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# **Understanding Vulnerability to Food Insecurity Lessons from Vulnerable Livelihood Profiling**

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## Understanding Vulnerability to Food insecurity Lessons from Vulnerable Group Profiling

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### ***Abstract***

The Food Security and Agricultural Projects Analysis Unit (ESAF) of FAO has undertaken a number of pilot studies to develop a methodology for understanding why certain groups of people are vulnerable to becoming food insecure. The studies use the sustainable livelihoods approach adopted for food security analysis and are primarily based on qualitative information collection. The objective of these studies is to inform policy and programming decisions for reducing vulnerability to food insecurity. Drawing from these experiences and those of other FAO units involved in similar work, this paper identifies key lessons learnt and makes recommendations for strengthening future work on food security and vulnerability analysis.

**Keywords:** vulnerability; vulnerable groups; food security; livelihoods; FIVIMS

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# 1. INTRODUCTION

## ***Background***

Over the last decade, the concepts of “livelihoods” and “vulnerability” have made their way onto the mainstream development agenda. The livelihoods approach provides an holistic, people-focused analytical framework for understanding the complexity of people’s lives and the vulnerability concept makes it explicit that food security and poverty are dynamic and that people’s livelihoods are influenced both by the risks they face and by abilities to counter these at different levels.

FAO is pursuing various activities to deepen the understanding of food insecurity and risk and to support appropriate policy making and programming at different levels (macro-, meso- and micro). These fall into two broad categories: i) in-country support for establishing early warning and food security information systems; and ii) analytical support to policy formulation and planning.

Traditionally, much of the analysis of vulnerability to food insecurity has focused on forecasting potential supply shocks and has sidelined issues related to access and utilization. Various initiatives have sought to change this<sup>1</sup> by integrating livelihoods thinking into FAO’s main programmes; examples include the inter-departmental Livelihoods Support Programme and the FIVIMS Initiative.<sup>2</sup>

Since 1999 the Food Security and Agricultural Projects Analysis Unit (ESAF) of FAO has, been undertaking pilot studies to develop a methodology for understanding why certain groups of people are vulnerable to becoming food insecure. National-level vulnerable group profiling has been conducted in Guatemala, Viet Nam and Nepal while studies focusing on specific livelihood groups were also undertaken in Benin and Afghanistan. A number of other FAO services are also engaged in profiling vulnerable groups and in developing, applying and refining appropriate methodologies.

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<sup>1</sup> For an overview of early work on this, see FAO, 1992 and FIVIMS, 1998.

<sup>2</sup> FIVIMS is an inter-agency initiative in support of the establishment or strengthening of Food Insecurity and Vulnerability Information and Mapping Systems.

## ***Purpose and structure of the paper***

This paper contributes to the work of the Agriculture and Development Economics Division (ESA) in developing methods, techniques and tools for improving the understanding of food insecurity and vulnerability.<sup>3</sup> It draws mainly on the experience from the FAO ESAF pilot studies but also on related work in other FAO services. It is hoped that the richness of experience gained in profiling vulnerable groups within FAO will also inspire others to continue refining and improving livelihoods and vulnerability assessments.

Section 2 of the paper outlines key concepts and methods applied. Section 3 provides an overview of vulnerability profiling undertaken by FAO. Section 4 provides an analysis of the main lessons learned in the profiling work so far, while the final section discusses implications for future work on vulnerable group profiling.

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<sup>3</sup> This is part of ESA's support to the FIVIMS Initiative through FAO's own Programme of Work and Budget (PWB) Entity 220A1: Support to FIVIMS

## 2. DEFINITIONS AND CONCEPTUAL FRAMEWORK

### ***What is vulnerability and what are vulnerable groups?***

In this paper, *vulnerability* refers to people's propensity to fall, or stay, below a pre-determined food security threshold.<sup>4</sup> By *food security*, we understand the physical and economic access at all times to sufficient, safe and nutritious food to meet the dietary needs and food preferences for an active and healthy life (WFS, 1996).

Vulnerability is a function of people's exposure to risks and of their resilience to these. By risks we understand events or trends that create a measure of instability which may have a negative impact on people's welfare. Resilience is determined by the potential effectiveness of risk management strategies (prevention, mitigation and coping) in maintaining a person above a minimum welfare threshold or in preventing that person from falling into an even deeper state of ill-being as the result of a negative event or trend (Knowles and Løvendal, forthcoming).

Vulnerable groups comprise people with common characteristics, who are likely to fall or remain below a certain welfare threshold in the near future. While most of those who are presently below the threshold may face a high probability of being so also in the future, food security and poverty are not static. Several studies show that people move in and out of food insecurity and poverty (Baulsch and Hoddinot 2000, Dercon 1999).

### ***Why profile vulnerable groups?***

Decision-makers involved in policy-making or interventions to reduce food insecurity are often faced with a shortage of relevant information. Data and, more importantly, quality analysis of data is often missing, outdated, or under-utilized. Moreover, food security policies, programmes and projects influence outcomes in the future and therefore they need a forward-looking analytical basis. A good understanding of the factors that determine food insecurity today and, more importantly, those which will influence food insecurity in the near future is therefore essential in reducing food insecurity over time.

Decisions underlying food security policies, programmes and projects are based on a much broader set of parameters than is provided by food security or vulnerability analyses alone. What is certain, however, is that the absence of a comprehensive analysis of food security and vulnerability leads to ineffective targeting and welfare losses.

Although the ultimate goal of food security interventions is to enhance the welfare of individuals, analysing the complex set of information pertaining to each person would be impossible. People are therefore clustered into groups of individuals with shared characteristics.

The profiles indicate who and how many people are vulnerable, which is important for making resource allocation decisions; where they are, which improves geographic targeting; and why they are vulnerable, which allows to understand what type of interventions are required.

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<sup>4</sup> The nature of this minimum welfare threshold depends on the outcome with which one is concerned e.g. food insecurity, poverty, malnutrition etc.

