### The contribution of the public policy "Rede Certific" to the industrial fishing sector in the coast of Santa Catarina, Brazil

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Abstract— This article brings a look at the professionalization of fishermen in the state of Santa Catarina (SC), the national leader in the capture of marine fish. It houses the largest fishing industrial park in the country, among the difficulties in professionalizing the sector, there is a migration of qualified fishermen to presalt oil exploration. To meet this need for qualified fishermen on the coast of Santa Catarina, the professional qualification course was implemented in the modality of recognition of knowledge through the public policy of the National Network for Professional Certification and Initial and Continued Training (Network Certific). The purpose of this work was to demonstrate the Certific Network in the training of fishermen to perform at different levels of experiences to be acquired on land and at sea. With a qualitative approach, the exploratory and descriptive research medium was used, with interviews to 30 actors during the period between May and July 2017, with an instrument containing closed, open and semi-structured questions. Data were expressed as means and discourse analysis, focusing on induction and deduction. It was noticed that the Certific Network contributed with the sector for the offer of certification through courses that the Marine of Brazil did not supply in sufficient quantity added to the fact that, in its systematics, it allows the recognition of practical knowledge, providing an empowerment of Lasse worker who felt marginalized by acting illegally. This experience can serve as an example for meeting the UN's ODS objective 8 and 14, by promoting full and productive employment, integrated with society.

Keywords— professional certification; industrial fishing; public policy.

#### I. INTRODUCION

The shortage of qualified and skilled labor in the fishing industry with the reduction in the supply of training networks in Brazil has been extensively recognized and criticized in the regulatory economic policy scenario for the sustainable development of the sector (COSTA, 2003). Among the United Nations (ONU, 2017) Sustainable Development Goals, number 8, aims to "promote sustained, inclusive and sustainable economic growth, full and productive employment, decent work for all" and number 14 aims to "conserve and sustainably use oceans, seas and marine resources for sustainable development."

The most recent research deals with rural productive inclusion for fishermen in fishing tourism (GONÇALVES, 2018), the public policy of granting rural credit to finance fishing and aquaculture (FARIAS, 2018), the fishing chain (MEANTE & DÓRIA, 2017), the territorial development of fisheries and aquaculture (Food and Agricultural Organization - FAO, 2018), artisanal fisheries (GOMES, 2018). The theoretical framework reveals that the marine and estuarine fishing activity in Brazil involves the work of a large contingent of fishermen (HAIMOVICI, ANDRIGUETTO FILHO & SUNYE, 2014), besides providing jobs and economic benefits (CÉLIO-JÚNIOR, 2014, AGUIRRE MUNIZAGA, DÍAZ ARAYA & MONDACA ROJAS, 2014).

Despite the efforts and great knowledge required of fishermen throughout their labor practices, the fisheries sector seeks to integrate society fully with the development of jobs and benchmarking of fishers' incomes in formal and legal work (FAO, 2016, 2018).

Public regulatory fisheries policies establish access rights and quotas to alleviate the problem (NÓBREGA, MORAIS NETO & LIRA, 2013; SONVISEN, 2014), seeking sustainable development. However, legislation does not guarantee the sustainability of resources (CALLEJA, 2015), if there is no efficient management based on transparency and stakeholder participation (MORA ET AL., 2009, KNOX & TRIGUEIRO, 2015).

In addition, we also recognize the professionalization of the fisherman by the industrial workforce that needs to exchange knowledge, have a network of relationships for the exchange of information and the expansion of the visibility of economic activities (FAO, 2018).

Thus, in Brazil, through the Ministry of Labor and Employment, together with the Ministry of Education, the National Network for Professional Certification and Initial and Continuing Training (Network Certification) aims to recognize and certify the knowledge acquired by workers in processes formal and non-formal education and initial and continuing training at different levels of vocational education, regimented by Interministerial Ordinance n. 1,802 of 2009 and which was subsequently regulated by Administrative Rule no. 5 in 2014, with the objective of developing professional certification processes (COSTA & COSTA, 2013, COSTA, 2015).

