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## Production and marketing of vegetables in the Port-au-Prince peri-urban area. A sub-sector study for CARE International in Haiti

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PRODUCTION AND MARKETING OF VEGETABLES  
IN THE PORT-AU-PRINCE PERI-URBAN AREA

A SUB-SECTOR STUDY

For

CARE International in Haiti

February 1994

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Summary

This is the report of a study of vegetable production and marketing in the Port-au-Prince peri-urban area undertaken for CARE International in Haiti during January 1994. The objective of the study was to describe the structure, extent and dynamics of the sub-sector in order to identify potential programme opportunities.

The major findings of the study are:

1. Market-oriented vegetable production forms the basis of the agricultural economy in the Kenscoff and Seguin areas. It is estimated that over 10,000 households and perhaps 30,000 rural residents are engaged in vegetable production activities.
2. Vegetable producers in these areas work within a well established and diversified system. They have a high level of technical competence: production systems represent a mix of simple and more sophisticated technologies. A variety of agricultural inputs are made available on a timely basis to most producers in the peri-urban area through an extensive network of firms, boutiques and traders.
3. There is a complex and dynamic marketing network that more often than not successfully links producers with a range of consumers. Many actors, including the producers themselves, are active at multiple points in this network. Aside from wholesalers and retailers, the marketing network provides employment for a significant number of women (perhaps 2,000) who regularly carry produce from Seguin to Furcy.
4. In the context of present structural and infrastructural constraints, the marketing system efficiently delivers produce to consumers. There is little sign of systematic price gouging or monopolistic behaviour.
5. The subsector is characterised by significant levels of competition throughout.
6. It was estimated that producers in the Kenscoff and Seguin areas produce upwards of 36,000 tons of produce annually with a total farm-gate value in the range of H\$22 million.

A number of potential areas were identified where intervention might benefit both smaller-scale producers and lower-level consumers, as well as the regional vegetable industry as a whole. These include education on the safe use of pesticides, increased local production of seed potato, improvement of the footpath from Seguin to Furcy, improvement of the Kenscoff road above Fermathe and further study of the structure and dynamics of the industry.

One way to stimulate and guide these kinds of activities would be through the creation of a forum through which the concerns of all interested parties could be voiced. The formal sector including the importers and suppliers of agricultural inputs would have to play a key role in the formation and funding of this forum.