## ***Conceptual framework***

A key objective of ESAF's vulnerable group profiling pilots has been to inform national-level policy interventions to reduce vulnerability. The analytical framework used needs to act as a lens through which to view the interaction among micro-, meso- and macro-level factors to more fully understand the relationship between national-level dynamics and household-level vulnerability. ESAF uses the sustainable livelihoods approach (SLA)<sup>5</sup> adapted to food security analysis (see Figure 1) as this framework.

Data collection needs are defined and findings are analysed, using this adaptation of the SLA (FIVIMS/FAO, 2000; ESAF/FAO, 1999). The SLA looks at how people combine their tangible and intangible assets to reach their livelihood objectives and how their success in reaching these objectives is mediated by the policy and institutional environment within which they are embedded and influenced by the shocks and trends to which they are exposed (Carney, 1998; DFID, 1999).

Because the SLA is multi-sectoral, using it as an analytical lens allows us to take into account the many factors that influence vulnerability to food insecurity, thereby allowing analyses to go beyond the traditional focus on food availability and include dimensions of access, utilization and stability.

The SLA also provides a way of looking at macro-, meso- and micro-linkages, thereby accounting for the fact that household well-being is determined by household-level factors but also by meso- and macro-level factors such as national economic development. This helps to identify appropriate types of food security interventions. The participatory principles of the SLA mean that the perspectives of all stakeholders, including those whose vulnerability we are concerned with, are included in the analysis.

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<sup>5</sup> For a more thorough discussion of the approach, see [www.livelihoods.org](http://www.livelihoods.org)

### 3. OVERVIEW OF VULNERABILITY PROFILING BY FAO SERVICES

#### *Methodology*

This section gives an overview of the key steps taken by ESAF to prepare the profiles. As the countries selected vary substantially and the work was a pilot, adjustments were made in each country for improving and adapting the methodology. This is particularly the case for the vulnerable group profiling in the complex emergency setting of Afghanistan in 2001/2002 where scarcity of data, low institutional capacity and the security situation limited the scope for data collection.

#### Information collection and analysis process

The most important criterion used in vulnerable group profiling work is income sources, in many cases combined with location.

Figure 2 illustrates the four primary steps taken to collect information in the profiling exercise.

Review of secondary data (throughout the profiling):

- Analysis of existing qualitative and quantitative information/data, including published and unpublished literature, project documents, population and sectoral censuses, surveys etc. This provides a preliminary picture of the most relevant vulnerability issues and of key information gaps.

National and/or sub-national workshops:

- Primary information collection begins with a national and/or sub-national workshop where stakeholders including government institutions, international organizations and NGOs discuss ways of identifying vulnerable groups. Follow-up interviews with selected participants are held to gain specific insights.
- The draft profiles are discussed with key stakeholders to validate findings and bring out policy implications.

Community-level focus group discussions:

- Communities are selected using purposive sampling and the strata used for sample selection depend on the control variables. Once communities have been selected, focus-group discussions are held with groups of women and men or with different wealth groups, depending on the intra-community differences that are being investigated. Given the strong link between gender and food insecurity/vulnerability, qualitative data on gender is collected. Specific “typical” households within each livelihood sub-group are identified for in-depth structured interviews. Interviews are semi-structured, following a pre-designed set of open-ended questions based on the Minimum Food Security Information Set.<sup>6</sup>

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<sup>6</sup> For more on the Minimum Food Security Information Set, see ESAF, FAO, 1999

## Data analysis

Data is continuously analysed by the team preparing each profile. Stakeholders at different levels, including representatives of the vulnerable groups themselves and government institutions, are involved and consulted throughout the analysis of the information collected. This ensures “buy-in” by those involved in decision-making and implementation.

SWOT analysis (strengths, weaknesses, opportunities and threats) is used to map out key dynamic factors influencing present and future food insecurity. Another important tool is problem tree analysis, which allows a systematic identification of the main causes of food insecurity and explicitly focuses on establishing causal links.

## Products and communication

Findings are initially presented as livelihood profiles that include a discussion, maps and graphs. Additional synthesis documents include consolidated analysis of vulnerable groups in specific countries (ESAF, FAO, 2004a & ESAF, FAO, 2004b), brief articles for publications on food insecurity (FAO, 2000) and cross-country analyses of livelihoods (FAO, 2002), as was the case for vulnerable groups in mountainous areas.

To refine the analysis of the broad groups of people sharing a common livelihood system, sub-groups within each livelihood are identified and organized along a vulnerability continuum (see Figure 3). This pictographic tool rapidly conveys the relative degree of vulnerability of the different sub-groups within a broader livelihood and the key characteristics of each sub-group. These characteristics can include asset base, geophysical characteristics of physical assets (elevation, soil quality), possible alternative livelihood strategies (migration, rural non farm income), diet and nutritional status.

## ***Vulnerable group profiling supported by ESAF***

### Benin (1998-2000)

This was the first vulnerable group profiling undertaken. It focused on 400,000 artisanal fishers and their families who constituted eight percent of the total population.<sup>7</sup> Work was undertaken in collaboration with the Ministry of Agriculture and Fisheries, initially to identify the main vulnerable groups and then to focus on more in-depth profiles of “typical” artisanal fisher households, in particular the poorest. All variables were assessed in terms of their potential impact on food security (potentially adverse, neutral, potentially positive and no information).

Four sub-groups were identified, including inland, lagoon, migrant coastal and sedentary fishers with the latter being considered among the most vulnerable. However, the exact population size of each group could not be calculated. Key recommendations included improving regulation and management of fish stocks, strengthening of local social insurance and micro-credit networks, eradicating malaria and supporting improved weaning practices.

