Résumé

L’impact des conflits civils sur les modes d’existence des populations rurales et urbaines de la Basse Casamance est mal connu. Durant la dernière décennie, le conflit armé entre le mouvement des forces démocratiques de la Casamance (MFDC) et les forces gouvernementales sénégalaises a suscité un ensemble de difficultés économiques pour la population locale qui dépend de l’exploitation des ressources naturelles pour sa subsistance. La recherche dont il est question ici repose essentiellement sur un questionnaire administré à deux cents personnes, choisies aléatoirement, dans quatre endroits que l’on sait affectés différemment par le conflit. Les résultats de l’enquête montrent que l’insécurité, qui peut varier énormément selon le quartier ou le village, est dans certains cas la cause d’un accès limité aux sites familiaux de production vivrière ou agricole. Mais les limites sur la production sont aussi plus générales. L’insécurité et le piteux état des infrastructures routières entraînent une restriction des activités commerciales tant au niveau local que régional. La population sondée a identifié cette réalité comme un problème économique important. Au total, il est difficile d’isoler l’impact du conflit des autres facteurs qui affectent le niveau de vie des ménages. La problématique entourant la production et la commercialisation dans le secteur primaire reflète souvent des articulations complexes entre les effets de l’insécurité et l’isolement économique dans un contexte de changement environnemental et socio-économique.

An earlier version of this article was presented at the CAAS annual conference at the University of Toronto on 31 May 2002, and the author gratefully acknowledges financial support for his attendance from CAAS and the Department of Geography, King’s College London. Comments valuable in revising the article came from those attending the presentation, from Debby Potts at King’s, and, latterly, from Ferdinand de Jong and Geneviève Gasser. The author also thanks the School of Oriental and African Studies, University of London for funding his doctoral research.
Introduction
The livelihoods of civilian populations during civil conflict have been relatively neglected by academic researchers (Collinson 2002). Civilians who depend on primary production may be excluded from natural resources by insecurity or by armed groups appropriating those resources for their own use. Conflict also commonly causes wider economic problems and, sometimes, famine. For sub-Saharan Africa, some studies exist of displaced populations — internally displaced persons (IDPs) and refugees — but there is less published research on those who remain in situ in conflict zones (Ahmed 1992; Rock 1997; Woldemichael 1992). Two reasons for this gap are, first, the obvious attendant difficulties in doing research in war zones. Second, the research that is done may take the form of “needs assessments” for particular communities, by government or by humanitarian agencies and their local NGO partners, conducted in advance of aid delivery. Such “grey literature” tends to be less accessible to, or recognised by, academics, often because of inadequate cataloguing and review (Diop 2002). The aid community, however, is now starting to recognise and address the lack of adequate theoretical understanding of how livelihoods of in situ populations are affected by the political economy of conflict (Collinson 2002, 2003).

This article concerns Lower Casamance, a region where, for over a decade, armed conflict has been entrenched between Senegalese forces and guerrillas of the rebel Mouvement des forces démocratiques de la Casamance (MFDC). The MFDC’s military wing is broadly divided into two geographical groupings although, in reality, it is more deeply divided into factions. The Front Sud is the active military force for separatism, its bases situated mainly along both sides of the region’s porous, forested, southern border with Guinea-Bissau. The Front Nord, meanwhile, has been nominally “pacified” since 1992 but has not laid down its arms, maintaining de facto control of large areas of Lower Casamance north of the Casamance River.

Previous research on civilian livelihoods in the region shows a similar general pattern to that described above. The effects of conflict on the in situ population have been the subject of attention by local government and NGOs, where this has been possible (CONGAD 1998). Academic studies of livelihoods continued through the 1980s despite the outbreak of the rebellion in 1982, but they diminished
after the onset of serious violence in 1990. Such research has focused mainly on livelihood strategies in relation to environmental change and rural-urban migration (Cormier 1985; Cormier-Salem 1989; Lambert 2002; Linares 1996). Other examples include Gasser's (2001) sociological study of young Ziguinchorois, as well as the work of De Jong (1999) and Van der Klei (2002), who, similar to Lambert and Linares, have continued anthropological research that concerns the socioeconomic life of Lower Casamance communities. Nevertheless, little academic research has situated livelihoods squarely in the context of the conflict.

To begin to fill this gap, this article aims to investigate the human geography of primary production and marketing by populations differentially affected by the Casamance conflict. It focuses on how two factors commonly raised by Lower Casamançais themselves — insecurity and isolation — affect their livelihoods. At the relatively low level that the conflict has now attained, there are occasional spates of violence and displacement, but it is chronic, low-grade insecurity — principally the risks of armed robbery and, in certain areas, landmines — which mainly impede economic activity. Economic isolation similarly acts at different scales, affecting both particular villages or zones in Lower Casamance and the region generally. Largely through analysis of a questionnaire survey, the article first examines how these two factors, along with others, affect livelihoods at each of four rural or urban fringe sites. There follows a discussion of the limits of livelihood adaptation to socioeconomic and environmental change, and of the wider developmental contexts that define these limits, before the article concludes.

Methodology

Selection of Survey Sites

Four sites in Lower Casamance were selected according to the nature and degree of insecurity that they experience. Three are villages, while the fourth is on the periphery of Ziguinchor, the regional capital.\(^1\) The security environment, human displacement history, and transport provision at each site at the time of the survey are detailed in Tables 1 and 2, but brief descriptions follow:

**Camaracounda:** Close to the border with Guinea-Bissau, this ethnically mixed village is served by a laterite road off the Ziguinchor-Kolda trunk road. It suffered rebel attacks in 1992 and 1995 and,
although now protected by the Senegalese army, it still lies within a zone of insecurity. The *communauté rurale* (CR) in which it is situated formerly comprised twenty-four villages, of which all but seven have been totally displaced as a result of *Front Sud* attacks or army operations (AJAC-APRAN 2001).²  

**Djinaki:** Situated on the main Bignona-Diouloulou road, this Diola village is a few kilometres from the main base of the *Front Nord* at Diakaye.³  

**Enampor:** West of Ziguinchor, effectively on a peninsula on the south bank of the Casamance River, this Diola village is served by a laterite road off the Ziguinchor-Oussouye trunk road. It lies within a CR that has been “demilitarized” by both Senegalese forces and MFDC guerrillas.⁴  

**Kandialan:** This ethnically mixed suburb on the southern periphery of Ziguinchor was substantially affected by a *Front Sud* attack in 1997 but is now largely secure.

**Survey Technique**

For the populations of these four sites, a structured random sampling regime was used. At each site, from February to May 2001, a minimum of fifty individuals from randomly selected households were interviewed using a questionnaire. The number of households selected in each *quartier* (quarter) of a given site was weighted according to the proportion that quarter formed, by population, of the whole site, as estimated from a preliminary tour and enquiries. A household was identified in the generally accepted sense of a group, wholly or largely kin, which eats together (Ferguson 1994). In each household, one or, if possible, two adults, aged sixteen or older, were interviewed separately. The choice of respondent, particularly the second, was negotiated with the household, usually the head if present, but where there were two respondents, the methodological preference was for diversity between them in terms of sex and age. For each site overall, an effort was made to ensure approximately equal numbers of male and female respondents. Individuals were only rarely rejected on the grounds of their own refusal, insurmountable communication problems, usually due to old age or infirmity; or the fact that they were only short-term visitors to the household. These techniques sought to gain greater representativeness and avoid a surfeit of heads of household in the final samples.