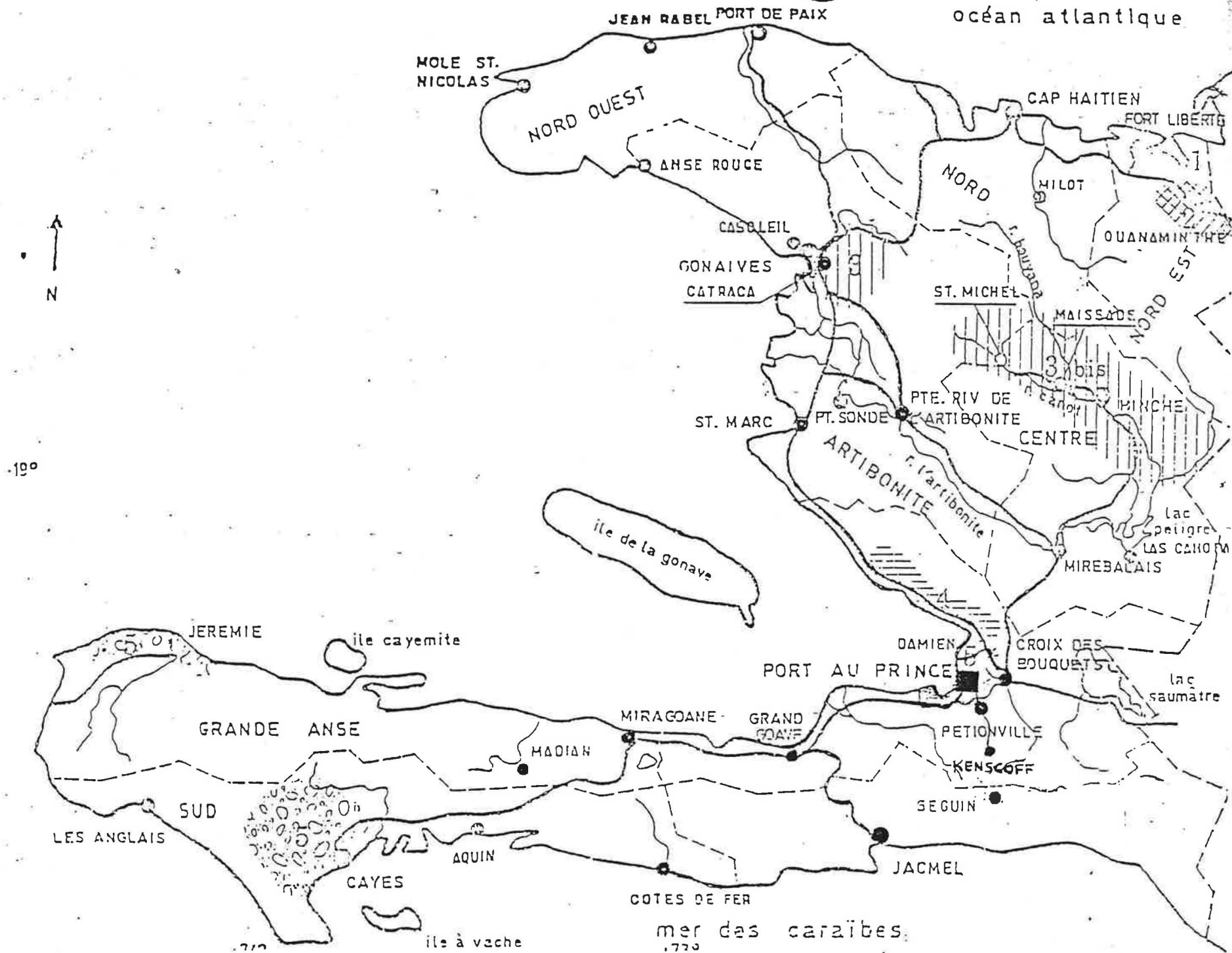


Table 4. Summary of partial production budgets (for 0.25 carreau [0.31 Hectare], in H\$).

Item	Potato	Cabbage	Carrot
<b>Production and Marketing Costs</b>			
Labour Costs	200	153	402
Materials	2,344	247	190
Marketing Costs	0	197	0
Interest	509	89	119
<b>Total</b>	<b>3,052</b>	<b>686</b>	<b>711</b>
<b>Value of Production</b>			
High	7,875	896	1,471
Low	4,500	672	882
<b>Net Benefit</b>			
High	4,823	210	759
Low	1,448	(14)	171
<b>Net Benefit if Farmer Uses Only Family Labour</b>			
High	5,063	386	1,242
Low	1,688	162	654

Note: Field sizes have been converted into 0.25 carreau to facilitate comparison. The detailed case studies are given in Appendix 5. The data correspond to the situation as of January 1994. The monetary values are rounded to the nearest H\$ and therefore totals may reflect rounding errors.