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<sup>7</sup> Work was continued by the FAO project Sustainable Fisheries Livelihood Programme, SFLP

### Guatemala (1998-2002)

Stakeholders were brought together in Guatemala City in 1998 for an inter-institutional workshop on food insecurity and vulnerability in the country. Information was shared about the location of each group, eating habits, the nature and scope of food insecurity, available resources, the main sources of livelihood and the principal causes of vulnerability. This provided the basis for a preliminary analysis that was later complemented by a literature review and a series of sessions held in relevant sub-regions. Participants belonged to all sectors of society and included representatives of governmental agencies, international cooperation agencies, NGOs, projects, and local organizations.

The following vulnerable groups were identified: small farmers in the western volcanic regions, transitional and highlands; small farmers on the southern coastal plains; small farmers in the northern lowlands and highlands; small farmers in eastern transitional lands; temporary workers in the slums of Guatemala City and its periphery; and artisanal fishers on the Pacific and Atlantic coasts.

The results of this exercise required validation at field level and several sites were selected for the collection of primary data - which included the opinions of those identified as vulnerable. The study was led by an international consultant and carried out in close collaboration with a team of national consultants.

### Viet Nam (1999-2002)<sup>8</sup>

Following a workshop in Hanoi in 1999, which identified seven vulnerable groups, four major livelihood groups, each divided into three to five sub-groups, were profiled. These were: small farmers in the Red River Delta and Mekong River Delta; small farmers in the Northern Uplands; artisanal fisherfolk in the central coastal region; and urban workers without stable employment. Work was undertaken in collaboration with ministries who were members of the Food and Insecurity Vulnerability Information and Mapping Systems (FIVIMS) Committee, under the guidance of an FAO project in the Ministry of Agriculture and Rural Development and with the support of one international consultant.

### Nepal (2001-2002)<sup>9</sup>

The study carried out in Nepal sought to cover all of the country's main vulnerable groups. Seven vulnerable livelihood groups were identified, covering 38 percent of the total population. The main vulnerable livelihood groups were: marginal farm households in the Terai; marginal farm households in the hills; marginal farm households in the mountains; agricultural labour households in the Terai; porters in the hills and mountains; rural service castes; and poor urban workers in the informal economy of the Kathmandu Valley.

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<sup>8</sup> ESAF, FAO, 2004b

<sup>9</sup> ESAF, FAO, 2004a

Work was undertaken in collaboration with the government, NGOs, local research institutes and other UN agencies by an international consultant and a team of four national consultants. Several national stakeholder consultations were held, including a final validation workshop where policy and programming issues were discussed.

### Afghanistan (2002)

This represented the first attempt at applying the methodology in a complex emergency setting. Restrictions on movements, scarce secondary data, a weak institutional basis for collaboration, the general post-war chaos in the country and the large number of internally displaced people (IDPs) and returnees all posed significant challenges to the profiling work.

Profiling focused on IDPs around Herat, Badakhshan and Kandahar who had either lost or drastically depleted their asset base. The main aim of the profiling was to identify the non-food needs of IDPs and assist them to return home and to preserve their livelihoods; this complemented the World Food Programme assessment process, which focused on food aid needs. The main vulnerable groups identified were: families who had migrated due to drought or ethnic reprisal; migrant urban workers; and pastoralists (Kuchis). Due to the absence of census data or any other reasonably up-to-date data set on national demographics, these groups were not enumerated. Work was undertaken by an international and a local consultant in collaboration with FAO field staff and local NGOs.

### ***Vulnerable group profiling supported by other FAO units***

This section looks at some of the key features of other profiling work in FAO and the differences in approaches used by each service. These approaches mainly focus at the community level and the findings are integrated into the project management cycle, but they share many basic features including the use of livelihoods approaches, multi-tier information collection and stakeholder participation. This does not intend to provide an exhaustive review of each individual approach because such information is available from the services themselves.

### Nutrition Programmes Service (ESNP)

ESNP profiling informs the design of projects to support household food security and community nutrition at village, sub-national and national levels. Profiles are developed for each of these levels and are used by communities and decision-makers. Work focuses in particular on participatory community-based approaches and interventions and also on quantitative data collection to establish a baseline for each group.

The profiles focus on nutritional outcomes and the multidimensional causes of these which are investigated by the analysis of data including on household and community assets, care and feeding practices, gender and health and national policy frameworks (Callens, draft).

Key features of the nutrition profiling work include:

- Empowering qualitative approaches: Sub-national level workshops and community-level assessments encourage participants to reflect on key issues thereby ensuring that these

exercises are not purely extractive. Participants take an active part in analysing the information they provide, which increases their understanding and awareness of nutrition and food insecurity issues and of what they can do to improve their own situation.

- Pictographic village profiles: Village profiles are left with communities so they may use these as diagnostics with which to develop their own community action plan (CAP). These village profiles are pictographic to make findings accessible to the less literate.
- Identification of baseline-study variables: Vulnerable group profiles and the project's logical framework are used to identify variables to be assessed during the baseline study.

#### Fisheries policy and planning division (FIPD)

FIPD focuses on developing baselines for monitoring and evaluating sub-national poverty eradication programmes targeting fishing communities. Process and outcome variables to be monitored by these programmes are identified by analysing the multiple dimensions of poverty outcomes and their causalities including asset status, livelihood activities, policies and institutions, risks and risk management activities. Specific attention is paid to fishing-related issues such as requirement of permits for fishing, revenue from fishing etc.

Key features of the fishing community profiling include:

- Quantifying qualitative perceptions: The baselines require quantitative data but because a multidimensional understanding of poverty is used, an approach for quantifying otherwise unquantifiable variables such as “social capital” was developed. This uses Likert scales (more commonly used in marketing surveys) to quantitatively assess people's perceptions of poverty by attributing values to perceptions. This allows for assessment of the impacts of the poverty-eradication programme on communities' social capital and the disaggregation of a given social issue.<sup>10</sup>
- Village sampling: Where a sampling frame is lacking, administrative-level discussion groups rank villages in the project area by perceived poverty status and further sub-divide them into poverty categories. Households from each of the poverty categories can then be selected to ensuring comprehensive representation of village wealth categories.
- Multidimensional and locally defined poverty index: Standard approaches to measuring poverty rely on an income- or expenditure-based poverty line, which is externally determined and does not take into account the multiple dimensions of poverty nor its perceptions by the population under study. In order to measure the magnitude and distribution of poverty, whilst capturing its multidimensionality, a poverty index is developed. This index is based on local perceptions of poverty identified during qualitative profiling and is used to categorize people into different poverty classes.