In this context, this article aims to highlight the National Network of Professional Certification and Initial and Continued Training (Network Certific) in the training of fishermen to work at different levels of experience to be acquired on land and at sea. The focus of the study is the analysis of the profile of enrolled students and managers of Fisheries, Marine and the Santa Catarina Federal Institute of Santa Catarina (IFSC), located in the city of Itajaí, state of Santa Catarina (SC). Responsible for the training courses in the training of the waterway career in the category of professional fisherman (POP) and Professional Fisherman Specialized (PEP) qualification for professional fishermen.

Thus, the research is justified by the importance of formal regularization of activities through the qualification that are performed by the competent bodies in obtaining legal and necessary (CARVALHO, 2009) and profession that is considered dangerous by the International Labor Organization (OIT, 2007). It is an original applied research in the training of fishermen for the qualification, habilitation and training of people skills for the safe exercise of the profession in the professional activities of fisherman in fishing vessels of any type and size.

This paper presents in the second section a theoretical review that addresses the legalization of activity in Brazilian industrial fisheries and the Network Certification as an instrument of public policy for professional and technological education. The third section describes the methodological procedures presented in the paper and in the fourth the results of the applied research are analyzed and discussed. Finally, the final considerations of the study and the suggestions for future research are presented.

## II. THEORETICAL REVIEW LEGALIZATION OF INDUSTRIAL FISHING ACTIVITY IN BRAZIL

Industrial fishing is practiced from the coastal to oceanic regions by the fishing fleet composed of vessels of more than 20 gross tonnage, with autonomy of navigation and specific technology. The state of Santa Catarina is a leader in this sector and houses the largest industrial fishing park in the country, capturing about 20% of Brazilian marine fish in 2012 according to the Statistical Bulletin (UNIVALI, 2013). In addition, the municipalities of Itajaí and Navegantes contributed 83% of the total landed by weight in the State (CÉLIO JUNIOR, 2014).

This production is managed by fish companies or shipowners, natural or legal persons responsible for the vessel who register and obtain the fishing license (DIEGUES, 2004). The hiring of the crew and the employment relationship are regulated by labor laws, and the income can be measured by quotas (CARVALHO, 2009). The professional fisherman to carry out the activity must have the General Register of the Fishing Activity -RGP, managed by the fishing license of the Brazilian Institute of Environment and Natural Resources (IBAMA), in addition to the Registration and Registration Register (CIR) provided by Marinha do Brasil (2003), which has the supremacy in the holding of the fisherman's career since 1952 (BRAZIL, 1952; CARDOSO, 2009) as well as in the training of workers.

These fishermen (waterways) are divided into deck section and machines. Fishermen 1 (POP N1), Professional Fisherman 2 (POP N2), Specialized Professional Fisherman (PEP), among others, according to norms of the maritime authority (NORMAM-13 / Directorate of Ports and Coasts - DPC) (MARINHA DO BRASIL, 2003). The category ascension occurs due to specific professional requirements, such as embarkation time or approval in qualification courses with certification and qualification to the position and function registered in the CIR (BRAZIL, 2003).

It is known that the educational level of the fishing workers contributes directly to the professionalization, the

legalization of the activity and consequently the sustainable development of industrial fishing (FAERJ & SEBRAE, 2009). However, many fishermen abandoned early formal studies (SOUZA & CAETANO, 2012), beginning their work activities with young and more experienced relatives (DIEGUES, 2004, KNOX & TRIGUEIRO, 2015), empirically learning the trade (CARDOSO & HAIMOVICI, 2014), without formal qualification (MEIRELES, 2015).

The problem worsened with the migration of more qualified fishermen to activities linked to the pre-salt production chain (FURTADO, 2013, ROSA, 2014, PIQUET; TAVARES & PESSOA, 2017) during the decade of 2000, providing opportunities for fishermen without vessels (SCHWARTZMAN & CASTRO, 2013).

