The red gold rush: the impact of governance styles on value chains and the well-being of lobster fishers in the wider Caribbean

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Citation for published version (APA):
Monnereau, I. (2012). The red gold rush: the impact of governance styles on value chains and the well-being of lobster fishers in the wider Caribbean
Chapter 7: The global chain of Caribbean lobsters’ tails

In June 2008, two hundred angry small-scale fishers using a megaphone shout out from the back of a truck. “Huelga, huelga! Strike, strike!” The protesters are driving around and around the only road on Corn Island, Nicaragua. This small Caribbean island of just 10 km² is home to 8,000 people. The lobster fishery is the main economic pillar of the island, but due to the economic crisis in North America, the lobster fishers are being confronted with declining international market prices accompanied by sky-high fuel prices. The fishers are calling for a strike and hijack the petite airport. They demand higher lobster prices and fuel subsidies from the government. Burning car tires have been placed on the airstrip to prevent any planes landing or taking off, and roads are blocked with large rocks.

The lobster fishing season has just opened and trap fishers have had to invest up to USD 5,000 in new traps, aggravating the problems of declining prices and high fuel prices. It’s not only the small-scale fishers who are affected, the industrial fleet is similarly affected, and in fact all those involved in the lobster chain from harvest to consumer as well. We have seen in Chapter 2 that lobster is considered a luxury product in Europe and North America, to be eaten on when dining out and on special occasions. It is exactly this characteristic of its consumption that proved fatal. As world stock markets declined and large financial institutions, like the Lehman Brothers, collapsed, governments in even the wealthiest nations had to come up with rescue packages to bail out their financial systems. A crash in housing and commodity prices took place after a major price rise in the 2000s. Due to the economic crisis consumers began to eat out much less often and took to buying less luxurious seafood (e.g., salmon or tilapia).

The financial crisis of 2007-2010 was regarded by some to be the worst financial crisis since the Great Depression in the 1930s. With the downturn in the stock markets, the downturn in the economy, and the collapse of the housing market, consumer wealth declined greatly. As consumer confidence in the United States decreased as the economic situation worsened, consumer demand for lobster—a luxury product with extremely high prices—fell rapidly. Lobster demand thus plunged and lobster prices rapidly deteriorated all the way down the chain. The problems the Corn Island fishers faced are thus more global in nature, as in the summer of 2008 a worldwide recession made itself felt. The fishers’ unrest lasted until the summer of 2009, when prices slowly began to rise again.

Fig. 7.1: Roadblock and protest on Corn Island, Nicaragua 2008.
Source: Marlies Stoddard

This story shows the close connection between local lobster fishers in remote areas of the Caribbean and the consumer end of the lobster chain in the United States. Whereas lobster fishers in the Caribbean region and end-market consumers might never meet face to face, there is no doubt their economic lives are intertwined. The lobster chain can be seen as the
route travelled by the lobster from harvest to consumer. One can distinguish lobster fishers, intermediaries, processing plants, importers, retailers/cruise ships/restaurants, and the final consumer. Yet value chain analysis of a product goes beyond purely looking into the input-output structure or geographical spread. As we have seen in Chapter 1, the global value chain (GVC) approach helps to address questions on the lack of correspondence between the geographical spread of economic activity and spreading the gains of participating in global production markets. The approach focuses on mapping the distribution of power and dependency relations along value chains, describing the entry barriers that characterize value chains, and investigating how the unequal distribution of rewards can be challenged in favor of developing countries.

This chapter explores the following elements of the lobster chains in the three countries:

1. the structure of the chain:
   a. input-output structure,
   b. chain actor involvement,
   c. geographical spread, and
   d. quality issues and export rules and practices; and
2. governance within the chain by means of:
   a. dependency,
   b. barriers to entry, and
   c. the dynamics of the chain due to the economic crisis.

The economic crisis and consequent drop in price and demand has offered additional research opportunities: (i) to examine how the three lobster chains coped with the economic shocks; (ii) to determine the mechanisms through which the effects spread throughout the chains; and (iii) to learn the extent to which differences in local embedding enabled actors, situated at different functional positions in the chain, to cope with the crisis.

In the previous three chapters, I have examined the well-being of fishers in the three countries involved. Fishers can be seen as the first actor, when considering the value chain from harvest to consumer. This chapter takes off from the level of fishers and continues from there, examining the actors beyond the level of fishers. This chapter focuses on the chain up from the fishers up to the international level—up to the United States. This chapter will therefore begin by comparing the role of intermediaries whom we have also discussed in the previous three chapters, followed by the processing plants, and the international traders. In addition, this chapter will discuss the international illegal lobster trade and the impact of the economic crisis.

7.1 From fishers to processing plants: the role of intermediaries
Intermediaries can be seen as actors in between the fishers and processing plants; varying types of intermediaries exist. Differences between intermediaries relate to professionalism and magnitude of the enterprise, level of investments, and the relationship between fishers and intermediary.
In Belize, the majority of fishers sell their catch to the cooperatives, either the two main cooperatives in Belize City, or through one of the three other allied cooperatives. Although officially no intermediaries operate in this system, in reality fishers often make use of a few intermediaries, as we have seen in Chapter 4. These intermediaries operate from the premises of the cooperatives. They support several boats with credit and supplies up front, and these fishers operate exclusively for them, while other fishers only occasionally make use of these intermediaries. Fishers will sell their catch through a middleman to get a larger payment in one go, rather than a smaller payment twice a year. The lobsters are measured, weighed and graded by the processing plants, not by the intermediaries; only the payments are made through the intermediaries. Fishers can also sell directly to the fishing cooperatives, or to hotels and restaurants.

In Jamaica, small-scale fishers usually sell their catch to beach vendors, intermediaries, or to packer boats (also a form of intermediaries found at the Pedro and Morant Banks, the most productive fishing grounds of Jamaica, located 140 km off the mainland). The majority is destined for the hotels and restaurants, while a small portion goes to smaller export facilities. It is believed 40 percent of the lobster production of Jamaica is destined for the processing plants (Venema 2004).

The fishers on the offshore atolls sell directly to intermediaries, who bring the catch back to the mainland to sell. These intermediaries stay on the key for around eight to ten days, until their ice starts to melt and their ice coolers no longer function properly. Fishers depend strongly on the intermediaries to buy their catch, who often also supply food and drinking water. Intermediaries will buy the lobster whole, and pack it in ice until they return to the mainland. As the lobster does not need to be processed at a high level, since it is sold to the local tourist market, you might expect fishers to carry out these tasks themselves. However, they often have “interlocking contracts,” whereby they depend on the intermediaries for...
supplies and credit. Fishers therefore cannot sell to another buyer, or carry out these upgrading activities themselves. What is more complex for a fisher, however, is to build trusting relationships with the buyers (often hotel chains or exporters).

Intermediaries often have to store the product for a length of time in freezers, until the price is right or there is demand for the product. This can take weeks, and a middleman needs to have the resources to hold on to the product for such an extended period without having an income. Entry barriers for the intermediaries buying from the keys are not extremely high but often larger than what a fisher would be able to finance. They pay the fisher up front, but within a two-week period they will have sold their catch and made their profit. Intermediaries that run processing operations, however, have much larger investments. They need to build trusting relationships with buyers in the United States, have a large storage capacity, and therefore need large amounts of capital. Day fishers will also sell to small-scale, low-investment, short-term traders, such as the female traders on the beach.

Fig. 7.3: Middleman in Whitehouse, Jamaica. Source: Author

The “bucket ladies” in Nicaragua only fill up a bucket of lobster which they buy from fishers. Once the bucket is full, they will go to the processing plant to sell the lobster at a slightly higher price. This is a small household enterprise for the women, which does not involve any large investment, and for which the entry barrier is low. These women have many forms of income and this might be just one of them. They might engage in buying lobster one week, and engage in other economic activities the next. Fishers usually do not have long-lasting relationships with these female traders. In the north of Nicaragua, however, some of these female traders do create long-lasting relationships with fishers and supply credit before fishing trips. These intermediaries do not, however, grade the lobster or give out invoices.

