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## The world lobster market

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## **The world lobster market**

by

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### **ABSTRACT**

This is a report on the size of the market for Caribbean spiny lobster (*Panulirus argus*), the biggest market players (traders, retailers, restaurant chains) and their relationship to producers in Central America in order to contentualize the market for Caribbean spiny lobster. General aspects of the lobster market are discussed in detail, including all types of lobster species and harvesting methods used in the geographic area under analysis.

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## TABLE OF CONTENTS

<b>1. INTRODUCTION</b>	<b>1</b>
<b>2. LOBSTERS AND LOBSTER PRODUCTION</b>	<b>2</b>
2.1. CARIBBEAN SPINY LOBSTER	6
2.1.1. Honduras and Nicaragua	7
2.2. LOBSTER MANAGEMENT SYSTEMS IN THE CARIBBEAN	8
2.2.1. Honduras and Nicaragua	9
<b>3. PRODUCT FORMS AND VALUE ADDITION FOR ALL TYPES OF LOBSTER</b>	<b>11</b>
<b>4. TRADE OF ALL LOBSTER SPECIES</b>	<b>13</b>
<b>5. MAIN MARKETS FOR ALL LOBSTERS</b>	<b>15</b>
5.1. NORTH AMERICA	15
5.1.1. United States of America	15
5.1.2. Canada	18
5.2. CHINA	19
5.2.1. China mainland	19
5.2.2. China, Hong Kong (SAR)	20
5.3. EUROPE	20
5.3.1. France	21
5.3.2. Spain	23
5.3.3. Italy	24
<b>6. EXPORTS</b>	<b>26</b>
6.1. NICARAGUA	26
6.2. HONDURAS	27
<b>7. CONCLUSION</b>	<b>28</b>
<b>8. REFERENCES</b>	<b>31</b>

## FIGURES

1. Lobster prices, United States of America, France and China, 1990–2014 (unit value of imports)	14
2. Prices of lobster tails imported from Nicaragua and Honduras to the United States of America, July 2011–July 2015	17
3. Prices of European lobster imported from Ireland to Europe, October 2010–October 2015	22
4. Unit value of lobster (US\$/tonne), 2004–2014, calculated based on the Global Trade Information System (GTIS)	27

## TABLES

1. Total world lobster production by country of origin (tonnes)	3
2. World lobster landings by species, 1980, 1990, 2000, 2010, 2012 and 2013 (tonnes)	5
3. Total Caribbean spiny lobster production, 1980, 1990, 2000, 2010, 2012 and 2013 (tonnes)	7
4. World: Quantity of lobster imports, 2009–2014 (tonnes)	13
5. World lobster imports, 2009–2014 (US\$ million)	13
6. United States of America: Quantity of lobster imports, 2009–2014 (tonnes)	16
7. Value of US imports of lobster, 2009–2014 (US\$ million)	18
8. China: Quantities of lobster imports, 2009–2014 (tonnes)	19
9. China, Hong Kong SAR: Quantity of lobster imports, 2009–2014 (tonnes)	20
10. France: Quantities of lobster imports, 2009–2014 (tonnes)	21
11. France: Value of lobster imports, 2009–2014 (US\$ million)	22
12. Spain: Quantities of lobster imports, 2009–2014 (tonnes)	23
13. Spain: Value of lobster imports, 2009–2014 (US\$ million)	24
14. Italy: Quantities of lobster imports, 2009–2014 (tonnes)	25
15. Nicaragua: Quantity of lobster exports, 2007–2014 (tonnes)	26
16. Honduras: Quantity of lobster exports (tonnes)	27
17. World: Quantity of lobster imports, 2007–2012 (tonnes)	29
18. World: Value of lobster imports, 2007–2012 (US\$ million)	30

## **1. INTRODUCTION**

This is a report on the size of the market for Caribbean spiny lobster (*Panulirus argus*), the biggest market players (traders, retailers, restaurant chains) and their relationship to producers in Central America. In order to put the market for Caribbean spiny lobster into the correct context, general aspects of the lobster market are discussed in detail, including all types of lobster species. It will also discuss the harvesting methods used in the geographic area under analysis. This report will serve as a basis for a feasibility study on market-based incentive schemes for selling product produced through decent employment, which would exclude, for example, the use of scuba diving as practised in Honduras and Nicaragua. The main purpose of the market-based incentive scheme will be to reduce the market demand to zero for lobster harvested by scuba diving. In the preparation for this study, some of the main importers of lobster in Florida were interviewed as well as supermarket clients and restaurant owners in order to perceive the sensitivity of consumers to lobster harvest and the risks involved for scuba divers.

## 2. LOBSTERS AND LOBSTER PRODUCTION

The category **lobster** comprises four main commercial species: European lobster (*Homarus gammarus*), American lobster (*Homarus americanus*), rock lobster (*Jasus spp.*) and tropical or spiny lobster (*Panulirus spp. or Palinurus spp.*).

Since lobster is a highly prized delicacy throughout the world, there are many ongoing technical advances in all the major lobster producing countries to ensure that stocks will remain sustainable for future generations. These include the development of hatchery techniques to enhance fisheries, which have been successful for the *Homarus* species and which are in the trial stages for rock lobster.

Given that live lobster is such a valuable export commodity, considerable time and effort have been devoted to developing its storage methods and overland and airfreight transport systems in order to ensure that it reaches the restaurant or consumer in prime condition.

The processed lobster market has also developed considerably in recent years, with companies seeking to make lobster products more easily accessible to the consumer. Simple processes such as ready-cracked claws and meat selection packs in attractive packaging have contributed to an increase in demand. With regard to value added, **live lobster** fetches the highest price, thus greater efforts are being made to ensure that the species reaches the market place alive. Lobster aquaculture is still in its infancy.

**Table 1. Total world lobster production by country of origin (tonnes)**

	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2012</b>	<b>2013</b>
<b>Canada</b>	20 089	47 857	45 331	67 277	74 790	74 686
<b>United States of America</b>	19 873	30 906	40 662	55 253	70 020	70 535
<b>Indonesia</b>	216	826	3 596	7 651	13 549	16 482
<b>Australia</b>	14 456	15 266	19 837	11 462	9 756	11 301
<b>Brazil</b>	8 023	9 223	6 469	6 866	7 386	6 726
<b>Bahamas</b>	2 894	5 808	9 023	9 692	9 761	6 088
<b>Cuba</b>	10 567	7 957	7 478	4 458	4 467	4 621
<b>Nigeria</b>	-	2 600	1 939	4 398	4 289	4 586
<b>Nicaragua</b>	1 849	783	6 534	3 800	4 427	4 494
<b>Mexico</b>	2 530	2 358	2 799	3 260	3 041	3 535
<b>United Kingdom</b>	774	1 444	1 156	2 754	3 104	2 993
<b>New Zealand</b>	4 615	3 122	2 824	2 906	2 699	2 820
<b>Dominican Republic</b>	166	750 F	1 286	1 001	2 505	2 542
<b>South Africa</b>	6 841	4 856	2 006	4 121	2 507	2 514
<b>Zanzibar</b>	-	-	306	396	1 682	1 695
<b>Honduras</b>	2 199	4 012	2 470	3 151	1 556	1 658
<b>Pakistan</b>	48	470	807	1 029	1 246	1 356
<b>Malaysia</b>	2	691	1 103	730	794	857
<b>Others</b>	13 772	14 537	10 386	11 441	10 575	10 466
<b>Total</b>	<b>110 894</b>	<b>154 706</b>	<b>168 012</b>	<b>203 656</b>	<b>230 166</b>	<b>231 968</b>

*Note:* F are FAO estimates.

*Source:* FAO (2015). FishStatJ.

Landings in the United States of America and Canada combined account for more than half of all world landings of all lobster. Total US and Canadian landings of American lobster have increased steadily over the past five to six years. In 2007, a total of 86 000 tonnes were landed by the two countries, which in 2015, was estimated to have increased to 146 000 tonnes. As a result, supplies are abundant, yet the increase in supplies seems to have had only a marginal effect on prices, as demand in new markets such as China is growing rapidly.

The unusually warm weather in New England extended the lobster season into December 2015. According to the Associated Press, the extended season has not had an effect on prices, which were around US\$8–10 per pound in Maine in December 2015. Researchers found that the lobster population in New England is increasing, which they attribute to climate change and warmer waters.

Australia is also an important player in the global market, with landings of around 11 300 tonnes in 2013. Other countries landing significant quantities include Brazil, Bahamas and Cuba. Landings in Indonesia have shown consistent growth over the years, a trend that is expected to continue.