Brazil, a signatory to international agreements, respects the guidelines of the International Maritime Organization in its public policies and delegates to the Brazilian Marine, through its Ports and Coasts Board, since 1952 (BRAZIL, 1952) the training of its fishing professionals, 2009), among them maritime professional education for waterways, with a recent update (BRAZIL, 2015).

# THE NETWORK CERTIFICATION AS AN INSTRUMENT OF PUBLIC POLICY OF PROFESSIONAL AND TECHNOLOGICAL EDUCATION

Faced with budgetary constraints facing the country, there was a reduction in the supply of training in the area. As a result of a coalition of institutional political forces, the Brazilian Marine, believed and accredited 2012, the Federal Institutes (IF) to qualify the career of water boaters in the fishermen category. Among these, the unit based in Itajaí in Santa Catarina (SC) has the profile for this training with physical, administrative structure, laboratories, including boat-school and qualified teachers to the formations.

With the accreditation, this unit became a trainer using the public policy of professional education of the

National Network of Professional Certification (Rede Certification) (LIMA & CUNHA, 2017), with the purpose of filling the deficit and promoting training through Professional Certification. The qualification courses of the fishermen meet the requirements of the Maritime Professional Teaching of the Marine, with a workload of 770 hours for the PEP training and 200 hours for the POP, and the fisherman can optimize the time in the course with the proof of his previous experiences and experiences as professional (HICKENBICK, RAMOS & ROSA, 2017).

With this, the Certification Network qualification recognizes the knowledge's of the workers acquired in the trajectory of the profession, but without the qualification required by the competent organs. However, with the methodology of the Certificate, the end of the course varies according to the acknowledgments that each student obtains, and can be from one to three months (IFSC, 2017).

The Specialized Professional Fisherman (PEP) is the one that presents technical and behavioral skills required for the ascension to the capacity of Master in Fishing vessels of Gross Tonnage of up to 100t, used in coastal and inland navigation (Brazil, 2003). PEPs are popularly known as "boat masters" who are responsible for commanding the boat and crew in the work done for the capture and conservation of fish. The Professional Fisherman (POP) understands the professional performance as a crew member in the preparation, execution of the catches and conservation of the fish on board the vessel.

#### III. METHODOLOGICAL PROCEDURES

Interviews were carried out with actors involved in industrial fishing in the fishing area of Itajaí, SC, using as a unit of analysis the managers of the fishing sector, the Brazilian Marine and Network Certific, between May and July 2017, totaling 30 people. The interviews were carried out in the workplaces, offices, warehouses, during the repair of nets and vessels, as well as in the period of closed fishing, according to Table 01:

Table.1 - Managers linked to the Fisheries sector and the Certific Network interviewed.

Initia	Respondents	Number of	description
ls		interviews	
			15 shipowners from the Porto de Itajaí region
FM	Fishing Managers	20	02 union representatives from the region
			02 servers of the Municipal Fisheries Department
			01 community leader
MA	Marine	2	02 officers linked to the Maritime Professional
MM	Managers	2	Education System
CM	Certification /	8	06 teachers servers
CIVI	IFSC Managers	0	01 boat-school commander

		01 Rector's Office
Total	30	

Source: survey data.

Through a descriptive exploratory research (SEVERINO, 2007) with a qualitative approach and an inductive-deductive method, data collection instruments composed of open and semi-structured questions were structured, with a choice of scale responses *Likert*, with concordance levels of 1 to 5, with NA (not applicable) when the respondent did not find a response to their agreement.

The data were expressed in averages (semi-structured questions) and analyzed the discourse (open questions) (ORLANDI, 2006) according to Table 02:

Table.2 - Interview questions, structure, respondent and analysis.