The author or his assistant conducted each interview either
directly or through a reliable translator into local dialect, where necessary. In the questionnaire, the respondent was asked to state each of his/her livelihoods over the whole year, including both subsistence and remunerative activities, identifying the most economically important. For each site, livelihood data are thus presented below in terms of "all livelihoods" (that is, all activities conducted by respondents) and "main livelihoods" (that is, only the most important). The respondent was also asked to describe how well each of his/her livelihood activities worked and any problems encountered. An account of his/her history of displacement in response to events in the Casamance conflict was also elicited. The data collected were coded, then input and interrogated using the Statistical Package for the Social Sciences. There are certain analytical problems inherent in relying on respondents' expressions of their own situation; therefore, the questionnaire survey was triangulated and augmented with semi-structured discussions with village notables and other key informants, such as NGO and local government officers, as well as with secondary sources, including "grey literature" and press reports. This approach generally revealed consistency between sources, but, as discussed below, identifying the root causes of particular problems was more complicated.

The survey was carried out during the dry season, mainly because of ease of transport, both public and on foot, as well as to avoid finding whole households absent, working out in the fields, as is common during the wet season. Follow-up visits were made to all four sites during the rains in July and August 2001, but the "dry season bias" (Chambers 1983, 21) in the survey is still evident. This means that a significant proportion of each site's population was working elsewhere, often in urban areas in northern Senegal and The Gambia, following a long tradition of rural-urban circular migration from Lower Casamance (Cormier 1985; Foucher 2002; Lambert 2002). Clearly, these migrants were not captured in the survey, while the people who were selected represent those who, for whatever reason, chose to, or were obliged to, live and cope economically in the region all year round, at least in 2001 — many had undertaken economic migration previously (Evans 2003a). In line with the aim of this article, the livelihood survey thus focuses on primary production, but this is not to deny the importance of urban wage-earning activities to Lower Casamance households (Foucher 2002; Lambert 2002). Other limitations to this essentially one-off survey are high-
lighted by subsequent changes in the security and economic environments of all four sites. The results and analysis below, therefore, come with the caveat that they are only broad “snapshots” of livelihoods although less structured studies in other villages indicate that they reflect wider conditions in the region (Evans 2003a).

**Survey Results**

This section presents the results of the questionnaire survey; analysis follows in the next section. For past human displacement, Table 1 gives a breakdown of respondents’ trajectories. For livelihoods (Tables 3-5), some explanation is necessary about the way in which the data are presented. The emphasis in this article is on how livelihoods depend on local natural resources through subsistence, sale, or trade. Livelihoods are defined here using Ribot’s (1998) “commodity chain” approach, broadly applied. This model follows a given product from its primary source, through various stages of exchange, to its ultimate users. Different actors may be involved at each stage, benefiting from the product in various ways and to varying degrees. Clearly, this model applies mainly to crops and other products traded for cash; for subsistence products, the same household acts as both producer and consumer. But, however long or short, the chain spans “... the geographic extent of production, distribution and exchange” (Ribot 1998, 308). Encompassing this span, each livelihood activity is thus categorised by the primary product or products in question, as follows:

- lowland cultivation — usually paddy rice, rarely sweet potato;
- upland cultivation — plateau rice, millet, maize, sorghum, groundnut, bean, cassava;
- kitchen gardening — vegetables, salad, watermelon, *bissap*;
- orchard — cashew, mango, citrus fruits, oil palm, guava;
- livestock;
- hunting;
- fishing;
- dead wood;
- charcoal;
- wild fruits and other forest products — usually *mad, tol*, or *nété* products;
- salt.

Activities not involving primary production are grouped as follows:
- skilled or professional waged — mostly in the public sector, also
in the NGO sector;
- unskilled waged;
- artisanal or professional self-employed;
- forest product artisanal — furniture, broom, and basket-making (this category is separated from other artisanal activities to illustrate the importance of regional ligneous resources in secondary processing as well as in primary production activities);
- commerce — in goods other than local primary products;
- domestic — work as a maid;
- tourism.

Table 1: Insecurity at the survey sites

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Camaracounda</td>
</tr>
<tr>
<td>Population (number)</td>
<td>c.600*</td>
</tr>
<tr>
<td>Military presence</td>
<td>Senegalese army camp; surrounding villages mostly abandoned and in Front Sud territory</td>
</tr>
<tr>
<td>Number of mine victims, 1988-99</td>
<td>7</td>
</tr>
<tr>
<td>Major displacement events</td>
<td>Dec. 1992: Front Sud attack displaced whole village; most returned under army protection. July 1995: second and indefinite displacement of outlying quarter of Tourécouta</td>
</tr>
<tr>
<td>Number (and percentage) of respondents</td>
<td>survey total</td>
</tr>
<tr>
<td>displaced from home</td>
<td>once</td>
</tr>
<tr>
<td></td>
<td>twice</td>
</tr>
<tr>
<td></td>
<td>total</td>
</tr>
<tr>
<td>returned home after displacement(s)</td>
<td>21 (40%)</td>
</tr>
<tr>
<td>indefinitely displaced within site</td>
<td>11 (21%)</td>
</tr>
</tbody>
</table>


Notes:
All descriptions and data pertain to the situation during the survey period and to previous events; subsequent changes (see text) are not shown.

* The true figure is higher than this official one because of the influx of IDPs from surrounding villages (interview with Camaracounda chief, 11 April 2001).

b This is the pre-displacement figure (interview with Kandialan chief, 19 February 2001).
Table 2: Transport provision at the survey sites

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Camaracounda</th>
<th>Djinaki</th>
<th>Enampor</th>
<th>Kandialan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road connections to nearest urban centre(s)</td>
<td>paved trunk road Ziguinchor–Agnak–Kolda; laterite road Agnak–village in generally poor state and badly degraded in places</td>
<td>paved trunk road Bignona–Diouloulo–Gambia runs though village, badly degraded</td>
<td>paved trunk road Ziguinchor–Brun–Oussouye; laterite road Brun–village, poor material makes access difficult when wet</td>
<td>paved trunk road Ziguinchor centre–Guinea-Bissau forms western boundary of suburb; sand roads only within suburb</td>
</tr>
<tr>
<td>Road last remade</td>
<td>1983 (trunk road); mid-1990s (laterite road)</td>
<td>1983 (trunk road)</td>
<td>1983 (trunk road); 1999 (laterite road)</td>
<td>1991 (trunk road)</td>
</tr>
<tr>
<td>Road last maintained</td>
<td>ongoing minor repairs (trunk road)</td>
<td>ongoing minor repairs (trunk road)</td>
<td>ongoing minor repairs (trunk road)</td>
<td>ongoing minor repairs (trunk road)</td>
</tr>
<tr>
<td>Public transport</td>
<td>licensed bus services Ziguinchor–Agnak; very few unlicensed bus services Ziguinchor/ Agnak–village</td>
<td>licensed and unlicensed bus services Bignona/ Ziguinchor–Gambia</td>
<td>few licensed bus services and shared taxis</td>
<td>licensed bus services on trunk road; Ziguinchor taxis on internal roads</td>
</tr>
</tbody>
</table>

Sources: Key informant interviews and personal observations, February-August 2001. Note: All descriptions pertain to the situation during the survey period; subsequent infrastructure development (see text) is not shown.

