

**TOWARDS *HALALAN TOYYIBA* IMPLEMENTATION IN MALAYSIA:  
THE APPLICATION OF *AL-JALLALAH*, *ISTIHALAH* AND *ISTIBRAK*  
CONCEPT IN CURRENT ISSUES CONCERNING WATER-BASED  
HALAL JURISDICTION IN MALAYSIA**

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**Abstract**

Halalan Toyyiba is a principle originally introduced in Islam to ensure that all points of the production process are clean and free of contamination. The Islamic faith places food in very high regard, whatever comes into our stomachs will be accounted for in the afterlife. This principle of Halalan Toyyiba expands into other food-related aspects such as water-based products including agriculture, aquaculture as well as modern-based applications including medicine, pharmaceuticals and farming that deal mainly with water. Hence, it is crucial to examine and develop a sharia-compliant framework for water usage, specifically Halalan Toyyiba, to cater to the needs of the Malaysian community, particularly the majority Muslim population here. This framework aligns neatly with Malaysia's imminent National Halal Policy 2025-2035. This study aims to introduce and finally integrate the concepts of al-Jallalah, Istihalah, and Istibrak towards the implementation of the Halalan Toyyiba principle in water usage in Malaysia. This paper utilises qualitative approaches. The paper's aims will be addressed by analysing and summarising fatwa-based resources, scholarly papers, and journals in a descriptive manner, all based on current issues and problems related to water. The findings indicate that without a solid framework incorporating the concepts of al-Jallalah, Istihalah, and Istibrak and all aspects of water-based application, the implementation of Halalan Toyyiba in domestic and industrial water-related usage in Malaysia is far from complete. Hence, it is imperative that this policy framework be implemented urgently in Malaysia.

**Kata Kunci:** Halalan Toyyiba; Water; al-Jallalah; Istihalah; Istibrak

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## INTRODUCTION

*Halalan Toyyiba* is a cornerstone of Islamic jurisprudence that combines the *Halal* (permissibility) and *Toyyib* (wholesomeness) aspects respectively. The implementation of *Halal Toyyiba* principle extends beyond food products, it is also applicable in other range of activities such as agriculture, aquaculture, pharmaceuticals as well as medicine and cosmetics. Water-based products for instance, is used regularly in our daily activities. As Muslims, we consume agriculture and aquaculture products, apply cosmetics and medicine such as cream and lotion to our skin, and use water for the process of purification or *taharah*. All this demands the scrutiny of water-based products and their compliance with *Halalan Toyyiba* standards is imperative.

Flipping through newspapers and current issue articles concerning water-related products or activities, we could find plenty of reports regarding problems arising from the confusion of Halal status among the public at large. The concepts of *al-Jallalah*, *Istihalah*, and *Istibrak* are still alien to the majority of Muslims in Malaysia, hence the need for the introduction and explanation of these terms. In this study, it was done through the presentation of problems related to water and how the three concepts were applied to address the issues. The end objective was to familiarize and finally integrate these crucial concepts into the development of the *Halalan Toyyiba* framework regarding water usage principles in Malaysia.

## METHOD

This is a qualitative study, a literature review based on content analysis. The study uses a descriptive method, where current issues relating to water usage or water application are scrutinized to present the problems in an intelligible way for further understanding and interpretation. Three major water-related issues were finally selected and discussed. A literature review and analysis of data collection were initiated based on these issues. This library technique entails gathering any data that can be used to assist this research, including books, papers, journals, fatwas, acts, official paperwork, and standard operating procedures from statutory authorities, especially JAKIM. The study focuses on the importance of incorporating the concepts of *al-Jallalah*, *Istihalah*, and *Istibrak* into the *Halalan Toyyiba* principle in terms of current water-related challenges. The ideas of *al-Jallalah*, *Istihalah*, and *Istibrak* are presented and expanded upon to demonstrate how they might be applied in instances involving current difficulties of water usage in accordance with the *Halalan Toyyiba* principle.