		Respondent				
Question	Structure of Questions	GP	GMB	GC	Analyze	
1. The "know-how" of the fisherman	Quasi structured	X	X	X	Mean	
2. Legalization instrument	Quasi structured	X	X	X	Mean	
3. Adequate Travel Time	Quasi structured	X	X	X	Mean	
4. Contribution with qualified labor	Quasi structured	X	X	X	Mean	
5. Certification Satisfaction	Quasi structured	X	X	X	Mean	
6Impact on student life	Quasi structured			X	Mean	
7. Inspection of the Marine	Quasi structured	X			Mean	
8. Professional Certification Preference / IFSC	Quasi structured	X	X		Mean	
9. Professional performance	Quasi structured	X	X		Mean	
10. Population in management	Quasi structured	X			Mean	
11. Legal documentation	Quasi structured	X	X		Mean	
12. Causes of illegality	Quasi structured	X	X		Mean	
13. Surveillance procedure	Quasi structured		X		Mean	
14. Professional Certification	Quasi structured		X		Mean	
15. Working time in the fishing industry	Open	X	X		Discourse	
16. Implementation of the IFSC / Itajaí Certification	Open			X	Discourse	
17. Contribution of the IFSC	Open	X			Discourse	
18. Improvement suggestion	Open	X	X	X	Discourse	
19. Evaluation after accreditation	Open		X	X	Discourse	

Source: survey data.

The open questions were raised during the data collection, with the annotation of observations and through five specific questions. These responses served to cross the quantitative data and the perceptions of the subjects surveyed, who were identified by number after the acronym GP (Fishery Manager), GMB (Manager of the Brazilian Marine) and GC (Gestor Certification).

The answers of the open questions were selected according to the categories of analysis: course during

closing, available time, incentive to the courses, control constraint, political questions, fisherman service, internal process, course systematics, theory and practice integration, reduction accidents and environmental awareness.

#### SEARCH RESULTS

Table 01 shows the descriptive data of the variables:

Table.1. Data in average and % in the questions with levels of agreement of 1 to 5; - = Not applicable-NA.

	Fishi	$\frac{\text{Fishing}}{N = 20}$		$\frac{\text{Marine}}{N=2}$		$\frac{\text{Certific}}{N = 8}$		Managers Together	
Questions / Managers	N =								
	Mean	%	Mean	%	Mean	%	Mean	%	
The "know-how" of the fisherman	5,0	100	5,0	100	4,8	98	4.9	99	
Legalization instrument	5,0	100	4,0	80	4,8	98	4.6	92	
Adequate time for training	4,8	97	5,0	100	3,6	73	4.5	90	

Contribution with skilled labor	4,9	99	4,0	80	5,0	100	4.6	93
Certification Satisfaction	5,0	100	NA	NA	4,6	92	4.8	96
Impact on fisherman's life	-	-	-	-	5,0	100	5,0	100
Inspection of the Marine	4,3	86	-	-	-	-	-	86
Professional Certification Preference / IFSC	4,6	92	-	-	-	-	-	92
Professional performance	4,4	88	-	-	-	-	-	88
Average Total	4,7	95	4,5	90	4,6	92	4,8	93

Source: survey data.

Altogether, the three groups of managers - Fisheries, Marine and Certificates - believe in the "know-how" of the fisherman (99%), which was valued in the certification of professional qualification, as interviewed GP5: "The métier of it is to look at the stars, to the sky and say I'm going to leave that time will help I'll make a good fishery "[...]," old crew, people who are of the sea, have salt in the skin."

Regarding the instrument of professional legalization, 92% recognize the Network Certific, GP19: "was a key moment among these institutions"; GP5: "He is a master indeed, but without the wallet, so he deserves a chance to regularize life and actually be the commander of the boat."

For 90% of the interviewees, the adequate time for course formation was adequate to that available to the fishermen, but 10% were in doubt about their duration, GP5: "a course for those who are master, but not in fact, with the professional portfolio, should be smaller and without examination"; GP11: "Too long, there's no way to stay with the boat stopped", or does not know the subject, as interviewed GP19: "because I do not know to answer that thoroughly".