There are also the more institutionalized intermediaries—locally known as acopios—businessmen that have all the paperwork and documents necessary to be an official middleman. These men have large coolers full of ice, and often trucks to bring the fishing equipment, fuel, and ice to the office. They administrate the debts and earnings of each fisher meticulously. The entry barrier for these intermediaries is therefore much higher than for the “bucket ladies.” Fishers are often highly indebted to these intermediaries, and at times will try to sell their catch to other intermediaries or “bucket ladies” in order not to have to pay off...
their debts. The processing plants also have a number of fishers they give credit to, but this applies only to fishers who are not in any great debt; in short, fishers whose position is trustworthy. The *acopios* will grade lobster according to its quality (A, B, and sometimes C quality); prices differ according to the grading. Lobsters are also measured to make sure they comply with official regulations, and will be kept on ice until they have been transported and sold to the processing plants.

The type of relationship between processor and intermediaries also varies throughout the three countries. In Belize, the intermediaries work on the premises of the fishing cooperatives (or in the case of Caye Caulker for instance at the receiving station of the cooperative in the village). Although officially illegal, intermediaries can actually be board members of the fishing cooperatives. These intermediaries will skim the profits of the fishers and cooperatives (as fishers do not pay off their debts to the cooperatives but only to the intermediaries). As they are not official, relationships are not formal either and will change over time.

In Jamaica, fishers on Pedro Bank will often work with the same intermediaries. They receive ice and fuel from them, and they have a lasting relationship. Intermediaries also have a lasting relationship with the traders they work with. These intermediaries often sell to the same hotel or restaurant for a long period of time. However, if hotel stocks are at maximum level they will try and sell to other outlets. Intermediaries selling to the same processing plants will often always sell to the same processing plant.

In Nicaragua, the relationship between “bucket ladies” and large processing companies can be characterized as loose. There are no close dependency relationships, or interlocking relationships. *Acopios* on the other hand, work exclusively with one particular processing plant. This processing plant does not “own” them, but they do support the *acopio* with financial advances, ice and so on. On Corn Island for example, it is clear which *acopio* works with which processing plant.

### 7.2 The role of processing plants

Not all the lobsters will make the long journey north, as only the “best” are selected for export. To be chosen, lobster must be of legal size, well-shaped, firm, and free of cracks, scars, and blemishes. The lobster is sorted once it reaches the plant according to grade and
weight. Those working in the processing facilities are usually women. The lobsters are graded in A or B quality by a processing plant employee. Sometimes even a grade C is distinguished. Grade A is the best quality and commands the highest price. The B quality refers to lobster with discolorations, cracked shells, or soft shells. Each receiving point, whether it is an official or unofficial middleman, or processing plant or cooperative, has someone who checks for quality issues as well as for size. If the size is under the legal limit (whether by length or by weight), the fisher will not be able to sell the lobster.

The lobster tails are cleaned and weighed, and then placed in ten-pound boxes, each containing lobster tails of the same weight. There will be boxes filled with lobster tails ranging from 4-24 ounces. The tail weight is listed on the box: the related number is checked off on it. The plants receive the best prices for tails in the range of five to eight ounces. Both four-ounce (only available in Belize) and nine-ounce tails make less per pound than five to eight-ounce tails. The ten-pound boxes are placed in 40-pound ones (4 x10 boxes), also known as master boxes. These master boxes are put in the freezer until the next shipment is ready to be made. It depends on the season how often the shipments go out; when the season is at its peak (for either conch or lobster) the shipments will be made more often than when business is low.

This selecting, grading, and distribution is generally carried out in similar ways throughout the three countries. However, the number of processing plants differs greatly. In Belize, there are two certified processors who export lobster, both located in Belize City. These are fishing cooperatives that hold exclusive export licenses. One of the two cooperatives, Northern, has an exclusive deal with one importer in the United States. Northern sells exclusively to the company Dddi, better known as Darden (or home of the Red Lobster restaurant chain). Their business relationship stretches across several decades, and the cooperative sells hardly any product to other buyers. The other fishing cooperative, National, does not have such an exclusive deal, and therefore sells to various companies in the United States, but also to ones in Canada, Asia and Mexico. They change to importers in the United States more frequently, and also have more trading partners outside the United States. Their relationship with importers is less close than NFSC is.

The two exporting processing cooperatives are highly competitive. Fishers’ membership will directly influence the other cooperative and each tries to tie fishers to their cooperative. When I was at a meeting at one of the processing plants, they were reluctant to share the annual report with me or with the government official also present, as they were afraid it would be shared with the other cooperative.

In Jamaica, there are officially only three processing plants. However, the fisheries department believes that as many as twenty smaller processors, lacking official permits, are in operation in the country. The smaller exporters process the lobster themselves, and sell both to the national market and internationally. Fishers sell either directly to them, or through an intermediary. The major processing plant of Jamaica is owned by an entrepreneur who was the founder of the industrial lobster fleet in Jamaica. He is currently still in operation but with less capacity than before. This processing plant, however, is the largest owner of the relatively small industrial fleet (four vessels). These ships only fish for lobster, and all lobster is landed at the processing plant. The crew of these boats is mainly from Honduras. Fishers can sell
either directly to one of the smaller exporters, or sell their catch to intermediaries, who in turn sell it to the exporter.

In Nicaragua, the number of processing plants of lobsters fluctuates between eight and twelve. They are located on the east coast of Nicaragua, and on the Caribbean island called Corn Island. As a result of the economic crisis, three plants have gone out of business. This is also due to the fact that some processing plant owners own more than one processing plant. The processing plants are therefore not all competitors, and in some places, such as on Corn Island (a small island where 50% of the lobster catch of Nicaragua is processed), the two competing processors have made price deals with one another (Monnereau 2004) and discuss any rise or fall in prices. Processing plants are all owned by Nicaraguans and are commercial enterprises. Although some processing plants receive advances from importers they work with in the United States, the processing plant owners still remain the owners. However, the way some importers talk about the processing plants proves that at times they can have a very strong relationship. Plants are both competitive as well as cooperative. They deal with similar issues, yet remain competitors.

Cooperation between processing plants in all countries appears to be low. The fact they are engaged in a highly competitive business makes cooperation difficult and undesirable. Although at times in Nicaragua processors will cooperate and make price deals, they will try to keep many of their deals with brokers or importers in the United States secret from one another. Trading partners in the United States, prices, and volume of shipments are kept secret. The number of intermediaries they work with, the number of fishers, the number of industrial boats that work for them or they own—they had no desire at all to share this type of information with me. On one occasion the son of a processing plant owner responded to my questions with: “But how do I know you are not an American spy?”

At the same time, the processors seem to know a great deal about what is going on, and about things that go wrong at other processors. Processors and industrial fleet owners are organized in an organization called CAPENIC. This is an organization in which all processors are represented and where management issues regarding the fishery in Nicaragua are discussed (see Chapters 3 and 5). In Jamaica, cooperation appears to be even more difficult, as so many processors are illegal. They will therefore not cooperate or represent themselves as
a union to the outside. In Belize, the two cooperatives are represented in the Fishery Advisory Board (see Chapters 3 and 4). However, cooperation between the two processors is difficult. There are no public annual reports available from the fishing cooperatives, as there are in Belize. On the contrary, processing plants are often very reluctant to supply any information.

In general, the investment necessary to run a processing plant which is adapted to export seafood products to the US and or European Union (EU) is very high and involves millions of dollars. In Nicaragua, a very small fishing cooperative with only around 20 active members told me on several occasions how they wanted to start their own processing plant and become independent. These plans are hard to realize, as the further up the chain, the bigger the investments required, while technological knowhow and a good network are also needed.

7.3 From processing plant to importer

Nicaraguan processors trade with more trading partners in the United States, and with other ones, than the fishing cooperatives in Belize and Jamaica. Belize’s two fishing cooperatives with processing facilities had between five and nine different trading partners (depending on the year) in 2003-2010. The ten or so processing plants in Nicaragua had between eight and fifteen trading partners in 2003-2010, whereas Jamaica’s three processing plants only had one to five trading partners. Considering the scale of production in Nicaragua, this figure comes as no surprise. Jamaica’s trade in frozen lobster was virtually at a standstill in 2009 and 2010 both because of the crisis and due to the detection of salmonella. In addition, Jamaica is known to exports lobster via unofficial channels directly to the United States. These lobsters do not enter Jamaica, but are exported directly to the United States by sea, therefore blurring the official trade statistics and catch records of Jamaica.

