

The Ambiguity of Hygiene and Taste-Focusing on the Fish-Farming Industry in Vietnam

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Abstract

The terms 'cultured fish' and 'wild fish' have emerged recently as a reflection of socio-economic circumstances, but only some papers in Vietnam have researched them. This paper examines the human-nature relationship articulated in the distinction between cultured fish and wild fish in rural Vietnam. Nature has been socially constructed and considered in different ways according to its relationship with the social arena. In wild fish, the appraisal standard is taste, the state of being pollution-free and ingredients beneficial to the human body are emphasized. Nature that does not relate to human intervention is perceived as good. If humans intervene in nature, the nature is polluted and becomes useless to humans. The view that nature possesses independent productivity and is a subject of awe, a self-contained being, and an autonomous entity, appears in the consumption of wild fish. But in industrial fish-farming, elements such as export, productivity, and economic gains are taken very seriously, and hygiene and nutrition of fish are emphasized. Wild nature is considered unsanitary, dirty, wild, and dangerous. It is through control by humans that the feral state of nature is minimized and nature becomes sanitary, vitalized, and useful to human beings. In industrial fish-farming, under the guise of scientific control, people get rid of the dangerousness of nature directly. Meanwhile, nature in the consumption of wild fish and in industrial fish-farming is a product of the human spirit and an abstract concept that does not include concrete attributes. Wild fish is not in itself contrary to cultured fish. It is socially constructed and reflects a view of nature.

Keywords: Nature; Cultured fish; Wild fish; Clean fish; Delicious fish; Fish-farming, Vietnam

Introduction²

Humankind has always existed in the natural environment. But the ways in which humans relate with it vary significantly in conjunction with cultural and historical contexts. In the pre-industrial society, humans had a reciprocal relationship with nature. However, in the modern industrial society, nature has become the object of control and extraction. This trend is also apparent in modern aquaculture. It has been developing for the mass consumer market, where farmers have been controlling nature to increase productivity. They use artificially hatched fry, industrially produced feed to increase productivity, chemicals to sterilize, and antibiotics to cure fish diseases.

While the advancement of aquaculture brings about a huge increase in productivity, the use of industrially produced feed, chemicals and antibiotics increases rapidly. The misuse of chemicals and antibiotics threatens food safety and brings about environmental pollution. It forms a negative conception regarding cultured fish. And since cultured fish has flooded the market, the term 'wild fish' has emerged to distinguish fish caught in rivers from cultured fish. Since the negative conception of chemicals and antibiotics is spreading, wild fish have become popular as 'healthy food' which guarantees food safety and does not include artificial elements. Since 10 years ago, the production of cultured fish has increased and wild fish have become popular in Vietnam.

The terms 'cultured fish' and 'wild fish' have emerged recently as a reflection of socio-economic circumstances, but only some papers in Vietnam have researched them. There are studies about the skill of fish-farming [1,2], the environmental pollution resulting from fish-farming

[3], and the effect of social capital on farmer's economic activity [4] in Vietnam. But these studies have not examined how nature is considered, controlled, and constructed in fish-farming. This paper examines the human-nature relationship articulated in the distinction between cultured fish and wild fish in rural Vietnam.

Generally, nature is comprised of elements such as mountains, water, sky, animals, and plants. But views of nature and the relationship between nature and culture vary according to societies [5]. The relationship between nature and culture largely assume two forms. One is dualism, and the other is monism. While advocates of dualism stress objectification, conscious choices, and decontextualization, a monist epistemology would emphasize embeddedness, self-regulation, and local autonomy [6]

The nature-culture dichotomy appeared in modern Western society. In medieval Europe, there was no radical separation of nature and culture. However, in the Renaissance period, the entirety of western attitude towards the environment, knowledge, and learning was transformed [7,8]. Enlightenment thought proclaimed the triumph of human reason over nature [9], and culture as the domain of humans separated from nature as the domain of nonhumans.