In 2013, Nicaragua ranked eight among world lobster producers with 4 400 tonnes, while Honduras ranked 15th (1 650 tonnes). Both countries produced far more lobster in the past: Nicaraguan lobster production peaked at 6 500 tonnes in 2000, while Honduras peaked at 4 300 in 1986. These preliminary figures already indicate some problems experienced by these two countries with their lobster catches.

American lobster is by far the main lobster species, accounting alone for about 60 percent of total world lobster landings. Its catches have increased during the past 30 years, from 37 000 tonnes in 1980 to about 140 000 tonnes at present. Stringent management measures, which have been in place in the United States of America and Canada for decades, seem to have paid off.

Tropical spiny lobster (*Panulirus* spp.) constitutes about half of the American lobster landing. However, catches of this category have significantly increased during the past 30 years, from around 50 000 tonnes in 1980 to about 73 000 tonnes at present.

**Table 2. World lobster landings by species, 1980, 1990, 2000, 2010, 2012 and 2013 (tonnes)**

<b>English name</b>	<b>Scientific name</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2012</b>	<b>2013</b>
American lobster	<i>Homarus americanus</i>	36 851	75 534	83 062	119 637	142 625	142 418
Australian spiny lobster	<i>Panulirus Cygnus</i>	10 738	11 943	14 605	7 260	5 988	7 379
Cape rock lobster	<i>Jasus lalandii</i>	7 992	4 306	2 058	3 450	1 974	2 039
Caribbean spiny lobster	<i>Panulirus argus</i>	29 165	35 549	40 269	34 277	34 659	31 580
Common spiny lobster	<i>Palinurus elephas</i>	734	898	239	453	255	233
European lobster	<i>Homarus gammarus</i>	1 844	2 823	2 600	5 220	4 625	4 571
Green rock lobster	<i>Jasus verreauxi</i>	148	89	152	157	173	174
Green spiny lobster	<i>Panulirus gracilis</i>	280	208	687	113	179	219
Juan Fernandez rock lobster	<i>Jasus frontalis</i>	17	19	17	72	100	88
Longlegged spiny lobster	<i>Panulirus longipes</i>	1 147	1 301	1 716	2 296	2 549	1 921
Natal spiny lobster	<i>Palinurus delagoae</i>	156	24	8	19	19	8
Ornate spiny lobster	<i>Panulirus ornatus</i>	-	-	-	495	471	497
Palinurid spiny lobsters nei	<i>Palinurus spp.</i>	1 939	1 214	404	516	685	619
Pink spiny lobster	<i>Palinurus mauritanicus</i>	2	67	9	1	2	3
Red rock lobster	<i>Jasus edwardsii</i>	4 575	3 120	2 789		2 668	2 784
Scalloped spiny lobster	<i>Panulirus homarus</i>	764	692	168		219	200
Southern rock lobster	<i>Jasus novaehollandiae</i>	3 580	3 025	4 756	2 871	2 948	3 171
Southern spiny lobster	<i>Palinurus gilchristi</i>	193	1 042	305	120	609	652
Spiny lobsters nei	<i>Palinuridae</i>	254	568	258	367	418	781
St.Paul rock lobster	<i>Jasus paulensis</i>	543	298	192	390 F	390 F	390 F
Tristan da Cunha rock lobster	<i>Jasus tristani</i>	433	451	316	403	334	380
Tropical spiny lobsters nei	<i>Panulirus spp.</i>	9 539	11 535	13 402	21 665	28 276	31 861
<b>Total</b>		<b>110 894</b>	<b>154 706</b>	<b>168 012</b>	<b>203 656</b>	<b>230 166</b>	<b>231 968</b>

*Note:* F are FAO estimates.

*Source:* FAO (2015). FishStatL.

## 2.1. CARIBBEAN SPINY LOBSTER

Total production of Caribbean spiny lobster is approximately 35 000 tonnes on average, with a sharp decline in 2013 to only 31 500 tonnes. The main producer of this species is Bahamas, which produced around 9 700 tonnes in 2012, but dropped sharply to 6 000 tonnes in 2013. Brazil also used to produce more than 9 000 tonnes in the 1990s, but now only 6 700 tonnes. The stock assessment is highly negative; further declines in production in Brazil are likely.

In 2013, countries in Central America together produced around 6 600 tonnes, which sharply declined from the 9 400 tonnes produced in 2000. Nicaragua and Honduras are the main lobster producers in the region: Nicaragua accounts for about 15 percent and Honduras, 5 percent.

The main producing countries of Caribbean spiny lobster are Brazil, Cuba and Bahamas. The Caribbean lobster fisheries are generally artisanal or small-scale, with the exception of Honduras, Nicaragua and Cuba, where the fisheries are mainly industrial. The main form of fishing devices are traps and *casitas cubanas* and the main forms of fishing are diving (scuba, free and hookah diving<sup>1</sup>). Gillnets and trammel nets are used in some countries and are illegal in others. Globally, there are an estimated total of 60 000 professional fishers in addition to over 100 000 recreational fishers. In some areas, the lobster fisheries are the key economic livelihood of communities in the Caribbean, who have no other means of subsistence. The average production per year of lobster per commercial fisher in this part of the world is as low as 500 kg per year.

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<sup>1</sup> Hookah diving uses a compressor on board providing air through a hose to the diver.

**Table 3. Total Caribbean spiny lobster production, 1980, 1990, 2000, 2010, 2012 and 2013 (tonnes)**

Country	1980	1990	2000	2010	2012	2013
Anguilla	90 F	109	150 F	115	144	135
Antigua and Barbuda	64	97	275	175	156	150 F
Bahamas	2 894	5 808	9 023	9 692	9 761	6 088
Belize	369	383	503	672	660	652
Bermuda	23	10	29	39	47	31
Bonaire/S.Eustatius/ Saba	–	–	–	–	45	45
Brazil	6 218	9 223	6469	6 866	7 386	6 726
British Virgin Islands	35 F	75	3	40 F	40 F	40 F
Colombia	126	356	516	45	146	97
Costa Rica	25	300 F	271	4	13	13 F
Cuba	10 567	7 957	7 478	4 458	4 467	4 621
Dominican Republic	166	750 F	1 286	1 001	2 505	2 542
Grenada	2	2	47	19	26	23
Guatemala	–	–	–	–	–	–
Haiti	200 F	800 F	900 F	400 F	250 F	250 F
Honduras	2198	4 002	2 469	3 150	1 555	1 657
Jamaica	0 0	200	517	200	300 F	300 F
Martinique	104 F	100 F	200	160 F	120 F	100 F
Mexico	689	658	747	370	547	934
Nicaragua	1 848	717	6 180	3 690	4 249	4 278
Puerto Rico	–	–	212	148	86	98
Saint Kitts and Nevis	–	–	26	33	21	15
Saint Vincent/ Grenadines	–	–	–	15	24	29
Trinidad and Tobago	–	–	5	60	46	21
Turks and Caicos Islands	330	210	187	154	205 F	211
US Virgin Islands	49	60	100 F	111	76	72
United States of America	2 959	2 606	2 571	2 570	1 784	2 452
Venezuela (Bolivarian Republic of)	209	1 126	105	90 F	–	–
<b>Total</b>		<b>35 549</b>	<b>40 269</b>	<b>34 277</b>	<b>34 659</b>	<b>31 580</b>

*Note:* F are FAO estimates.

*Source:* FAO (2015). FishStatJ.

### 2.1.1. Honduras and Nicaragua

Lobster fisheries in Honduras are artisanal and industrial. This industry employs 6 373 direct fishers and 19 000 in the secondary sector. Industrial vessels (350-450 Hp, 50 to 92 feet in length) for traps and diving are equipped with industrial cooler storage, while artisanal outboard engine boats (15-75 Hp, 16 to 40 feet in length) as well as small wooden inboard engine boats (15-25 Hp, 10-30 feet in length) are also used. There are 121 industrial vessels, 20 artisanal outboard vessels, and between 25 and 30 small wooden vessels. Thirty percent of lobster is caught by traps and 70 percent, by diving.

Lobster fisheries in Nicaragua are both artisanal and industrial, carrying a total of 3 200 fishers. Industrial vessels are equipped with inboard engine boats, while artisanal boats are equipped with outboard motors. The Nicaraguan lobster fleet comprises 91 industrial boats, 75 of which use traps and 16, divers, as well as an estimated 750 artisanal boats that use traps or free, scuba or hooka diving.