The relationship between importer and processing plant in the Caribbean can be considered complex and dynamic. Relationships between producer and importer can be long-lasting and might have existed for over 20 years. However, once an importer becomes dissatisfied with either price or quality, relationships can be discontinued. An American importer who had had a successful five-year relationship with a Brazilian showered the producer with luxurious dinners to show his gratitude during the Boston seafood show in 2008. Upon my return to the seafood show in 2009, the importer and producer were no longer on speaking terms, as the producer had had several cases of salmonella during the last year. As the importer had stopped importing the product, the producer had turned to other importers, and their relationship had been terminated. The Brazilian exporter told me he was angry because the importer had told other importers about the salmonella. The importer responded by saying “It had been all over the UB site, it wasn’t like it was a secret.”

In another case, an importer stated the reason he only purchases lobster from one plant in Nicaragua as follows: “I can’t be all things to all people, so I try to be a more valued buyer for [the company in Nicaragua].” Some importers therefore build long-lasting relationships with the producers, while others focus on shorter-term contacts and only import a container here and there. Until the economic crisis, importers would often pay for part of the shipment in advance. Or they would pay a large sum at the beginning of the fishing season so the plants

123 Interview A11: 15/03/2009
124 Email 14 August 2009.
would have enough cash to work with. However, transactions between importer and processing plant that take place only occasionally or a single time differ in this respect.

Generally, importers do not own any processing plants in the countries concerned. Several importers in the United States implied they used to own processing plants in the Bahamas and Brazil in the 1990s. Setting up processing plants and therefore receiving larger profits might have looked profitable at the end of the 1980s and 1990s, when the lobster catch was still rising. However, as lobster catches declined in the majority of countries in the Caribbean Basin due to overexploitation, profits dropped and plant ownership became less interesting. In addition, importers complained about “unsuccessful management” of the plants by local managers in the Bahamas and Brazil. They claimed it was too difficult to run plants from so far away, and that they were losing money, and ended up selling the processing plants.

Importers in the United States also can also act as brokers. They will buy the lobster from fixed processors in the Caribbean, and in turn sell it to other countries. The lobster does not necessarily pass through the United States, but the importer will make the deals. One Nicaraguan importer, for example, was extremely dependent on his American importer, as they once invested heavily in shrimp boats for his company. As the shrimp business went to pieces, and the processor had large debts to the importer, he could now only sell to this importer in the United States. However, this importer will help as a broker to sell the product in, for example, the EU.

Importers and producers negotiate on whether the price is Free on Board (FOB) or Cost Insurance and Freight (CIF). The outcome will depend on their type of relationship and is the result of trust and availability of credit. In the past, importers usually paid the transport costs, now producers increasingly have to pay for it, and they are not paid themselves until the product has been cleared by US customs.

### 7.4 Quality and food safety standards

With the increased economic integration of the world’s economies and the growing international seafood trade, product quality standards have become more and more important (Thorpe and Bennett 2001). As lobster has such a high unit price, and shipments therefore constitute such a large investment, food safety problems are of great concern to importers and processors. If problems occur, this could lead to great financial losses. For an importer various aspects of quality control are important. These include salmonella, high sodium content, product glazing, discolorations, and a foul odor. The Food and Drug Administration (FDA) in the United States carries out regular quality and safety checks on imports, checking for such things as salmonella, as well as for illegal produce. Salmonella has been detected since the beginning of the 1990s in many of the main lobster producing countries in the Caribbean Basin (see Table 7.1). These salmonella cases can have a disastrous effect on both the exporting company as well as the importing company, as well as influencing the overall confidence of importers regarding the lobster quality from this country as a whole.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of detection of salmonella in lobster</th>
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<tbody>
<tr>
<td>Bahamas</td>
<td>1993, 2003</td>
</tr>
<tr>
<td>Belize</td>
<td>2010</td>
</tr>
</tbody>
</table>
The FDA can hold the lobster up to 20 days for inspection. Importers and processors criticize the costs involved in having to store the lobster in freezers for this period of time. It needs to be kept frozen, and credit is locked and cannot be used for other purchases. Who is responsible for these costs depends on the agreement made between importer and processor (and on whether the product has already been paid in advance). As a consequence, importers often divide shipments on paper into smaller batches. This way, if one part of the shipment is inspected, the other batches in the same container will go through.

Once cleared by the FDA, the product is stored in big freezer warehouses until it is sold in smaller quantities to retailers. This storing is commonly known as “parking.” These freezer warehouses are public cold storages (operated by companies such as Preferred Freezer Services, US Cold Storage, Americold, and others), but some large importers will have their own freezers and do not need to rent space from freezer services. The importers will then distribute the product to various parties: retailers, the military, fish markets, cruise ships, club stores, and restaurant chains; but also to international destinations, such as Australia, Asia and France.

Regarding food safety, the most common global standard is the seven-point Hazard Analysis Critical Control Point (HACCP) program, which seeks to eliminate microbiological hazards at various points in the food processing chain (Thorpe and Bennet 2001). This is a type of quality assurance that focuses on food safety and a system to identify hazards, establish controls and their effectiveness (Wickins and Lee 2002: 40). It focuses primarily on prevention rather than cure, and aims to make seafood handlers, rather than government agencies, responsible for food safety (Wickins and Lee 2002: 40). It is therefore an attribute that relates to the process and not to the product outcome. The processing plants in the Caribbean have to comply with the HACCP program in order to be able to export to the United States. The program provides instructions for the inspection of importers to verify that the products they offer for entry are obtained from foreign processors that are in compliance with the requirements of the Seafood HACCP Regulation. Under the HACCP system of controls, the importer and the foreign processor share the responsibility for seafood safety. Foreign processors that ship fish or seafood products to the US must operate in compliance with the Seafood HACCP Regulation (FDA 2010). In addition, importers are required to take steps to verify that their imported products are obtained from foreign processors that comply with the Seafood HACCP Regulation.

HACCP was introduced at the end of the 1990s in the lobster industry. A lobster importer stated that initially the whole HACCP procedure was regarded as “just talk.” After a
few years, however, when pretending to comply became even more demanding for the processing plants than actually complying would be, companies started to set up the procedures and to comply in good faith. While HACCP does not eliminate all risks, it does brings safety and quality benefits to the food processor, since it reduces the chance that inferior product will be marketed. In most cases, third parties will inspect processing plants to judge whether the HACCP procedures are being followed, but larger importers that frequently import large quantities will come down to the processing plant themselves to inspect the plant and carry out laboratory tests. A large importer such as Darden, for example, will come down to Belize for every shipment to check the quality of the product.

Quality flaws occur but will go unnoticed by the importer until complaints are made by end receivers. These complaints relate to such things as odor, flavor, discoloration, excessive levels of sulfate or chlorine, excessive glazing (and therefore low net contents). Quality and trust are therefore of great importance to the importer. As it is impossible to detect quality flaws while the product is in transit, it can only be discovered after the product has entered the United States. If there are quality problems, it can take months before an importer will retrieve his money from the producer. One importer confessed he had once lost USD 500,000 from a Brazilian exporter, as the product contained excessive sulfate levels and could not be sold.

In another case, processors did not fill the boxes with the full ten pounds, but only with nine pound and twelve ounces (falling four ounces short). If an importer has purchased 1,000 Mt, he will face a heavy financial loss. Processors occasionally soak the lobster in a saline solution in order for to increase its weight to make more profits, while lobster tails are sometimes excessively glazed to increase their weight. These are small ways for the producer to make extra profits. Importers, on the other hand, will not detect this fraud until customers complain months later.

Although officially all processing plants in the Wider Caribbean exporting into the United States need to follow the same HACCP procedures, the quality of the product is still diverse. In some cases the quality can be so dreadful HACCP is at times referred to as “Have a Cup of Coffee and Pray.” Although processors all follow the same guidelines, the implementation can be insufficient. The costs involved in implementation imply a major entry barrier for new processors. Jamaica’s smaller processors are therefore said to have lower quality standards, as the costs to comply with HACCP are too large for small-scale producers to make a profit. Importers also complain of tails with “tar spots” (black discoloration of the shell). Melanosis, or blackspot, is a dark discoloration, which is unattractive to consumers and reduces the market value of crustaceans. Importers can also be wary of lobster with cracked shells, soft shells (from molting lobsters), or an unpleasant smell indicating decomposing lobster meat. Lobsters may have been soaked too long in a saline solution in order to increase their weight.