## DISCUSSION

### Pangasius or Catfish Fed with Pork-Related Food

As early as 1999, allegations arose that some catfish farmers in Malaysia were feeding their farmed fish with pork-based feed. However, these claims could not be confirmed as the issue was merely circulated through word of mouth at that time.

Starting in 2006, these allegations resurfaced and began to gain attention in the mass media. Harian Metro, a daily newspaper in Malaysia, in its report on January 17, 2006, claimed that several freshwater fish farmers in former mining areas around Batu Gajah, Tronoh, and Papan in the state of Perak were intentionally feeding their farmed freshwater fish with pork-based feed (Manan & Mazlan, 2006). The farmed fish species involved included catfish, tilapia, and pangasius (*Pangasius hypophthalmus*).

The same report from the online newspaper Malaysiakini also stated that the proprietors allegedly instructed Indonesian employees at the implicated fishponds to boil pork meat for use as fish feed (“Awat! Ikan Patin, Tilapia, Keli Afrika Diberi Makan Daging Babi”, 2006). The boiled pork meat was believed to accelerate the fish growth process from six months to only three months, resulting in cost savings for the owners. Pork’s meat was also easily obtained because there were many wild boars in the nearby forest area or sold by certain parties at a low price.

In 2014, allegations regarding the discovery of pig bones in an abandoned catfish farm in Perak spread through print and mass media (Mstar, 2014a). While previous claims only mentioned the feeding of pig intestines to the farmed fish, this discovery proved that the entire carcass of pigs was being used as a food source for the fish. The Department of Fisheries confirmed through DNA testing that the bones were indeed from pigs, as stated by its Director-General, Datuk Ahamad Sabki Mahmood (“Sampel Tulang Haiwan Kolam Ikan Patin di Perak Sah Babi,” 2014).

The Consumers Association of Penang (CAP) made similar claims in 2019 (“Hati-hati, Ada Ikan Diberi Makan Babi,” 2019) regarding the feeding of farm-raised fish in Malaysia with swine excrement. In the same report, SM Mohamed Idris, the president of CAP, revealed that in 2010, the Federal Agricultural Marketing Authority (Fama) and Universiti Sains Malaysia in a joined study found that forty percent of animal feed manufacturers in Malaysia used animal-derived ingredients. Concerns were raised regarding the potential consumption of fish-based products fed with swine excrement by Muslim consumers, as well as doubts regarding the status of such foods.

In Islam, the continuous feeding of animals with impure substances is known as *al-jallalah* (Zuhaili, 2008). In the discussions of classical scholars, *al-jallalah* was primarily focused on livestock animals (quadrupeds) rather than other types of domesticated animals (Ibn Taimiyyah, 1995). However, in contemporary times, various issues can be associated with *al-jallalah*, including the issue of catfish or pangasius farming where they are fed with pig excrement.

In summary, *al-jallalah* can be interpreted as an animal who consistently or a major part of its diet consists of consuming filthy or impure substances (Mubarakfuri, 1979). Originally, these animals are considered Halal for consumption. However, due to their unclean feeding

habits, which involve consuming impure food sources, it results in a change in the original smell, taste, and colour of their flesh (Al-Syaukani, 1994; Nazih Hammad, 2004).

*Al-jallalah* refers to Halal animals with two or four legs that are continuously raised and fed with impure or filthy (*qazirah*) substances (Zuhaili, 1986). On the other hand, if an animal consumes impurities irregularly, meaning infrequently or on an occasional basis, and it does not cause any change in the structure, smell, taste, or colour of its flesh, then it is not categorized as *al-jallalah*.

Imam Shafi'i holds the view that consuming *al-jallalah* animals is *makruh tanzih* (disliked that has no preceding or no clear foundation, but near to being legal and acceptable), and this is the overwhelming and majority view of this mazhab (Zuhaili, 2008). However, some scholars within the Shafi'i and Hanbali schools of thought consider it haram (prohibited) to consume *al-jallalah* animals if their flesh undergoes a significant change, such as developing a foul smell, due to their habitual consumption of impure substances (Nawawi, 1970).