In the opinion of 93% of the managers, the IFSC / Itajaí manages to supply the sector's demand and contribute to the qualification of the regional fishing workforce, as interviewed GP18: "is the ease that a fisherman has to work legally, since how many illegal fishermen were on the boats, and today qualified to work legally with knowledge and better performance".

Thus, 96% ratified satisfaction in the training of fishing professionals (Table 1), according to the GP19: "if there was no certification from the Federal Institute, until today we would have difficulty in qualifying the workforce, I have no doubt in affirming, it was perfect as manager", GP16:" I encouraged and even the boat stopped for them to take the course".

The managers unanimously agreed that there was an impact on the professional life of the fisherman with the Certific. These workers were included in the scope of technical and technological education, giving and remeaning the learning with success and pleasure.

The fear of the professionals for the inspection of the Marine, according to the interviewed GP4: "The fisherman when he sees the inspection outside, he runs away, [...] is treated as a bandit, is doing his profession, but he looks like a bad guy because he it needs documentation, license and none of that we have today." According to the interviewees, the Brazilian Marine exercises inspection in the documentation of professionals by the Waterway Traffic Safety Division, which guides maritime procedures on surveys and irregular workers. These managers realize that there is a reduction in the assessments after the offer of the courses for category of Specialized Professional Fisherman, better known like "masters of boats".

Teachers also said that this pioneering process of professional certification helped the IFSC / Itajaí to become a reference in the country in the professional qualification of waterways, as they are being asked for other intuitions to report on the implementation.

Most of the fishery managers interviewed (70%) work in the sector between the ages of 20 and 40, with the general average of respondents being 32 years of age. GP13: "I am 72 years old, but I was born in the fishing, since I was little with my father in the canoe, I took the fishing license in 1963 in Florianópolis and in 1972, I made the first whaling.

The function of these managers involves a contingent of 11,783 workers, of whom approximately 590 professionals are fishermen. Of these, about 60% were qualified for the legal profession, GP18: "sometimes we do not want to accept fishermen without documentation, but to not leave the boat stopped, it is better to risk", GP11: "We work more quietly when they have the portfolio and they are all legalized."

According to the fishermen interviewed, the main causes of fishermen carrying out the activity without qualification are factors such as lack of time (50%), lack of interest in qualification (27%), offer of courses (14%) and low schooling %). Another reported fact was the transfer of the most qualified fishermen to vessels operating in the Brazilian pre-salt as of 2010, GP19: "the migration of the most qualified fishermen to merchant marine from 2010,

when the government invests in pre-salt exploitation left fishing with the less qualified".

Among the managers interviewed, 92% have preference for professionals with certification from the IFSC / Itajaí, but for some, what matters is the quality of the course. Of the managers, 86% claim that there is

supervision to the undocumented professionals and 88% believe that the qualification improves the performance of the fishermen (Table 1), although to 14% it is not evident.

Table 02 shows the open questions answered by the Fisheries (GP), Marine (GMB) and Certification (GC) managers:

Table.2. Categorization of open questions answered by Fisheries (GP), Marine (GMB) and Certific (GC).

Category		GMB	GC
Category	N	N	N
Course during closed	5	-	-
Time available to attend course	5	-	1
Incentive to courses	6	-	-
Supervision coercion	4	-	-
Political issues	1	-	-
Customer Service	3	-	-
Internal process	-	1	-
Course Systematics	-	-	12
Integration theory and practice	-	-	6
Reduction of accidents	-	-	1
Environmental awareness	-	-	2

Source: survey data.

For the managers, the best time for the IFSC / Itajaí to qualify their fishermen in the Certific, would be during the period of closure of that fishing modality that the vessels act.

Shipowners believe that the duration of the course by the certification methodology was adequate to the available time of the fishermen, although it required efforts to adapt the school temporalities in the qualification and legalization of the sector (RIBEIRO, AGUSTINI & MARTINS, 2017). This problem seems to be recurrent, fishermen from Portugal in the 1990s, remained 75% of the year engaged in fishing (AMORIM, 2001). The profession requires full-time work, always depending on the environmental conditions for locating, catching and storing the fish.