#### Investment Centre Division (TCI)

TCI profiles vulnerable groups to match project design to the needs of poor and vulnerable people in activities aimed at establishing market linkages. Users of these mainly qualitative

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<sup>10</sup> For details on using Likert Scales for vulnerable group profiling, see Pittaluga, Salvati & Seghieri, 2004.

profiles are responsible for designing and implementing IFAD projects. Quantitative data is also collected to establish baselines for impact assessment.

Analysis focuses on how factors at district, community and household levels affect the vulnerability of different socio-economic groups, disaggregated by gender, with a specific focus on marketing-related constraints and opportunities (Carloni, Howard & Vibecke, 2002).

Key features of the market linkages profiling include:

- Empowering analysis of data: An initial “light” analysis of the information collected is carried out at the village-level as a way of increasing the community’s self-awareness of how market-related issues impinge on their vulnerability.
- Profiling of vulnerable and non-vulnerable groups: Profiles are elaborated for both vulnerable and non-vulnerable groups to illustrate the relationships of inter-dependency and dominance/subordination in the project area.

#### Rural Institutions and Participation Service (SDAR)<sup>11</sup>

SDAR profiles are used as a diagnostic tool to ensure that the design of projects matches the needs of vulnerable groups when intervening to strengthen rural institutions and to increase vulnerable people’s access to decision-making processes. Hence, profiling focuses on rural institutions, with a strong emphasis on identifying the linkages between these and livelihoods systems through analysis of asset status, risks, livelihoods and risk management activities.

Key features of the rural institutions profiling include

- Institutional profiles: The focus on institutions allows for a deeper understanding of the role that these and the policy environment play in people’s livelihoods and vulnerability.

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<sup>11</sup> See also Messer & Townsley, 2003

## 4. LESSONS LEARNED

Drawing from ESAF's experience in the five countries above and from comparisons made with the approaches used by other units in FAO, this section discusses some of the key lessons learnt. The analysis focuses on five areas: i) answering the key FIVIMS questions; ii) the conceptual framework; iii) data collection; iv) working processes; and v) communication of findings.

### ***Answering the key FIVIMS questions***

The main purpose of vulnerable group profiling is to answer the questions:

- Who are the vulnerable people?
- Where are the vulnerable people?
- How many people are vulnerable?
- Why are people vulnerable?

#### Who are the food insecure or vulnerable people?

Clustering on the basis of livelihood strategies is adept for profiling intended to inform national-level policy and programmes. Since policies and programmes do not target individuals, profiling clusters people sharing certain characteristics into groups, each of which can be associated with a set of measures to reduce the vulnerability based on their shared characteristics. In the approaches described above, vulnerable people are being clustered together either on the basis of shared socio-economic characteristics or a common livelihood.

Where vulnerable people are grouped together on the basis of socio-economic status at micro-level, participatory rural appraisal (PRA) tools such as community wealth ranking exercises and household surveys are used to identify the status of households. This approach can be useful when looking at relatively confined areas and/or where the livelihoods within the wealth categories are relatively homogeneous or where the success of the intervention depends on strong community ownership. This approach to clustering is therefore useful for targeting groups for smaller-scale projects.

Clustering together people who are considered vulnerable on the basis of a shared livelihood creates broad categories, sometimes consisting of millions of people, and provides a “broad-brush” picture of vulnerable people. It is therefore geared towards answering the ‘who’ question at national or sub-national level but should not substitute disaggregated micro-analysis to inform specific project activities.

#### How many people are food insecure and vulnerable and where are they?

There is a dichotomy in the approaches used for locating and enumerating vulnerable people, partly as a function of aggregation levels. The work undertaken by ESAF relies on national and sub-national workshops and existing census data, whilst work by other services at community level often is based on the primary data collected.

Estimating the number and location of vulnerable people is important, but the level of accuracy varies. National and/or sub-national workshops are used to identify vulnerable groups at national level. Recent census data (where available) is used to map the size and location of each

vulnerable group by matching each to a census-based occupational category. In some cases, other indicators (e.g. poverty rate or specific asset ownership) are combined to derive an estimate for the size of the vulnerable group. The possibility of further disaggregating each vulnerable group depends on how sub-groups are selected. In most cases, sub-groups were based either on geophysical dimensions (agro-ecological zone, altitude) or on asset holdings (land ownership, fishing gear), which in other cases allowed for a further disaggregation of the census data.

Where no census data exists the number and location of people in each sub-category is estimated by key informants. This is obviously open to inaccuracies, but can be an economical and pragmatic alternative to a separate, nationally representative survey. The reliability of census data may be questionable or data may be outdated - a key issue if looking at livelihoods in highly dynamic settings (returnees in Afghanistan or small farmers in Guatemala, where large supermarkets are penetrating the commodity chains). Furthermore, using a one dimensional occupancy code means that often this does not capture the diversified income structure of vulnerable households, making it difficult to place them in a specific livelihood category.

But does this really matter for decision making at national level? On the one hand, the ongoing triangulation process reduces the level of inaccuracy of the findings. On the other hand, since the profiles aim at informing national interventions, a more general picture may be adequate and the precise location of these groups may not be necessary. Thus, additional information collection costs may have low marginal benefits.

Another question relates to the aggregation of the vulnerable groups at national level. The focus on broad vulnerable groups means that smaller groups will be overlooked, even if the aim is to ensure national coverage.