### ***Al-Jallalah* Fatwa in Malaysia**

The state and national fatwa councils in Malaysia have discussed the status of *al-jallalah* animals, and some of these fatwas have been officially gazetted. Gazetted fatwas serve as guidelines for the implementation of Sharia law, while non-gazetted fatwas serve as general guidance for the community. These fatwas provide clarity on the permissibility or prohibition of consuming animals categorized as *al-jallalah* based on Islamic legal rulings.

The National Fatwa Council of Malaysia has determined the ruling on *al-jallalah* animals as follows:

- (1) The 73rd Meeting of the National Fatwa Committee for Islamic Religious Affairs of Malaysia, held on April 4-6, 2006, discussed the status of the purity of fish that are fed with non-Halal food. The meeting concluded that fish reared in fishponds or similar environments are considered haram (prohibited) for consumption if they are intentionally kept in impure water or intentionally fed with impurities such as pork meat, carcasses, and the like (JAKIM, 2018)

Furthermore, the Selangor Fatwa Council has also convened in 2007 and after deliberation, the Selangor Fatwa Council has determined as follows:

- (2) Farmed fish that are raised in ponds, lakes, mines, and similar environments, and are fed with impure substances such as pork and carcasses as their main source of food, are prohibited (haram) to consume.

And

- (3) Farmers are prohibited from feeding farmed fish with impure substances as their main source of food as a preventive measure to uphold the sensitivity of the Muslim community (Jabatan Mufti Negeri Selangor, 2023b)

The Federal Territory Kuala Lumpur Fatwa Council in 2007 has also determined and gazetted the following fatwa:

- (4) "Farmed fish in ponds and similar environments are prohibited (haram) to consume if they are intentionally raised in impure water or intentionally fed with impure substances such as pork, carcasses, and the like" (Bakri, 2022)

It should be noted that Kuala Lumpur Federal Territory Fatwa Council revised their decision regarding the fatwa of *al-jallalah* in 2016 from haram to *makruh tanzih* (Pejabat Mufti Wilayah Persekutuan, 2017).

Negeri Sembilan Fatwa Council also weighed in and their decision was also in similar tone, prohibiting (haram) the consumption of farmed fish that was intentionally fed with pork substances (Jabatan Mufti Negeri Sembilan, 2022). Perlis Fatwa Council meanwhile stopped short of saying that it was prohibited, if their (the fish) flesh didn't change texture, smell and colour. When the flesh changes its texture, smell and colour, it will fall into the category of haram (Maktabah, 2021). This the view held by the late Imam Nawawi (Nawawi, 1970).

## Spirulina

Spirulina, or scientifically known as *Spirulina platensis*, is a type of plant from the group of algae that was originally cultivated in saltwater oceans and used as a dietary supplement for humans (Jung et al., 2019). Due to its high nutritional value, spirulina has been cultivated on a large scale in human-managed ponds in selected sunny countries around the world (Karkos et al., 2011). The plant is sown and allowed to grow for 30 days in the pond (Jamaludin, 2009).

Further studies have found that spirulina grows more robustly and gains more beneficial properties when cultivated in ponds flooded with pig manure. Spirulina is also claimed to have the ability to filter pig manure residues if grown in areas where pig waste accumulates, acting as a filter for pig waste while utilizing the beneficial properties of the pig manure for its own growth (Cheunbarn & Peerapornpisal, 2010; Mezzomo et al., 2010).

Subsequently, this spirulina is fed back to pigs to accelerate the growth of pig farming. At the same time, spirulina that grows in pig waste reservoirs has been proven to be a nutritious food source for other livestock such as cattle (Chaiklahan et al., 2010). Cattle fed with spirulina have been found to grow well and produce high-quality meat (Holman & Malau-Aduli, 2013).