Differences in quality between countries, and between companies within a country, are not only due to product handling at the processing plant itself, but also handling prior to arrival at the plant. Regarding the essentials for product quality, one importer said: “It’s all

125 Interview A5: 5/08/2008
126 Interview A10: 14/03/2009
about time and temperature.” Time here refers to the time before a lobster is frozen, whereas the temperature refers to the use of ice or freezers on board fishing vessels. The quality of Nicaraguan and Belizean lobster tails is believed to be much higher than of Jamaican tails. Nevertheless, Belizean divers going out to sea for nine days at a time will in 90 percent of the cases bring chicken or beef along to cook on the trip, greatly enhancing chances of salmonella contamination. The fishers will store their lobster in the same ice-box, a matter which has gone unnoticed by the importers. It was not until 2010, however, that a salmonella case was confirmed by a processor in Belize (see Table 7.1). Even if Darden, for example, consider themselves safe because they buy from the other processing plant, fishers will switch between the two processing plants regularly. They might be a member of one cooperative, but in order to forgo paying off their debts, they will at times sell to the other cooperative. This shows that despite all the attempts to ensure the highest quality of product within the premises of the processing plants, many problems occur before the lobster actually reaches the processing plant.

Poor product handling can lead to marked price differences between the countries. In recent years, Jamaican processors have suffered from several salmonella cases, and importers regard product handling to be poor. As a result, the product receives a 20 percent lower price than Nicaraguan or Belizean tails. One importer stated “Jamaican quality is on the low side of one to ten.” Nicaraguan tails are alleged to be of high quality. Lobsters rarely spend a lot of time without ice and are frozen quickly. Processing facilities are regarded to be of high quality. In Jamaica, quality of the product is often low because it has been kept in ice too long. In addition, they make use of blocks of ice, which means lobster (and fish) cannot be fully covered, diminishing the quality. Chipped or flaked ice, such as used in Belize by the divers, is the best. Small-scale trappers in Belize and Nicaragua often do not bring ice, as they will only kill the lobster once approaching the shore. After a number of salmonella cases in Jamaica, a Nicaraguan producer told me a Jamaican processor tried to sell him Jamaican lobster for a low price, so he could repack it as “Nicaraguan lobster” and therefore fetch a higher price. The Nicaraguan exporter claims he didn’t take the bait, as if there would be anything wrong with his shipment, nobody would want to do business with him anymore.

Besides the actual differences in quality, what is deemed to be quality to a large degree also concerns image. Until the recent economic downturn, Brazilian warm-water tails were classified as the “best quality” and received a USD 0.50 higher price at the international market than other warm-water tails. Even though their quality, according to importers, is not any better than lobster tails from other countries, their image is more favorable. The bacteria count of Nicaragua’s lobster, for example, has shown a bacteria level nearly seventeen times lower than that of Brazil. Nevertheless, the latter are perceived to be “the Coca-Cola brand among colas.” It was not until the economic crisis and the resulting diminishing demand that the price range narrowed. At the height of the crisis, prices were equal across the board, whereas as soon as prices were climbing again, lobster prices in Brazil were once again higher, by USD 0.20 cents per pound.

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127 Email 23 November 2009
7.5 The mysterious circle of lobster importers

As the Caribbean lobster (*Panulirus argus*) lacks the famous claws of its American cousin (*Homarus Americanus*), it is commonly sold as frozen tails, with few processing requirements. There is only a small live market in Asia, as well as in Mexico and the United States. The main market for warm-water lobster in the Caribbean is the United States, Japan, and the EU.

Belize, Nicaragua, and Jamaica mainly export lobster to the United States, and only a small percentage to the EU and Asia. Other lobster-producing countries, with a larger export, such as Bahamas and Cuba, for instance, export a greater percentage of their catch to Europe and Asia. As the main market for Belize, Nicaragua, and Jamaica is the US one, and to limit the scope of this research, this chapter will focus only on lobster importers in the United States.

Currently lobster imports into the United States represent 2.7 percent of all seafood imports (in value, including fresh and frozen seafood, as well as canned seafood). Lobster imports into the United States mainly come from Australia, Brazil, Bahamas, the United Arab Emirates, Nicaragua, and Honduras. Chapter 2 revealed that if you combine the volume of production of all lobster-producing countries in the Wider Caribbean Basin region, the region is clearly the largest exporter, supplying approximately 75 percent of all lobster imports (NOAA 2008).

In the United States there are approximately eleven major importers of Caribbean lobster tails (see Table 7.2). They will also often import lobster from other regions (Brazil, Australia, Oman, South Africa, etc.), and other seafood products, such as shrimp and fish. The importers are the first large-scale buyers that distribute the lobster tails in smaller amounts to, for example, retailers, the military, fish markets, cruise ships, club stores, and restaurant chains. However, some large restaurant chains, such as Darden (owner of the Red Lobster seafood chain), will also buy directly from the processing plants in the Caribbean.

<table>
<thead>
<tr>
<th>Top importers <em>Panulirus argus</em></th>
<th>Location</th>
<th>Countries origin lobster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atalanta</td>
<td>Miami, FL</td>
<td>Nicaragua</td>
</tr>
<tr>
<td>Beaver Street Fisheries</td>
<td>Jacksonville, FL</td>
<td>Bahamas, China, Mexico, Jamaica</td>
</tr>
<tr>
<td>Carlos Seafood</td>
<td>Miami, FL</td>
<td>Nicaragua</td>
</tr>
<tr>
<td>Casile</td>
<td>New York, NY</td>
<td>Honduras, Venezuela</td>
</tr>
<tr>
<td>Darik</td>
<td>Lake Success, NY.</td>
<td>Brazil, Nicaragua, Panama</td>
</tr>
<tr>
<td>Dddi (Red Lobster)</td>
<td>Orlando, FL</td>
<td>Bahamas, Belize, Honduras, Jamaica</td>
</tr>
<tr>
<td>Empress</td>
<td>New Hyde Park, NY</td>
<td>Brazil, Chili, Honduras, Nicaragua, Peru</td>
</tr>
<tr>
<td>Lawrence (Ark)</td>
<td>Los Angeles, CA</td>
<td>Australia, Brazil, Namibia, South Africa</td>
</tr>
<tr>
<td>Mark Foods</td>
<td>New York, NY</td>
<td>Australia, Brazil, New Zealand, South Africa</td>
</tr>
<tr>
<td>Mazetta</td>
<td>Highland Park, IL</td>
<td>Bahamas, Brazil, Canada, Honduras, Unites States</td>
</tr>
<tr>
<td>Meridian</td>
<td>Miami, FL</td>
<td>Australia, Brazil, Honduras, Indonesia,</td>
</tr>
</tbody>
</table>
Table 7.2: Main Caribbean lobster importers into the United States (in alphabetical order).
Source: Author; based on data from Urner Barry and interviews

| Pescanova | Coral Gables, FL | Belize, Brazil, Nicaragua |

The list in Table 7.2 is, however, by no means exclusive. The eleven importers in the table represent the main buyers in the United States at the beginning of 2011, as established after discussion with importers in the United States. Nevertheless, this list can and does change over time. In a few interviews, importers discussed a number of up to 20 main importers.\(^{130}\)

Compiling an exact list of importers in the United States is complex, as I found that 46 percent of the top 25 imports (in volume) into the United States of spiny lobster cannot be traced back to any particular company. They were listed anonymously under the heading “Order.” In addition, importers will at times import product under their brokers’ names, and some of the major importers will also often import under another name then their own. One of the top producers, Mark Foods, for instance, also imports under the name of Wells Fargo and Corenav LTD, while Meridian also imports as MPI Fisheries, Dddi as Challenge, and Lawrence as Ark.

Fig. 7.6a: Alba Specialty Seafood in New York City, one of the main importers of spiny lobster in the United States (left).
Fig. 7.6b: American Lobster importer showing the variety of lobster his company sells at the Boston Seafood Show in March 2008 (right).
Source: Author

\(^{130}\) Unfortunately the official Urner Barry’s (UB) statistics gave no accurate answer as to the main lobster importers into the US. UB publishes an Insider’s “Quarterly Lobster Report” supplying a list of the “Top 25 Importers” of lobster (all species from all regions). They state the top importers, the volume they import in pounds, and the number of shipments. I used these lists to make a top 25 of lobster importers into the US, as UB reports it is “accurate and unbiased.” Nevertheless, I discovered it provides a complete false sense of security and accuracy. In all ten documents available (2008-2010) the importer called “Order” was the top importer. In fact, between 2008 and 2010 “Order” was responsible for importing 46 percent of all lobster imports by the top 25 producers over this period. As I had never heard of this company in all the years investigating the lobster trade I asked some insiders who this company was. He replied, “This is a way to make an entry into the United States without others knowing who the importer is in the U.S.”
The underlying reasons for this level of imprecise reporting are varied. An importer stated there was no apparent reason, but that it was rather: “Just the way one person or another decided to have the bill of lading printed. So it makes it difficult to draw conclusions.” Another stated it was: “Just a matter how the documents were prepared and bill of lading issued.” However, importers also believe it is due to secrecy amongst the importers. Yet importers at the same time also indicate they can usually tell who is buying the shipment, as the location of company, port of entry in the United States, and origin of product is listed. Or as one importer said: “Basically it gives a person like myself a general but pretty good idea who the players are.” For someone less of an insider, however, it is difficult to understand which companies are importing from where.