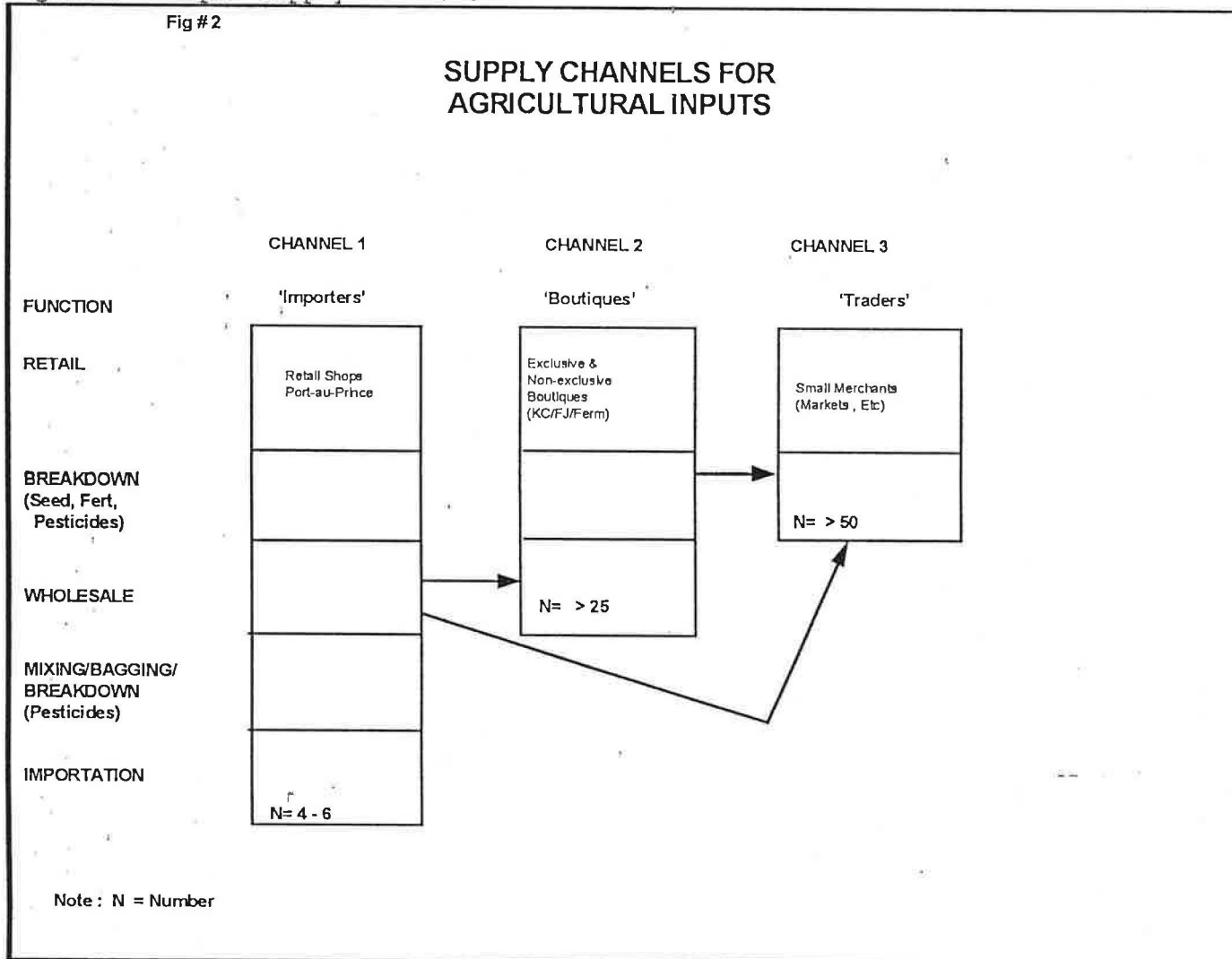
The results of the calculations reflect the situation as of January 1994. Potatoes are the most profitable crop which may well be linked to the scarcity of the tubers at the time of the survey. Even at low producer prices potatoes yield a higher net benefit than the other crops (ie. cabbage and carrots) can achieve at high prices. Potato production requires high initial inputs out of which seed is the main item. As already mentioned, potato production was low at the time of the survey due to factors such as lack of seed and seasonality (to verify).

According to the case studies, cabbage is the least profitable crop and if farmers fetch only a low price for their produce the net benefit might be close to zero. Interestingly, although the producer interviewed for the cabbage budget sells the produce directly to the wholesale market of Croix des Bossales, his returns are still quite low.

The carrot case is based on production in the Seguin area which is disadvantaged by the lack of road infrastructure. Although farm-gate prices are comparatively low in that locality, farmers can still achieve positive net benefits even at low prices.

Carrot producers, in particular, said that their produce was more profitable in the past (before the embargo).. The detailed case study shown in Appendix 5 also includes a scenario based on more favourable farm-gate prices reflecting this statement. Under these conditions, a net benefit of about H\$2,200 per 0.25 carreau per cycle was possible in the past.

figure # 2 Input Supply Channels



### Markets

The following discussion refers to points in the marketing chain shown in Figure 3.