Spirulina is also consumed by humans as a dietary supplement (Soni et al., 2017). Studies have found that spirulina grown in pig waste reservoirs provides higher nutrients and benefits to humans (Cañizares-Villanueva et al., 1995). With low cost of production, coupled with high demand from consumers, spirulina from pig waste reservoirs can be generate a sizeable income for the producers. This method was originally practiced in Thailand but has been adopted in other Asian countries such as South Korea and Japan (Lim et al., 2021). It is now being implemented in Malaysia, where a spirulina flagship project in pig waste management has been initiated in Juru, Pulau Pinang (*Implementing Penang's SWM Policy*, 2012).

- (5) Essentially, vegetables that are sown and fertilized with fertilizer derived from impure animal waste are not considered *makruh* (disliked) to consume, rather they are considered Halal (permissible), unless the vegetables undergo a change (in smell, taste, or colour) that indicates the presence of impurities. This ruling is based on the decision of the National Fatwa Committee of the Islamic Religious Affairs Council, which allows the use of fertilizer derived from animal waste such as goats, cows, chickens, and even pigs, and deems the fruits produced from plants fertilized with such waste as Halal and pure (Jabatan Mufti Negeri Selangor, 2023a).

This fatwa is grounded on the fundamental principle that every fruit is to be deemed permissible for consumption. The fertilizer employed during the plant's growth and fruit-bearing stages, notwithstanding its composition of prohibited elements, serves solely as a decomposition agent within the soil. Prior to being absorbed and utilized by the plant in fruit production, the forbidden constituents of said fertilizer undergo a comprehensive breakdown, transforming entirely into other elements.

This concept is referred to as *istihalah*, which holds significant importance in Islam when determining the Halal (permissible) or haram (forbidden) status of food, beverages, or goods. *Istihalah* denotes the complete transformation of impure or prohibited substances into entirely different forms, substances, and properties through decomposition or a process of alteration. This transformation entails the conversion of matter, substance, or physical attributes into alternative materials, with no possibility of reverting back to their original state (Nazih Hammad, 2004).

For plants that thrive on land, the concept of *istihalah* is applicable, as the fertilizer derived from pig waste will decompose and be absorbed by the roots as nutrients for the plants. The result of this decomposition process is generally considered free from the impure elements, as they have been completely broken down. However, the concept of *istihalah* is deemed not to be suitable for application towards aquatic plants or plants that live exclusively in water for the length of its lifespan, such as spirulina.

Plants that are submerged or reliant on impure sources, such as pig waste, for their sustenance and growth can be classified as *al-jallalah* plants, akin to how certain animals are categorized as *al-jallalah* animals. The categorization of plants as *al-jallalah* stems from the *'illah*, or the underlying reason for prohibition, which is linked to the continuous consumption and intake of unclean and filthy substances, as exemplified by spirulina. Furthermore, spirulina's survival is entirely dependent on a consistent supply of non-Halal (prohibited) material (Jamaluddin, 2009).

When it causes the dietary habits of a particular entity to shift from consuming Halal sustenance to consuming impure and filthy food consistently or predominantly from non-Halal sources, then the livestock and plants involved can be classified as *al-jallalah* (Fitri & Kashim, 2018). Other aquatic plants apart from spirulina that receive continuous supply from non-Halal sources, such as through hydroponic methods, also fall within this category.

The usage of *al-jallalah* to refer to plants being continuously fed with pig waste is a new *qiyas* (analogical deduction) since early Islamic scholars only specifically discussed *al-*

*jallalah* in relation to animals. The rapid advancement of technology and contemporary developments have led to the application of qiyas to explain and discuss issues that did not arise during the early period of Islam. This is not a novel application of qiyas, as qiyas is widely used in multitude of problems nowadays that did not exist or has no preceding in the literature of Islam. The concept of *istihalah* that is implemented to the use of pig-based fertilizers for plants, is also a form of qiyas, as there is no specific discussion regarding it in the works of earlier scholars (Jamaluddin, 2009; Fitri & Kashim, 2018).