Since the triumph of culture over nature, or 'environmental orientalism' as Palsson describes [7], nature has been considered as being separate from the human world, and has consequently become the

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subject of control and extraction [10,11] It implies that the relationship between humans and nature is not reciprocal but unilateral. The control of humans toward nature in modern industry has been achieved through methods that apply the logics of science and mathematics to nature. However, modern science is not objective and value-free, but a set of practices that are characterized by negotiation, uncertainty, and contingency [10,12].

Meanwhile, many anthropologists found that the nature-culture dichotomy is not a cross-cultural universality but a culturally specific idea prominent in modern industrial societies [6,13]. It destabilizes classic enlightenment dualisms of nature-society and culture-environment [14].

Contrary to modern Western thought, nature is not actually separated from culture, but rather becomes part of the social world [13], interacts with culture, and is constructed by culture [15]. Humans in modern society interact with nature and have made new environments. As Latour [12] describes this as a 'hybrid': now, the environment is a product of the interaction between humans and nature, and it is partly natural and partly social [16].

However, people from all periods of time have had a dual conception towards nature itself. Namely, humans, on one hand, consider nature as a subject of exploitation and control because of its hazards, while on the other hand, as a subject of awe and as a self-contained being that possesses independently high productivity. The former appears in economic activities such as farming, and the latter appears in religious activities. Humans have appraised nature in two ways in religious activities, regardless of human intervention in nature. Firstly, nature is described in a positive light. Namely, humans consider nature as a merciful being that is of great help to them. Secondly, nature is described as a fearful being in a negative light. In the case of the former, humans thank nature through religious activities such as harvest festivals. In the case of the latter, humans pray to nature or to god to overcome the terrors of nature.

The Vietnamese also recognize that nature is comprised of elements such as sky, land, and sea, and have had a dual approach towards nature. Namely, they consider nature, on one hand, to be a subject for control due to it being dangerous. On the other hand, nature is considered a self-contained being. The former can be seen in fish farming and ceremonies, and the latter appears in rituals and trends where wild fish are preferred.

The Vietnamese consider wild nature to be dangerous [17], and ceremonies are performed to protect them from the dangers of nature. The manner that controls the fears of nature also apparently appears in industrial fish-farming methods and in modern thoughts on sanitation. Fish-farmers consider nature to be dangerous. Therefore, they have to remove the parts of nature that are destructive, and control it to make nature useful to humans through the use of scientific techniques.

However, the view that nature possesses independent productivity and is a subject of awe, a self-contained being, and an autonomous entity, appears in the consumption of wild fish. Because wild fish do not include artificial elements and is produced by nature, it is considered as pure and good.

Taxonomy of Fish and Fish-farming

Vietnam has a long coastline and major rivers such as the Mekong River, and aquaculture has developed in these locations. In the 2000s, the yield of aquaculture rapidly increased, and has exceeded the production of capture fisheries since 2007.

	Wild fish	Cultured fish
Type of fish	Fish in the river (cá ở sông).	Industrially cultured fish (cá nuôi công nghiệp)
	Fish in the field (cá đồng).	
	Naturally cultured fish (cá nuôi thiên nhiên).	
Criteria of classification	Use of industrially produced feed	
	Use of chemicals and antibiotics	

Table 1: Popular classification of wild fish and cultured fish.

Because the yield of aquaculture has increased, the term 'cultured fish (cá nuôi)' is now being used daily in Vietnam. Cultured fish literally refers to fish that are born and raised not in nature but in artificial facilities. But, in the context of the Vietnamese fish-farming industry, some cultured fish are classified as wild fish (cá thiên nhiên) based on how they are cultured. Vietnamese farmers do not refer to all fish that have been artificially farmed as cultured fish, and they call fish that have been farmed by using artificially produced fry and domestically produced feed as wild fish instead of cultured fish³ (Table 1).

As seen in Table 1, the term wild fish is used in a broader sense than its literal definition in everyday life. The Vietnamese broadly distinguish wild fish from cultured fish. Wild fish include fish in rivers, fish in swamps, and naturally cultured fish. Fish in rivers are literally wild fish. Naturally cultured fish refers to fish that are cultured through the natural fish-farming method. Natural fish-farming denotes a method of fish-farming that does not use feed, but fry. This also includes fish-farming that does not use industrially produced feed but domestically produced feed from Vietnam. Semi-industrial fish-farming refers to the fish-farming method which uses fry and domestically produced feed or partially industrially produced feed.