## **2.2. LOBSTER MANAGEMENT SYSTEMS IN THE CARIBBEAN**

Most countries in the Caribbean region have some type of management system for lobster fisheries in place.<sup>2</sup> OSPESCA member countries apply the common management system (OSP 02-09). OSP 02-09 foresees a closed season of four months, from 1 March to 30 June.<sup>3</sup> It also limits the number of traps on a vessel to 2 500; traps need to have escape doors and to be taken out of the water during the closed season. OSP 02-09 also stipulates that an inventory of existing stocks must be carried out on the third day after the start of closed season. During the allowed fishing period, it is prohibited to capture, hold or sell Caribbean spiny lobster in their reproductive phase, spawned, with spermatheca or moulting. The minimum tail length is set at 140 mm and the average minimum tail weight, 5 ounces (4.5–55 ounces). The OSPESCA regulation also bans scuba diving for lobsters.

Nicaragua and Honduras have not applied measures against harvesting lobster by scuba diving, since the social impact of these restrictions would be substantial, and it is difficult to find alternative forms of livelihood for the divers.

International attention on issues of scuba diving and lobster production is growing. The media has also drawn attention to the negative potential impact on scuba divers. As a reaction to this negative press, in 2013, US lobster dealers and importers pledged to ban scuba diving and promote alternative ways of catching lobster. Ten companies signed this initiative, which especially targets Honduran lobster production. Most importantly, the Red Lobster restaurant chain, which buys around 40 percent of the lobsters exported from Honduras, enthusiastically joined this initiative and has observers on the ground ensuring that only lobster not harvested by scuba diving reaches its restaurants in the United States of America. Also, Netuno, a Miami-based major importer of lobster from Honduras, only sources from one supplier, which only buys scuba-free lobster. Although these companies are concerned with the social and environmental issue of lobster production in Central America, given the small margin of lobster trade, they are not willing to pay more for ecolabelled products.

With regard to input management measures, closed seasons for lobster fisheries are a commonly used measure in the Caribbean, which last from two to up to six months; only a few countries do not apply a closed season. In some countries, the government provides compensation during the closed season, while in general, fishers divert to alternative fisheries, including the Queen conch and sea cucumber fisheries. Closed areas are also relatively common, including areas reserved for artisanal fisheries and general no-take zones.

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<sup>2</sup> For more information, see the Report of the First Meeting of the OSPESCA/WECAFC/CRFM/CFMC Working Group on Caribbean Spiny Lobster.

<sup>3</sup> The exception is Belize, from 15 February to 14 June.

In several countries, lobsters can be caught only with traps, which also have requirements regarding mesh size, biodegradability and escape doors. Harpoons and/or scuba diving are prohibited in many countries. Most countries also have some type of licensing in place for fishers or fishing vessels, which is often applied to certain types of fishing methods, such as diving. Only Cuba and Nicaragua have quotas for lobster fisheries. Cuba is one of the few countries that has territorial use rights in fisheries (TURFs). Bahamas and France allow only nationals to fish lobster in their country. Interestingly, in Panama, indigenous people have fishing rights in their territories and their own fishing management, which are not always in line with the OSPESCA legislation (OSP 02-09).

With regard to output management measures for all OSPESCA countries, the common regulations apply, which include minimum size of landed lobster, harvest limitations and storage limitations. For all countries, a large variety of measures apply. Although there are general requirements on minimum sizes for lobster landings, some countries also have maximum sizes. Several countries have laws and regulations that stipulate that the lobster be landed alive, which, in the event that size limitations are not respected, can be released. It is commonly prohibited to land egg-bearing females, moulting lobster or lobsters carrying intact spermatophores.

### **2.2.1. Honduras and Nicaragua**

Honduras has a closed season for lobster, which last for four months (1 March to 30 June) (OSP 02-09). The industrial fisheries are prohibited in protected areas. Regulations include: a limitation of 2 500 traps per vessel; escape doors for traps; no traps allowed in the water during the closed season (OSP 02-09); and a maximum of 35 divers per boat. A licence is needed for each fishing vessel. There are no quotas in place and no territorial rights. As an output measure, Honduras has a minimum tail size of 140 mm and an average minimum tail weight of 5 ounces (4.5–5.5 ounces) weight, but no maximum weight or size limits. It is prohibited to catch lobster that is berried, has eggs, spawns, or had the berries, eggs and spawn removed. It is also prohibited to land lobster fillets or diced lobster tail meat. Inventory is carried out on existing stocks three days after the start of the closed season. The status of the Honduran lobster resource is indicated as unknown.

Nicaragua has the same closed season as Honduras and all other OSPESCA countries. In addition, the industrial fleet is not allowed to fish in an area of 25 miles around the cays and islands. Just as in Honduras and all other OSPESCA countries, there are the following regulations: a limitation of 2,500 traps per vessel; escape doors for traps; and no traps allowed in the water during the closed season (OSP 02-09). Nicaragua has a quota system for lobster, which is based on the lobster biomass and established every year. With regard to output management measures, Nicaragua, like Honduras, also follows the OSPESCA regulations as regards output measures: a minimum tail size of 140 mm and an average minimum weight of 5 ounces (4.5–5.5 ounces), but there is no maximum weight or size limits. It is prohibited to catch lobster that is berried, has eggs,

spawns, or has had the berries, eggs, spawn removed; it is also prohibited to land lobster fillets or diced lobster tail meat. Inventory is carried out on existing stocks three days after the start of the closed season. In addition, in Nicaragua, the law requires that lobster must be landed alive or whole. Scientists indicate that, due to the substantial management efforts carried out by this country in recent years, Nicaragua lobster, which was overexploited in 2005, became fully exploited in 2014.

### **3. PRODUCT FORMS AND VALUE ADDITION FOR ALL TYPES OF LOBSTER**

Lobster dealers cope with seasonal changes in supply with lobster pounds or other live holding systems in which hard shell lobsters can be maintained in peak condition for up to six months. The transportation of live lobster can cause stress and physical damage to the animals as well as considerable variation in product quality at its destination. Factors likely to cause stress include: changes in temperature due to inadequate cooling in warm climates; insufficient warmth in cold climates; low humidity; low oxygen; overcrowding; and rough handling. In addition, because lobsters are solitary animals and naturally defend their habitat, they can experience stress when placed in communal settings.

Seasonal differences in blood protein levels and shell hardness must be taken into account when choosing lobsters for shipping, because an animal in a weak condition starts off its journey at a disadvantage. The shipping of poor specimens should therefore be avoided. Live lobsters must be kept cool during shipping, but packaging coolants such as wet ice or gel packs must not come into direct contact with the animal because they can cause stress and mortality. Under the best shipping conditions, the humidity in the packing box will be approximately 70 percent.

The most common method of shipment for live lobsters is in fibreboard boxes lined with expanded polystyrene. An absorbent pad should be placed in the bottom of the box, and the lobster can be cushioned and separated from its neighbours with moist paper, chilled wet sponges or gel packs. A number of shippers still use seaweed, but some algal species produce noxious gases as they break down, which can harm the lobsters.

During shipment, the lobster loses weight and starts to accumulate nitrogenous waste materials, including ammonia. To prevent this from occurring, live lobsters should be conditioned or held without feeding for several days prior to shipment. Care must be taken not to leave the animal too long because it will begin to digest its muscle tissue, which will then result in a build-up of waste that the process was designed to avoid. Trials are ongoing with materials that can absorb ammonia or split the ammonia molecule into non-toxic substances, but these are still at the experimental stage.

Lobsters can be kept alive, out of water, in a high humidity environment for approximately 24 hours. Once the transport time increases beyond 24 hours, mortality increases significantly, and beyond 48 hours, losses can be considerable. It is therefore imperative that a good relationship is built with the transport company to ensure minimal delays only between the packing and the arrival of the lobster at its destination. It is important to ensure that all relevant paperwork including export and health certificates are correctly filled in, since products shipped inter-state and inter-country are highly likely to be held over by veterinary inspectors if paperwork is incomplete.

Honduras and Nicaragua do not participate in the lucrative live lobster trade; almost 100 percent of their products are exported in frozen form and generally only lobster tails. The industry is generally outdated and would need some substantial investment and upgrading to stay competitive on the frozen lobster sector. It would be relatively easy to add value by entering the live lobster trade, but the infrastructure hinders sales; the landings sites are far from the nearest international airport in Honduras, and there is no road link with the airport in Managua in Nicaragua. For several years, there have been discussions on plans for upgrading the local airport in Puerto Cabeza to international standards; however, their realization is not expected in the foreseeable future.

#### 4. TRADE OF ALL LOBSTER SPECIES

Lobster is an important trade item and one of the most expensive fishery products entering international trade. The average unit value is US\$20 per kg, compared to around US\$10 per kg for shrimp and below US\$5 per kg of finfish.