### Assembly Points

Assembly points refer to sites where bulking of vegetables and preparation for transport to the wholesale market takes place. In the Kenscoff area, the most typical assembly point for vegetables is located at Cimétière de Bouret close to Furcy. The place has the character of an informal market place where intense buying by wholesalers from producers and intermediaries takes place. At the time of the survey, carrots from Seguin and cabbage from the surrounding production zones were the main commodities assembled for truck transport to Port-au-Prince. Usually, some preliminary form of sorting and repackaging takes place at the assembly point.

**Fig. # 4 MAIN MARKETING CHANNELS FOR KENSCOFF/SEGUIN AREA**

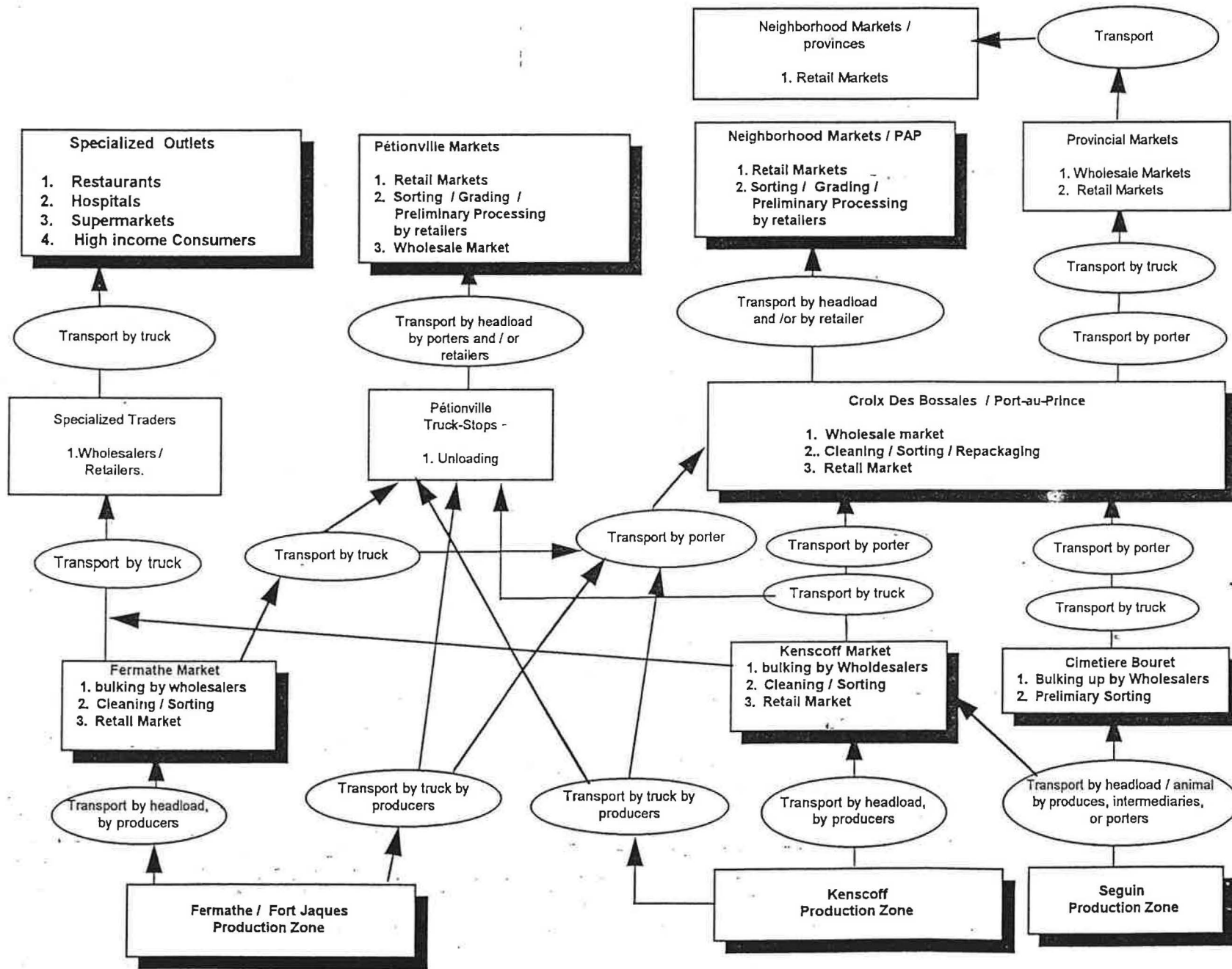


Table 5. Marketing case study: 1 headload of carrots (30kg) from Seguin to Port-au-Prince retail markets.