The categorical counterpart of wild fish is cultured fish. Cultured fish refers to fish that are cultured through the industrial fish-farming method (nuôi công nghiệp). According to many fish farmers, there are two criteria that distinguish wild fish from cultured fish: 1) use of industrially produced feed, 2) use of chemicals and antibiotics. Industrial fish-farming denotes a method of fish-farming that uses artificially hatched fry, industrially produced feed to increase productivity, chemicals to sterilize, and antibiotics to cure fish diseases.

Constitutive Elements of Industrial Fish-Farming

Industrial fish-farming is a method that increases productivity, and is a production system that has developed for the mass consumer market. In industrial fish-farming, farmers must use industrially produced feed, chemicals, antibiotics, and microorganic materials to accelerate growth and prevent diseases. Farmers define chemicals, antibiotics, and microorganic materials in the following manner in the Vietnam; antibiotics are substances used to directly cure fish diseases, microorganic materials are those that are used to improve the quality of water and soil and to prevent fish diseases, and chemicals are substances used to kill germs and viruses and improve the quality of water.

The frequency of using antibiotics, microorganic materials, and chemicals varies according to the circumstances of the farm and the type of fish being farmed. For example, when farmers raise fish in rivers, they scarcely use microorganic materials and chemicals, but use industrially produced feed and antibiotics. When farmers raise cat fish in ponds for export, they must use industrially produced feed, chemicals, antibiotics, and microorganic materials. Generally, river water contains viruses, germs, mold, and aquatic animals which cause

³Most fish-farmers do not use banned antibiotics in Vietnam

fish diseases. Before farmers can put their fry in ponds, they have to kill the aforementioned elements.

The reason for using industrially produced feed and chemicals is to prevent disease, increase yield, and for export. If farmers do not use these items, fish easily fall ill and grow slowly, and the yield falls. Additionally, use of chemicals proves that fish-farming is conducted in sanitary conditions, and the use of industrially produced feed guarantees the quality of fish. The use of these items is a condition for export. To export catfish, farmers must adhere to the Food Hygiene Act that importing countries demand from them.

Until the 1990s, many farmers used domestically produced feed in Vietnam, and until 2008, some farmers used domestically produced feed and some used industrially produced feed. After that, most farmers have used industrially produced feed. Until the 2008, catfish which were raised on domestically produced feed were exported, but recently, the conditions of export became more sophisticated. For example, seafood export companies that wish to export catfish must have GAP (good aquaculture practices). It requires farmers to use feed which has a certificate of origin and can be vouched for with respect to quality, and not to use unprocessed feed.

The use of feed that is verified by scientific techniques guarantees the nutrition and quality of catfish, and the use of chemical substances proves that water in ponds is sanitary. Therefore, many farmers consider chemicals and microorganic materials to be positive elements, while antibiotics are considered negative.

Clean Fish (Cá Sạch) and 'Delicious Fish'⁴

The valuation of taste and nutrition of fish differs according to society. The Vietnamese consider big fish with tight meat to be delicious fish. Meanwhile, a delicious fish does not necessarily have to be highly nutritional. The emphasis on taste or nutrition varies according to social arenas. In the case of Vietnam, while taste is emphasized in everyday life, nutrition and food safety is emphasized in terms of export.

Farmers raise fish not to eat but to sell, and cultured fish is exported or consumed in the domestic market in Vietnam. Wherever they are sold, the sales of fish must obey food safety standards. Needless to say, the Vietnamese government as well as seafood export companies and farmers also hold concerns regarding the food safety standards of exported fish. If prohibited antibiotics are detected, the fish cannot be exported. This leads to farmers and seafood export companies suffering heavy losses.