Table 3: Livelihood strategies of economically active respondents at the survey sites

<table>
<thead>
<tr>
<th>Site</th>
<th>Indicator</th>
<th>Main livelihoods</th>
<th>All livelihoods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number</td>
<td>percentage</td>
<td>number</td>
</tr>
<tr>
<td>Camaracounda</td>
<td>total respondents</td>
<td>51</td>
<td>100</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>primary production activities only</td>
<td>44</td>
<td>86</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>other activities only</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>mixed activities</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>mean number of activities per respondent</td>
<td>1.4</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Djinaki</td>
<td>total respondents</td>
<td>49</td>
<td>100</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>primary production activities only</td>
<td>40</td>
<td>82</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>other activities only</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>mixed activities</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>mean number of activities per respondent</td>
<td>1.4</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Enampor</td>
<td>total respondents</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>primary production activities only</td>
<td>37</td>
<td>74</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>other activities only</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>mixed activities</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>mean number of activities per respondent</td>
<td>1.2</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Kandialan</td>
<td>total respondents</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>primary production activities only</td>
<td>24</td>
<td>48</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>other activities only</td>
<td>26</td>
<td>52</td>
</tr>
<tr>
<td>respondents engaging in</td>
<td>mixed activities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>mean number of activities per respondent</td>
<td>1.0</td>
<td>1.9</td>
<td></td>
</tr>
</tbody>
</table>

Source: Livelihood survey, February-May 2001. Note: ‘Main livelihoods’ are those activities deemed the most economically important by individual respondents; ‘all livelihoods’ include main plus all other activities undertaken by respondents.
Table 4: Livelihood activities ranking for economically active respondents at the survey sites

<table>
<thead>
<tr>
<th>Site</th>
<th>Ranking</th>
<th>Main livelihoods</th>
<th>Percentage of respondents</th>
<th>All livelihoods</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camaracounda</td>
<td>1st</td>
<td>Orchard</td>
<td>55</td>
<td>orchard</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>lowland cultivation</td>
<td>29</td>
<td>lowland cultivation</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>upland cultivation</td>
<td>20</td>
<td>upland cultivation</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>wild fruits</td>
<td>16</td>
<td>wild fruits</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>5th</td>
<td>kitchen gardening = forest product artisanal</td>
<td>6</td>
<td>kitchen gardening</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>6th</td>
<td></td>
<td></td>
<td>artisanal/prof. self-emp'd</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>7th</td>
<td></td>
<td></td>
<td>charcoal = forest product artisanal</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>8th</td>
<td></td>
<td></td>
<td>dead wood = hunting</td>
<td>6</td>
</tr>
<tr>
<td>Djinaki</td>
<td>1st</td>
<td>lowland cultivation</td>
<td>73</td>
<td>lowland cultivation</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>upland cultivation</td>
<td>33</td>
<td>upland cultivation</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>artisanal/prof. self-emp'd</td>
<td>12</td>
<td>orchard</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>kitchen gardening</td>
<td>8</td>
<td>kitchen gardening</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>5th</td>
<td>forest product artisanal</td>
<td>6</td>
<td>wild fruits</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>6th</td>
<td></td>
<td></td>
<td>artisanal/prof. self-emp'd</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>7th</td>
<td></td>
<td></td>
<td>dead wood</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>8th</td>
<td></td>
<td></td>
<td>fishing = forest product artisanal</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>9th</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10th</td>
<td></td>
<td></td>
<td>salt</td>
<td>8</td>
</tr>
<tr>
<td>Enampor</td>
<td>1st</td>
<td>lowland cultivation</td>
<td>62</td>
<td>lowland cultivation</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>forest product artisanal</td>
<td>14</td>
<td>forest product artisanal</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>kitchen gardening = orchard</td>
<td>8</td>
<td>kitchen gardening</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td></td>
<td></td>
<td>orchard</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>5th</td>
<td></td>
<td></td>
<td>fishing</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>6th</td>
<td></td>
<td></td>
<td>upland cultivation</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>7th</td>
<td></td>
<td></td>
<td>artisanal/prof. self-emp'd</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>8th</td>
<td></td>
<td></td>
<td>dead wood = livestock</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>9th</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10th</td>
<td></td>
<td></td>
<td>commerce = tourism</td>
<td>6</td>
</tr>
<tr>
<td>Kandialan</td>
<td>1st</td>
<td>artisanal/prof. self-emp'd</td>
<td>26</td>
<td>artisanal/prof. self-emp'd</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>kitchen gardening = orchard = commerce</td>
<td>14</td>
<td>lowland cultivation</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td></td>
<td></td>
<td>upland cultivation</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td></td>
<td></td>
<td>orchard</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>5th</td>
<td>lowland cultivation = upland cultivation</td>
<td>8</td>
<td>kitchen gardening</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>6th</td>
<td></td>
<td></td>
<td>commerce = tourism</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7th</td>
<td>Fishing</td>
<td>6</td>
<td>unskilled waged</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>8th</td>
<td></td>
<td></td>
<td>fishing = livestock = forest product artisanal</td>
<td>6</td>
</tr>
</tbody>
</table>

Discounting the few respondents that are not economically active, usually because of old age or infirmity, Table 3 shows broad livelihood strategies at each site. On the basis of their participation
in the above activities, respondents are categorised by livelihood strategy for main and all livelihoods: primary production activities only, other activities only, or a mixture of both. Table 4 details these activities, with those undertaken by five percent or more of economically active respondents ranked in order of frequency. The five percent cut-off is used because, in a sample of about fifty respondents, at least three people must therefore undertake a given activity for it to be included in the ranking for a given site. This excludes what may be very marginal or atypical livelihoods and, instead, keeps the focus on more general activities at each site.

Table 5 ranks, for each site, the problems affecting primary production activities, again cited by five percent or more of economically active respondents engaged in such activities (that is, those with primary production-only or mixed strategies for all livelihoods). Problems affecting other activities fall outside the scope of this article and involve fewer respondents, limiting the possibilities for meaningful inter-site comparisons.

Analysis of Survey Data

Human Displacement History

Table 1 reveals that displacement registers only at Camaracounda and Kandialan, where the proportions of respondents affected are similar, nearly two-thirds in each case. At Camaracounda, ten percent have suffered two displacements, a phenomenon not seen at Kandialan. The majority of displacements at both sites were circular, with respondents ultimately returning to their homes. Obviously, those who left either site indefinitely were not captured in the survey, but a number of respondents have been indefinitely displaced within each site, from one quarter to another. At Camaracounda, this twenty-one percent represents the population of the outlying quarter of Tourécouta, who, after a second attack, quit their homes indefinitely and moved to the village core in July 1995 (the first attack, which affected the whole village, was in December 1992). At Kandialan, six percent of respondents left the quarter of Kandialan Diola after the attack of August 1997 and have not returned although a few people are still in residence there (seven percent of respondents). In most cases, then, displacement was in response to a major violent incident although certain respondents left because of lower-key insecurity, sometimes operating at an individual level. For exam-
people, one public servant at Camaracounda, when formerly active in various political and community groups, came under increasing threat from the rebels, so was advised by his employer to leave the region (interview, 16 April 2001). Djinaki and Enampor register no displacement in their samples, having never suffered a major incident at the time of the survey. Again, however, the displacement characteristics of all four sites later changed.