#### Why are people food insecure or vulnerable?

Quantitative data for substantiating qualitative data and assessing the importance of different vulnerability factors is often missing. All the profiling approaches described collect a large amount of qualitative data which, when analysed using an appropriate model such as the SLA, is useful for understanding causality. However, the scant use of quantitative data means that it is not possible to assess the relative importance of the different factors that increase people's vulnerability nor to quantify the relationship between variables to calculate the probability of becoming food insecure. This hampers efforts to prioritize between sectoral policies and can reduce the influence that the profiles have on policy decision makers.

The lack of a measure of vulnerability means it is impossible to objectively prioritize between vulnerable groups on the basis of an objective measure of vulnerability. A final challenge relates to objectively comparing degrees of vulnerability in the absence of any single measure of vulnerability, or even a fixed set of indicators. This does not necessarily affect the ability to inform sectoral policies or what needs to be done to reduce the vulnerability of a specific livelihood group, but it does limit the extent to which national-level resource allocation can be made.

### ***Conceptual framework***

The SLA is a useful analytical framework for determining information needs and as an analytical tool for understanding and explaining causal relationships. The challenge lies in explaining the SLA to local partners, both because of its high level of abstraction and lack of clarity (in particular in the policies, institutions and processes box). On top of this, food security concepts themselves are often difficult to communicate. Translation of material to local languages further increased this challenge. In some cases, it was found easier to refer to “poverty”, “poor” and “hungry” rather than food insecure and vulnerable, but this risked weakening the links to the food security dimensions.

Another challenge is to determine the extent of a livelihood. Grouping people by livelihood rather than location, gender, age or caste/social status, is an approach that is sometimes difficult to convey.

The theoretical framework itself allows for a detailed disaggregation of livelihoods groups, but in practice the number of livelihood groups and sub-groups has to be limited. Whilst occupancy, often combined with location, was adopted as the guide for enumeration, this parameter runs the risk of overlooking vulnerable groups. This is particularly relevant for livelihoods characterized by a highly diversified set of activities.

A third issue relates to determining livelihood classifications for returnees and internally displaced people (IDPs) in post-conflict situations. This requires choosing among their present livelihoods (e.g. unemployment in a refugee camp), pre-displacement livelihoods and potential livelihoods. Clearly, in conflict or post-conflict situations, levels of uncertainties are high and livelihoods are particularly vulnerable and unsustainable.

### ***Approaches to information collection and analysis***

The multi-tiered approach to data collection is especially useful for developing a comprehensive understanding of vulnerability. Each level can provide information unavailable at the other levels. For example, staff of national institutions provide information on policies that people interviewed at the village level are unaware of. On the other hand, people at the community level provide information on village and inter-village dynamics that those at the meso- or macro-level know little about. Finally, the iterative process itself builds a common understanding of food insecurity, poverty and vulnerability among participants (Pittaluga, 2004).

Both qualitative and quantitative data are necessary in profiling although the ratio depends on the purpose. Qualitative data allows for an understanding of causality (i.e. why people are vulnerable) while quantitative data reveals the relationship between variables as well as the extent and depth of vulnerability/food insecurity. Generally, the two types of data can be used together in three ways: they can be integrated with each other; they can be used for mutual explanation and validation; and findings from each can be merged (Carvalho & White, 1997).

Associating data for livelihood groups with data collected by administrative units is a major challenge. The profiles generally used a range of existing quantitative data sources but deliberately, only limited primary quantitative data was collected. Substantial data was available in all countries except Afghanistan in the form of census data, household expenditure surveys, and from food security, health and growth monitoring systems.

However, problems of matching the location of livelihood groups with existing administrative units made it difficult to assign values to specific livelihood groups rather than the areas where they, but also other livelihood groups, live. This was partially overcome through the use of census data where the occupancy code could be combined with the livelihood and hence underlying data too, although this confined the analysis to the variables in the census data set.

Data collection tools need to be customized, in particular when specific constraints are faced (shortage of data, time and security constraints). The Minimum Food Security Information Set was generally found to be useful for organizing complex qualitative information. Some adjustments were made to better reflect the structure of the asset base, including dividing physical assets into private (e.g. agricultural tools) and public (roads, markets etc.). In the case of Afghanistan, however, the information set was too heavy and time consuming in terms of primary data collection.

Purposive sampling can provide representative findings and so be a useful alternative to the more resource-intensive random sampling. Recognizing this constraint, profiling studies select communities through purposive sampling, using strata (e.g. agro-ecological zone, distance from road) that are perceived to be important factors determining the outcome(s) of interest so that a claim to objectivity can be made. Because purposive sampling relies on the availability of information on the variables used as strata, the objectivity of the information collected must be ascertained through triangulation and verification, especially where this is collected through interviewing key informants who could be partial (Wilson, 2000).

Triangulation of findings is fundamental because the profiling methodology relies on collecting people's observations of a situation to develop an "objective" understanding of vulnerability. This allows for the verification of findings and the recording of the differences in perceptions among stakeholders.

### ***Working processes***

Findings rely on the good quality data collection and analysis. The skills of those responsible for this are, therefore, fundamental to the validity of the profiling exercise. Different approaches were applied in regard to the involvement of local partners, ranging from a strong reliance on consultants to a greater dependence on government counterparts throughout the process.

Substantial government participation, which is essential to the ownership of findings, requires capacity building, in particular in analysis. Because of the pilot nature of the work and the focus on developing an innovative approach, products and outputs largely overshadowed the focus on processes. As a result, only limited attention was paid to building the capacities of local counterparts in vulnerable livelihood profiling. Some training was given to government staff, but it is clear that more attention is paid to ensuring that trainees really understood the concepts behind the SLA as well as knowing how to accurately collect data.