The level of secrecy surrounding the shipments from the Caribbean depends on the country concerned. In Belize and Jamaica, no shipments are found under “Order” (the anonymous heading), whereas in Nicaragua in 2008 lobster shipments under “Order” amounted to 78 percent of the volume. In 2009, the figure totaled 68 percent, while in 2010 it had fallen to 29 percent. The drop in shipments under “Order” was due to a Nicaraguan company losing shipments to the United States as a result of the crisis, while exporting more to the EU.

Importers’ buyers and retailers prefer certain lobster sizes over others. The 40-pound master boxes are all categorized by weight. Each box holds lobster tails of the same tail weight (e.g., 4 ounces, 5 ounces, etc., up to 24 ounces). Some customers prefer smaller sizes to larger ones. The five to eight-ounce lobster tails are the most commonly traded and preferred lobster tails. Although most lobster is exported as frozen tails of the same ounce weight in the ten-pound boxes mentioned above, sometimes lobsters are individually sealed (when requested by a buyer). As one importer puts it: “You can have them with a ribbon on every one, if that’s what you are willing to pay for.”

The work of importers is highly unpredictable and dynamic as many developments can occur between time of purchase and sales. The issues concern quality of the shipment, currency developments, and price developments. In-depth knowledge of these developments, and good relationships with processing plants in the Caribbean and buyers in the United States, are all of great importance. In addition, importers often work with lobsters from one region worldwide, as well as dealing in other types of seafood. Most importers I interviewed have been working in the lobster industry for a long time, often up to two or three decades. Whereas one had actually previously been a lobster fisher himself in South Africa, in other cases importers had just ended up in the industry by coincidence.

Importers make up a very competitive group that exhibits little cooperation. They will work together at times, if an importer is requested a lobster size he does not have in stock, for

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131 Email 26 January 2011.
132 Email 27 January 2011.
133 Email 27 January 2011.
134 Other countries exporting large quantities of lobster in the Caribbean Basin under the anonymous heading “Order” are Brazil and Honduras. The Bahamas exports only a very small amount under “Order,” as do the Turks and Caicos Islands and the Dominican Republic. Nevertheless, Jamaica is suspected of exporting via other unofficial channels into the US, shipping the lobster directly to the US, without it passing through mainland Jamaica.
instance. As a consequence, he will have to call another importer and buy the product from him. However, they will rarely meet, except, for example, during seafood shows, and are very secretive about whom they trade with. As a group they never meet unless an international lobster meeting is held, such as was the case in 2006 and 2007. In 2006 (Mexico) and 2007 (Dominican Republic), meetings were held with several American importers to discuss sustainability issues surrounding the Caribbean lobster. Often importers were very reluctant to grant me interviews and give me information, as they feared I would disclose this to their competitors. Even if I told them all information would be confidential, they would still be reluctant to talk to me.

One importer checked what I had written down at the end of the interview, to ensure I hadn’t written down what he had specifically told me not to. Their main fear involves revealing the prices they pay their producers, which producers they work with, and “theft of producers.” As one importer said: “Everyone is always trying to screw each other in this business by stealing producers, by undercutting prices, taking over other buyers and so on.”

Prices are a major concern for importers, and none will disclose their profit margins; insiders, however, indicate profit margins will range between USD 0.25 and USD 0.50 per pound. A big importer who imports around 1.4 million pounds of lobster will therefore makes profits of approximately USD 350,000-700,000 annually.

**Illegal lobster trade**

One of the challenges involved in combating the international illegal lobster trade lies in the variety of legislation regarding legal size limits, weight limits, and closed seasons. According to the American Lacey Act, imports into the United States are illegal of those products that in the country of origin are illegal to harvest, sell, or export. Nevertheless, importers and exporters find clever ways to circumvent these types of legislation. One of the main ways used until 2009 was to export lobster from a country with a larger size limit to one with a smaller size limit, prior to exporting the lobster to the United States. In Nicaragua, for example, the size limit is five ounces, while in Panama it is only two ounces (which is extremely low). Panama did not have much of a spiny lobster (*P. argus*) fishery, but was suddenly exporting large amounts of spiny lobster. El Salvador was also exporting a great deal of spiny lobster, while not even harboring a Caribbean spiny lobster population, as the country has no Caribbean coast.

The Environmental Crime Division of the National Oceanic Atmospheric Administration (NOAA) in the United States has been successful over the past fifteen years in influencing both management and chain actor behavior. The Lacey Act provided the necessary legislation up to February 2009 to prohibit the import of illegal sized lobster and/or berried females into the United States. The new legislation in the United States bans all imports of spiny lobster that does not meet current minimum size (3-inch carapace length or 5½-inch tail length) or weight (5-ounce tail weight) regulations in the United States.

The main culprits of illegal exports in the region are, according to the NOAA, Brazil, Honduras, Nicaragua, and the Dominican Republic. Between 2000 and 2010 the NOAA has

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135 Interview A12: 16/03/2009
136 Five ounces implies imports of tail weight from 4.5 ounces upwards. Only Belize is allowed to export with sizes from 4.3 ounces upwards.
had a number of large cases where they have charged foreign exporters as well as national importers for large-scale illegal lobster imports into the United States. In some instances it is packed between cases of legal sizes or sold as “head meat,” that is flesh that comes from the lobster’s head. In recent years the Environmental Crime Division of the National Oceanic Atmospheric Administration (NOAA) in the United States has caught a number of importers and producers importing undersized lobster (Miami Herald 13 June 2009). In some cases importers and producers have been sentenced to over eight years in prison and made to pay fines worth millions of dollars. NOAA revealed that 86 lobster shipments by the defendant were made into the United States involving illegal lobster from Nicaragua (over the period 1996-2001). This amounted to 192,680 pounds of undersized spiny lobster tails imported into the United States. Nicaraguan inspectors were being bribed to allow the shipments to pass. In July 2003, a man pleaded guilty of importing more than USD 2.8 million worth of undersized spiny lobster from Nicaragua into the United States. He was convicted and fined USD 250,000 and faced over five years in prison.

Ehrhardt (2006) believes that in Nicaragua the industrial fleet transfers the lobster at sea to export them to the United States. Illegal sized lobster tails of Nicaragua also end up in Mexico, Puerto Rico, the Dominican Republic, and even as far afield as Venezuela, Curacao and Aruba.

\[Fig. 7.7: \text{Invoice with illegal shipments (xx, xxx and xxxx ounces)}\]
\[Source: NOAA\]

The figure above (Fig. 7.7) shows an invoice that has been sent from a Honduran processing plant. Although it is officially illegal to harvest and export lobster tails smaller than five ounces, the two, three and four-ounce tails are marked in the boxes as xx, xxx, and xxxx. Sometimes they are also passed off as eleven ounces. Only those knowledgeable in the fishery know that above ten ounces no single-size ounces are shipped, but only pairs of sizes (10-12, etc.). False labeling is a problem throughout the industry and affects the resource’s sustainability. A special agent from the NOAA explained:

Pack the undersized in falsely labeled boxes and put those boxes in the back of a container. Few inspectors want to dig that deep into a frozen 40,000 lbs container. Egg-bearers pose an additional problem because you really
have to handle each frozen tail, run them under water to loosen up the pleopods, and inspect for clipped. Not easy and time consuming for busy CBP inspectors who are focused on drugs and other high profile issues.

