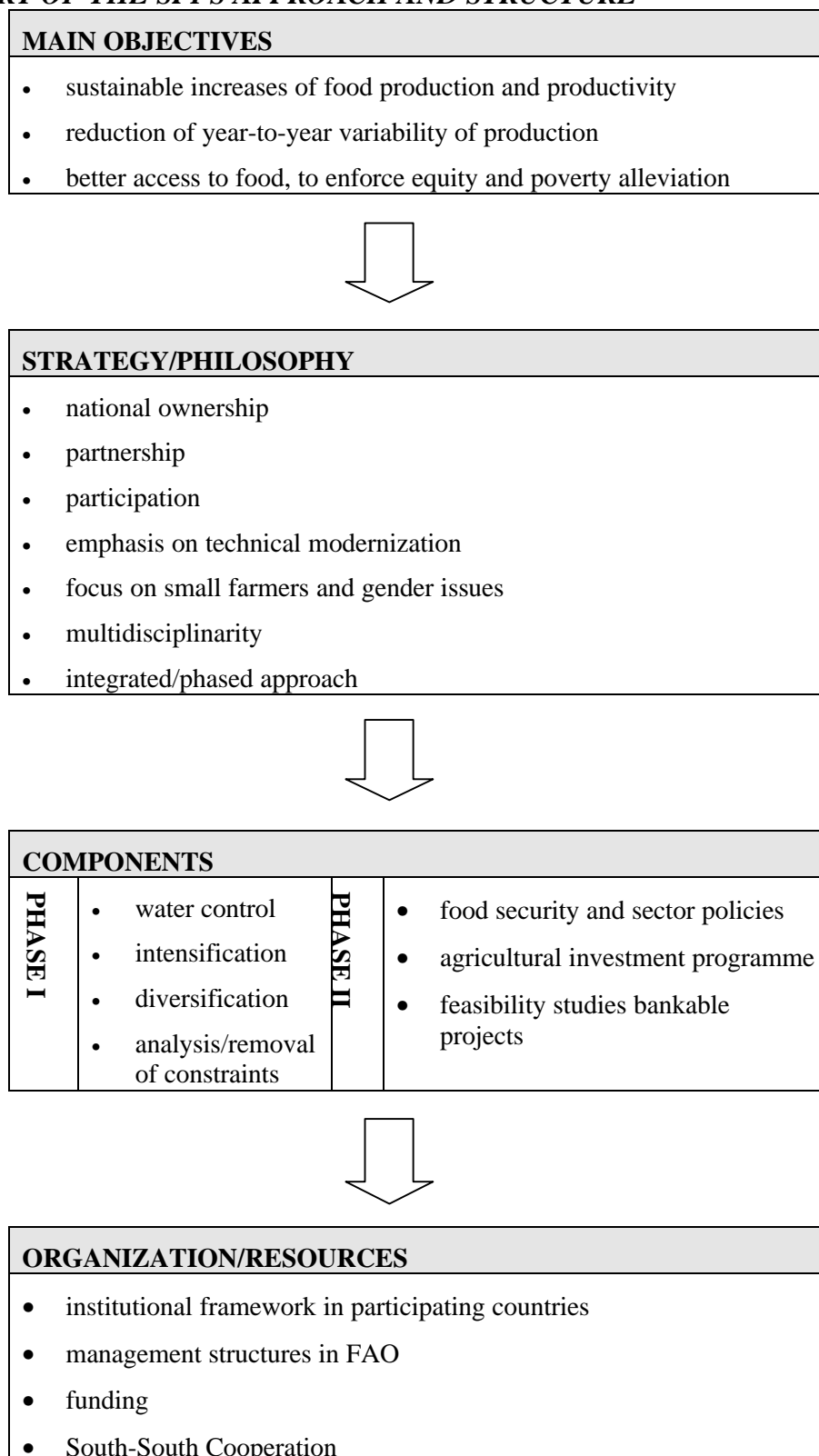
- No 2: “Implement policies aimed at increasing physical and economic access to food”.
- No 3: “Pursue participatory and sustainable food, agriculture, fisheries, forestry and rural development policies and practices in areas which are essential to adequate and reliable food supplies”.
- No 6: “Promote optimal allocation and use of investments, to foster human resources, sustainable food, and rural development”.