Livelihoods
Primary production activities are central to the economic life of the three villages surveyed (Camaracounda, Djinaki, and Enampor), forming the main livelihood strategy of seventy-four to eighty-six percent of respondents (Table 3). Across all livelihood activities, nearly all respondents there deploy primary production-only and mixed strategies. Even at suburban Kandialan, despite access to more urban livelihood options, primary production activities are still crucial: forty-eight percent of respondents have them as their only main livelihood, and seventy-two percent engage in primary production in some capacity. Requirements for a primary production livelihood may include access to the production site, the means to obtain or produce the resource or product in question, and marketing channels if it is for sale rather than subsistence (Ribot 1998). However, such requirements are challenged in different ways and to varying extents at all four sites. The nature and problems of livelihoods (Tables 3-5), and the way in which they relate to local and regional circumstances, are now considered for each site in turn.

Camaracounda
This village represents the more extreme end of livelihood problems among the in situ population of Lower Casamance. These problems have a number of causes. In the deltaic environment of the region, paddy rice cultivation requires sophisticated and labour-intensive hydrological management (Galli and Jones 1987). Only through construction and careful use of dykes and sluices to manage freshwater flows can salinity be kept sufficiently low for rice to grow in many lowlands. But since the Second World War, Lower Casamance has seen increasing rural-urban migration, in the dry season or for longer periods, of a substantial proportion of the working population, particularly younger adults (Cormier-
This has resulted in loss of labour for the maintenance of agricultural infrastructure or for paddy rice cultivation itself. Since the late 1960s, decreased rainfall has also affected agriculture, again particularly lowland cultivation, by exacerbating soil salinisation through increased penetration of saltwater up the Casamance River and its many tidal tributaries and backwaters, or marigots (Dieng 1999). Salinisation has reduced the productivity of rice paddies or, at worst, rendered them unusable, accelerating the shift from lowland cultivation to less labour-intensive plateau agriculture and arboriculture, which was already underway because of rural depopulation (Baker 2000; Cormier-Salem 1989; Foucher 2002). In livelihood terms, the result of these changes has been a move from subsistence to cash cropping and migrant remittances as means of obtaining rice.

These changes are evident at Camaracounda: fifty-nine percent of respondents undertake lowland cultivation, but it represents a major activity for only twenty-nine percent, with forty-four percent of relevant respondents (that is, those engaged in primary production activities) citing rainfall decrease or salinisation as a problem. Partly in adaptation to this change, eighty percent of respondents gain a livelihood from orchards, fifty-five percent as a main activity. Kitchen gardening is another such adaptation (twenty-five percent for all livelihoods) and includes, here, the cultivation of watermelon for the Ziguinchor market. The gathering of wild fruits and nété pods has also increased in importance (thirty-one percent). Some villagers (ten percent) have taken up charcoal-making.

However, with these logical adaptations to socioeconomic and environmental change, the conflict has brought farmers new problems, especially since the onset of serious armed violence in the area in the early 1990s. One problem is limited access to production sites because of insecurity, the complaint of thirty-four percent of relevant respondents. Such insecurity reflects villagers' previous experiences of armed robbery and displacement, plus the seeding of anti-personnel mines in the Guinea-Bissau border zone by Front Sud guerrillas and, it is claimed, the Senegalese army. Seven mine victims are recorded for Camaracounda by Handicap International (2000), but poverty still pushes some villagers to take terrible risks: for example, to harvest cashews from abandoned orchards near the village, one young woman steps over mines that she can see
protruding from the ground (interview, 20 April 2001). Paradoxically, movement is also limited by the presence of the army camp in the village, as soldiers impose a dusk-to-dawn curfew in the surrounding area. This limits access time to fields and orchards, particularly for the displaced former residents of Tourécouta quarter who still visit their lands, about two kilometres from the village centre, during the day. One villager complained that the curfew makes it impossible to maintain surveillance at times when monkeys are likely to eat crops (interview, 19 July 2001). The other problems affecting production — pests and diseases (eight percent), as well as lack of inputs (six percent) — in most cases register least compared with the other sites, probably because at Camaracounda, they are overshadowed by security concerns.

Once production is achieved, villagers face difficulties in marketing their produce. Most commonly cited, by thirty-eight percent of relevant respondents, was lack of clients or of a market, which has a number of causes. Foremost is the demise of Camaracounda's once famous weekly market, which was the central point for "bulking up" (Hodder and Ukwu 1969, 86) and selling local produce, including some from Guinea-Bissau. Buyers, both wholesalers and retailers, came from as far away as Dakar. The market was thus "the lung of the communauté rurale," according to the CR president (interview, Ziguinchor, 14 May 2001); a number of respondents spoke of it nostalgically. Its cessation in 1998, for a variety of reasons tied to insecurity in the zone, thus dealt a severe blow to villagers' livelihoods.10 This event affected both producers and those providing services to the market, including catering and accommodation: formerly, some buyers would stay for several markets in succession to "bulking up" an economical quantity of a particular commodity (interview with local NGO officer, Ziguinchor, 17 April 2001).

Already so embedded in the market economy, producers are now left with two poor choices. They can wait for the few buyers that still come to the village, but who are thus in a position to impose poor prices. Or they can take their produce to Ziguinchor, using the very few clandos (unlicensed buses) that serve the village (Table 2). Both options are limited by insecurity, with few traders or transporters prepared to enter the zone, running what they perceive to be a high risk of armed robbery or, until recently, landmines.11
Also, the dilapidated laterite road linking the village to Agnak, where it joins the trunk road to Ziguinchor, is difficult to use in the wet season, sometimes stopping all vehicular movement along it. For cashews, buyers do come, but the monopsonistic structure of the cashew business in Casamance means, again, that they impose their own price. With the Camaracounda survey period coinciding with the start of the cashew season, the problems of poor price (thirty percent of relevant respondents) thus partly represent the fall in world cashew prices in 2001: Casamance producers were being paid only 100-215 CFA (US$ 0.15-0.32) per kilogram, compared with 300-500 CFA (US$ 0.45-0.75) per kilogram the previous year. At Camaracounda, then, insecurity is very real and may directly limit production, but the partly related problems of marketing produce and getting a good price affect the daily livelihoods of villagers even more than does insecurity. Many respondents believed that resurfacing the road to Agnak — preferably with tarmac, which is much harder to mine — would greatly improve their livelihoods by facilitating local trade flows.

**Djinaki**

This village shows some similar trends to those of Camaracounda, though with important differences. Rainfall decrease or salinisation was cited as a problem by eighty-three percent of relevant respondents, nearly twice as frequently as at Camaracounda, but lowland cultivation still retains its status as the most important economic activity: seventy-three percent of respondents practice it as a main livelihood, and ninety-two percent engage in it overall. These statistics reflect the symbolic primacy of paddy rice cultivation among the Diola, who make up all but two respondents here, even if its practice is in reality limited. Again, there has been a shift towards production on the plateau: upland cultivation is a livelihood activity for sixty-one percent of respondents, and orchards for forty-three percent, with mangoes as the main crop. Kitchen gardening has also become popular (thirty-three percent). At Djinaki only, this category encompasses a small amount of tobacco cultivation, a recent innovation here with seeds supplied and the crop bought by Manufacture de Tabacs de l'Ouest Africain, a Senegal-based, but mostly French-owned, company. Diversification into sesame cultivation was also being mooted. Certain
respondents (eight percent) have turned salinisation to their advan-
tage by collecting, processing, and selling salt from the shores of the
local marigot.