Ensuring that the profiles are analytical rather than descriptive requires a multi-disciplinary team with strong analytical skills. People with a research background would become familiar with the method much more quickly than those without. Moreover because of the multi-dimensional

nature of food security and livelihoods analysis assessments require a specialized understanding of different disciplines including agriculture, economics, nutrition, and sociology, and of the specific field of enquiry, for example fisheries. This can be realized only through the use of multi-disciplinary teams whose members have a good grasp of food security and livelihoods concepts and terminology.

The most successful profiling teams consisted of two to four members with a combination of socio-economic and sector specific skills. However, in some of the countries, institutional barriers prevented the formation of multi-disciplinary teams, for example between different line ministries.

### ***Products, communication and links to policy making processes***

Significant efforts went into establishing effective ways of communicating the findings of the profiling studies. In most cases, separate draft documents were initially prepared for each group. However, final publications merged all profiles into one document, partly in order to provide a coherent overview of characteristics of vulnerable groups in a specific country, partly due to limited resources and partly because it was recognized that the target audience would prefer less text.

It was found useful at an early stage to present a draft profile to local collaborators to give a clear idea of the end product. This helped to overcome some of the barriers to communicating the conceptual framework and helped to illustrate the goal. In addition, extensive use of visuals, including maps, graphs etc. was made and was generally well appreciated.

Understanding and communicating the notion of vulnerability remains a challenge and the vulnerability continuum (Figure 3) is a powerful tool for displaying the degree of food vulnerability of different sub-groups within a larger livelihood system. By placing the subgroups along the continuum and ordering assets and other characteristics accordingly, it provides an overview of factors determining the vulnerability of each sub-group. However, the apparently linear relationship between levels of vulnerability and the value of the different factors was found to be deceptive by some.

Figure 2 illustrates this in the sense that food deficits are higher for the least vulnerable group than the second most vulnerable group. This also demonstrates another challenge, namely that the notion of vulnerability does not necessarily link directly to accepted national poverty classification systems, which are often income-based. The original idea of including the standard MDG undernourishment indicator<sup>12</sup> proved unfeasible due to the lack of sub-national data that could link the daily caloric intake with livelihood groups and sub-group.

The policy impact of the profiles is dampened when information outputs do not match decision-making needs and processes and when the importance of food security is not recognized. Whilst project-related profiles are used in project design, the vulnerable group profiles are intended to feed into policy decision-making processes where there is often a less direct connection between information and action.

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<sup>12</sup> Caloric intake per person per day, with the food security cut-off point around 2100 Kcal/person/day

In general, links to ongoing policy processes were found to be weak, partly because the profiling studies have placed more attention on the profiling tool itself than on serving decision making. In addition, policy-making processes often have specific timetables and this means that analytical work needs to fit into these. Linking into policy decision-making processes also requires institutional presence and influence as well as recognition by other partners of the importance of food security. The limited or often absent analysis of food security in the PRSPs illustrates that obtaining this recognition this is often a major challenge (FIVIMS and Wageningen University and Research Centre, 2003)

Policy recommendations must be realistic, action-related and reach decision makers at the appropriate level. National workshops at the beginning and at the end of the profiling studies were the fora for interacting with national-level decision makers, the target audience of the profiles. There was a tendency for the government officials participating to be technical staff, who have limited influence on political decisions. In Viet Nam, it was mainly NGOs and international agencies rather than the government that were interested in discussing and following up on the findings of the profiles. An additional constraint to ensuring follow-up on recommendations was that in many cases these lacked a clear institutional home.

Profiles are not being integrated into food security information systems, partly because of the absence of such information systems in some of the countries and, possibly, because indicators for monitoring were not presented in an easily readable format. Rather, the profiles were often considered as a snapshot, adding to existing food security analyses but without links to regular monitoring of changes in food security. Nevertheless, monitoring of vulnerable groups is clearly recommended as part of an integrated food security information and early warning system (ESAF, FAO, 2001) and many indicators that monitor vulnerability are the same as those used to monitor ex-post food insecurity.

## 5. CONCLUSION

Profiling has proven to be useful for understanding why groups of people with similar livelihoods are food insecure or at risk of becoming so. The vulnerable group profiling tool compliments other assessment approaches by providing a simple and low-cost way of providing an overview of vulnerability based on existing local knowledge. It is not meant to generate large amounts of quantitative data. Whether the methodology can be used in highly dynamic situations of acute food insecurity and complex emergencies, where secondary information may be scant and livelihood options much more volatile still needs to be determined. Clearly, though, there is an interest for this type of application.

Based on the lessons learned and objectives of ESAF's vulnerable group profiling, the following improvements should be integrated into future studies.

Increased attention needs to be placed on combining quantitative and qualitative data, which means using existing quantitative data more effectively and, possibly, also limited primary quantitative data collection including the quantification of existing qualitative perceptions. Support to developing locally defined multi-dimensional food security or vulnerability indices could be considered as a quantitative tool to collect data for monitoring or for identifying variables to be monitored. Greater use of quantitative measurements of vulnerability could be made when identifying sub-groups within a livelihood group on the basis of the degree of vulnerability, which would assist in targeting.

Vulnerable group profiling should continue grouping people together on the basis of a shared livelihood since this provides some guarantee that within each group there will be similar causes of vulnerability and thereby similar policy and programming options for reducing this vulnerability. The interdependence between vulnerable and non-vulnerable groups means that a "lighter" profiling of non-vulnerable groups should be considered.

A more systematic analysis of key institutions and their roles in determining food insecurity and vulnerability should be considered to improve the analysis of options available for reducing food insecurity and vulnerability.

Greater attention needs to be placed on building the capacities of local partners and transferring the profiling methodology to them. This involves dedicating adequate time to training before beginning data collection and analysis. Facilitators responsible for conducting the focus group or community discussions and the enumerators responsible for implementing the household surveys need to have a good understanding of the issues being investigated (poverty, food insecurity, vulnerability) as well as practical experience in undertaking field-level assessments. They also need to be able to explain and communicate these in simple terms.