Further research and discussions are still needed to ascertain the true ruling on spirulina, as there are differing opinions regarding the appropriate conceptual framework to be applied, namely whether the ruling should be based on the concept of *istihalah* or *al-jallalah*. However, if spirulina is deemed to fall within the definition of *al-jallalah*, where it possesses a strong argument, then the ruling on consuming it would be like that of *al-jallalah* animals, which is considered *makruh* (disliked) or haram (forbidden) depending on the circumstances of consumption, as per the perspective of the Shafi'i school of thought.

### ***Istihalah* Fatwa in Malaysia**

The research conducted on the decisions of the *Muzakarah* (Conference) of the National Fatwa Committee of Malaysia shows that several fatwas related to *istihalah*-based products have been decided, most of which are related to medicine, food and beverages, as well as a few in the social and shariah categories, including.

- (6) Gelatin in Medicine
- (7) The Muzakarah (Conference) of the Fatwa Committee of the National Council for Islamic Religious Affairs Malaysia in its 8th meeting, held on September 24-25, 1984, discussed the use of gelatin in medicine. The Muzakarah decided that the use of gelatin in medicine is currently permissible due to necessity (*dharurat*). However, if there are Halal substances available that can prevent the medicine from spoiling quickly, then the use of gelatin in medicine is no longer permissible
- (8) Use of New Water (Newater)
- (9) The Muzakarah (Conference) of the Fatwa Committee of the National Council for Islamic Religious Affairs Malaysia in its 53rd meeting, held on November 27, 2002, discussed the use of New Water (Newater). The Muzakarah decided that Newater is clean and permissible to use from the perspective of Islamic law
- (10) The Ruling on the Use of Biothrax and Rotateg Vaccines That Use Pig Elements in Their Production Process
- (11) The Muzakarah (Conference) of the Fatwa Committee of the National Council for Islamic Religious Affairs Malaysia in its 81st meeting, held on March 31, 2008, discussed the ruling on the use of Biothrax and Rotateg vaccines that use pig elements in their production process. The Muzakarah decided that the use of Biothrax and Rotateg vaccines is not permitted because:
  - i) The current situation is not considered an emergency; ii) There are alternative

materials or medicines available other than the use of pig elements in the processing of both vaccines; iii) There is no strong supporting data to prove that the citizens of this country need these two vaccines (Abd Rahman, 2019)

It should be noted that Malaysia's national fatwa with regards to the *istihalah* concept is vastly different compared to the one held by the European Council for Fatwas and Research. In short, Malaysia has its own stance on the method of *istihalah* in the production of Halal products. Current practices show that the opinion of the Shafi'i school of thought is prioritized in making decisions on legal issues involving the *istihalah* method. However, in some issues, the opinions of other schools of thought are also accepted if they are in line with the maqasid shariah (objectives of Islamic law) in bringing benefits and preventing harm.

### Contaminated Shellfish

In early October 2021, several major newspapers in Malaysia disseminated reports concerning the prohibition on the consumption of shellfish sourced from the waters of Sungai Geting, Tumpat, Kelantan (Abdullah, 2021; Idris, 2021a; Idris, 2021b). This ban was implemented due to the results of chemical analysis indicating that shellfish in the area had been contaminated with neurotoxins, which were partly attributed to waste disposal from nearby factories. The banned shellfish included oysters, mussels, cockles, and clams. However, fish was exempted from the ban.

The chemical analysis in question was prompted by a change in the colour of the river water, which had turned reddish. Further observations revealed that Sungai Geting had been affected by a phenomenon known as "red algae bloom", caused by a specific species of algae called *Alexandrium minutum*, which can produce neurotoxins, in this case saxitoxin (Idris, 2021a). Clams were found to have a high absorption rate, meaning that the toxins released into the water would be absorbed in larger quantities by clams compared to fish.