**Table 4. World: Quantity of lobster imports, 2009–2014 (tonnes)**

	2009	2010	2011	2012	2013	2014
<b>Reporting total</b>	124 748	145 655	151 820	155 624	159 765	170 156
<b>United States of America</b>	45 045	52 478	53 179	56 364	58 459	61 546
<b>Canada</b>	17 801	22 565	27 400	31 472	29 960	32 249
<b>China</b>	3 637	9 010	10 624	10 364	13 555	17 410
<b>France (Customs)</b>	8 905	9 377	9 861	8 413	8 546	8 696
<b>China, Hong Kong (SAR)</b>	12 896	12 661	11 090	12 027	9 644	8 020
<b>Spain (Customs)</b>	8 042	8 714	9 023	7 566	6 377	6 193
<b>Italy Istat</b>	6 204	6 086	6 357	5 144	5 030	5 279
<b>Japan</b>	4 261	4 376	4 287	4 326	4 447	4 389
<b>Belgium</b>	4 100	4 364	4 312	3 705	3 929	4 106

*Source:* Global Trade Information System (GTIS).

During the past 13 years, world trade in lobster grew substantially, from 110 000 tonnes in 2001 to over 170 000 tonnes in 2014. Total lobster trade in 2014 was valued at US\$3.3 billion, almost double that of 13 years earlier.

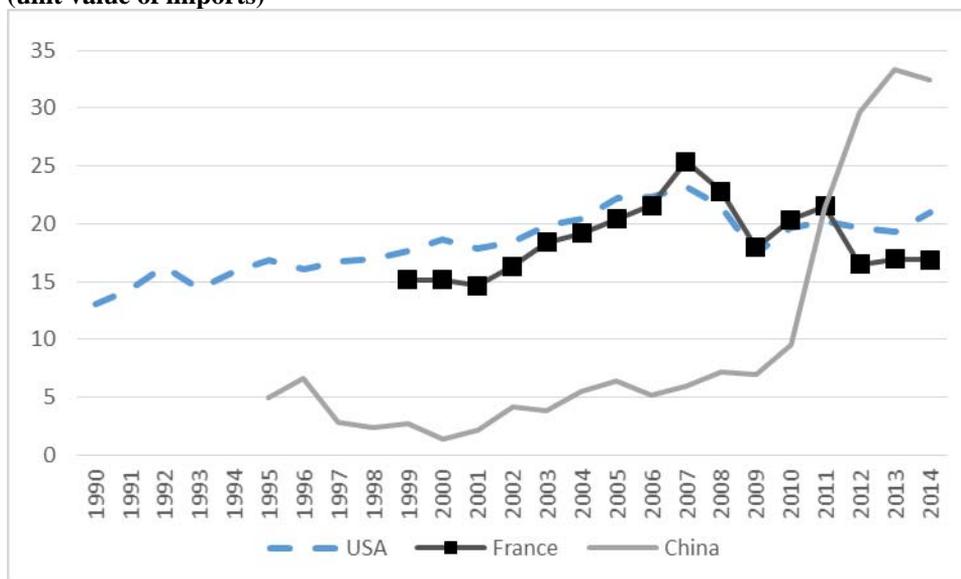
**Table 5. World lobster imports, 2009–2014 (US\$ million)**

	2009	2010	2011	2012	2013	2014
<b>Reporting total</b>	1 977.1	2 440.0	2 733.7	2 756.9	2 868.0	3 257.2
<b>United States of America</b>	786.9	1 030.4	1 077.4	1 109.1	1 127.5	1 294.2
<b>China</b>	25.4	85.9	226.9	327.2	464.6	576.7
<b>Canada</b>	147.4	202.7	240.4	234.6	257.1	334.5
<b>France</b>	159.8	191.0	212.3	171.7	172.8	181.1
<b>China, Hong Kong (SAR)</b>	292.6	293.4	259.9	289.4	175.6	138.7
<b>Spain</b>	116.5	132.4	151.8	113.3	100.3	104.5
<b>Japan</b>	91.5	113.0	123.4	116.9	108.5	94.2
<b>Italy</b>	89.4	90.1	104.9	76.5	76.6	85.2
<b>Belgium</b>	68.5	82.2	90.5	71.9	81.4	84.2

*Source:* Global Trade Information System (GTIS).

In Figure 1, it becomes apparent that the average lobster prices have increase in recent years, especially for imports into China, where the unit value exceeds now US\$30/kg. The relatively strong euro led to a decline in French lobster prices.

**Figure 1. Lobster prices, United States of America, France and China, 1990–2014 (unit value of imports)**



**Source:** Calculations from the Global Trade Information System (GTIS).

In 2014, the United States of America was the most important importer of lobster (61 000 tonnes), followed by Canada (32 500 tonnes) and China (17 800 tonnes). France, Italy and Spain are important importers among the European Union (Member Organization) (hereinafter EU) countries, with imports ranging between 6 000 and 9 000 tonnes.

When observing the development of the unit value of lobster trade, it comes evident that prices slowed down in the United States of America and France after the market disruption during the economic crisis in 2008–2009. In contrast, China’s imports of lobster showed a strong increase both in volume (from 1 700 tonnes in 2001 to 17 000 tonnes in 2014) and in unit value, which is currently at US\$33/kg, compared to around US\$2/kg in the early 2000s. This indicates that China is now an important market for high value lobster for domestic consumption and no longer for the reprocessing industry only.

## **5. MAIN MARKETS FOR ALL LOBSTERS**

### **5.1. NORTH AMERICA**

Canada supplies mainly high quality live lobster and processed lobster, while the United States of America serves the lower quality segment of these markets.

Usually, live lobster is graded into three shell quality categories:

- New shell – a lobster that has shed its old shell within the last two to three months;
- Firm new shell – lobster that has shed its old shell within the last three to six months;
- Hard/old shell – lobster that has shed its old shell within the last six months or more; and
- Hard shells fetch the highest prices because they contain more meat and have a lower mortality rate.

The demand of lobster products in Canada and the United States of America is largely stable, with peak season during the summer months.

In North America, lobster is considered less exclusive than in Europe. Lobster sandwiches, rolls and other lobster products are commonly consumed as snacks throughout the day.

North American consumers use canned and vacuum-packed lobster products mainly for the preparation of lobster sandwiches, seafood salads, lobster cocktails, lobster mayonnaise, stew, chowder and soups. A considerable choice of prepared convenience lobster products is available.

Canned lobster is usually traded in its own juice or in brine.

#### **5.1.1. United States of America**

The term “American lobster” is considered a valuable brand by the US industry. Clawed lobsters caught in the United States of America are available fresh mainly from July to November; frozen lobsters are available year-round. Lobster prices depend on supply and demand, and the weather. Peaks are reached during the season starting with Memorial Day (last Monday of May) and drop during Labour Day weekend (first Monday of September). Canned lobster was the first value-added lobster product and is still a popular product that is available at accessible prices in almost every US supermarket.

The main markets for lobster in the United States of America are Maine, Massachusetts and New York. Generally, the lobster market is considered competitive, thus explaining the oscillation of prices around equilibrium, which is determined by variations in supply and demand. In addition to the important domestic lobster production, the United States of America also import huge quantities, around 60 000 tonnes per year.

**Table 6. United States of America: Quantity of lobster imports, 2009–2014 (tonnes)**

	Quantity					
	2009	2010	2011	2012	2013	2014
<b>World</b>	45 045	52 478	53 179	56 365	58 493	61 691
<b>Canada</b>	34 933	40 350	42 673	46 804	48 441	52 814
<b>Nicaragua</b>	1 458	1 533	1 848	1 738	1 752	1 625
<b>Brazil</b>	2 086	3 081	2 216	1 481	1 696	1 622
<b>Honduras</b>	1 264	1 480	1 671	1 704	1 426	1 286
<b>Bahamas</b>	1 805	1 704	1 396	1 801	1 520	1 240
<b>China</b>	572	1 158	568	610	846	852
<b>South Africa</b>	488	370	333	252	554	363
<b>Australia</b>	721	498	354	205	230	214
<b>Belize</b>	145	207	252	204	187	211
<b>Dominican Republic</b>	106	205	333	331	262	182
<b>Jamaica</b>	3	91	63	112	150	155
<b>St. Helena</b>	144	206	121	118	142	138

*Source:* Global Trade Information System (GTIS).

Canada is the main supplier of lobster to the US market, accounting for about 85 percent of supply in 2014, with a strong increasing trend of the market share; all other countries are distant competitors. Nicaragua and Brazil account for about 3 percent of US lobster imports, and Honduras is still the number four supplier to the US market but is showing a declining trend.

Recurring to import statistics of the United States of America, it is important to recall that the United States of America has significant lobster fisheries, which keeps the market well supplied and accounts for an important share of exports, with about 70 000 tonnes every year, mainly American lobster.