2. The core features of the SPFS strategy are national ownership, partnership with the development partners, including donor countries and multilateral financial institutions, participation of farmers and other stakeholders, emphasis on technical modernization, priority to small farmers, gender sensitivity, and integrated, multidisciplinary and phased approach.

3. The Programme is implemented by governments and rural communities in two phases. Field demonstrations of Phase I involve the mobilization and training of local personnel and farmers and the supply of seeds, tools and equipment. The four interrelated and complementary components of this phase are: water control, including small-scale irrigation and drainage, water harvesting and on farm water management; intensification of sustainable plant production systems; diversification towards aquaculture, artisanal fisheries and small animal production; and analysis of socio-economic constraints. The results obtained at demonstration sites each season are quantified and analyzed to reorient operations and provide a firm analytic basis for replication at additional sites.

4. Phase II, the macroeconomic level of the SPFS, entails a nationally prepared action plan addressing at large scale the opportunities and constraints identified in the previous phase. The plan is composed of national food and agriculture policies intended to lift macro-level and sectoral constraints and provide an environment favourable to agricultural production, processing, marketing and access to food; an agricultural investment programme, to improve the physical infrastructure and increase the private and public financing of agricultural activities and services; and feasibility studies of “bankable” projects ready for implementation.

Chart I

**SUMMARY OF THE SPFS APPROACH AND STRUCTURE**

5. To facilitate a correct implementation of the objectives and strategy, the Programme assists countries to set up an institutional framework at various levels, to mobilize domestic and international financial resources, and to develop an innovative South-South Cooperation scheme.

### ***MAIN ACHIEVEMENTS***

6. Over 75 developing countries applied to the SPFS. The lessons learned and results obtained in some 20 countries during the first three years contributed, in the current biennium, to the extension of on-going country programmes and a rapid incorporation of new countries. By December 1999, the Programme was operational in 54 countries, including 32 in Africa, 12 in Asia, 2 in Eastern Europe, 7 in Latin America, and 1 in Oceania. (Annex 1). The following paragraphs summarize the main results of the four components of Phase I, with special reference to the Latin American and the Caribbean Region.

#### ***Water Control***

7. In many agro-ecological zones of developing countries water control practices are essential to increase food production and avoid sharp year-to-year fluctuations. They include water management and irrigation, with emphasis on a wide range of low-cost infrastructures and techniques particularly adapted to small farmers' agriculture. Phase I activities in some countries such as Haiti entirely addressed the irrigated agriculture, while in other countries, such as Bolivia, initial activities started under rainfed conditions with the subsequent incorporation of water control. In most countries, however, demonstrations have covered both types of agriculture.

8. Activities on water management in **Haiti**, in 1998/99, are mainly been implemented thanks to the work provided by the local farmers' associations, whose members devoted 1 free workday per week to the rehabilitation of two irrigation schemes. So far the following results were achieved in the two selected areas: in Dubreuil irrigation scheme 226 farmers rehabilitated 4,000 m. of the main channel and 3,500 of secondary channels; they also worked at improving 1,000 m. of the road bordering the main channel; in Laverdure 78 farmers rehabilitated 2,000 m. of the main channel and 2,500 m. of secondary channels. Since August 1998, a programme of agricultural credit for farmers, supported by Ministry of Agriculture, has been established by the water users association in Laverdure and it is also being established in Dubreuil. So far 523 farmers benefited from the Programme. Two shops providing agricultural inputs to farmers are also being established.

- In other Latin American countries, as **Ecuador, Guatemala, Honduras and Nicaragua**, water control activities are recently started in irrigated agriculture with special focus on strengthening water users' associations and rehabilitation of existing irrigation schemes.

#### ***Crop Intensification***

9. Agricultural intensification enhances single practices (soil preparation, varieties, fertilization, etc) as well as production and processing technological packages. In the SPFS experience, single practices tend to predominate in rainfed areas while technological packages are more common in irrigated areas. Crop intensification focussed initially on few products (rice, maize), but sorghum, wheat, millet, cassava, yam and horticulture were incorporated in the last seasons. Monitoring data indicates that the improved

farming systems and technologies promoted by the Programme reach high rates of adoption and substantially higher yields and incomes.