Currently, many countries and certification agencies such as the Global GAP reinforce a check on antibiotics, chemicals, and industrially produced feed that threaten the health of consumers. One farmer (male, 47 years old) says that "to export to the EU, one must satisfy five kinds of standards. This includes the state of meat and fat, inclusion of prohibited antibiotics, weight, and quantity of water in the meat. Among the above, the prohibited antibiotics are the most important problems. The standards change according to the preference of Europeans. Right now they prefer small fish, and seafood export companies buy 750 grams of fish for processing." When seafood export companies buy catfish, they examine prohibited antibiotics, weight and color of meat, and quantity of water in the meat.

Many countries of the world enact the Food Sanitation Act, and intensify quality checks on fish to care for the health of its citizens. It requires the standardized process and scientific management in the process of fish-farming. In industrial fish-farming, the standardized

⁴This refers to taste

process involves the use of quarantined fry, chemical substances to control water quality by getting rid of unsanitary conditions, and industrially produced feed to guarantee the quality of fish meat. Now, among food safety standards that each country requires, prohibited antibiotics are the most important problem.

Since the 2000s, farmers have used licensed feed and chemicals in Vietnam. As environmental pollution is getting more serious, the use of antibiotics and chemicals increases and the problem of chemical abuse arises. Therefore, the Vietnamese government, farmers, and seafood export companies are becoming more interested in new methods of fish-farming that promote export and do not cause environmental pollution. This trend is articulated through the prevalence of the modifier 'clean' when classifying fish. The term 'clean fish' appeared in the early 2000s and was popular throughout the first half of said decade. For many farmers, clean fish refers to cultured fish raised by using industrially produced feed and chemical substances, but without banned antibiotics. For the Vietnamese government and seafood export companies, clean fish indicates cultured fish were raised strictly following the global standard such as the Global GAP [18]. The global standard requires wastewater treatment and water supply facilities to protect the natural environment and to practice sustainable farming. Since the 2000s, the National Fisheries Quality Assurance and Veterinary Directorate in Vietnam and the US Food and Drug Administration have promoted GAP [19], and many farmers have had some knowledge of GAP.

Since the early 2000s, many people have discussed clean fish in Vietnam. There are three reasons, which are as follows. First, clean fish support the maintenance of the export market and open up new markets. Catfish in Vietnam have been exported to the USA, Canada, and Europe. However, by the end of 2004 and early 2005, malachite green was detected from catfish. This hindered the export of catfish and, farmers and seafood export companies were therefore heavily hit. The Vietnamese government and seafood export companies encouraged farmers to culture clean fish to solve this problem.

Secondly, clean fish has much to do with sustainable farming and prevention of diseases. Recently, situations where fish fall ill and die occur frequently. Some farmers abuse antibiotics to cure diseases, which brings about negative influences on the human body and the environment. To prevent environmental pollution and to carry out sustainable cultivation, farmers must culture fish according to the right rules and processes. Clean fish is cultured by this method.

Thirdly, clean fish supports the generation of profit. As concern regarding food safety increase worldwide, the demand for clean fish also increases. They are then sold at high prices.

The production of clean fish is one strategy that has survived in the world market through product differentiation. Farmers and seafood export companies have learned and internalized the global standard for export of clean fish. They are cultured according to the global standard and are sanitary from a medical standpoint, but they are not included within the category of delicious fish. The concept of hygiene that appears in industrial fish-farming does not correspond to the fish's deliciousness. Sanitary fish and delicious fish both have different standards. One citizen (male, 39 years old) says that "wild fish caught in the river are more delicious than cultured fish. But cultured fish are clean, because cultured fish are raised in water that is treated by chemicals. There are parasites in the river".

The criteria that determines the taste of fish meat varies cross-culturally. According to Vietnamese perspectives, the deliciousness of fish decreases in conjunction with the degree of artificiality. Vietnamese

Variables	Natural feed	Domestically produced feed	Industrially produced feed
Export	Difficult	Difficult	Possible
Examination of quality of feed	Not examined	Not examined	Examined
Food security	Unsafe	Unsafe	Safe
Effect on the human body	Good	Good	Not Good
Effect on the growth of fish	Not good	Not good	Good
Productivity	Low	Low	High
Taste of fish	Delicious	Delicious	Not delicious

Table 2: Estimation of feed.