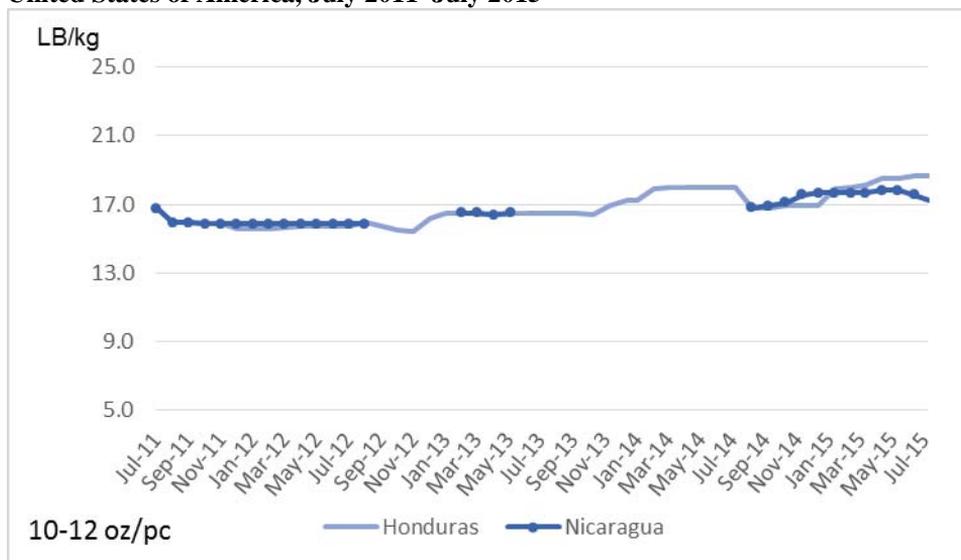
The United States of America actively participates in exports of live lobster to the Chinese market, with about 6 000 tonnes exported in 2014, compared to 1 000 tonnes in 2011. A huge share of these lobster comes from Florida, taking advantage of the Miami Airport as a hub for the live trade. In the domestic restaurants in the region, these lobsters are replaced by imported Caribbean spiny lobster, which is often sold as local product.

In 2015, US lobster exports to the European Union (EU) dropped by as much as 25 percent due to the high US dollar. US exporters were not very concerned, however, since lobster exports to China were strong. China mainly imports live lobster, a product that is in the highest price bracket. Canada still remains the most important market for the United States of America.

Strong landings of American lobster are expected to continue in 2016 and thus further improve the supply situation. However, as lobster is growing in popularity in Asian markets, they will absorb the extra supplies, and prices are expected to remain at present levels.

This report focuses specifically on the importance of Caribbean spiny lobster in the US market, whose main suppliers are Nicaragua, Honduras, Bahamas and Belize, for a total of about 4 000 tonnes in 2014; this is not significant when compared to the 52 800 tonnes of Canadian lobster. The total value of US imports of this species is US\$100 million, out of a total of US\$ 1 300 million. The unit value of Caribbean spiny lobster is US\$30/kg for Honduras and US\$20/kg for Nicaragua, while the Canadian lobster sells on average below US\$20/kg. The price difference between the Honduran and the Nicaraguan product can be explained by differences in product processing – the Honduran products are individually quick frozen (IQF), while the lobster from Nicaragua are plate-frozen tails.

**Figure 2. Prices of lobster tails imported from Nicaragua and Honduras to the United States of America, July 2011–July 2015**



Source: INFOFISH TRADE News.

**Table 7. Value of US imports of lobster, 2009–2014 (US\$ million)**

	2009	2010	2011	2012	2013	2014
<b>World</b>	787	1 030	1 077	1 109	1 128	1 296
<b>Canada</b>	573	744	810	873	886	1 065
<b>Brazil</b>	47	76	56	40	55	55
<b>Honduras</b>	28	44	49	48	41	39
<b>Bahamas</b>	39	46	40	48	40	33
<b>Nicaragua</b>	26	29	35	33	29	32
<b>South Africa</b>	14	18	16	14	19	21
<b>Australia</b>	29	29	21	12	11	9
<b>Belize</b>	4	6	8	6	6	6
<b>Jamaica</b>	0	3	2	3	5	5
<b>Dominican Republic</b>	2	4	5	4	5	5
<b>China</b>	3	4	6	6	6	5
<b>New Zealand</b>	1	2	1	1	3	3

*Source:* Global Trade Information System (GTIS).

### 5.1.2. Canada

It is estimated that 80–85 percent of the total domestic lobster landings are exported, and only 15–20 percent are consumed in the domestic market. Export of lobster, Canada’s most valuable seafood, has oscillated around 45 000 tonnes since 2001. About 60 percent of the export volume is live lobster, followed by the fast-growing frozen lobster segment.

The main seasons for Canadian lobster landings are in April to late May (in New Brunswick and Prince Edward Island) and late September to November, or even December as in 2015 (in Nova Scotia). The summer months, from June to September, and the Christmas/New Year season generate peaks in demand.

In addition to its domestic production, in 2014, Canada imported about 32 000 tonnes of lobster, almost exclusively coming from the United States of America. All other exporting countries of this product amounted to only 500 tonnes. The total value of lobster imports was US\$312 million. These figures indicate that the unit value of Canadian lobster imports is US\$10/kg, far lower than the world average. This also indicates that a good part of the imports into Canada are used for reprocessing and re-exports at a later stage. Since this market relies only on US raw material, it can be excluded from further analysis.

Improved holding and processing techniques guarantee the availability of Canadian lobster throughout the year.

Increased pressure on the catering sector to serve cost-efficient and quick-to-prepare products has reduced the share of live lobster that is marketed. Live lobster is a risky commodity and requires adequate infrastructures, including tanks all along the distribution chain. Today, almost 50 percent of the Canadian catches undergo some form of processing.

## 5.2. CHINA

### 5.2.1. China mainland

**Table 8. China: Quantities of lobster imports, 2009–2014 (tonnes)**

Partner country	Quantity					
	2009	2010	2011	2012	2013	2014
<b>World</b>	3 637	9 010	10 624	11 098	14 016	17 876
<b>United States of America</b>	38	252	997	2 444	4 308	5 995
<b>Canada</b>	242	746	1 702	2 491	3 523	5 467
<b>New Zealand</b>	9	490	1 479	1 807	2 538	2 551
<b>United Kingdom</b>	1 294	1 225	905	1 054	429	598
<b>South Africa</b>	143	684	1226	543	730	593
<b>Indonesia</b>	159	690	450	896	757	585

*Source:* Global Trade Information System (GTIS).

Chinese lobster imports have grown strong from 2009 to 2014, from 3 600 tonnes to almost 18 000 tonnes, respectively. The United States of America and Canada account for about 60 percent of total Chinese imports of this species, but a long list of other countries participate in this trade. Imports into China are mainly in live form, which explains the high unit value. The lobster imported into China mainly enter the domestic market, especially its upscale segment. Prices paid for lobster by Chinese importers are high, the unit value being well above the world average; lobster from New Zealand fetches almost US\$90/kg, and from Mexico and South Africa, an average of US\$40/kg. In recent years, however, neither Nicaragua, nor Honduras, nor other Caribbean spiny lobster producing countries have exported lobster to the Chinese market.

Live lobster dominates the Chinese import market. In order to reach the market, either the flight connection time has to be very short, or ideally, there are direct flights, such as from New York (for Maine lobster) and from Miami (for rock lobster from the Florida Keys). Products from Nicaragua and Honduras are unsuitable for this market due to the great distance from international airports; the Atlantic coast of Nicaragua is completely isolated, while for the Honduran product, the time to the San Pedro Sula airport exceeds six hours). Further, since there are no direct flights to China from these countries, the live lobster have to be transhipped at an intermediate airport, which creates stress and loss of live specimens. Overall, the shipments of live lobster are a risky business: the animals are packed in low water temperatures in order to prevent their natural cannibalism, but for tropical lobster, the cold water temperature is a shock. For every hour of transportation, the risk of losing substantial quantities of lobster increases exponentially, making this trade economically unviable.

### 5.2.2. China, Hong Kong (SAR)

**Table 9. China, Hong Kong SAR: Quantity of lobster imports, 2009–014 (tonnes)**

	2009	2010	2011	2012	2013	2014
<b>World</b>	12 896	12 661	11 090	12 027	9 644	8 020
<b>Canada</b>	753	1 039	1 208	1 599	2 285	2 651
<b>United States of America</b>	1 603	1 985	2 552	3 053	3 274	2 520
<b>Australia</b>	5 148	4 251	4 026	3 803	1 694	839
<b>China</b>	413	334	203	486	119	375
<b>South Africa</b>	1 267	1 133	523	760	667	363
<b>Philippines</b>	121	219	390	273	265	192
<b>Cuba</b>	126	453	429	108	351	141

*Source:* Global Trade Information System (GTIS).