The duration of contamination in the waters of Sungai Geting prior to its scientific confirmation remains unknown. It is believed that a significant number of people living in the surrounding area have, in fact, been using shellfish found in the area as a source of food, either directly or indirectly. In 2010, six people from the same area were rushed to Tumpat Hospital after consuming toxic clams contaminated with the same *Alexandrium minutum* species. One of them had reportedly died (Mstar, 2014b).

This was not the first time that shellfish poisoning had been reported in Malaysia. As early as 1976, first shellfish poisoning was detected in Sabah (Mstar, 2014b), and it happens every year since then particularly in the west coast part of Sabah. Beginning 1991, this incidence spread to the east coast of Sabah, before similar case was reported to be happening in peninsula Malaysia (Mstar, 2014b). Shellfish poisoning caused by "red algae bloom" phenomenon is a regular occurrence nowadays in almost all states in Malaysia.

Red tide algae bloom, also known as harmful algal blooms (HABs), refers to a phenomenon where certain species of microscopic algae rapidly multiply and accumulate in large numbers, leading to a discoloration of the water, often turning it reddish or brownish in colour. While not all red tides are necessarily red, the term "red tide" has become commonly used to describe these events.



These algal blooms are primarily caused by the rapid proliferation of certain species of phytoplankton, particularly dinoflagellates. The exact triggers for red tide formation can vary, but they are often associated with a combination of factors such as warm water temperatures, excess nutrients (such as nitrogen and phosphorus), calm water conditions, and abundant sunlight. These conditions create an environment that favours the rapid growth and reproduction of these algae.

While some algal species are harmless, others can produce potent toxins that are harmful to marine life and can have detrimental effects on the ecosystem. These toxins, known as phycotoxins, can be released into the water, leading to negative impacts on fish, shellfish, marine mammals, birds, and even humans. The toxins can accumulate in the tissues of shellfish and other filter-feeding organisms, making them potentially dangerous if consumed.

While red tide algae blooms are a natural occurrence, human activities can contribute to their frequency and intensity. Factors such as nutrient pollution from agricultural runoff and wastewater discharge can exacerbate the conditions that promote the growth of harmful algal blooms. Therefore, sustainable management practices and reducing nutrient inputs into coastal waters are crucial in reducing the occurrence and severity of red tide events.

### ***Al-Istibrak* Concept in Halalan Toyyiba**

As previously discussed, *Halalan Toyyiba* refers to the concept of food, beverages, or consumer products that are pure, free from dubious elements or harmful substances, nutritious, and do not cause harm. It also considers the entire process from beginning to end.

Although there are transformations that are not permissible (*istihalah*), as well as cases of *al-jallalah* which are deemed makruh (discouraged) or haram (forbidden) depending on the dietary context, Islamic knowledge encompasses several other mechanisms and terms that must be discussed to fully understand the rulings on Halal.

The term in question is *al-istibrak*. Linguistically, *al-istibrak* can be understood as the process of quarantine. Quarantine means that an original substance is isolated or kept in a specific place for a certain period for a particular purpose, such as purification (Manzur, 1999).

In this context, it refers to the quarantine of animals or plants classified as *al-jallalah*. Animals or plants with the *al-jallalah* status, which are considered haram (forbidden) or makruh (discouraged), need to be quarantined for a certain period to purify them and render them Halal (permissible). During the quarantine period, the animals or plants must be fed clean food. Islamic legal scholars differ in their opinions regarding the specific duration required for the quarantine of *al-jallalah* animals (Mubarakfuri, 1979).

According to the first opinion, which is the view of the Hanafi school and one perspective from the Shafi'i school, there is no specific duration for the quarantine process of *al-jallalah* animals. This opinion states that *al-jallalah* animals can be consumed once the foul odour has dissipated from their bodies through the quarantine process (Zuhaili, 1986).