Variables	Wild fish	Naturally cultured fish	Industrially cultured fish
Use of fry	X	✓	✓
Use of industrially produced feed	X	X	✓
Use of chemicals and antibiotics	X	A little	✓
Productivity	Low	Low	High
Standards of nutrition	Effect on the human body		Growth of fish
Standards of hygiene	Free from chemicals and antibiotics		Free from bacteria and germs
Possibility of clean fish	X	X	✓
Examination of water	X	X	✓
Examination of fish quality	X	X	✓
Export	X	X	✓
Natural productivity	✓	✓	X

Table 3: Characteristics of wild fish and cultured fish.

consider wild fish to be delicious but cultured fish is not.

Since the early 1990s, because industrial fish-farming has developed and many people have been concerned about health [20], the term 'wild fish' has become popular in Vietnam. People have recently begun to prefer wild fish because cultured fish become dominant on their dining tables. Until the 1980s, fish-farming was not developed in the Mekong River [1]. Because there were a lot of fish in the river, people had no reason to conduct industrial fish-farming. Until industrial fish-farming developed, every species of fish were wild fish and the term wild fish did not exist in Vietnam. As the yield of cultured fish increased, the term 'wild fish' appeared to distinguish them from cultured fish.

Now, the wildness of fish has become meaningful to people's notions. There are two reasons that people prefer wild fish in Vietnam. Firstly, wild fish grow slower and their meat is firmer than that of cultured fish. The Vietnamese consider firm meat to be delicious. It relates to how fish develop. If fish grow fast, their meat is tender. If fish grow slowly, their meat is firm. The growth process of fish relates to the type of feed. Fish that eat industrially produced feed grow fast, and their meat is tender; therefore, they are not delicious (Table 2).

Farmers use industrially produced feed to culture fish, which spurs negative conceptions regarding cultured fish. Generally, it is considered that industrially produced feed is nutritious for fish and hastens the growth of fish, but is not good for the human body. In comparison, there are no ingredients which hasten the growth of fish in domestically produced feed. Many people consider the latter to be more beneficial to the human body than industrially produced feed.

Although many people do not know the concrete ingredients in

feed, they consider the artificial hastening of growth to be unnatural and has negative effects on the human body. Taste is closely connected with human intervention in the growth of fish. The pursuit for wild fish casts some doubt on the modern production system.

Secondly, wild fish is not polluted by chemical substances. In industrial fish-farming, farmers use chemicals, antibiotics, and industrially produced feed. Therefore, many people consider cultured fish to be polluted by chemical substances and unclean. Nutritional sciences clearly show that chemicals and antibiotics have negative influences on the human body, and many people have come to perceive this in Vietnam. Consequently, people consider wild fish, which is not polluted by chemical substances, as the best option. Fears of modern agricultural technology and chemical residues on food must be interpreted in a wider social context, where new social and moral values are challenging the unrestricted exploitation of the natural environment [21].

However, as soon as antibiotics and chemicals were introduced to Vietnamese society, people preferred them for a certain while. One expert (male, 27-years-old) says that "when scientific techniques had not been developed, people did not know whether antibiotics were good or not and did not fear them. After they were developed, the government knew that antibiotics had a harmful influence and prohibited people from producing and using antibiotics. Subsequently, farmers stopped using them. But people still believe that farmers are using antibiotics, so they prefer wild fish." Since the mid-2000s, as scientific techniques started advancing and the level of popular consciousness grew, the recognition that antibiotics and chemicals are harmful has rapidly been spreading in Vietnam.

The criteria for the distinction between wild fish and cultured fish are the use of chemical substances and industrially produced feed. The things associated with artificiality are taken to be impure in wild fish. However, wild fish does not have quality that is fit for export. To export fish, the fish must be tested for quality and satisfy conditions that the importing country demands.

Ambiguity of Nature

While the physical elements of nature are composed of trees, forests, and animals [22], the concept and category of nature is socioculturally constructed [23]. The ways that people view nature differ according to social domains; therefore, there are several types of nature within a society. For example, delicious fish in the sphere of consumption and clean fish in industrial fish-farming have respectively different characteristics and indicate different views of nature in Vietnam. Wild fish and cultured fish respectively have characteristics as shown in the following table (Table 3).