The past years showed a steady decline of imports of lobster to China, Hong Kong Special Administrative Region (SAR), mainly because Mainland China today directly imports its lobster supply, instead of buying from China, Hong Kong (SAR), as in the past. Like the Chinese market, Canada and the United States of America are also the main suppliers to the China, Hong Kong (SAR) market, where there are also very limited quantities of tropical lobster traded. Cuba is one of the few countries in the Caribbean exporting to China, Hong Kong (SAR); Honduras and Nicaragua are completely absent from this market. Overall, the shipments of live lobster are a risky business; the animals are packed with low water temperature in order to prevent their natural cannibalism, but for tropical lobster, the cold water temperature is a shock. For every hour of transportation, the risk of losing substantial quantities of lobster increases exponentially, making this trade not economically viable.

### 5.3. EUROPE

Lobster in Europe is mainly purchased by the hotel, restaurant and institution (HRI) sector. Live lobster is still the most valuable and requested product form, even though this implies strong price variations. Currently, the European market prefers smaller lobster, or chix, of approximately 450 g.

The domestic EU production is unable to provide a sufficient supply since European stocks are less abundant than North American stocks. Landings of European lobster have stabilized at approximately 3 000 tonnes over the past ten years. The main producers are the United Kingdom, Ireland and France. Depending on the season, European live lobster costs up to twice as much as American lobster. The main lobster-consuming countries in the EU are France, Spain and Italy. The European consumer will always prefer the European product over imports from either North America or from the Caribbean. In years of strong production of European lobster, imports go down.

### 5.3.1. France

**Table 10. France: Quantities of lobster imports, 2009–2014 (tonnes)**

	2009	2010	2011	2012	2013	2014
<b>World</b>	8 905	9 377	9 861	8 413	8 546	8 696
<b>Canada</b>	1 869	2 023	2 187	1 657	1 749	1 966
<b>United States of America</b>	2 058	2 234	2 359	1 910	2 260	1 966
<b>United Kingdom</b>	1 261	1 318	1 629	1 771	1 568	1 595
<b>Bahamas</b>	661	719	820	696	551	633
<b>Ireland</b>	356	370	398	372	378	496
<b>Nicaragua</b>	193	265	290	387	467	483
<b>Spain</b>	766	754	628	309	449	354
<b>Jamaica</b>	112	145	138	68	78	165
<b>Ecuador</b>	23	19	23	24	34	164
<b>Portugal</b>	76	56	25	30	31	140
<b>Cuba</b>	513	425	268	398	267	112

*Source:* Global Trade Information System (GTIS).

France is the major market for lobster in Europe and the main hub for lobster distribution to other European countries, in particular Spain, Italy, Germany and Belgium. French lobster imports have been relatively stable in the past six years.

France also imports live European lobster for further grow-out in its lobster ponds. In 2014, France imported around 8 700 tonnes of lobster for a total value of US\$181 million. The unit value of European lobster is around US\$14/kg, while American lobster enters the French market at US\$16/kg. Tropical lobster has a far higher unit value in the French market, peaking at US\$36/kg for Bahamian lobster compared to spiny lobster from Cuba and Nicaragua at a value of US\$30/kg. In 2014, Nicaragua exported around 483 tonnes of lobster to the French market, valued at US\$16.9 million. France thus represents a relatively important market for lobster from Nicaragua and should also be included in the detailed market analysis. Contacts with French lobster importers should also be included. Honduras is not yet allowed to export to the EU due to hygiene and food inspection problems.

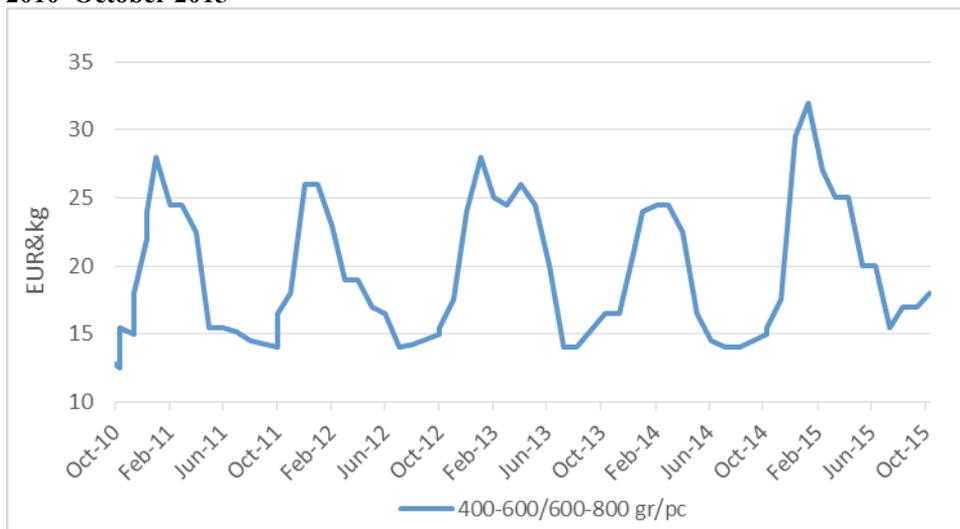
**Table 11. France: Value of lobster imports, 2009–2014 (US\$ million)**

	2009	2010	2011	2012	2013	2014
<b>World</b>	159.8	191.0	212.3	171.7	172.8	181.1
<b>United Kingdom</b>	27.7	28.4	37.5	35.7	32.9	33.2
<b>United States of America</b>	28.5	34.7	37.9	27.3	35.8	32.8
<b>Canada</b>	23.3	27.1	32.9	25.1	22.4	25.9
<b>Bahamas</b>	19.6	26.8	30.4	24.2	19.9	23.2
<b>Nicaragua</b>	5.6	9.4	10.4	12.4	14.4	16.9
<b>Spain</b>	11.2	16.5	15.2	7.6	9.7	10.4
<b>Ireland</b>	6.7	7.3	8.0	7.8	8.8	10.3
<b>Portugal</b>	2.6	2.1	1.3	1.3	1.6	4.2
<b>Jamaica</b>	0.9	1.9	1.9	0.8	0.9	2.8
<b>Cuba</b>	11.5	11.2	7.5	9.4	7.2	2.7
<b>Mexico</b>	0.4	2.6	2.4	0.9	2.0	2.5
<b>Madagascar</b>	1.9	1.5	2.0	1.5	2.1	2.3
<b>Ecuador</b>	0.8	0.2	0.7	0.9	0.5	2.1
<b>Belgium</b>	0.4	1.0	1.4	1.9	2.8	1.9
<b>Brazil</b>	2.2	2.1	6.7	2.7	2.5	1.7

*Source:* Global Trade Information System (GTIS).

Lobster prices in the French market are highest in pre-Christmas months, when they can easily exceed EUR30/kg. During summer months, when the Canadian lobster reaches the market, prices are generally low, at around EUR15/kg. Nicaraguan and Honduran suppliers could benefit from entering the market during the Christmas period in order to take advantage of the season's high prices.

**Figure 3. Prices of European lobster imported from Ireland to Europe, October 2010–October 2015**



*Source:* FAO GLOBEFISH European Price Report (EPR).

### 5.3.2. Spain

In Spain, European lobster basically serves the high-end restaurants, while American lobster is mainly available at mid-range restaurants and in supermarkets for direct consumption. European or blue lobster has an image of higher quality than American lobster.

Fish and seafood consumption in Spain is very high. Lobster is used in the preparation of over 200 different dishes, according to region, which include high quality paellas, lobster stew and baked lobster. Lobster is also very common for weddings.

Spain is the world's sixth major importer of lobster. However, the economic crisis of recent years had its impact on the Spanish lobster trade; in 2014, it imported 6 200 tonnes compared to 8 000 tonnes in 2009. All major exporters showed a negative trend when selling to this market, including the United States of America and Canada as the top suppliers.

Cuban exports were severely affected by the decline in demand for lobster on the Spanish market and had to halve their exports to this country. An important part of the Cuban product is re-exported to the Italian market. In 2014, Nicaragua was a small supplier, with a mere 7 tonnes valued at US\$128 000. Honduras is absent from this market. Spain pays less for lobster than all other importing countries; even Nicaraguan lobster sells below US\$20/kg in this market. This market should be analysed further.