But, again, such adaptations to socioeconomic and environ-
mental change are afflicted by various problems. Restricted access
to production sites due to insecurity registers weakly (nine percent
of relevant respondents), reflecting the uneasy peace with Djinaki’s
Front Nord neighbours. Other, more important, production prob-
lems include lack of inputs (twenty-one percent): this covers the
difficulties in drawing water for kitchen gardening in the late dry
season; the lack of means to obtain fertiliser or apply it to rice
paddies; and the lack of pesticides, with eleven percent also citing
pests and diseases as a problem.

Marketing is more difficult still for those involved in primary
production: thirty-eight percent cited problems of transport to
market, and thirty percent lack clients or a market for their
produce. This may seem odd given Djinaki’s location on the trunk
road between Bignona and the main urban areas of The Gambia,
notably Serekunda, the country’s centre of informal trade. But this
road, which at the time of the survey had seen no maintenance
since 1994, was in an advanced state of degradation with numerous
potholes and certain sections unusable, making vehicular transport
difficult and slow (Table 2). The lack of public transport and buyers
along this road was also a result of recent insecurity: the killing of
seven travellers by a rogue Front Sud element at Bélaye, ten kilo-
metres down the road, had occurred less than three months
earlier.13 And the joola, the ferry then still plying the Ziguinchor-
Dakar run, before its tragic loss, was mostly non-operational at this
time because of frequent breakdowns, cutting off an important
conduit for Lower Casamance produce to reach northern Senegal’s
large urban markets.14 Such problems had seriously afflicted
orange growers across the district earlier in the year (Sud Quotidien

Now mango growers were suffering similar difficulties,
prompting Djinaki’s chief to warn: “If we don’t find a buyer for our
mangoes within the next two months, we’ll be eating sand” (inter-
view, 23 May 2001). Fortunately, a buyer did come a week later, but
given his monopsonistic position, the villagers had to sell at a poor
price — the more general complaint of seventeen percent of rele-
vant respondents. Problems with authorities (eleven percent) refer
to police and customs officers demanding bribes and confiscating merchandise on the way to and from both Bignona and The Gambia. In the latter case, authorities on both sides of the border are involved, so to travel to The Gambia with their produce and bring back manufactured goods for use or resale, village women commonly use clandos, which take back roads to avoid official border crossings and checkpoints. But even locally, within and between Djinaki and neighbouring villages, marketing problems mean that kitchen gardening creates little remunerative trade.\textsuperscript{15}

Its proximity to Diakaye places Djinaki squarely in the main area of \textit{Front Nord} control, including that over some natural resources (Evans 2003b). But the livelihood problems cited by villagers are again more concerned with how underdevelopment affects production, and how isolation affects marketing. Such problems are partly related to, or exacerbated by, insecurity, but few respondents cited this as such.

\textbf{Enampor}

This is another Diola village where lowland rice cultivation is seen as the central economic activity, with a similar weight as at Djinaki: sixty-two percent of respondents cited it as a main livelihood, and ninety-four percent engage in it overall. Rainfall decrease or salinisation thus tops the list of primary production problems again, affecting forty-five percent of relevant respondents. Kitchen gardening figures more highly at Enampori than at any other site, engaging forty-two percent of respondents although it particularly suffers from the production problems stated: pest and diseases (fourteen percent of relevant respondents), and lack of inputs and equipment (both ten percent of relevant respondents). Again, orchards have become important, a livelihood for thirty-two percent of respondents. With Enampori's peninsular location, fishing figures in the data for all livelihoods (twenty-two percent), although not as a main activity.

However, while primary production activities are important — seventy-four percent of respondents have them alone as their main livelihood strategy — proximity to Ziguinchor provides a greater number of urban economic alternatives. Other activities thus register more highly than at the other two villages. For all livelihoods, mixed strategies have the highest figure of any site (sixty-eight percent), more than twice that of Camaracounda or Djinaki,
while primary production-only strategies have a score less than half that seen in the other villages (thirty percent), but similar to that of suburban Kandialan. Forest product artisanal activity is prominent, mainly broom and basket-making for the Ziguinchor market. A frequent activity overall (fifty-eight percent of respondents), this is less regarded as a main livelihood (fourteen percent), demonstrating its status as an "interstitial" occupation: a number of respondents said that they make brooms or baskets only as time allows, in quieter moments between other demands. Enampor is also the only site where tourism figures as an activity of any significance (six percent for all livelihoods), with a small, rustic-style lodge there.

The "demilitarisation" of Enampor CR seems to have brought some benefits: this is the only one of the three survey villages where limited access to resources because of insecurity does not register as a significant problem. But these benefits are constrained for two reasons. First, and akin to Camaracounda's situation, being an island of relative security is of limited value where engagement with markets in Ziguinchor still means that villagers or traders have to cross less secure areas. Some transporters are reticent to venture to Enampor because of insecurity between Ziguinchor and Brin, where the laterite road serving the CR begins. Second, when it is wet, the low-quality resurfacing of this road has a texture akin to that of porridge, further discouraging transporters during the rains. For both these reasons, public transport provision to Enampor CR is surprisingly poor for a non-displaced productive area so close to Ziguinchor. Admittedly, Enampor does not suffer nearly the same problems of isolation seen at Camaracounda or Djinaki: transport to market was cited as a problem by only eight percent of relevant respondents, and lack of clients or a market does not register. However, studies in neighbouring villages indicate that low-level marketing problems do afflict the whole CR (Evans 2003a).

Kandialan
This suburban site shows a significant break with some of the trends noted in the three villages. Livelihoods other than from primary production increase in prominence: fifty-two percent of respondents have other activities only for their main livelihood strategy, compared with ten to twenty percent in the villages; for all livelihoods the figure is twenty-eight percent, compared with two to four
percent. Artisanal or professional self-employment is the top activity, main (twenty-six percent) and overall (thirty-four percent). Primary production is, however, still important: for all livelihoods, there are broadly similar scores for lowland cultivation (thirty-two percent), upland cultivation (twenty-six percent), orchards (twenty-four percent) and kitchen gardening (twenty-two percent). Similar livelihood patterns are seen in Linares’ (1996) Ziguinchor sample. They illustrate the importance to many townsfolk of both urban farming and access to rural resources, as widely observed elsewhere in sub-Saharan Africa (Linares 1996; Potts 2000). Kandialan itself encompasses a good deal of farmland and orchards, and rice paddies form its outside boundary. Some urban livelihood activities figure only at Kandialan: unskilled waged labour (eight percent of respondents), usually in product processing such as at Ziguinchor’s groundnut plant, or in street-cleaning, and skilled or professional waged work (six percent). Although it figures at Enampor also, commerce is more prominent at Kandialan, engaging twenty percent of respondents. This reflects both Ziguinchor’s role as the regional centre of trade and Kandialan’s ethnic mix, which includes more commercially oriented groups.