The second opinion, which is held by Imam Abu Hanifah, one narration from Ahmad, and one perspective from Abu Thawr, states that it is permissible to consume *al-jallalah* animals after a quarantine period of three days. This method applies to all types of animals, including cattle and birds. This opinion is based on the practice of Ibn Umar, who quarantined *al-jallalah* animals for three days (Zuhaili, 1986; Al-Qaradawi, 2000).

The third opinion differentiates the required quarantine period based on the size of the *al-jallalah* animal into three corresponding durations. Essentially, it is divided into three categories. The first category, for small-sized animals such as birds, requires a quarantine period of three days. The second category involves medium-sized animals like goats and sheep, for which the stipulated period is seven days. The third category, involving large-sized animals such as cattle and camels, requires a longer quarantine period of forty days (Al-Fawzan, 2009). This opinion is upheld by Imam Ahmad and the Shafi'i school of thought. Imam Ahmad (of the Hanbali school) prescribes a quarantine period of three days for chickens, and forty days for cattle and camels. The Shafi'i school, on the other hand, holds that chickens should be quarantined for three days, sheep for four days, and camels for forty days (Nawawi, 1970).

The quarantine periods differ based on the size of the *al-jallalah* animals involved. For larger animals, such as camels and cattle, the number of impurities and filth within their bodies is greater compared to smaller animals like chickens and birds. Therefore, a longer quarantine period is required to ensure that the impurities are eliminated from the animal's body. After the completion of this quarantine period, the previously *makruh* (discouraged) or *haram* (forbidden) status of the *al-jallalah* animals will be restored to *Halal* (permissible) and pure, making them suitable for consumption (Ibn Taymiyyah, 1995).

It can be analogized that catfish and patin fish are classified as small animals, hence the period of *al-istibrak* is at least three days (Jamaluddin, 2009). However, it should be emphasized that the Hanafi school of thought and one opinion from the Shafi'i school of thought maintain that there is no specific period for *al-istibrak*. Instead, it is only necessary to ensure that the foul odor of the animal's body, caused by consuming impurities, has dissipated, thus fulfilling the period of *al-istibrak*.

### ***Halalan Toyyiba* Concept Regarding Water-Related Consumerism**

Based on the brief discussion above, it can be observed that the implementation of the *Halalan Toyyiba* concept in water-based consumption requires the application and integration of other related *Halal* concepts in Islam to achieve a comprehensive understanding. This includes the introduction, explanation, and application of concepts such as *al-jallalah*, *istihalah*, and *istibrak*, which have been generally discussed above. Other concepts related to *Halalan Toyyiba*, including *Maslahah* and *Darurah*, are also relevant but are not discussed here.

In the case of patin or catfish that have been fed pig faeces, for instance, fatwas from most states and the national level in Malaysia have classified them as *haram*. Therefore, freshwater fish farmers who feed pig faeces to their farmed fish will not receive a *Halal* certificate from JAKIM.

However, upon closer examination, besides JAKIM's *Halal* certification, Malaysia has another certification scheme called Hazard Analysis and Critical Control Points (HACCP). This scheme provides official recognition to food premises or products that successfully implement and maintain the HACCP system for their products. Serving to ensure food safety, product quality, and consumer protection, HACCP imposes stringent certification requirements, including the need for certification from the Ministry of Health Malaysia (Kushwah & Kumar, 2017). Moreover, JAKIM's *Halal* Hub also considers the issuance of *Halal* certificates if the application has HACCP approval.

HACCP mandates that freshwater fish must be quarantined for a week in a neutral pond before being allowed to be sold in local or international markets, regardless of what the fish were fed, whether Halal or non-Halal (Kementerian Kesihatan Malaysia, 2024). Here, it can be observed that HACCP certification indirectly practices the concept of *al-istibrak* found in Islam. This one-week quarantine period exceeds the *al-istibrak* period prescribed by Sharia according to the Shafi'i school, which is three days for small animals. Meanwhile, according to the Hanafi school, there is no specific period for *al-istibrak*, as long as the odour resulting from the feeding of impurities has disappeared.