Player	Steps in Marketing	H\$/headload	% of Consumer Price
Intermediary	Farm-gate price Seguin	8.00	38%
	Interest (1% of cash expenditures)	0.08	
	Net benefit of intermediary	4.42	
Wholesaler	Price at assembly point (Cimetière de Bouret)	12.50	60%
	Loading	0.30	
	Transport by truck to Croix des Bossales	3.25	
	Transport by porter into Croix des Bossales market	0.30	
	Market fees (Security fees)	0.30	
	Interest (1% of cash expenditures)	0.17	
	Net benefit of wholesaler	1.18	
	Retailer	Wholesale price	
Transport (Taxi)		1.00	
Interest (1% of cash expenditures)		0.19	
Net benefit of retailer		1.81	
Consumer	Consumer price	21.00	100%

Table 6. Marketing case study: 1 bag of cabbage (60kg) from Furcy area to Port-au-Prince retail markets.

Player	Steps in Marketing Chain	H\$/headload	% of Consumer Price
Wholesaler	Farm-gate price Furcy area	22.00	61%
	Transport from field to assembly point	1.00	
	Transport by truck from Furcy area to Croix des Bossales	4.00	
	Transport by porter into Croix des Bossales market	0.60	
	Market fees (Security fees)	0.50	
	Interest (1% of cash expenditures)	0.28	
	Net benefit of wholesaler	1.62	
Retailer	Wholesale price	30.00	83%
	Transport (Taxi and porter)	2.50	
	Interest (1% of cash expenditures)	0.33	
	Net benefit of retailer	3.18	
Consumer	Consumer price	36.00	100%