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Fig. 7.8: Seized lobster is sorted, measured, and inspected by US officials.
Source: NOAA

Table 7.9 shows the illegal lobster shipments by a Nicaraguan company.
Source: NOAA

Figure 7.9 shows the illegal lobster imports from a Nicaraguan company as filed by the NOAA. It has listed all the sizes and volumes of the illegal shipment and the charges this company faces. In relation to my question on whether the lobster poaching had increased or decreased over the last few years (prior to 2011) the NOAA agent replied:

My perspective as an NOAA agent is that the lobster poaching for undersized and egg-bearers is status quo (i.e. harvesters take everything they catch… both divers and trappers). It’s just cash in hand. Stripped egg-bearers go undetected for the most part. There are always processing plants that will buy the illegal sized and clipped. It’s

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137 Pleopods are known as swimmerets and are primarily swimming legs, but also used for brooding the eggs, as well as catching food and sweeping it to the mouth.
138 Customs & Border Patrol
139 Email 14 November 2011
always a supply and demand issue. Ultimately, the lobster industry is going to have to put a stop to it and start funding poor countries to enforce their existing laws.  

The NOAA has special agents working on Environmental Crime who have been successful in intercepting some of the illegal shipments. However, they say they know that what they catch is only the tip of the iceberg. One such special agent wrote me the following message after I had written I had interviewed several lobster importers at a meeting.

A quick word of advice. The buyers you’re dealin [sic] with (X…and X…) are as dirty as scum regarding undersized lobster imports, changing the identity of fish, conspiracies, etc). Just be aware of that when you’re talking with them. Don’t fall for their shit. That is the side of the U.S. industry that drives developing countries to poach. Can’t put much blame on a shoeless lobster diver trying to feed his family (or drug habit), but I sure as hell can put the blame on the rich U.S. importers who pretend to claim they’re above it all (or worse yet claim they support conservation measures when in reality they are doing everything possible to circumvent the effort). When we get some time, we’re putting those 2 companies under the microscope and we’ll see how much hurtin [sic] we can cause.  

Although the new legislation might make it easier to prosecute importers and processors it has also resulted in a re-routing of smaller lobster. All interviewees indicated smaller sizes previously illegally imported into the United States will now be exported to other countries, mostly to Mexico. Ehrhardt (2006) concludes that some countries have developed sophisticated markets (e.g., Chinese restaurants) to dispose the very large quantities of illegal sized lobsters landed throughout the region.

7.6 The effects of the economic crisis on the lobster value chain

The financial crisis of 2007-2009 has had a profound effect on the entire lobster value chain. The rapid decline in prices of lobster in the United States, accompanied by the drop in international demand, has affected relationships within the chain, between processors and importers in the United States as well as between fishers and domestic processors. However, the extent of these changes is quite different in Belize, Nicaragua, and Jamaica.

As the financial crisis hit North America, consumer demand for lobster dropped, as consumers opted for cheaper seafood products, or reduced their seafood consumption. The recession decimated American consumer spending, particularly at high-end restaurants where lobster commands premium prices. The restaurant performance index showed that restaurant have shown steeply declining rates since mid-2007, with very poor performances during all of 2008. The foodservice industry was particularly hard hit by the economic recession as it is the main user of higher-value seafood items like lobster tail, snow crab, cod, halibut, etc. Thus while the higher segment of the market suffered from decline in demand, the cheaper species such as pollock, tilapia, and salmon benefited from the trading down in seafood.

Restaurants sold fewer expensive meals, white tablecloth and casual dining restaurants reported declines in traffic, while quick-service restaurants were benefitting. Demand for

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140 Email 14 November 2011
141 Email 27 May 2008
lobster dropped dramatically. Prior to the economic crisis prices had become very high, but now they quickly dropped drastically.

Figure 7.10 shows price developments of different lobsters in the United States between 1998 and 2011. The large discrepancies in prices between the different lobsters is the result of the type of lobster, image, demand, and the way it is packed (whole clawed lobster from the United States versus tails from the Caribbean). The price differences between American lobster and lobster from the Caribbean, Brazil, Australia, and South Africa are striking. Cuba mostly exports whole lobsters, whereas Mexico and Bahamas also export part of their catch as live lobster; commonly only the tail is exported throughout the region. In Belize, Jamaica, and Nicaragua usually only the tail is exported. As the tail is pure flesh, the price per pound is higher than that of American whole lobster.143

The graph shows the South African and Australian lobster prices per pound are the highest of all regions. In 2010, Australian lobster cost nearly USD 34 per pound, and therefore was the most expensive lobster per pound in the world. The data for South African lobster after 2008 and for Australian lobster after 2010 are missing because imports into the United States had become minimal; the market for these products has shifted to the Asia where consumers are willing to pay the high prices.

![Prices of lobster (imports) in the USA from various regions per lb. of lobster](image)

Fig. 7.10: Lobster prices of various regions in the United States at the importer level between 1998-2011. Source: Urner Barry, compiled by author.

According to Urner Barry’s *Seafood Price-Current* (19 November 2009), prices of Caribbean tails dropped from USD 21-22 per pound in 2007 to USD 13.50 in December 2008. In the United States, importers were facing severe difficulties buying lobsters, as their financial situation had worsened because of the crisis. Many importers working with

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143 Removing the tail from the lobster’s body generally is carried out by twisting the tail off the lobster’s carapace. This is usually done with a knife, but also at times without one. The point of the knife is inserted at an angle under the carapace while the animal is being rotated to help make a clean separation of the tail from the rest of the body. One of the lobster’s antennae is in turn used to jam right through the anus with a jabbing motion that enables the fishers to take the lobster’s intestines out easily (King 1999).
Caribbean lobster also work with Maine lobster. Traditionally, around 70-80 percent of Maine lobsters are sold to Canadian processors. US lobster exports grew by 245 percent in terms of value during 1992-2005, due to increased sales to Canada and the European Union. Canada is the largest market for the US lobsters, accounting for 48 percent of export sales. Most US exports to Canada are processed and then sent back to the US market for domestic consumption or to be exported to other countries. Sales to the EU, the largest consumer market for US lobster, accounted for 43 percent of the exports.

However, many Canadian processors had to shut down and virtually stop buying, as they ran short on credit. This was the result of the collapse of the Icelandic bank which had previously financed the Canadian processors. Many importers in the United States were facing identical issues, as banks were reluctant to supply them with money to buy lobster. The fall of the Icelandic bank created financial difficulties for Canadian processors and thus created a domino effect for US lobster traders. In combination with declining demand from US customers for lobsters, Caribbean lobster prices dropped.

The high lobster prices prior to the crisis had resulted in restaurants taking lobster off the menu. Now that prices dropped it took some time before restaurants either put lobster back on the menu or incorporated the new prices. The price decline per plate was initially minimal, so restaurants patiently waited until the price difference was more substantial. If the lobster price per pound declined by USD 5, with tails weighing six ounces this meant a plate would only be USD 2 cheaper. Restaurants were at first reluctant to change their whole menus for such minor differences. After time, however, the steep downfall in prices led to the reintroduction of lobster on the menus (Tsekelis and McCarron). As demand was low, international buyers refrained from putting in large orders and inventory piled up in the seafood warehouses. By August 2008 a lobster importer in the United States confessed to me, “I don’t need any more lobster,” and “We are sick of lobster.”

The importers themselves appear to have exacerbated the situation by paying the lowest price possible combined with the abundant supply. One importer wrote to me: “[A]s soon as there is 1 lb. too many this market will decline. The quality of importers here in the U.S. are weak they are afraid to lose one sale for 5 cents. This will set a spiral down.”144 In another email an importer stated:

West Australian is a perfect example. Since last summer the prices have dropped from over 30.00 per lb to nearly 16.00. When the season opened in Nov the catch was good and the 1st thing several importer did was cut and run with no interest to maintain the market if an importer was able to make a purchase at a lower price he just sold lower. As a result 6-8 oz lobster were near 24.00 per lb in November and by Christmas down to 21.00 by Feb 1st prices were driven down to 16.50 with anticipation of going even lower….The demand for the restaurants never changed during this whole time nor did there menu price (…)

A few restaurant chains followed yet another strategy, promoting inexpensive lobster during the summer of 2009, some introducing the item to their menu for the first time (Seafood News, 14 August 2009). Some chains, such as Panera, Pizzeria Uno, Outback, Bugaboo Creek Steak House, and D’Angelo’s added lobster to their menus. They took

144 Email 4 March 2010.
145 Email 11 May 2009.
advantage of the low lobster prices and promoted inexpensive lobster during the summer of 2009.