**Table 12. Spain: Quantities of lobster imports, 2009–2014 (tonnes)**

	2009	2010	2011	2012	2013	2014
<b>World</b>	8 042	8 714	9 023	7 566	6 377	6 193
<b>United States of America</b>	2 946	3 504	3 591	2 963	2 806	2 649
<b>Canada</b>	1 329	821	755	652	682	949
<b>United Kingdom</b>	1 207	1 121	1 178	980	764	801
<b>Cuba</b>	1 049	1 736	1 679	1 296	960	503
<b>Mauritania</b>	153	153	251	173	202	460
<b>Morocco</b>	301	266	318	397	217	208
<b>Portugal</b>	191	173	120	154	94	127
<b>France</b>	228	106	89	130	85	126
<b>Ireland</b>	165	244	309	129	81	81
<b>Chile</b>	5	4	2	1	1	48
<b>Belgium</b>	78	143	77	161	189	40
<b>Denmark</b>	10	32	27	29	31	37
<b>Netherlands</b>	117	198	195	275	178	37
<b>Germany</b>	31	15	14	27	10	30
<b>Brazil</b>	48	11	186	34	37	25
<b>Yemen</b>	0	20	24	0	0	13
<b>Norway</b>	0	0	10	10	2	12
<b>Italy</b>	22	65	39	17	24	11
<b>United Republic of Tanzania</b>	5	0	0	0	0	8
<b>Nicaragua</b>	19	3	5	14	5	7

*Source:* Global Trade Information System (GTIS).

**Table 13. Spain: Value of lobster imports, 2009–2014 (US\$ million)**

	2009	2010	2011	2012	2013	2014
<b>World</b>	116.5	132.4	151.8	113.3	100.3	104.5
<b>United States of America</b>	38.1	47.6	52.9	39.9	39.4	40.5
<b>United Kingdom</b>	21.9	20.9	23.1	18.0	15.3	16.3
<b>Canada</b>	14.1	11.3	11.9	9.4	9.5	14.0
<b>Cuba</b>	18.8	29.4	33.1	23.3	19.3	11.0
<b>Mauritania</b>	2.7	2.2	3.7	2.2	2.2	7.4
<b>Morocco</b>	7.5	6.8	8.4	6.2	4.1	4.4
<b>France</b>	2.4	1.9	1.9	2.2	1.8	3.0
<b>Portugal</b>	2.4	1.4	1.6	1.6	1.7	2.5
<b>Ireland</b>	2.3	3.6	3.2	2.1	1.4	1.8
<b>Brazil</b>	0.6	0.2	4.6	0.6	1.0	0.7
<b>Denmark</b>	0.1	0.5	0.4	0.4	0.4	0.5
<b>Germany</b>	0.5	0.2	0.3	0.5	0.1	0.5
<b>Belgium</b>	0.5	0.8	0.8	1.2	1.2	0.4
<b>Italy</b>	0.2	0.8	0.5	0.3	0.3	0.2
<b>Netherlands</b>	1.7	2.7	2.2	3.2	2.3	0.2
<b>Yemen</b>	0.0	0.3	0.4	0.0	0.0	0.2
<b>Chile</b>	0.2	0.2	0.1	0.0	0.0	0.2
<b>United Republic of Tanzania</b>	0.0	0.0	0.0	0.0	0.0	0.1
<b>Nicaragua</b>	0.2	0.0	0.1	0.2	0.1	0.1

*Source:* Global Trade Information System (GTIS).

### 5.3.3. Italy

Italy is a relatively small market for lobster: Imports dropped from 6 200 tonnes in 2009 to 5 300 tonnes in 2014. The United States of America is the main supplier, with about 60 percent of the market, but strong declines have been reported in recent years. Very little Caribbean lobster enters the market; only 5 and 20 tonnes from Cuba per year. However, it must be considered that part of the imports from Spain are originally Cuban products. Indeed, Spanish lobster exports to the Italian market have declined because shipments of spiny lobster from Cuba to Spain have also declined. Nicaragua and Honduras are not present in this market, so no further investigation will be carried out here.

**Table 14. Italy: Quantities of lobster imports, 2009–2014 (tonnes)**

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>World</b>	6 204	6 086	6 357	5 144	5 030	5 279
<b>United States of America</b>	3 922	3 708	3 886	3196	3079	3184
<b>Canada</b>	663	835	814	787	763	896
<b>Spain</b>	775	727	769	493	516	349
<b>France</b>	265	196	207	120	122	176
<b>United Kingdom</b>	54	113	94	94	69	107
<b>Mauritania</b>	20	67	124	118	83	103
<b>Ireland</b>	2	1	2	1185	45	95
<b>Portugal</b>	9	6	14	26	108	86
<b>Netherlands</b>	17	32	20	33	53	70

*Source:* Global Trade Information System (GTIS).

## 6. EXPORTS

### 6.1. NICARAGUA

**Table 15. Nicaragua: Quantity of lobster exports, 2007–2014 (tonnes)**

	2007	2008	2009	2010	2011	2012	2013	2014
<b>World</b>	663	1170	1 457	1 501	1 672	1 800	1 734	2 017
<b>United States of America</b>	589	1071	1 220	1 200	1 255	1 377	1 098	1 188
<b>France</b>	57	57	237	297	392	338	497	563
<b>Singapore</b>	0	0	0	0	0	0	27	79
<b>Taiwan (Province of China)</b>	0	0	0	0	21	20	13	68
<b>Netherlands</b>	0	1	0	0	0	0	0	59
<b>Viet Nam</b>	0	0	0	0	0	0	0	23
<b>Belgium</b>	0	0	0	0	0	15	16	17
<b>Puerto Rico (United States of America)</b>	0	0	0	0	4	4	6	14
<b>Spain</b>	0	0	0	0	1	0	5	8
<b>Panama</b>	0	0	0	0	0	0	0	0
<b>Australia</b>	0	0	0	0	0	5	31	0
<b>United Arab Emirates</b>	0	0	0	0	0	23	0	0
<b>United Kingdom</b>	0	20	0	0	0	0	0	0

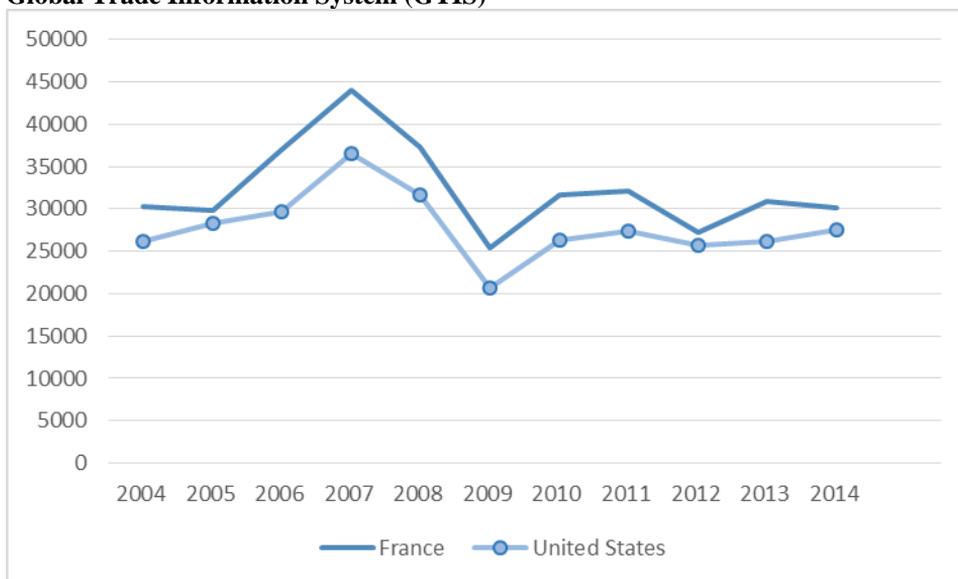
*Source:* Global Trade Information System (GTIS).

Nicaragua exports of lobster vary between 400 tonnes and 2 000 tonnes, and the United States of America is the main market (55 percent of lobster exports), followed by France (around 25 percent); other importers are Singapore, Taiwan Province of China and the Netherlands. Mexico imported significant quantities of Nicaraguan lobster in 2013, but stopped imports in 2014.

For Nicaragua, the diversification of market outlets – especially with France, which is a steady market, and also the Netherlands and Belgium, all of which generally re-export seafood to other markets – has been conducive to better employment. The total export amounted to US\$55 million, which has a significant impact on the economy. Generally, Europe pays slightly more for lobster, at about US\$30/kg compared to US\$27/kg on the US market. Before the economic crisis in 2008, the unit value of lobster from Nicaragua was even higher, at US\$45/kg for France, and US\$35/kg for the United States of America.

In Nicaragua, a significant increase in lobster production during the first nine months of 2015 led to strong growth in the country's lobster exports. Indeed, landings increased by 61.8 percent, to almost 4 100 tonnes, with exports up by 31.4 percent, from US\$49.6 million during the first nine months of 2014 to US\$65.2 million during the same period in 2015. At the same time, there has been a diversification of the products sold. Nicaragua used to export only lobster tails, but is now also selling whole lobsters.