FIGURE 6

## Position 3: Fermathe Market

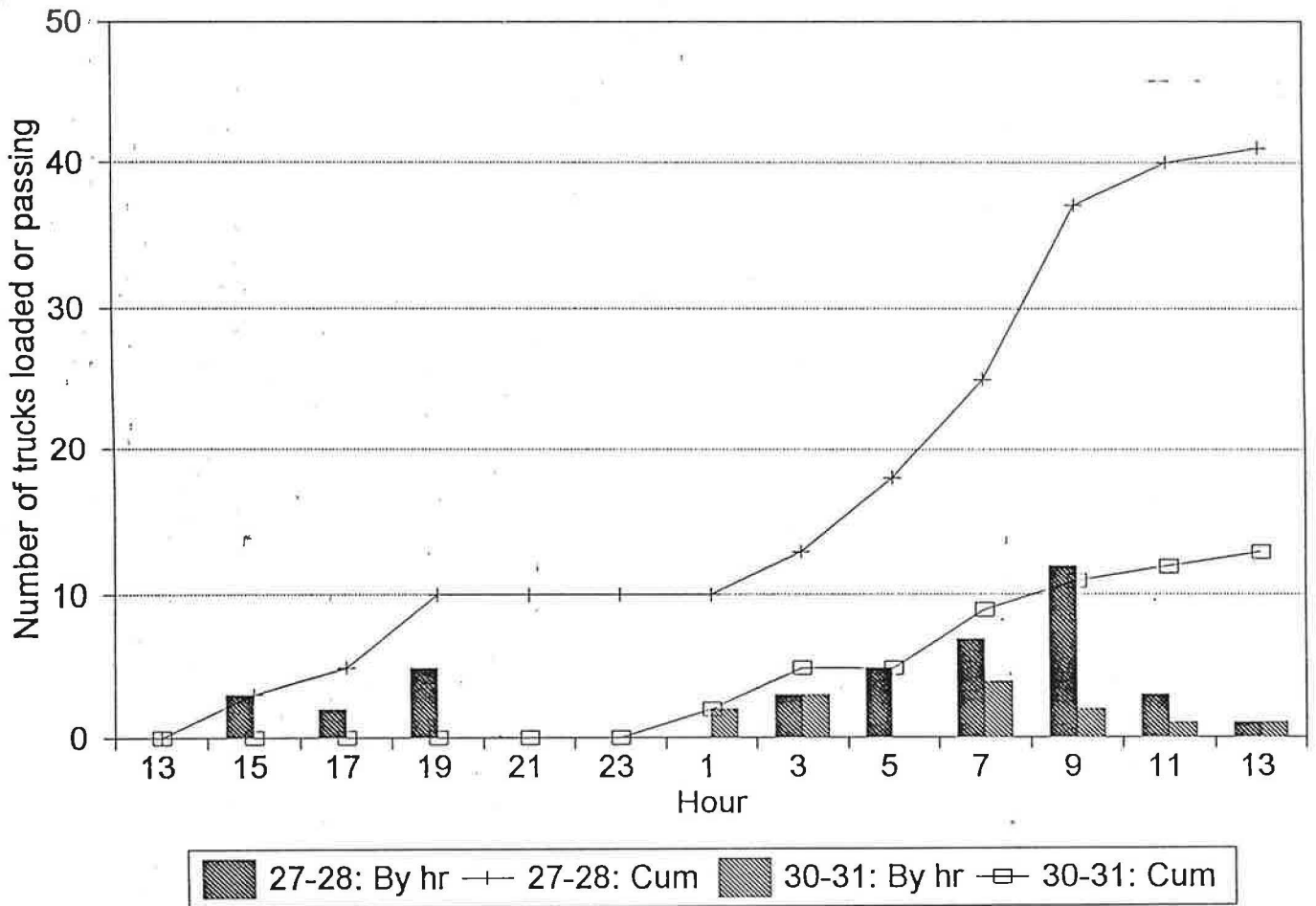


Table 8. Results of counting exercise.

Position	Category	Period		Total
		1	2	
Furcy	(1) Persons w/headloads	1,027	414	1,441
	Animals	29	60	89
Kenscoff market	(2) Trucks loaded	26	8	34
	Loaded trucks passing	7	10	17
Fermathe market	(3) Trucks loaded	14	3	17
	Loaded trucks passing	27	10	37
Fermathe footpath	(4) Persons w/headloads	80	0	80
	Animals	1	0	1
La Boule	(5) Loaded trucks passing	43	16	59

Note: numbers in parentheses refer to positions on Figure 5; Period 1: 27-1-94, 13h to 28-1-94, 13h; Period 2: 30-1-94, 14h to 31-1-94, 14h.

Nevertheless, the exercise indicates that there are significant quantities of vegetables being evacuated from the Kenscoff and Seguin areas, with a conservative estimate for the combined 48-hour test period being 250 tons, of which approximately 15% (or 40 tons) was transported by headload from Seguin to Furcy, predominately by women.

These counts were made towards the end of the Seguin carrot production cycle, and at a time when there is a general depression of market due to the embargo. There is also a severe shortage of transportation. Nevertheless, based on this limited exercise preliminary estimates of the extent of the sub-sector were developed (Table 9).

Table 9. Estimated annual quantity and value of the peri-urban vegetable sub-sector (detailed calculations in Appendix 8).

Parameter	Estimate
Headloads/wk from Seguin	5-7,000
Tons/wk in headloads	125 - 175
Tons/yr in headloads	7,000
Individuals working as 'intermediaries' (year round, half-time)*	2,000
Income to intermediaries	H\$ 400,000
Trucks/wk	180 - 270
Tons/wk	450 - 650
Total quantity produced (tons/yr)	> 30,000
Estimated annual farm-gate value	> H\$ 20 million

These estimates show clearly that the peri-urban vegetable sector constitutes a major economic activity, from which something over 20,000 rural residents gain a significant proportion of their livelihoods.

Table 10. Concerns raised by various actors in the peri-urban vegetable sector.