The difference between rural and urban milieux registers again in the mean number of livelihood activities per respondent. While for main activities, the number is broadly similar at all four sites, it falls off slightly at Kandialan, to 1.0 from 1.2-1.4 in the villages. For all activities, this fall is more marked: while the rural sites have a range of 3.0-3.4, at Kandialan, the mean is only 1.9. Individual Kandialan residents thus seem to exploit their greater range of livelihood options by specialising in fewer of them. Given the greater importance of activities other than primary production, this suggests that these are more lucrative; their daylong, urban location also precludes access to fields and orchards except at weekends and during the wet season. Kandialan also shows a more even spread of respondents across livelihoods: the top activities there, for main and all livelihoods, involve only minorities of respondents, compared with majorities for top activities in the villages.

Kandialan residents engaging in primary production activities recorded fewer difficulties, both in the overall number of problems and the percentages of relevant respondents citing them. The top problem is that of access to production sites being limited by insecurity (twenty-eight percent) although, proportionately, this is less
important than at Camaracounda, and less still in absolute terms, given that fewer Kandialan respondents are involved in primary production. Lack of inputs is the next most important problem (seventeen percent). The other main limit to production, rainfall decrease or salinisation, scores only eleven percent, given the smallest percentage of respondents involved in lowland cultivation seen at any site. Strangely, given the location on the edge of Lower Casamance’s largest town, lack of clients or a market is a bigger problem. The reasons for this are unclear, but the percentage of relevant respondents complaining of poor price for produce (fourteen percent) is similar to that at Enampor and Djinaki, pointing to marketing problems at regional level, affecting town as well as country. Problems of health and age figure to the same degree as at Enampor, showing a general lack of welfare provision for the elderly beyond familial support, as well as limited means to pay for healthcare.

Insecurity is, then, an issue at Kandialan, reflecting its history of human displacement and continued abandonment of nearby rural areas where residents previously accessed fields and orchards. Kandialan has also registered one mine victim (Handicap International 2000). With the return project noted above, this situation started to improve after the survey. But the same structural problems of production and marketing seen in the villages are likely to continue afflicting Kandialan primary producers, albeit to a lesser degree and with the buffer of more urban livelihood options without the need to migrate.

**Discussion**

**The Limits of Livelihood Adaptation to Socioeconomic and Environmental Change**

This study is only an overview of complex livelihood dynamics in Lower Casamance. Neither quantitative financial data nor information on exchanges of cash and other resources within households, including remittances from migrant workers, were collected. The site-level analysis presented here looks at each sample in aggregate, with few of the nuances of important social factors that influence livelihoods, such as ethnicity and gender. Notwithstanding these limitations, certain patterns are evident. Primary production is crucial to livelihoods at all four sites. At the three villages, urban livelihood options are limited to varying degrees except through migration; suburban dwellers also engage substantially in primary
production although easy access to town offers them more livelihoods from other activities. For all respondents, undertaking a diversity of livelihood activities is necessary to generate the food and income for household survival and to buffer them against events rendering any one activity less productive or remunerative, or stopping it altogether. This is in line with research across sub-Saharan Africa that shows the importance of multiple livelihoods for economic security [Ellis 1998].

The nature and outputs of primary production at each site are influenced by an array of factors, sometimes in complex interaction. Overall, the most important problem limiting production, by respondents' own rating, is rainfall decrease and the associated salinisation of lowland fields. The impacts of environmental change are mediated through two factors. First is lack of labour for the hydrological management of rice paddies due to out-migration, although in the survey, this was very rarely stated as a problem as such. This is probably because the benefits of household members earning cash elsewhere, remitting some of it home and not being a burden on rural household resources, far outweigh the problems caused by their absence, at least during the dry season [Main 1995]. Second, under-investment by government or aid agencies in larger anti-salt barrages has allowed ingress of saltwater up the valleys in which the paddies of all four survey sites lie. Such under-investment is partly due to the conflict: a number of barrage projects collapsed with the precipitous departure in 1997 of Western donors in response to the start of widespread landmine use by combatants [CONGAD 1998]. Both these factors have rendered paddy rice cultivation much more vulnerable to the agro-ecological consequences of decreased rainfall.

In response to falling lowland harvests, considerable adaptation is evident in primary production at all sites, particularly in the shift to upland agriculture and arboriculture. But the benefits of adaptation and diversification of livelihood activities cannot fully be realised because other problems limit production and marketing. Insecurity manifests itself in the economic lives of many respondents as reduced access to production sites. But although it was the main criterion in site selection, insecurity showed itself to be a complex and locally variable phenomenon, sometimes even within a given site. Events have differentially affected quarters of the same village or suburb, and some of the "indefinitely displaced" still access their production sites on a daytime-only basis, returning to
relative security by nightfall. Other problems affect production, including pests and diseases, as well as lack of inputs and equipment. These are, in turn, related to wider factors, including, again, lack of external funding for agricultural capital (for example, pumps, carts, or fencing), and inadequate extension services (see below). Labour shortages may figure in these problems too, for example, in an inability to transport manure to rice paddies or to prevent livestock from damaging crops.

After production is achieved, marketing problems highlight how producer adaptations have further integrated them into the market economy, with both its potential benefits and its attendant risks. Such problems occur at all sites, but are particularly serious at Camaracounda and Djinaki. At Camaracounda, economic isolation has reached an extreme with the loss of the weekly market. The negative impacts of this loss cannot be overstated, but research in other villages and press coverage show that problems of isolation affect the whole region (Evans 2003a). During the survey period, an already difficult state of affairs was exacerbated by heightened insecurity north of the Casamance River, as well as by the Joola ferry being mostly out of service. The economic consequences were all too evident travelling around Lower Casamance. Many producers have to let their oranges and mangoes rot during the respective seasons for want of transport or buyers. Rural kitchen gardeners in the region are prevented or economically discouraged from supplying the Ziguinchor market by a combination of insecurity, inadequate transport, poor organization, and preservation problems, while the town has to be partly supplied with vegetables grown in northern Senegal or even imported from the Netherlands via Dakar (Le Bulletin d'Info sur l'Offre et la Demande des Produits Agro-Forestiers [Ziguinchor] various dates 1999-2000).

In sum, then, the study shows how Lower Casamance producers have, over time, responded well to the challenges of socioeconomic and environmental change, but chronic structural problems have imposed constraints on how far such adaptation can translate into viable livelihoods.

The Wider Context of Underdevelopment
The economic isolation of particular villages or zones in Lower Casamance, and of the region generally, is, as shown, partly due to poor transport provision, both within the region and that linking it
with the urban centres of northern Senegal and The Gambia. This is, in turn, partly related to the conflict — first, because investment and work on such infrastructure is inhibited by the climate of insecurity. Large infrastructure projects are dependent on the vagaries of donor aid, but even where funding is available, tenders in Lower Casamance may attract few or no bids, with potential contractors put off by fear of attack and robbery (interview with head of regional works service, Transport Ministry, Ziguinchor, 23 July 2001). The second effect of insecurity is to discourage those providing public transport from serving areas where they fear armed robbery or landmines. Such fear also deters traders from coming to the region from northern Senegal to buy local produce, and the few that do are in a position to impose poor prices on producers.