The PEP course was the most sought after, taking into account the higher number of enrollments and less drop out. The 13% of the quitting fishermen attributed the unavailable time as an obstacle to attend the course. 87% of the fishermen registered were qualified, of these, 69% requested certification and all obtained their certified knowledge. Thus, for 98% of the interviewees the course was completed in a shorter time and adequate to the available time of the fisherman. With this, 92% declare that it is impossible to attend a traditional course with full time, although 8% would interrupt work to qualify. Note that in the PEP course, there were a greater number (90%) of students who requested certification against 20% of the POP students.

According to managers of the Brazilian Marine there was a reduction in the assessments after the courses offered to specialized fishermen (boat masters). By means of the speeches, the recognition of the Certific Network as Instrument of legalization and contribution with labor (Tables 1 and 2) can be seen, although they demonstrate the insecurity of the new methodology in the area.

The fear of the professionals by the inspection, according to the interviewee GP4: "The fisherman when he sees the inspection outside, he runs away, [...] is treated as a bad guy, he is doing his profession, but he looks like a bad guy because he needs documentation, license and none of this we have today." The lack of administrative political indecision at the federal level to the sector, according to manager GP4: "I had a lot to go forward yet, but it was working, had a strong team, a path, an address and when we thought it was right, ".

The period of "closure" of the courses, as GP4: ""The sustainable awareness developed and practiced by some managers, GP2:" if we can change the Brazilian market, with boats focused on the quality, bring less fish, make more money, the consumer would have a good quality fish, this is the future of fishing in the country".

The interviewees evaluated the courses offered after the Marine's accreditation, as an added value in the training of fishermen, when the Itajaí Ports Office decreased the offer by Federal budget restriction. Confirming this idea GMB 2 says: "We are experiencing a federal government budget recession and the courses have

greatly reduced the amount of supply to the communities they need, due to budget constraints". Thus, the IFSC was the pioneer institution in offering this training. The GMB1 states that it "has been a pioneer, ... the IFSC here for several reasons, was what went off in the front applying courses". However, the training of the fisherman does not consist only of a legal and bureaucratic process, but involves his professional qualification, GMB1: "...legalization is not only to have a role, but presupposes that they are qualified, only when to take the certification is the result of the qualification."

On the other hand, the actors that participate in the management of the Certification at the IFSC / Itajaí have declared satisfaction (92%) with the implementation of the qualification, considered positive - innovative, unprecedented for being inaugural on campus, leading to learning through practice, despite the challenges of reconciling the fisherman's time.

The teachers realized the need to improve the Internal Process, requiring some documents to the students with less bureaucracy, workload of those involved, the certification process, specific methodology to the target public, pedagogical training. According to these, the improvements for the improvement of the Network Certific in new editions, motivating other areas for the professional certification.

The role of the IFSC in the view of Certific's managers is to foster the education of people excluded from the formal learning process by modifying the structuring of society. In addition to obtaining a portfolio, transform the fisherman's relationship with the school, valuing knowledge. The managers unanimously agreed that there was an impact on the professional life of the student with the Certificate. These workers were included in the scope of technical and technological education, opportuning and reifying the learning with success and pleasure.

In matters such as the delay in legalization after the end of the courses, GP15: "the fisherman has to wait two years to dispatch"; as well as, fear of the professionals by the coercion of the inspection, interviewed GP4: "The fisherman when he sees the surveillance outside, he runs away, he is treated like a thug, he is doing his profession, but he looks like a thug because he needs documentation, license and none of that we have today." The lack of administrative political indecision at the federal level to the sector, GP4: "I had a lot to go forward yet, but it was working, had a strong team, a path, an address and when we thought it was right, they pulled the folder."