**Figure 4. Unit value of lobster (US\$/tonne), 2004–2014, calculated based on the Global Trade Information System (GTIS)**



## 6.2. HONDURAS

**Table 16. Honduras: Quantity of lobster exports (tonnes)**

	2003	2007	2010	2011	2012	2013	2014
<b>World</b>	1 368	1 280	1 386	2 280	2 130	2 895	1 455
<b>United States of America</b>	1 356	1 276	1 348	2 272	2 127	2 862	1 378
<b>Mexico</b>	9	0	18	0	0	0	27
<b>Taiwan Province of China</b>	0	0	3	0	3	11	16
<b>Singapore</b>	0	0	0	0	0	0	1
<b>China</b>	0	0	9	7	0	0	1
<b>El Salvador</b>	0	0	0	0	0	8	0

*Source:* Global Trade Information System (GTIS).

In the past 12 years, Honduran lobster exports have varied between 1 300 and 2 900 tonnes. In 2014, the reported exports were only half those of 2013. Despite the changes in quantity, the pattern of trade stayed the same, i.e. all the exports went to the US market. At about US\$40 million, it is an important export item for Honduras. The concentration on just one market has major drawbacks for the exporting country; Honduran exporters and lobster processors should start looking at alternative markets, such as China and France.

## 7. CONCLUSION

Although Honduras and Nicaragua are relatively small lobster producers, this industry provides employment to around 10 000 locals. Total revenue from lobster exports of these two countries was US\$100 million in 2014, an important contributor to the local economy. Trade concentrates almost exclusively on the United States of America but market diversification could help to improve the performance of the industry. Nicaragua already ventured into the French market, while 99 percent of Honduran lobster is still exported to the United States of America.

The resistance in implementing the Central American Fisheries and Aquaculture Organization (OSPESCA) regulations on assisted diving in the two countries reflect the complexity of the issue, which may be overcome through pressure or support from the importing countries.

In 2013, the the US press featured the dangers of scuba diving for lobster, and as a reaction, ten US importers and the processing industry formed a league, Lobster Pledge, with its own website, to promote scuba-free responsibly traded lobster from Honduras. Though the scuba-free lobster issue is no longer in the press and consumer interest is relatively low today, the ten companies continue to buy scuba-free lobster. They have various ways of ensuring that the spiny lobster does not originate from boats that employ scuba divers, either through inspections on the ground, or from buying only from trustworthy exporters based in La Ceiba, Honduras. The companies interviewed during the preparation of this study are interested working with the Food and Agriculture Organization of the United Nations (FAO) on this issue, but have shown no interest in committing to funding it nor paying a premium for ecolabelled products. The restaurant owners and supermarket employees were insensitive to the issues of lobster production and health risk to the divers in the Miami area.

Experience from other Caribbean lobster-producing countries such as Belize, Cuba and Mexico shows that lobster can be harvested without scuba diving, and fishing devices such as traps and *casitas cubanas* have proven highly successful. However, in these countries, many fewer people are employed per kilogram of lobster produced than the current rate in Honduras and Nicaragua. In Brazil, another country producing substantial quantities of lobster, scuba diving has been prohibited for several years. Interviews with the main importers showed that, despite the prohibition, diving is still practised. In Brazil, today, there is a tendency to change the regulations and allow scuba diving, provided that the community has a hyperbaric chamber and that proper diving lessons are given regularly to the professional lobster divers. This might also be a way forward for Nicaragua and Honduras.

**Table 17. World: Quantity of lobster imports, 2007–2012 (tonnes)**

	2007	2008	2009	2010	2011	2012	2013	2014
<b>Reporting total</b>	124 323	126 420	124 748	145 655	151 820	155 624	159 765	170 156
<b>United States of America</b>	45 406	48 951	45 045	52 478	53 179	56 364	58 459	61 546
<b>Canada</b>	15 492	15 248	17 801	22 565	27 400	31 472	29 960	32 249
<b>China</b>	3 656	3 020	3 637	9 010	10 624	10 364	13 555	17 410
<b>France</b>	8 248	8 238	8 905	9 377	9 861	8 413	8 546	8 696
<b>China, Hong Kong (SAR)</b>	10 696	11 772	12 896	12 661	11 090	12 027	9 644	8 020
<b>Spain</b>	9 570	9 671	8 042	8 714	9 023	7 566	6 377	6 193
<b>Italy</b>	6 100	5 993	6 204	6 086	6 357	5 144	5 030	5 279
<b>Japan</b>	6 601	4 998	4 261	4 376	4 287	4 326	4 447	4 389
<b>Belgium</b>	3 423	3 522	4 100	4 364	4 312	3 705	3 929	4 106
<b>Republic of Korea</b>	1 082	974	901	1 222	1 155	1 553	2 983	3 813
<b>United Kingdom</b>	2 175	1 905	2 641	2 532	2 161	1 923	2 260	2 932
<b>Taiwan Province of China</b>	1 986	2 410	1 865	2 123	2 017	1 608	1 785	2 650
<b>Singapore</b>	1 141	1 184	997	1 126	1 025	993	1 031	1 244
<b>Germany</b>	1 682	1 479	1 274	1 362	1 256	1 183	1 322	1 080
<b>Australia</b>	749	637	643	747	844	890	968	1 040
<b>Portugal</b>	559	633	472	474	655	565	605	1 032
<b>Sweden</b>	715	656	677	720	860	941	892	940
<b>Netherlands</b>	675	600	546	750	965	692	821	924
<b>Poland</b>					58	377	921	829
<b>Malaysia</b>	208	255	239	293	546	805	830	814
<b>Thailand</b>	160	453	318	115	260	302	363	609
<b>Indonesia</b>	614	334	226	367	162	38	243	575
<b>Greece</b>	554	488	517	591	316	346	701	562
<b>Norway</b>	399	320	327	632	632	550	616	463
<b>Switzerland</b>	337	279	260	292	293	312	331	347

*Source:* Global Trade Information System (GTIS).

**Table 18. World: Value of lobster imports, 2007–2012 (US\$ million)**

	2007	2008	2009	2010	2011	2012	2013	2014
<b>Reporting total</b>	2 486.2	2 437.2	1 977.1	2 440.0	2 733.7	2 756.9	2 868.0	3 257.2
<b>United States of America</b>	1 054.6	1 056.9	786.9	1 030.4	1 077.4	1 109.1	1 127.5	1 294.2
<b>China</b>	21.7	21.8	25.4	85.9	226.9	327.2	464.6	576.7
<b>Canada</b>	174.0	145.6	147.4	202.7	240.4	234.6	257.1	334.5
<b>France</b>	209.2	187.8	159.8	191.0	212.3	171.7	172.8	181.1
<b>China, Hong Kong (SAR)</b>	223.1	280.5	292.6	293.4	259.9	289.4	175.6	138.7
<b>Spain</b>	187.7	175.3	116.5	132.4	151.8	113.3	100.3	104.5
<b>Japan</b>	167.6	136.5	91.5	113.0	123.4	116.9	108.5	94.2
<b>Italy Istat</b>	114.6	102.4	89.4	90.1	104.9	76.5	76.6	85.2
<b>Belgium</b>	72.4	69.5	68.5	82.2	90.5	71.9	81.4	84.2
<b>Republic of Korea</b>	24.8	21.4	16.8	23.0	24.4	32.6	58.6	75.5
<b>Taiwan Province of China</b>	37.2	42.8	32.3	32.8	31.8	27.5	28.1	46.6
<b>United Kingdom</b>	39.1	33.4	30.0	24.4	25.9	23.5	32.6	43.6
<b>Singapore</b>	16.6	18.9	13.4	17.2	19.6	18.1	19.8	24.5
<b>Germany</b>	30.9	27.4	21.5	22.9	25.7	23.3	25.8	22.3
<b>Australia</b>	13.3	9.4	9.3	12.8	14.6	17.3	19.8	22.0
<b>Portugal</b>	12.8	15.0	10.5	9.3	15.2	11.9	11.7	19.2
<b>Netherlands</b>	11.0	9.4	7.0	10.4	14.3	9.9	10.8	15.2
<b>Sweden</b>	12.2	9.5	8.5	10.4	13.1	14.3	12.6	13.2
<b>Switzerland</b>	9.5	7.5	6.3	7.1	8.1	8.2	9.6	10.1
<b>Greece</b>	11.1	10.1	7.9	4.6	4.7	3.7	7.8	7.9
<b>Malaysia</b>	3.8	4.7	3.0	4.0	5.4	6.2	6.7	6.9
<b>Norway</b>	5.4	3.6	3.8	6.3	6.9	6.9	7.6	6.7
<b>Denmark</b>	5.6	5.2	4.0	5.7	6.6	6.4	6.7	5.0

*Source:* Global Trade Information System (GTIS).

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