In fact, history repeated itself as lobster became so abundant and so cheap that a trade website reported: “Lobster is so cheap these days it costs less per pound than hot dogs”\(^{146}\) (Seafoodnews 14 August 2009). The retail sector took advantage of the lower prices and promoted sales of cheap lobster. The unrest of the fishers lasted until the summer of 2009 when prices slowly began to rise again.

Prior to the crisis, producers in the Caribbean Basin were in a strong position vis-à-vis US importers, as high demand for lobster strengthened their negotiating power. Previously importers needed “to tie” suppliers otherwise they might turn to another importer. Importers therefore provided substantial advance credit for shipments at the beginning of the lobster season and at face-to-face meetings in order for processors to be able to invest in a large amount of traps. It was easier for producers to change importers than it was for importers to find producers that would supply them with lobster. At seafood trade meetings, importers would shower their producers with expensive dinners and meetings. This dependency, however, also reduced producers’ ability to switch to other importers.

After prices declined, importers stopped supplying cash advances and only paid after the product had been cleared by US customs. Processors who had had more of an arm’s length relationship with importers were no longer able to obtain advances to buy equipment at the start of the season. Both processors and importers suffered cash flow problems as freezer warehouses in the United States remained full. Having three to five containers of lobster tails “parked” in a freezer warehouse meant having USD 4 million tied up, which could not be used to fish or to trade lobster. In some instances producers had to stop buying lobster or dock their industrial fleet. Whereas the closed season had been used by importers to unload their inventory in order to start buying “fresh” product when the next season opened, in 2009 one importer commented: “Just waiting for the season to open there is still last season’s inventory for sale from just about every Caribbean country.”\(^{147}\)

Producers became desperate to sell their product, even at the lowest of prices. In Nicaragua alone, in the summer of 2008, lobster stock worth USD 5 million was sitting unsold in the domestic warehouses of processing plants. Their dominant position quickly evaporated and smaller importers who had previously been unable to buy lobster directly because producers were tied by “advances” could now more easily buy from a variety of producers. As the US market collapsed, some processors tried to diversify to European or Asian countries. Entry barriers to EU markets are considerable, however, and access is difficult to achieve. The high investments necessary to meet the strict EU standards proved onerous for processing plants suffering cash flow problems. Moreover, the long distance and costly transportation to Europe placed them at a disadvantage. Container ships to the United States take ten to fourteen days at most to get there, while shipping to the EU can take up to five weeks. For these extra three weeks, producers will have to pay more for keeping the product frozen, as well as shelling out extra costs for the longer freight periods.


\(^{147}\) Email 11 May 2009.
The Asian market, which may be more accessible, is mainly interested in live lobster, which requires high investments and technological expertise. Cuba is one of the largest Caribbean live lobster producers, and a major part of their catch goes to the Asian market. As their fishery is tightly controlled and the quality high, it is difficult for other producers to compete with Cuba. The export of live lobster is very difficult and requires high investments due to the difficulty of keeping the lobster stored after capture and during travel over land and sea. Upgrading lobster is also complicated as upgrading frozen tails is hard to do.

Before the economic crisis, only one of the twelve existing Nicaraguan processing plants was able to export to the EU market. Meeting EU standards requires high investments, as procedure compliance goes beyond the HACCP program necessary to have product enter the EU. Producers with a large unsold inventory have little capital to invest in such programs. As the quality of Jamaican lobster is so low, access to EU markets is very complicated. In Belize, one of the processing plants attempted to export to the EU, but prices were too low to overcome the high costs of sea shipping.

The crisis put three processors out of business in Nicaragua, giving the remaining ones some breathing space. They have been able to process more lobster, but even they have had to dock a large part of their industrial fleet and sometimes had to close their plants for a few months. They also had to limit the industrial fleet. This because the processors often own the industrial fleets and their cash flow was too limited. The plants would have to invest in paying for the fuel up front, supplying the crew with food, and investing in new traps and buoys. In addition, at times some producers have had to close down their plants for a month or two as they did not have the capital to buy more lobster with all their capital tied up. Nevertheless, by 2010 one Nicaraguan importer had improved his quality standards to such an extent that he is now able to export 90 percent of his product to the EU.\textsuperscript{148} As he had sold to the EU in previous years, but lost his license due to some quality and safety issues, he did not have to invest heavily. He does export, however, via his importer in the United States.

Fishers in Belize, Nicaragua, and Jamaica all suffered from declining prices due to the economic crisis, as fishers received USD 3-5 less per pound. As lobster prices dropped while those for fuel increased, fishing became made no profit at times. The economic crisis has decreased the availability of credit for fishers, as everyone’s margin has diminished. Furthermore, while small-scale fishers increasingly turned to intermediaries to get credit, they often sold their catch to other vendors in order not to have to pay their outstanding debts. Intermediaries therefore raised their margins, paying lower prices to the fishers. In Nicaragua, low prices have caused strikes among the fishers, though they were unsuccessful in negotiating better prices. On the contrary, at times processors were financially unable to buy lobster at all. In some places the closed season was extended, preventing fishers from making money. One importer wrote to me after a visit to a processing plant in Brazil: “I just returned from Brazil they are closing season down 1 month early due to poor exchange and low prices. Hoping to see market improve in 2010.”\textsuperscript{149} A processor confessed he was happy the fishers were striking because this way he didn’t have to buy their lobster.

\textsuperscript{148} Email 2 November 2010.
\textsuperscript{149} Email 15 December 2009
The impacts of the crisis on the two exporting fishing cooperatives in Belize are diverse. One cooperative which had a long-term contractual relationship with a US importer whose prices were linked to Urner Barry’s index suffered less from the price collapse, and its second payment was accordingly higher. The other cooperative’s second payment, however, was very low as it had “looser” relationships with several importers. This cooperative was unable to sell a large part of its inventory, with the remainder sold only at very low prices. Fishers therefore moved en masse from the latter cooperative to the former. Contrary to what might be expected, more people turned to fishing in Belize rather than fewer. The number of fishers increased by 20 percent between 2008 and 2009.

In Jamaica, prices dropped even more than in Belize and Nicaragua. Prices received by processing plants are around USD 2.50 to USD 2.75 lower there than in Nicaragua and Belize. In Jamaica, too, more people have entered the fishery to escape declining economic opportunities in other sectors. The industrial fishery has dwindled since 2008, and exports have diminished, but no processing plants have had to dock their boats.

The Nicaraguan government provided no support in the form of concessionary finance for processors or income support to small-scale fishers. As the foreign exchange generated by the lobster fishery has diminished because of decreasing export and prices, while financial aid has been cut short because of charges of misuse of donor money by the Minister of Fisheries (INPESCA), the government does not have the financial means to support either the fishers or processing plants.

Neither has the Belize government come to the rescue of fishers or cooperatives, despite the decline in prices. The “second payment” which the cooperatives pay to the fishers was much lower than in previous years due to the crisis, resulting in lower reserves for fishers. Fishers or cooperatives did not receive any subsidies or benefits before the economic crisis and the state has not changed this. As one state official said: “They [fishers and cooperatives] are on their own.” As stated above, contrary to what might be expected, more people turned to fishing in Belize rather than fewer, and in 2009 3,100 fishers were registered compared to 2,600 in 2008. No strikes were reported and the fishery can be regarded as an escape valve for people losing jobs in other economic areas.

New regulations in Jamaica prohibited intermediaries from storing lobster in freezers during the closed season, affecting demand, and as prices declined fishers had access to even
smaller amounts of credit for fuel and equipment. While in the past the Jamaican government awarded fishers and processors an exemption from the general consumption tax on fishing equipment and a small subsidy on marine outboard fuel, these fiscal privileges were withdrawn as of 1 December 2009.\textsuperscript{150}

**Conclusions**

This chapter has analyzed the structure and market governance of the lobster chain from intermediary level to importer level in the United States. First, I conclude that the three countries’ lobster chains have a number of common features. Producing lobsters for world markets, the Caribbean fishers, intermediaries, and processing plants are inserted in global value chains that connect them upwards to foreign buyers.