#### IV. DISCUSSION OF RESULTS

The development of cognitive forms and practices is rarely believed by fish managers (DIEGUES, 2004) because of lack of dialogue and little appreciation of fishermen's knowledge (ALLUT, 2000). However, managers believe in know-how, as ship-owners kept their employees (masters) without documentation for years on the vessels. Probably due to the trustful contracting of acquaintances (HAIMOVICI. relatives and SUNYE. **ANDRIGUETTO FILHO** & 2014). demonstrated by the reliability and knowledge of the crew in carrying out traditional fishing activities.

The affective commitment, loyalty and loyalty generated in teamwork is a result of shared management of people (LEITE *et al.*, 2015), which determine the feeling of being "part" (STECCA, ALBUQUERQUE & ENDE, 2016). This climate of sharing and commitment also occurs in the fisheries sector, due to the complicity of the ship owners and fishermen, assumed in the burden of irregularities, such as the lack of qualification, the "dispatchers" on board.

The managers deposited credit in the qualification of their workers and recognize the Rede Certification as an instrument of professional legalization, expressing satisfaction with the safety in production protected by legalized professionals and licensed boats. The licensing system in Brazil regulates fishing, although it is a bureaucratic record of statistical control, it represents the equal right, generating biological and socioeconomic sustainability, demanding a qualified worker in the industrial fleets.

In general, there is a high difficulty in the productive sectors to get qualified professionals on the market (SCHWARTZMAN & CASTRO, 2013), especially in the fishing sector, when the precariousness of labor leads to illegality to the detriment of the still vessel. The ship owners interviewed report the need to hire legalized fishermen. However, in practice due to the scarcity of this skilled labor, still today part is kept in the underground to not interrupt the activities of the vessels.

The illegal professional practice of workers relegates to invisibility (PEREIRA & BOTELHO, 2017), generated in the absence of public policies that recognize the abilities of the subjects to exercise their rights. The fishermen use subterfuge to avoid surveillance and notice, time fleeing, or leaving at uncertain times of the port and other times becoming invisible in this process, assuming a third party legalized and contracted on the vessel for this purpose.

The craft of the fisherman is based on work and knowledge passed down through generations. The Certified Network, when consolidating public policies of professional education in various sectors, brings to the

fishermen's specific needs and capacities, such as time and knowledge of daily practice, to restore human dignity in the profession (HICKENBICK, RAMOS & ROSA, 2017).

Fisheries and Marine managers estimate that approximately 60% of industrial fishermen work in hiding, a fact that may lead vessels to stop fishing. In addition, skilled workers tend to migrate to the oil sector (Rosa, 2014) in search of better wages as they do in other European fishing fleets (SONVISEN, 2014).

The ship owners considered that the duration of the course by the certification methodology was adequate to the available time of the fishermen, although it required efforts to adapt the school temporalities in the qualification and legalization of the sector (RIBEIRO, AGUSTINI & MARTINS, 2017). This problem seems to be recurrent, fishermen from Portugal in the 1990s, remained 75% of the year engaged in fishing (AMORIM, 2001). The profession of fisherman requires full working time, but always depends on the environmental conditions for locating, catching and storing the fish.

Thus, the best time for qualification of the fishermen, it would be difficult to reconcile in a single course, professionals from nine types of fleet, during the closed period, indicated by 30% of the managers of the fishing, and different fishing modalities on the coast of Santa Catarina. The managers' trust in public policies fluctuates with the administrative representativeness of fisheries at the federal level, from ministerial status to department in another ministry, where the political instability of the last few years has left us unsuccessful in claiming.

The origin of managers determines the systems of beliefs and consensuses aimed at maintaining the sustainability of fishery resources (DIAS NETO, 2010), since the experiences and learning of the fishermen, today managers, occurred in a time of abundance, free from the pressure that the fish stocks (CÉLIO JÚNIOR, 2014).

In the last decades, public policies focused on the living conditions and integration of fishermen into society (HAIMOVICI, ANDRIGUETTO FILHO & SUNYE, 2014), offering professional technical training courses supported by the current educational legislation, although insufficient to the great demand (MANFREDI, 2010, CLARO & PEREIRA, 2013, RAMOS & STAMPA, 2016).