- In **Bolivia**, the average results for the main crops, i.e., potato and maize are as follows: potato yields demonstrations sites are reported to have been increased by 40% in irrigated and by 90% in rainfed plots, with a net farmers income increased by 67%. Maize yields increased by 58% in irrigated and by 42% in rainfed plots. The economic analysis of average achieved results shows a net income per SPFS about three times than this in surrounding areas not applying improved technologies.
- In **Haiti**, intensification consists of seed multiplication, input distribution, and prevention of post harvest losses (one TCDC Bolivian expert worked for two months with the national team). Technical packages, already tested locally, have been selected and verified. Post-harvest activities have been improved. As of the end of March 1997, demonstration plots were established at Laverdure and Dubreuil. Technical practices have been diffused mainly for beans. In 1998, in Dubreuil and Laverdure, 19 farmers cultivated improved quality of maize (5 ha.). The results showed an average production of 3.4 TM per ha., instead of the 2 TM of the reference plots. Demonstrations on rice in Laverdure had low results for the presence of a rice disease. In Poteau-Hook (Torbeck) site, selected as a new area for demonstrations, 14 farmers cultivated an improved seed variety of rice in 14 plots (5 ha.). Results are very positive. In the case of the lowest quality' variety the results are 2.6 times the average yields in the area. In Laverdure, demonstration campaign on beans, involving 32 farmers and 12 ha, had yields of 950 kg/ha.

### *Diversification on Small Animals and Fisheries*

10. The diversification component, particularly targeted to women and small farmers' agriculture, is generating new skills for small animal production, apiculture, fish farming and artisanal fishery. The incorporation of this component into the SPFS has been strengthened since 1999 and thus has not yet reached its full momentum. However, diversification is generally well suited to small farmers' agriculture and activities are progressing well in many countries.

- In **Bolivia** diversification component started in 1997, basically aimed at the improvement of small animals (*cuyes* and hens) breeding in Cochabamba, Vallegrande and Tarija Department in collaboration with the local University.
- In **Ecuador** activities on improved pigs breeding are presently on-going, while in **Guatemala**, **Honduras** and **Nicaragua** the focus will be on goats, poultry, pigs and rabbits.

### *Constraints Analysis*

11. Analysis and removal of constraints at farmers' level is essential to facilitate the participatory development of concrete farming systems. Similarly, even though most African countries have been implementing structural reforms in order to create conducive institutional and policy environments to agricultural development, the wide replication of innovations demonstrated successful on a limited scale, normally requires the resolution of upstream and downstream constraints of various types. *Ad-hoc* constraints analysis was carried out by the SPFS for the formulation of the first National Programme Documents.

12. Since 1997, however, participatory and multidisciplinary identification of constraints, as well as ways to remove them, constitute a formal activity of the formulation and implementation of all country programmes. Important progress has been achieved, particularly at farmers' and households' level. Work on constraints analysis at sectoral and macroeconomic levels still require further strengthening and their crucial role as a requisite to launch the Phase II of the SPFS better understood. Many countries are taking advantage of the on-going extension of the Phase I to new sites in order to expand the constraint analysis work.

- In Latin American and Caribbean Region, constraints analysis activities are currently on-going in **Bolivia** and **Haiti**, where preliminary reports have already been prepared; activities are also started in **Ecuador**, **Guatemala**, **Honduras** and **Nicaragua**. In the four countries a workshop on constraints analysis and participatory approach has been held in 1999.

### *Other results*

13. Although not separate components of the Programme, Phase I is achieving a positive impact on training and institutional building at various levels. A considerable number of farmers (with predominance of women and small farmers) and staff of public institutions and NGOs are being trained, through technological demonstrations, workshops and other dissemination events. The Programme is also contributing to constructive dialogue and collaboration among farmers, farmers' associations, NGOs, and the public sector, reversing past tendencies to isolation or confrontation. National, regional and local steering committees with the capacity to manage food security programmes are gradually being established.