As can be seen from Table 3, the method of production became industrialized, dependence on nature has decreased. For example, natural fish-farming is strongly affected by the natural environment but industrial fish farming is not, because the latter controls the conditions of the natural environment through scientific techniques. To industrially culture fish for export, fish-farmers use artificially produced fry and industrially produced feed, analyze water, repair the quality of water by using chemicals, and treat diseases by using antibiotics. They also guarantee food safety through examination of fish quality to secure export conditions.

Contrary to cultured fish, wild fish does not involve any artificial intervention. And fish-farmers, in terms of natural fish-farming, use fry but rarely use industrially produced feed, chemicals, or antibiotics.

Wild fish and naturally cultured fish do not undergo an examination for quality and are mainly sold in the domestic market.

The method for dealing with nature in the case of wild fish (= delicious fish) is different from those for industrially cultured fish (= clean fish). In the modern production system such as industrial fish-farming, nature appears to be an objective reality separated from society (Hviding 1996), and becomes the object for control. Namely, nature is fragmented into different components, and is transformed by humans. Nature is separated into water, soil, shellfish, and fish. And the water used in industrial fish-farming is also analyzed with respect to specific criteria such as water temperature, salinity, ph degree, bacteria, microorganisms, and germs, and controlled to be suitable for farming. Fish-farmers get rid of bacteria and germs with chlorine and sanitize it [2].

The method of control for nature is scientific and also technical [16]. The perspective that defines nature in industrial fish-farming is identical with those of physics that define nature. Science does not deal with naturally occurring phenomena, but produces its own facts and evidences through the mediation of highly complex technical apparatuses and mathematical models [6]. And in this process, nature is quantified and decontextualized, and its sociality is ignored.

Discussion

In industrial fish-farming, hygiene is determined by medical standards and refers to a condition that is free from bacteria, germs, and banned antibiotics. The development of hygienics, has led to nature being analyzed and considered as unsanitary⁵. And in industrial fish-farming, nature such as water is 'nature for production' and is artificially controlled to promote productivity. In this process, the productivity of nature itself is depleted through human interference such as chemical treatment, and is then restored through human interference such as feeding as well (Table 4).

Industrial fish-farming is carried out in a clearly defined location, and the inner space of the farming is separated from the outer space to exclude exterior influences. It involves a systematic control of nature. For instance, farmers turn unsanitary conditions of wild water into sanitary conditions with chemicals: this is a 'denaturalization' process. The water itself in industrial fish-farming is considered to 'essentially'

State of Water	Wild water	Repaired water with chemicals	Water including artificial feed
State of Hygiene	Unsanitary	Sanitary	Sanitary
Productivity	Productive	Unproductive	Artificially made productive capacity

Table 4: The change in the state of water and characteristics in industrial fish-farming.

	Industrially cultured fish	Wild fish
Nature closely related to society	Hygienic, artificial environment	Polluted by chemicals and antibiotics
Nature detached from society	Unsanitary, dirty, wild, and dangerous	Clean, pure, great vitality, and beneficial to the human body
Meanings of nature	thing for production, subject of control	Self-contained being, productive
Conception of nature	Negative, dangerous being	Positive, useful being

Table 5: The distance between society and nature, and the characteristics of nature.

⁵Currently, sanitation is emphasized not only in public spaces, but also in daily life

be polluted and unsanitary. This tendency is presented through the fact that fish-farmers must treat water with chemicals regardless of the degree of water pollution.

The water in industrial fish-farming is co-created by humans and nature to be free from unsanitary elements. However, in this process, the water has lost its natural productive capacity and has become 'castrated water'. It does not have nutritional substances that an organism needs to sustain life. Because the water is sanitized by chemicals, it does not have any organic materials. The castrated water is hygienic but must be supplemented with plenty of nutritional substances in artificial ways.

In industrial fish-farming, nature such as water is dangerous due to their unsanitary state. However, it is also useful because it becomes a base of production through human control. Nature in industrial fish-farming is not a wild element but a 'social environment' that is made by interactions between nature and humans. The nature is partly natural and partly artificial.