Actor	Major concerns
Small Retailers	(Reduced turnover) (Low consumer purchasing power) (High cost of transport to smaller markets)
Madames Sarahs	(Lack of transport) Poor sanitary conditions in Croix de Bossales Poor physical access to Croix de Bossales market Large fluctuations in market prices Condition of road above Fermathe Condition of the Kenscoff to Furcy road
Transporters	(High fuel prices) Poor condition of roads
Intermediaries	Condition of Seguin to Furcy footpath
Producers	(Higher input prices and restricted availability) (Higher transport costs) (Reduced farm-gate prices [Seguin]) (Reduced demand in market [Kenscoff]) (Only one large market outlet) Lack of technical assistance Poor and unsafe pesticide use practices Seasonal produce gluts
Input Suppliers	(Uncertain regulatory environment) Restricted credit availability

Note: ( ) indicates issues directly related to the current embargo.

Nevertheless, a number of issues were identified that have the potential to have significant impact either at the level of a particular function within the sub-sector (i.e. sanitary conditions at Croix des Bossales market or the condition of the Seguin to Furcy footpath) or at the level of the sub-sector as a whole (e.g., the condition of the roads).

It is also clear that the concerns listed in Table 10 raise very different challenges in terms of the appropriate institutions through which they could be addressed. Thus, for example, while the maintenance of the road network is traditionally a government function, education concerning safe pesticide use or alternative production techniques might well be organised and financed from within the industry itself.

In the light of the dynamic nature of the peri-urban vegetable sub-sector, and the fact that it is an industry that has developed, and continues to function, with minimal government or project assistance, extreme caution should be exercised by any and all groups or institutions considering intervention.

With this view in mind, the following would appear to offer particularly good opportunities for assuring the future growth and profitability of vegetable production in the Port-au-Prince peri-urban area:

1. education of boutique owners, traders and producers in the safe handling and use of pesticides;
2. improvement of the foot path between Seguin and Furcy, including better drainage and surface conditions and capping of springs to provide clean water to walkers and animals;
3. improvement of the Kenscoff to Furcy road above Fermathe;
4. increased production of high quality potato seed;
5. applied research and extension to promote a wider range of types and varieties of vegetables that would permit longer seasons, have better keeping quality, etc.;
6. further analysis of the logistical and sanitary conditions at Croix des Bossales market as they affect the economic and human aspects of the wholesale function, with the objective of identifying practical and politically acceptable solutions;
7. provision of more detailed information and analysis about the structure, scale and dynamics of the sub-sector.

Addressing any of these issues will necessarily demand communication and coordination among a number of institutions and individuals directly or peripherally involved in the industry. The nature and scale of the industry would also argue for direct financial participation of the industry itself in some of these activities.

The creation of some kind of a 'forum', where the ideas and concerns of actors at all levels within the industry can be discussed, might be the most logical next step. This forum could serve as a point of focus, discussion and coordination for the industry as a whole. It would be essential that it be seen from the very beginning as seeking to serve all the various actors for the benefit of the industry overall. At the same time, it is obvious that the companies supplying agricultural inputs would have to play an important role in the establishment of such a forum.

#### Recommendations

The peri-urban vegetable sub-sector does appear to hold certain opportunities for CARE to contribute to the welfare of a range of individuals involved as producers, traders and consumers of vegetables. Nevertheless, the very nature of the sub-sector will demand a different approach than traditionally used by CARE in Haiti. The fact that the sector is commercially oriented, dynamic and dominated by the private sector will necessitate a distinctly 'collegial' approach.

CARE could, for example, play a useful facilitating role in the establishment of an industry forum. There can be no question that this will require the confidence of, and close liaison with, the major actors in the sub-sector.

One strategy would be to establish the necessary confidence and liaison through two or three pilot activities (focused around, for example, education in the safe use of pesticides and further study and quantification of the sub-sector). These activities would be planned and implemented in close collaboration with key players in the industry. In addition to their direct benefits, they would help create collaborative relations and mutual understanding that would be essential for the establishment of a representative, industry-wide forum.

Pesticide education would be focused on dealers and traders as they are the producers' most important points of contact and information. In terms of generating better information about the sub-sector, a one-year study might be envisaged that would focus on key input supply, production and marketing variables. Such an extended period will be essential to capture the important seasonal aspects of the sub-sector.