14. The attached Box summarizes the main activities and results achieved in a few countries.

### *SPFS Selected achievements in Latin America and the Caribbean Region*

- **BOLIVIA**  
The SPFS started in October 1995 in four areas: the Central Valleys of the Department of Tarija, the High Valleys of the Department of Cochabamba and the Integrated Zone as well as the Vallegrande Valleys, both of the Department of Santa Cruz. In the four areas, the SPFS implementation was mainly related to the intensification component. In 1997, preliminary activities on constraints analysis, water control and diversification components were started, the latter based on the improvement of small animals (*cuyes* and hens) breeding in the Cochabamba Department. In 1999, the diversification component and some minor activities to complete the intensification components are funded by FAO/RP. A TCP on water control is being finalized. The experimental activities carried out by the SPFS on intensification component have been successful. During the crop season 1997-98, a total of 101 demonstration plots were planted, with maize, potato, peas, kidney beans, beans and rice as the main crops, and a total of 2,082 small-medium farmers participated in the programme, of which 554 (27%) are direct beneficiaries and 1,528 (73%) non direct beneficiaries.
- **ECUADOR**  
Preliminary activities in the field started in November 1997. Food security is a main priority for the Ecuadorian Government and a wide "Food Security Committee" has been established to coordinate the implementation of food security activities in the country. SPFS is supporting the

creation of an operational network on food security including public and private sector, multilateral agencies and bilateral donors.

SPFS activities are mainly focused on improved water management of the existing irrigation infrastructures and on the introduction of improved and integrated agricultural practices in order to increase the small farmers' incomes and their access to food. Two pilot sites have been selected, one on the uplands (Ambuquí) and another on the coast (Portoviejo). Moreover, a TCP project on water control to be implemented in Portoviejo area has been recently approved by FAO, for a total amount of USD 340,000, while the SPFS activities in Ambuquí area are supported by a SPFS/project funded by FECD (Fondo Ecuatoriano-Canadiense de Desarrollo) for an amount of about USD 335,000. The latter has been declared operational in July 1999.

Two small projects on diversification have been funded by TELEFOOD and other two by the FAO 1% Committee and Olympic Committee.

- **HAITI**

Phase I was declared operational in January 1996, but main activities at field level started in June 1997, for the intensification, water control and constraints analysis components. Demonstrations for the production intensification component started in 2 areas: Laverdure and Dubreuil. Main crops are rice, maize and beans but also other food crops in existing production systems. Since the initial phase, the attention has been focused on the information on new techniques, the organization of groups of farmers' and their training. In 1998 about 2,500 farmers (including 350 women) participated in the demonstration activities and to the works for rehabilitation of little irrigation perimeters.

Up to now, the Programme has been financed from funds provided by FAO Regular Programme. In January 1999 we added to SPFS an additional project, financed by the French cooperation for a total of US\$ 500,000. The project includes two very important components: training and support to farmers.

- **GUATEMALA, HONDURAS and NICARAGUA**

In 1997 the SPFS/National Programme Document and National Plan of Operations were prepared by the respective National Team in each country and starting-up activities were funded by FAO/RP. During 1998, the Spanish Government agreed on funding SPFS in the three Countries. Three SPFS Trust Fund projects (including the four SPFS components) of about US\$ 550,00 and 18 month duration have been finalized by FAO and declared operational in mid 1999. Based on the evaluation of the first Phase results, following phase increasing possible funding of Spain to US\$ 1 million for each country is expected.

Three Spanish APO are being appointed to follow project's activities in each country and a senior international expert, who will be based in Honduras, will coordinate SPFS activities in the three countries.

A workshop on SPFS philosophy and approach was held in Honduras in December 1999 with the participation of the three national teams and the collaboration of other FAO on-going projects. The workshop was specially focused on a better understanding of participatory approach and constraints analysis component.

- SPFS/activities through TCP projects would start soon in **CUBA** and **DOMINICAN REPUBLIC**. In **PERU**, a TCP project on diversification component (fishery) within the SPFS framework has been recently approved.

### ***SOUTH-SOUTH COOPERATION (SSC): APPROACH AND INITIAL RESULTS***

15. The South-South Cooperation initiative was launched by the Director General in 1996 within the framework of the SPFS, with the objective of allowing recipient countries to benefit from the expertise accumulated by more advanced developing countries. It is intended to provide a new impetus for cooperation amongst developing countries, which in the past has only been partially successful due, *inter alia*, to the lack of foreign exchange needed to pay international transport and allowances, prepare feasibility studies, and finance operational and other implementation costs. The SSC fills these gaps through a combination of FAO, bilateral and multilateral support to countries participating in the SPFS. The SSC supplements the intrinsically shorter-term TCDC agreement.