But the effects of insecurity are not the whole story. In Lower Casamance as elsewhere, a number of problems noted in the survey can be related to the national economic situation. Post-independence neglect of most rural areas has worsened because of implementation of structural adjustment programmes (SAPs) in Senegal. The effects of SAPs on primary producers have been various (Cruise O'Brien, Diop and Diouf 2002). Retrenchment measures have reduced agricultural investment and extension, including the provision of inputs, and have exacerbated the lack of welfare and health services. Transport infrastructure is another SAP casualty. Of Lower Casamance's classified road network, totalling 1 056 kilometres, only 321 kilometres (30.4 percent) is paved (interview with head of regional works service, Transport Ministry, Ziguinchor, 23 July 2001). On paper, this is actually slightly better than the national average of 29.3 percent: 4 271 km paved out of 14 576 km (CIA 2002). However, such figures are problematic, as they mask the true state of Senegal's paved roads: in 1988, only twenty-eight percent of these were "substantially free of defects and requiring only routine maintenance" (Simon 1996, 20). In Lower Casamance, neglect of maintenance and repaving (Table 2) has relatively rapid consequences as a result of the deterioration of road surfaces in the region's rains, while any improvement projects may take a long time to implement. The rain also degrades unpaved surfaces and makes them more difficult to use in the wet season. Therefore, the condition of the laterite feeder roads linking most rural dwellers to trunk routes has to be factored into the transport problems experienced by local people. This is evident at Camaracounda and, to a lesser extent, at Enampor.
Still, there have been some improvements to trunk roads in Lower Casamance during the armed conflict period (since 1990), which have helped improve connections with northern Senegal and The Gambia. Notable projects include the repaving in 1996-99 of the Tobor-Bignona-Sénoba stretch of the transgambian highway linking the region to Dakar. However, travellers on the transgambian will continue to suffer long delays at the bottleneck created by the unreliable ferry across the Gambia River at Farafenni until the planned replacement bridge is built there. Transport via the alternative, maritime route from Ziguinchor to Dakar will be very restricted until the Joola ferry is replaced. Long overdue repaving of the Bignona-Diouloulou road was executed in 2002, after the Djinaki survey, improving transport links both within Lower Casamance and between the region and The Gambia.

The economic importance of transport infrastructure is reflected in the degree to which it has become politicised. It has been a significant issue in peace talks, with the MFDC demanding that the Senegalese government, with donor funding, undertake massive rehabilitation in the region. MFDC members and some other Lower Casamançais claim that neglect of infrastructure has been deliberate on the part of the government, a means of economic warfare to subjugate the region’s rebellion. While instrumental neglect is a recognised strategy in civil conflict (Le Billon 2000), it is worth asking, in response to such claims, who is now largely responsible for the ongoing climate of insecurity that impedes what development is possible in Lower Casamance. As well as trunk road improvements, better security and more funding would allow improvement or reinstatement of laterite feeder roads in the Guinea-Bissau border zone, including vegetation clearance and demining in areas that are currently abandoned. As the Camaracounda survey showed, such roads are important in allowing those living away from trunk routes to market their produce. They are vociferously asserted as a development priority by border zone inhabitants.

But to what extent and how transport infrastructure development would translate into economic development in Lower Casamance is a matter for conjecture, as the causal relationships involved in such processes are complex (Simon 1996). The greatest economic and social impacts of the construction of the transgambian highway, completed in 1957, came about because it enabled Lower
Casamançais to leave the region more easily than before and work elsewhere (Lambert 2002). For those who remain there, better transport would improve livelihoods insofar as crops could be sold more easily and with lower overheads, but this would not necessarily improve producers’ overall position within the structures of national and global markets. Other forces limit this position: poor organisation among producers, the dominance of traders from northern Senegal, lack of local preservation and processing facilities, and the vagaries and inequities of world trade. Better movement of produce would also create more opportunities for predation by corrupt authorities and parasitic elites. Peace in Lower Casamance is clearly desirable for its own sake, but its economic consequences through infrastructure rehabilitation are unpredictable.

Primary producers in the region are by no means unique in sub-Saharan Africa in suffering from economic isolation. For rural producers in The Gambia, Baker (2000) identifies problems similar to those observed in Lower Casamance. This comparison is particularly telling, considering that The Gambia is a neighbouring country with essentially the same agricultural practices and adaptations but, crucially, there is no civil conflict. In the north of Senegal too, kitchen gardeners suffer similar marketing problems to those of Lower Casamance producers. Tomatoes grown in the Senegal River Valley rot after harvesting because of bad roads, the absence of local preservation facilities, poor organization, and limited vehicle availability on the part of both producers and the parastatal concerned (Sud Quotidien 23 and 24 March 2001). Such parity of problems between Lower Casamance and nearby, peaceful areas demonstrates how poor infrastructure, unfavourable market conditions, and inadequate public services are common to many provincial parts of sub-Saharan Africa, at war or at peace. The World Bank estimates that US$18 billion needs to be spent each year on African infrastructure of all kinds for economic growth to reach levels that may reduce poverty for the majority; however, such spending currently runs at less than one-third of this (The Economist 21 December 2002). This is the result of SAPs, declining inward investment, and, in some countries, armed conflict. In other conflict zones, the relatively little research published on in situ livelihoods thus shows, as in this study, how different factors are intertwined in their effects, with war only one among a range of dynamics (Collinson 2002; Woldemichael 1992).
Conclusion

It is difficult to isolate the direct and indirect impacts of conflict from other factors affecting the livelihoods of in situ rural and urban fringe populations in Lower Casamance. Even where insecurity reduces access to primary production sites, it is patchy in space and time, as Camaracondou and Kandialan both show in their human displacement histories. And only at the extreme end of insecurity do its effects on marketing become clearer, as seen at Camaracondou.

By contrast, other problems of production and marketing are more general and are defined by factors that largely transcend the conflict in space and time. Rural-urban migration has continued apace, changing agricultural production in Lower Casamance through reduction of the local labour force, which has, in turn, magnified the effects of environmental change. Nevertheless, adaptations by producers to such changes have not translated into viable livelihoods to the extent desired because of other constraints. Limited trade activity at local and regional levels consistently stifles the Lower Casamance economy by limiting or preventing the marketing of local produce. Unfavourable macroeconomic circumstances and governance problems further exacerbate hardship among the region’s population.

The conflict undoubtedly plays a role in such problems by discouraging trade and infrastructure development. Outside the scope of this article, it also enables certain predatory interests to exploit the region’s natural resources and denies many indefinitely displaced people any access to their lands (Evans 2003ab). For this latter group, insecurity is the defining, negative force in their livelihoods. But for most Lower Casamançais, problems of primary production and marketing often reflect more complex articulations between the effects of insecurity and wider economic isolation, in a context of socioeconomic and environmental change. While still important, the impacts of conflict on livelihoods in the region may be overshadowed by the pernicious, “silent violence’ of underdevelopment, poverty and inequality” (Cliffe and Luckham 2000, 295).