Systems aimed at the recognition of knowledge and experiences have become prerequisites for professional certification of learning in the various educational contexts of European countries (OLIVEIRA, MARESCOTTI & FORMICUZZI, 2014), and currently in Brazil (LIMA & CUNHA, 2017). The adhesion of this public policy concretizes interests shared by the social

actors, placing the country in the condition of high development (LAFONT & PARIAT, 2015), in which the Network Certificates in 2014 the Federal Institutes as accreditors and certifiers of knowledge built in the experience of life / work the Professional certification (LIMA & CUNHA, 2017).

The factor of low schooling, despite the efforts remains unsolved and some fishermen still do not have the documentation, even after completing the course, GP5: "the fisherman has to wait two years to dispatch". This fact demands new studies to the sector that needs urgent solutions. However, most managers recognize that the Certified Network contributed to the skilled workforce, requiring cooperation between educational institutions, government agencies, managers and workers, in the development of a collaborative network (URBANO, 2013). Optimizing vacancies in vocational education institutions, allowing the access of this policy in the various productive sectors that demand the qualification of active professionals in the margin of this process.

#### V. FINAL CONSIDERATIONS

The public policy National Network of Professional Certification (Network Certification) has contributed to the fishing industry, demonstrated in the political coalitions, boosting economic development and promoting social inclusion, removing workers from illegality, recognizing their knowledge and qualifying them, translating in a professional empowerment.

Training is fundamental in the sustainable development of fisheries, but legalization is not only a role, it presupposes the necessary knowledge to carry out activities, safeguard lives and vessels and ensure sustainable awareness. The fisherman, like any other profession, requires qualification in a process of continuous learning for environmental transformation, subsidized in a cross-curricular sense of the courses that the institution proposes to minister.

The characteristics of the contribution of the course, according to the three-dimensional view of actors, reside for the opportunity to offer this certification of professional qualification of fishermen, through courses that the Marine of Brazil did not supply in sufficient quantity and for the use of the Network Certified that, in their systematics, allow the recognition of practical fishermen's knowledge with the Professional Certification for this sector, allowing the legalization to the time of the worker-student.

It is perceived that this practice facilitates the promotion of initiatives that may contribute to the achievement of the UN's sustainable development goals 8 and 14 through decent work for all, in a productive and

integrated way to society and, by sustaining and using oceans and seas as well as maritime resources.

Our research makes three contributions. The first one to characterize the Specialized Professional Fisherman course (PEP), by means of the survey of the perceptions of the actors, involving managers of the fishing sector in the region of Itajaí (SC), the Brazilian Marine and Professional Maritime Teaching and Certification directly linked to training. The second is to highlight the fishing sector in the quest for full integration into society with the development of jobs and benchmarking of fishers' incomes in formal and legal jobs through qualification and specialization courses, and the third to highlight what public policies need be formed for the valorization of the fisherman and the chain of the Brazilian fishing sector (REDE NACIONAL DE RÁDIO, 2019, 2019a, 2019b).

We suggest that research related to safe-fishing of artisanal fishermen; to the colonies of fishermen; the artisanal fishing (COSTA & ASMUS, 2018; ACAUAN et al., 2018) and industrial fishing; the catch of the mullet; the Safra financing line; control of fishing fleets; the Brazilian fishery statistics; outsourcing of public fishing terminals; species of fauna that are in extinction; the technical committees of discussion on the fishing resources in the Brazilian states where the community is impacted; aquaculture tanks and their legislation; the consumption of fish in Brazil and in the world; Brazilian fish exports and their markets; and the fishery and aquaculture financing lines of the Safra Plan must be evidenced, researched and investigated in the academic literature, since they deal with the goals of the Aquaculture and Fisheries Secretariat (SAP) linked to the Ministry of Agriculture, Livestock and Supply (MAPA).

#### **ACKNOWLEDGEMENT**

To the Federal Institute of Santa Catarina (IFSC), campus Itajaí (SC) and its servers, for the data availability and partnership in this work.

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