Future profiling should rely on multi-disciplinary teams with a mix of expertise relevant to the specific livelihood group being profiled. Since triangulation is crucial to the methodology used, it is necessary to encourage teams to question their own findings and monitor that they do so.

End-users of the information products, in particular government staff, need to be consulted on the requirements of information products and take an active part in the profiling. This will increase the ownership of the profiles and the likelihood of their being used.

On the output side, closer links should be forged with ongoing food security information systems work. This requires improving the identification of process and outcome variables for different livelihood groups and presenting these using appropriate matrices for monitoring.

Perhaps the biggest challenge is to secure access to policy processes. While livelihoods profiling related to specific project interventions mostly serve a clear project objective and hence has one customer, meso- and macro-level profiling has a broad range of users. Future profiling should be linked to specific pre-defined policy processes to ensure a greater influence on those processes. Also, the specific information needs of a limited number of core users with clear entry-points around which the profiling should be centred must be defined. Key processes to focus on include the design of national Poverty Reduction Strategy Papers (PRSPs), national food security strategies and large-scale programme/project interventions.

## REFERENCES

- Callens, K. (draft). *Methodological guide: participatory appraisal of nutrition and household food security situations and planning of interventions from a livelihoods perspective*. Rome, FAO
- Carlioni, A., Howard N. J., & Vibecke K., 2002. *Gender and poverty targeting in market linkage operations: a sourcebook - the start of an in-country process*. Rome, IFAD
- Carney, D., 1998. *Sustainable rural livelihoods: What contribution can we make?* Nottingham, Russell Press Ltd.
- Carvalho, S. & White, H., 1997. *Combining the quantitative and qualitative approaches to poverty measurement and analysis: The practice and potential*. World Bank Technical paper No. 366. Washington D.C. World Bank.
- Dercon, S., 1999. *Vulnerability, seasonality and poverty in Ethiopia*. Oxford, Oxford University Press/Centre for the Study of African Economies.
- DFID, 1999. *Sustainable livelihoods guidance sheets*. London, DFID.
- ESAF, FAO, 1999. *Guidance note 6: A minimum food security information set*. Rome, FAO.
- ESAF, FAO, 2001. *Handbook for defining and setting up a Food Security Information and Early Warning System (FSIEWS)*. Rome, FAO
- ESAF, FAO, 2004a. *Food insecurity and vulnerability in Nepal: Profiles of seven vulnerable groups*. ESA Working Paper 04-10. Rome, FAO
- ESAF, FAO. 2004b. *Food insecurity and vulnerability in Viet Nam: Profiles of four vulnerable groups*. ESA Working Paper 04-11. Rome, FAO
- FAO, 1992. *Approaches to monitoring access to food and household food security*. Committee on World Food Security, 17<sup>th</sup> Session, March 1992. Rome, FAO
- FAO, 2000. *Inter-agency experiences and lessons from the forum on operationalizing sustainable livelihoods approaches*. Rome, FAO
- FAO, 2002. *Environment, poverty and food insecurity: The vulnerability of mountain environments and people*. Rome, FAO
- FIVIMS, FAO, 1998. *Guidelines for national food insecurity and vulnerability information and mapping systems (FIVIMS) background and principles*. IAWG Guidelines Series #1. Rome, FAO
- FIVIMS, FAO, 2000. *The state of food insecurity and vulnerability*. Rome, FAO

FIVIMS, FAO, 2002. *FIVIMS tools and tips: understanding food insecurity and vulnerability*. Rome, FAO

FIVIMS/Wageningen University and Research Centre, 2003. *Focus on food insecurity and vulnerability: A review of the UN system Common Country Assessments and World Bank Poverty Reduction Strategy Papers*. Rome, FAO

Huddleston B. and Pittaluga, F., 2000. *Finding out who the food insecure are, where they are located, and the causes of their food insecurity*. Unpublished. Rome, FAO

Knowles, M. and Løvendal, C. R., Forthcoming. *Tomorrow's hunger: a framework for understanding vulnerability to food insecurity*. Rome, FAO.

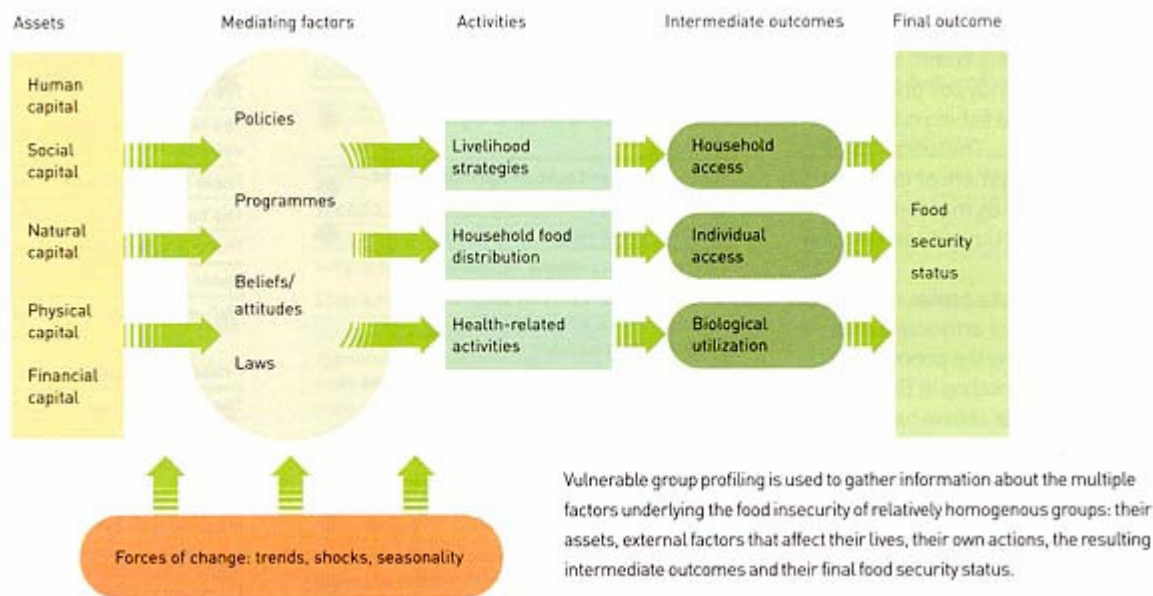
Messer, N. and Townsley, P., 2003. *Local institutions and livelihoods: Guidelines for analysis*. Rome, FAO