Notes

1 In terms of elected authority, the three villages are “peers” insofar as each is the head village or, in the case of Camaracondou, part of the head village of the communauté rurale (see below) in which it is situated. Kandialan comprises two official quartiers (quarters) of Ziguinchor municipality, or
four by local definitions. All the survey sites are comparable insofar as each is a defined chiefdom. Camaracounda, with its own village chief, is therefore treated as discrete from neighbouring Boutoupa even though the two villages are geographically contiguous. Similarly, one quarter (Kacaré) contiguous with Djinaki is excluded, as it falls within a different village chiefdom.

2. *Communauté rurale* (CR — rural community) is used throughout this article in the strict sense of a defined administrative division of an *arrondissement* (district) with an elected *conseil rural* (rural council).

3. The Diola are the majority ethnic group in Lower Casamance. The 1988 census found that they comprised 60.7 percent of the region's population (Sénégal 1992).

4. The precise circumstances and nature of this “demilitarisation” agreement are unclear, with varying accounts heard from sources in Ziguinchor (interview with local NGO officer, 19 January 2001; interview with local government official, 24 July 2001). For the study, it is the consequences that are important, namely no Senegalese forces present beyond Brin, where the laterite road serving Enampor CR leaves the trunk road, and generally no rebel activity.

5. At Djinaki, violent events followed the survey: on 5 June 2001, the *Front Nord* launched an assault on new Senegalese army positions there, which it saw as infringing on its territory. The assault was unsuccessful and the army camp remained. The village has since benefited from transport infrastructure development through the much needed repaving of the Bignon-Diouloulou road. At Enampor, a rare exception to “demilitarisation” occurred on 17 April 2001, with the armed robbery by rebels of Ziguinchor mayor Robert Sagna and his cortège near Bandial, and the associated robbery of a shop at Enampor itself. However, this exception must be seen in the context of the legislative election campaign at that time, with MFDC elements possibly seeking to raise their profile. At Kandialan, an assisted return project has augmented the resident population and improved local resource access; assisted return was also planned for Camaracounda (see below).

6. *Bissap* is the Wolof name for *Hibiscus sabdariffa*, the calyces of which are used to make a soft drink of the same name, known to anyone who has visited Senegal (Dalziel 1937). In Lower Casamance, the leaves of the plant are used in cooking to make *caldou* sauce, a Diola speciality.

7. *Mad* and *tol* are the Wolof names for the wild fruits of *Landolphia senegalensis* and *L. heudelotii* respectively; *nété* is the Mandingo name for the tree *Parkia biglobosa*, whose seeds are used to make the condiment *nété-tou* or *néré-tou* (Dalziel 1937).

8. Those displaced from elsewhere to these two sites — two respondents at each — are excluded from this analysis; thus, it concerns only those
displaced from or within the sites themselves.

9 From July 2001, many displaced residents returned to Kandialalan Diola under a USAID-funded project largely comprising house reconstruction, with protection and some logistical support from the Senegalese army. At Camaracounda also, USAID-funded reconstruction for returnees was planned for 2002 (interview with local NGO officer, Ziguinchor, 7 March 2002); it is not known whether this included houses at Tourécounda. At Djinaki, the Front Nord assault of June 2001 displaced much of the village population, mostly to nearby villages and The Gambia, although the great majority returned within a few months. At Enampor, a few residents left temporarily as a result of the rebels’ armed robbery of April 2001.

10 The reasons for the demise of the weekly market at Camaracounda are complex. Traders going to and from the market faced armed robberies by rebels, and some travelling specifically from Guinea-Bissau were harassed and beaten, as suspected rebels or rebel supporters, by soldiers under the orders of a previous captain of the village camp. Unsurprisingly, such risks reduced the number of people participating in the market, which ran into serious viability problems in 1997 and was kept going only with local government support. But, in 1998, it was forced to close, and an attempt to relaunch it in 2000, supported by a new, sympathetic captain, failed because of continued robberies by rebels of producers returning to Guinea-Bissau — an attractive target carrying their cash proceeds rather than produce.

11 Until late 2000, landmines would be found in the Agnak-Camaracounda road every couple of weeks. However, with military efforts by the Bissau-Guinean government of President Kumba Yala to stymie arms supply to Front Sud guerrillas, this problem apparently ceased (interview with soldier from Camaracounda camp, 9 May 2001).

12 The franc CFA (Communauté Financière Africaine) is the single currency of Senegal, most other francophone countries of West Africa and, since 1997, Guinea-Bissau. Formerly tied to the French franc, the CFA is now tied to the euro at a fixed rate (1 = 655.957 CFA). At the time of the research, 1 000 CFA were worth approximately US$ 1.50.

13 The killing of thirteen civilian travelers, on 16 February 2001, at Niahoump, on the transgambian highway, shocked many Lower Casamançais even after two decades of violence: Wolof were separated from other travellers on the basis of their identity cards, then executed. The Bélaye killings of 2 March 2001 showed a similar modus operandi.

14 In Africa’s worst ever maritime disaster, the Joola capsized off the Gambian coast on 26 September 2002, with the loss of over 1 800 lives.

15 The president of Djinaki’s groupement pour la promotion féminine (women’s group) complained of her members’ limited ability to transport their produce (interview, 30 May 2001), and there was evidence from the

16 Both these manufactures use the leaves of the rônier or black rhun palm (Borassus aethiopum), which grows or is cultivated in large numbers in and around Enampor.

17 Tourism used to feature more highly in the regional economy, but it declined severely because of insecurity in the early to mid-1990s. Most tourists are now found at the coastal resorts of Cap Skirring and Kafountine, the former served by direct charter flights from Europe. However, with generally improving security conditions, tourists are now visiting the region more widely and in greater numbers, supporting a small number of jobs, particularly in Ziguinchor and its environs.

18 During the wet season, many migrant families decamp from Ziguinchor to their villages of origin to undertake cultivation; the town takes on a noticeably depopulated aspect.

19 Such social factors are covered in the author’s doctoral thesis (Evans 2003a) and by other authors, including Linares (1996).

20 One of the terms of the peace accord signed between the MFDC and the Senegalese government on 16 March 2001 was “[t]he implementation of road construction projects essential for the accessibility of certain villages in the region” (Sud Quotidien 17 March 2001, 2). In subsequent discussions with the government, Father Diamacoune Senghor, the MFDC leader, demanded the “the effective opening up of Casamance by the immediate start of work on the Bignona-Diouloulou road” (Sud Quotidien 24 March 2001, 2).

21 As well as at Camaracounda itself, this was witnessed at two local development plan formulation meetings attended by the author in January 2001, for Nyassia CR and Boutoupa-Camaracounda CR. While both meetings were largely peaceable, animated discussions arose over which laterite routes should be earmarked for reinstatement.

Bibliography


Association pour le développement de la communauté rurale
d’Enampore.

General Perspective.” In Beyond Conflict in the Horn: Prospects for
Peace, Recovery and Development in Ethiopia, Somalia and the
Sudan, edited by Martin Doornbos, Lionel Cliffe, Abdel G. M. Ahmed
and John Markakis, 133-42. The Hague: Institute of Social Studies, in
association with James Currey, London.

AJAC-APRAN. 2001. Plan local du développement de la communauté
rurale de Boutoupa-Camaracounda. Ziguinchor: Association des
jeunes agriculteurs de la Casamance — Association pour la promotion rurale de l’arrondissement de Nyassia.