Contrary to industrial fish-farming, nature in terms of wild fish is not the subject of analysis and control, and is not dismantled. Nature is 'productive and also the subject of production', because wild fish is made not by humans but by nature. The nature in wild fish is considered as a state which does not comprise artificialness and is unpolluted, and considered beneficial to the human body. The 'purity' in wild fish relates to pollution-free characteristics which are not contaminated by chemicals and antibiotics. The viewpoint that wild fish is free from artificiality assumes that nature is separated from the human world. The nature in wild fish, such as in industrial fish-farming, is objectified and separated from the human world.

The nature in delicious fish such as wild fish is 'the idealized abstract nature', and is a product that is constructed by society and culture. The present state in which people emphasize wild fish and the purity of nature is a 'socio-historical construction' where a negative conception has been projected onto cultured fish. The viewpoint that wild fish is delicious does not reflect the concrete state of the river. Namely, people consider wild fish to be delicious and healthy regardless of the concrete state of the river water and the scientific estimation regarding the natural environment.

Currently, the Vietnamese have dual conceptions with respect to nature. In the case of industrially cultured fish, nature is considered unhygienic, but in the case of wild fish, it is considered pure and delicious. The dual conceptions pertaining to nature have been created through the introduction of industrial fish-farming and global standards of hygiene. As global standards are introduced, new concepts about hygiene are introduced and the ways that nature is viewed change.

However, whereas the view of nature appearing in industrial fish-farming differs from that in wild fish, the view of nature appearing in both is socialized nature which is separated from society. In the former, people artificially separate nature and in the latter, nature itself is considered to be separate from society. To see nature from the orientalist viewpoint or paternalistic viewpoint is wrong. The recognition of the rights of nature divorces it from the perception that considers nature as an object of extraction [24].

Conclusion

Since the increase in productivity of cultured fish, the preference for wild fish appeared in Vietnam. The relationships between humans and nature and the views of nature in industrial fish-farming have different traits which appeared in the preference for wild fish, as can be

seen in the following te. Both views of nature are a product of human consciousness as a social structure and have a socioeconomic context (Table 5).

In wild fish, the appraisal standard is taste and the state of being pollution-free, and ingredients useful to human body are emphasized. Nature that does not relate to human intervention is considered good. If humans intervene in nature, nature is polluted and becomes useless to humans. The view that the pureness of nature is polluted by human intervention has a similar aspect which appears in the relationship between the divine and secular in ceremonies. The realm of the deity is sacred and removed from human society. Humans become beings that cause pollution, and nature is harmonious and complete in itself with respect to wild fish and ceremonies.

Meanwhile, in industrial fish-farming, export, productivity, and economic gains are taken very seriously, and hygiene and nutrition of fish are emphasized. Wild nature is considered as unsanitary, dirty, wild, and dangerous. It is through control by humans that the feral state of nature is minimized and nature becomes sanitary, vitalized, and useful to human beings. Such as in industrial fish-farming, the view that considers nature as dangerous and an object of fear also appears in ceremonies. Ceremonies are one of the methods that control nature and get rid of the dangerousness of nature [5]. In ceremonies, nature is an object of fear that is controlled by a divinity.

Although the view of nature in industrial fish-farming is similar to that which appears in rituals, the mobilized techniques and discourse for both differ. In industrial fish-farming, under the guise of scientific control, people get rid of the dangerousness of nature directly. In rituals, nature is indirectly controlled by godsend.

As seen in industrial fish-farming and wild fish, people in modern society, or the pre-industrial society, have a double standard for nature. Namely, people consider nature as an ambiguity: a merciful being on the one hand, while also a fearful being on the other. However, the methods that deal with nature change. The process of production relates to religious activities in the pre-industrial society to protect against damages and assure a yield. It is generally considered that the process of production is separate from religious activities in modern industrial society. However, though the fear of nature is controlled through science and technology in the modern industrial society, controlling the fear of nature through religious activities still exists.⁶

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⁶Specially, controlling a fear of nature through religious activities usually appears in production which depends on the productivity of nature