16. The South-South Cooperation consists of a combination of a few senior staff and a substantial number of technicians with strong practical field experience in agriculture who are expected to work directly with farmers, during two to three years, in the rural communities involved in the Special Programme. The teams are not only expected to introduce improved ways of bringing about sustainable and replicable agricultural development, but also, through their commitment and example, serve as an important stimulus for change within the farming structures to which they are assigned. The number of experts and technicians required is determined on a case-by-case basis, but must achieve a critical mass, with site coverage representing all agroecological regions of the country. They are fielded in a phased manner and expected to play a key role in contributing to the implementation and extension of Phase I by the national teams.

17. Over 37 developing countries have already expressed interest in providing support and SSC activities are already on-going in 12 countries. Viet Nam has been collaborating with Senegal since late 1996 with, at present, 100 experts and technicians working at field level. Morocco has fielded in an initial stage 45 experts and technicians to collaborate in the extension of Burkina Faso's Programme to 18 sites by year 2000. Similarly, a first group of 20 Chinese and 10 Bangladesh are on their way to collaborate with the SPFS, respectively, in Mauritania and Gambia. In Benin, 19 Vietnamese are already in place. Turkey will provide technical assistance under South-South Cooperation initiative within the SPFS framework to Kyrgystan, Azerbaijan and Turkmenistan. Egypt will provide South-South Cooperation to Djibouti, Bosnia & Herzegovina, Malawi, Tanzania and Yemen.

For Latin American countries, the Government of **Cuba** has informed FAO of its interest in participating as cooperating country in South-South Cooperation within the framework of the SPFS with **Belize, Dominican Republic, Equatorial Guinea, Cape Verde, Guyana, Haiti and Sao-Tome and Principe**. Having **Cape Verde, Equatorial Guinea and Sao-Tome and Principe** expressed their agreement on receiving South-South Cooperation from Cuba, three joint FAO-Cuba SSC formulation missions were fielded in April-May 1999 in the three countries. The three mission reports and drafted tripartite agreements were sent to the cooperating and recipient countries for comments and approval. SSC would soon be provided by Cuba also to Haiti.

## ***ORGANIZATION AND RESOURCES OF PHASE I***

### ***Institutional framework and management***

18. As a complex and decentralized programme, the SPFS requires well-established institutional structures, in the participating countries as well at FAO. The participating countries has been assisted to set-up mechanisms that facilitate the implementation of the SPFS and its full integration with the overall domestic rural institutional system and programmes, as well as with other food security specific programmes. The recommended framework consists mainly of: an **Inter-ministerial Policy Committee (national Steering Committee)** preferably chaired by the Prime Minister, to provide policy guidelines and feed-back; an **Inter-ministerial Technical Committee**, responsible for the technical leadership of the SPFS and of its coordination with other programmes and the private sector; an **Inter-departmental Regional Committee**, lead by the head of the Region or Province bringing together the representatives of local institutions, to ensure synergy with other programmes in the region; and **Local Committees**, at district or community level, to ensure a participative formulation and implementation by all local stakeholders (public, private, NGOs, etc.)

19. This institutional mechanism has been established in most countries where the SPFS has been under implementation at least since the second half of 1997. In some of them, however, the full institutional structure is not in place as yet.

20. On its side, FAO management structure consisting of the **SPFS Joint Committee**, chaired by the Director-General, a **Policy Committee** and an **Implementation Committee**, as well as a **Coordination and Monitoring Unit (TCOS)**, are currently settled down and functioning. As the top priority programme of the Organization, the SPFS activities receive strong collaboration from practically all FAO technical and operational structures at Headquarters and decentralized offices. The Programme also benefits from the advice of an external **Oversight Panel**, which meets yearly, and from the reviews made by the Senior Field Inspector and by independent Regional Field Inspectors. A considerable number of backstopping reports, dealing with technical, operational and communication matters, contribute also to the SPFS implementation

21. During the last biennium, these reviews and reports have underlined, *inter-alia*, three management issues. First, the implementation of the Programme is now being facilitated by a consistent (thought still uncompleted) number of specialized FAO documents. These documents are systematically published in a Handbook Series composed of three separated volumes: Overview; Preparation and implementation of National Programmes; and Management and international cooperation issues. Second, special efforts are still needed to share the SPFS concept and approaches with the various national authorities and donors, as well as to ensure its inclusion in and coordination with the regular national structures, as well as its coordination with other food and agriculture programmes. Third, the FAO technical backstopping to the nationally owned programmes needs to be further enhanced, particularly with regard to the formulation of the National Programme Documents, the implementation of the constraints analysis work and the functioning of the monitoring and evaluation system.