Within one country the type of intermediary can vary: in terms professionalism and magnitude of the enterprise, level of investments, and in the relationship between fishers and intermediary. In Belize, the intermediaries are by definition illegal, but found everywhere nonetheless. In Jamaica, fishers always make use of intermediaries. These are less formal intermediaries than the acopios in Nicaragua, but mostly above the level of “bucket ladies,” although similar female traders also exist in Jamaica. In Nicaragua, the majority of fishers make use of intermediaries. There are low-entry barrier “bucket ladies” but a large part of the lobster is sold through more legalized forms of intermediaries, such as acopios. Although one could argue that most fishers are encapsulated by their relation with intermediary, this is not always the case. Fishers also benefit from this relationship, as they depend on the intermediaries for credit for fuel, food, and gear.

In Belize, only two processing plants—organized as fishing cooperatives—exist. In Jamaica, there are many, smaller processing plants, which are often illegal, although a number of legal processing plants also exist. As the quality of the product is lower, the entry barrier is lower than in Nicaragua. In Nicaragua, the entry barrier for processing plants is very high due to the high levels of capital and technological investments required.

Jamaica is the only country of the three where there is a large domestic tourist market for lobster. A large part of the lobster harvest thus ends up in the hospitality sector. In Belize and Nicaragua, the majority is sold to the international lobster market, such as the United States. The frozen lobster tails arrive in similar fashion in the United States. Processing plants exporting to the United States all have to meet similar food safety standards which require adhering to strict handling procedures. As quality is not easily observable, trust plays an important role in producers’ relationships with importers, while it is also reinforced through credit advances. Investments in processing plants as a result of the mandatory compliance with HACCP are very high for all companies concerned, and the technical expertise needed is crucial in creating high entry barriers for processing firms. HACCP regulation requirements set by the international importers dictate the processing requirements for local processors. Yet, the strictness through which these regulations are followed and the handling of the product, prior to the lobsters’ arrival at the processing plant, differs greatly between the three countries. Significant quality differences can be observed between the three countries.

The quality of Belizean lobster is generally good, although recently, in 2010 a salmonella case was detected. Although the handling of the product at the fishing cooperative

\textsuperscript{150} Interview C16: 13/12/ 2009
level is good, prior to its arrival, salmonella contamination is possible on the diving boat because chicken and lobster are mixed in the ice-hold. The quality of the Jamaican product is extremely poor in comparison to the other two countries, and frequent salmonella cases are reported. The product is not properly cooled or frozen, and its journey is often long prior to its arrival at the processing plant. Nicaragua’s lobster tails are of high quality due to good handling procedures both at the processing plant as well as prior to arrival there.

Many differences in quality of the product are thus due to the issues related to “time and temperature” of the product before processing. Most quality inspection takes place at the level of processing plants, while the lower levels are mostly forgotten or ignored. The recent numerous cases of salmonella in Jamaica and other countries, as well as in Belize, show that it is more likely that quality problems arise at the level of fishers or intermediaries than through lack of control. In Jamaica, the gap between requirements for the domestic market and the international market is wide. Quality improvements would require a much higher degree of monitoring and control by intermediaries.

<table>
<thead>
<tr>
<th></th>
<th>BELIZE</th>
<th>JAMAICA</th>
<th>NICARAGUA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>Mostly destined for the export market, although a part also destined for tourist market</td>
<td>Only part is destined for national export (exact extent unknown but believed to be 40%); large part designated for national tourist industry</td>
<td>Nearly all exported</td>
</tr>
<tr>
<td>Input/output structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chain actors</td>
<td>Intermediaries: entry barrier medium; acting as such is illegal so you cannot set up a formal organization to act as a middleman; processors: entry barrier is high; there are only two exporting processors allowed (the fishing cooperatives)</td>
<td>Intermediaries: relatively high entry barrier; you need capital to bind fishers and stock up on lobster; processors: capital-intensive yet still often small-scale processing so medium level entry barrier</td>
<td>Intermediaries: varies greatly between “bucket ladies” and official intermediaries; most lobster considered to go through the more formal intermediaries channels, requiring medium-high investments; processors: entry barrier extremely high (large capital investments, know-how)</td>
</tr>
<tr>
<td>Export rules and practices</td>
<td>Processing in hands of fishing cooperatives</td>
<td>Processing in hands of many small (some illegal) exporters; only few larger official exporters</td>
<td>Approximately ten large processing plants; perhaps even less as some are owned by same owner</td>
</tr>
<tr>
<td>Quality standards and practices</td>
<td>Quality is good although one case of salmonella has recently been detected; divers mixing chicken with lobster onboard in ice-hold potential hazard</td>
<td>Quality is poor</td>
<td>Quality is excellent</td>
</tr>
</tbody>
</table>

| Market governance | | | |
When we look at the distribution of benefits throughout the chain, these cannot be observed by merely looking at what value is added along the chain from harvest to consumers. A fisher might end up with USD 5 per pound. After all deductions have been made—a middleman USD 0.50, a processing plant in Nicaragua USD 3, and the American importer USD 0.25 to USD 0.50 per pound—this doesn’t mean the fisher makes the largest profit, as this depends on the volume. A fisher might sell 70 pounds per week (USD 350), an acopio owner 300 pounds a day, making USD 150 a day gross, while a processing plant might sell 300,000 pounds per month during the eight-month season, and make USD 900,000 gross. An importer, on the other hand, might import USD 750,000 per year (based on an import volume of 1.5 million pounds and profit of USD 0.50 per pound) in the products he trades in.

Illegal harvesting of lobster and fish products is high in all three countries, but particularly so in Jamaica and Nicaragua. Legal and illegal lobster trade is intertwined throughout the region and takes place at the national and international level. This is carried out by both small-scale fishers and industrial fishers (in the case of Jamaica and Nicaragua). In Nicaragua, large-scale involvement of large processing companies in illegal lobster shipments has been observed. The scale of illegal catchments and shipments of undersized lobsters in Nicaragua is enormous. Although several cases have been prosecuted by the NOAA in the United States, illegal shipments are still expected to take place on a large scale.

Prior to the crisis, the lobster chain showed more characteristics of a producer-driven chain, yet at the height of the crisis as well as during its aftermath, the chain appeared to be a trader-driven chain. Although the American importers are of major importance, local producers also hold a very important position. Yet this does not imply that small-scale local producers exert major influence over the chain. This only occurs at the level of the processing plants, as these are large and usually technologically very advanced industries, with high capital investments.

To call it a “producer-driven” chain might be too broad a claim in this particular case, but the chain tends more towards “producer-driven” than “buyer-driven.” Nevertheless, we have to keep in mind that we are talking of processing plants in the South, with very high levels of capital investment, extensive technological expertise, and often a broad international

| **Dependency** | Intermediaries mostly independent; one cooperative has strong ties with international importers; other cooperative has weak and constantly changing ties | Fishers highly dependent on intermediaries; processing plants are small with weak ties | Unofficial intermediaries weak ties; official intermediaries strong ties; processing plant strong ties with importers |
| **Impact economic crisis** | Low impact of crisis on the cooperative with strong ties with importers; high impact for the cooperative with weak ties with importers | Medium impact (less ties to global market) | High impact; riots by fishers and three processors went out of business |
| **Support of the government during economic crisis** | None | None, even limiting previous support by government | None |

Table 7.3: Lobster chain features of Belize, Jamaica, and Nicaragua summarized.
network. If times are good, these processing plants’ representatives will visit seafood shows in Boston and dine luxuriously with their importers. The whole definition of “Southern producers” therefore needs to be redefined in this context. We are not talking about “producers” who are fishers or intermediaries, but rather highly sophisticated processing plants, located in developing countries, and owned by local nationals. Only in Belize, where the processing facilities are in the hands of fishing cooperatives, do fishers as a result wield power in the chain. Importers do not hold complete control over the spatially dispersed value chains, such as is observed in other types of value chains.

The economic crisis of recent years has led to significant changes. It can be concluded that significant changes have taken place in the relationships between the producers and importers in all countries. Producers with less stringent ties to importers have a harder time surviving than those who have strong and stable ties with suppliers. In Nicaragua, the producers appear to be hit the hardest, as three out twelve producers went out of business, whereas in Belize as well as in Jamaica exporters are still in operation. In Belize, this might be due to the fact that it’s a multi-species fishery, whereby the processing plant does not only process lobster, but also fish and conch. These two products have been less hard-hit by the crisis and can therefore allow the plant to survive. In Jamaica, the producers are still in operation but to a lesser extent. Fewer industrial licenses have been issued in 2009 and 2010 due to the economic crisis. The crisis revealed the major dynamics in the lobster chain. Dependency relationships between the various actors involved have changed, yet the impacts differed substantially between the three countries.