Pittaluga, F., 2004. *Vulnerable group profiles of artisanal fishers: Methods based on the SLA model*. In Neiland A. and Béné C. (eds.), *Small-scale fisheries, poverty and the code of conduct for responsible fisheries*. Dordrecht, Kluwer Academic Press

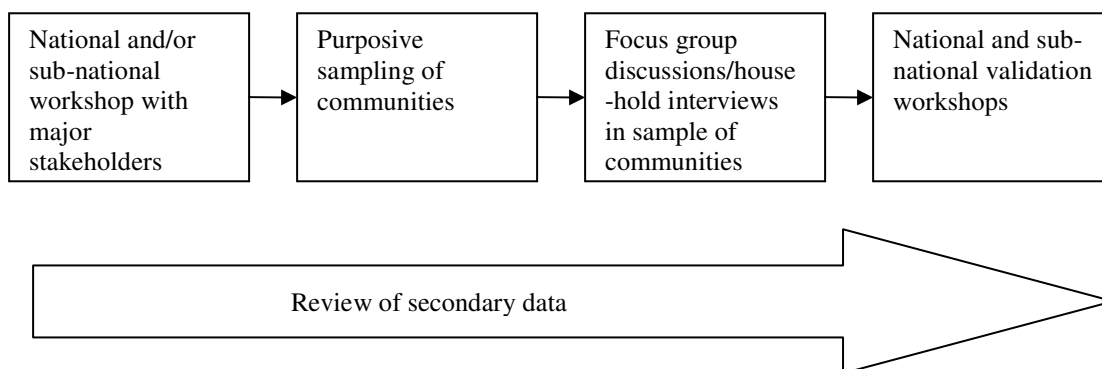
Pittaluga, F., Salvati, N. and Seghieri, C., 2004. *Livelihood systems profiling: Mixed methods for the analysis of poverty, vulnerability and food insecurity*. Rome, FAO

WFS. 1996. *Declaration on World Food Security Plan of Action*. Rome, FAO/World Food Summit

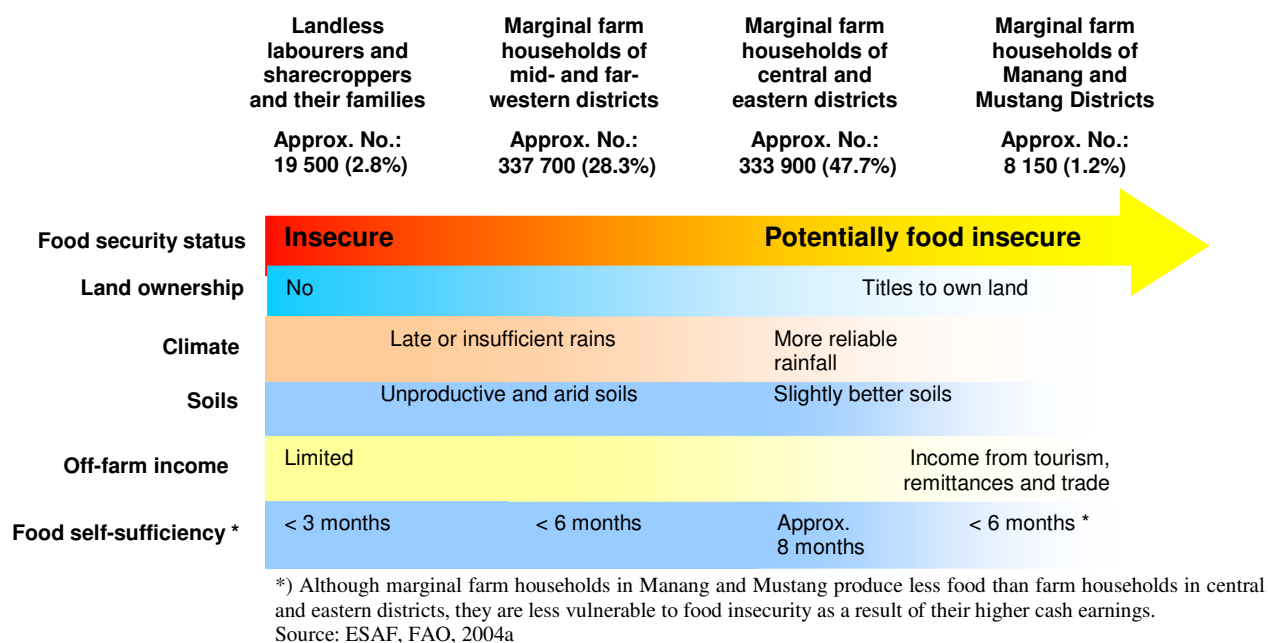
Wilson, I. M., 2000. *Sampling and qualitative research*. Statistical Services Centre. University of Reading



**Figure 1: Adaptation of the Sustainable Livelihoods Framework for food security analysis**



**Figure 2: Key steps in data collection**



**Figure 3: Vulnerability continuum for marginal farm households in the Mountain Regions of Nepal**

\*) Although marginal farm households in Manang and Mustang produce less food than farm households in central and eastern districts, they are less vulnerable to food insecurity as a result of their higher cash earnings.  
Source: ESAF, FAO, 2004a

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# ESA Working Papers

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