### ***Financing***

22. The SPFS was initiated with a modest FAO and recipient countries resources. This has affected the Programme in two main ways: most national programmes started with a restricted structure, e.g. addressing few sites, areas and farmers, or leaving aside some of the four components of the Phase I; and

its implementation had to be limited to a reduced number of countries. However, the gradual implementation of the Programme contributed to a better understanding of its concept and modalities by all the stakeholders and development partners, and led to their increased interest and financial support. In fact, together with the cooperation of other developing countries through the SSC arrangements, the partnership with donors and financial institutions has highly contributed to the on-going expansion of the SPFS to new countries as well as to its extension within countries.

23. Trust Fund Donors are funding activities in 15 countries and UNDP is contributing in approximately 12 countries. Specific **Memoranda of Understanding** have been signed with **UNDP, World Bank, African Development Bank (AfDB), Islamic Development Bank (IDB), Banque Ouest africaine de développement, IFAD, WFP** and other institutions. In this context, AfDB is supporting 8 countries and IDB has committed contributions to the Programme in Comoros and to SSC in 5 African countries. As of December 1999 firmly committed extra-budgetary resources to the entire Programme, provided directly to the countries or through FAO projects, amounted to over US\$50 million. In addition, the recipient countries have made substantial contributions in cash and in kind.

In Latin American and Caribbean countries, the Government of **Spain** is funding the SPFS in **Guatemala, Honduras and Nicaragua** for an amount of more than US\$ 1,500,000. The **French** cooperation is funding some SPFS activities in **Haiti** for a total amount of US\$ 500,000 and a **Canadian** Foundation is financing SPFS activities in **Ecuador** for an amount of US\$ 335,000.

### ***EXTENSION OF PHASE I***

24. Good performance during the initial implementation of the Phase I was the base of the on-going considerable extension of the activities in many LIFDCs countries. This extension to additional farmers and sites, covering at least the most representative agroecologic regions and farming systems in order to ensure adequate field work before launching the second phase, was also recommended by the Oversight Panel in its Third Meeting of March 1998. The extension is also intended to duly perform the required constraints analysis work, an enhanced integration of access issues to the Programme, some wide sectoral/subsectoral expansion of water control or other components/activities for which satisfactory Phase I activities have been achieved, and the networking of the SPFS with other food security programmes being implemented by the country.

25. In Latin American and Caribbean Region **Haiti** is the only country where the SPFS has already been extended from the initial 2 to 3 sites. It is also foreseen a further extension at the beginning of the next year to 4-5 additional sites and, as resources become available, to many more sites.

### ***PHASE II: EXPANDING THE IMPACT OF THE SPFS TO THE SECTORAL AND MACROECONOMIC LEVELS***

26. Phase II is expected to constitute a country driven process, expanding at national level the results of the previous phase. The focus of the Programme, therefore, will shift from field work in specific sites to the formulation and implementation of appropriate policies, investment programmes and bankable projects allowing the country to materialize the agricultural development and food security potentialities identified during Phase I. In view of the considerable efforts involved and the internal and external

resources required, the launching of Phase II should be carefully prepared, with the full participation of all national and international stakeholders, and based on satisfactory achievements of the previous phase.

27. The most essential of these achievements are as follows:

- availability of proven technologies for low cost irrigation, intensification and diversification, leading to competitive, sustainable and sizable food productions increases in the most important agroecological regions, particularly by small farmers and with high women participation.
- thorough constraints analysis work, demonstrating the technical, economic and financial feasibility to expanding those technologies.
- improved institutional set-up, with the capacity to formulate and implement wide national food security policies and investment programmes.
- high level political and national stakeholders commitment to food security objectives.
- external support and involvement of the main international technical and financial institutions and donors.

28. As seen before, many countries are extending Phase I activities and some of them will be in the possibility of reaching the above mentioned requisites to launch Phase II in the near future. FAO will continue to assist participating countries in these efforts, in particular for the preparation of a national plan of action conceptualizing the objectives, strategy and main policy instruments, investment programme and bankable projects required to implement Phase II. FAO is also prepared to play a catalytic role in collaborating with countries to secure the financial support of donor countries and international financial institutions.