A scientific study conducted by researchers from Universiti Malaysia Pahang indicates that a minimum period of 24 hours is required to eliminate pig elements in the stomach of patin fish that have been fed pig faeces. This study involved using techniques to detect pig DNA in the stomachs of patin fish consistently fed pig faeces. After 24 hours, it was found that the food consumed by the patin fish would transform into other chemical elements through the digestion process, including the pig elements. The same study showed that the volume of water did not significantly impact the cleansing process of the patin fish. This means that a water volume as small as a medium-sized aquarium is sufficient for the quarantine process of patin fish for 24 hours to eliminate the pig elements present in their bodies (Tengku Zainal Abidin et al., 2017). This clearly indicates that if we aim to upgrade the Halal certification to Halal Toyyiba in Malaysia, we need to integrate the existing Halal SOP with other existing certification SOPs in Malaysia such as HACCP, GHP (Good Hygiene Practices), and GMP (Good Manufacturing Practices). This approach not only saves costs, time, and effort in developing new modules or foundations for the Halal Toyyiba framework, but it also allows for the integration and assimilation of existing certification and operational processes in Malaysia, making them more efficient and preventing overlapping enforcement procedures.

JAKIM's Halal Hub should also be given more authority, not merely limited to issuing, inspecting, and revoking Halal certificates for premises without the power to prosecute in court. The existing legal provisions only empower JAKIM to suspend or revoke Halal certificates without the jurisdiction to prosecute in court. The current practice in Malaysia is that JAKIM officials will accompany KPDNHEP or KKM officers to investigate public complaints classified as "hot" cases. For routine inspections, only JAKIM is involved, conducted by JAKIM's shariah and science officers. In summary, most monitoring and inspections are carried out by JAKIM, while enforcement and prosecution can only be conducted by KPDNHEP (Hassan, 2007).

The use of advanced scientific technology is also deemed necessary to upgrade the Malaysian Halal logo to Halal Toyyiba. This is evident in the context of rearing patin/catfish fed with impure substances like pig faeces. Scientific studies to detect pig residues in the stomachs of patin fish, such as those conducted by UMP, can be applied in the *al-istibrak* (quarantine) process of patin fish (Tengku Zainal Abidin et al., 2017). According to the Hanafi school of thought, *al-jallalah* animals must undergo *istibrak* (quarantine) until the foul odor disappears. There are reports showing that fish farmers abroad add powder or chemical residues to the patin fishponds during the *istibrak* (quarantine) process to eliminate odors and reduce the quarantine period to less than 24 hours, sometimes even less than 12 hours. This practice is not permissible according to Shariah law (Al-Ghazali, 1993).

The way out of this issue is to either follow the opinions of the Shafi'i school, Imam Ahmad, and Imam Abu Hanifah, which state that the minimum quarantine period is three days, or to adopt a scientific approach that analyzes and confirms no traces of pork after being quarantined in a neutral pool for 24 hours. However, if the foul odour persists after 24 hours, according to one opinion, the *istibrak* (quarantine) should continue because the smell is the primary indicator for the quarantine duration in the Hanafi school. The second opinion holds that the quarantine does not need to continue once the pork elements are no longer present, as the reason for the quarantine is the smell originating from the pig's impurities. If it is proven that the pig elements are gone but the smell remains, the odour might come from another source, and the quarantine can be ended.

Another example demonstrating the importance of applying modern science and technology in upgrading *Halal* to *Halal Tyyiba* is the case of clams discussed earlier. Clams are a Halal seafood source, but it is unknown how long the clams in the Geting Tumpat river waters have been contaminated with dangerous neurotoxic substances. Scientific analysis to test the chemical content in marine life, such as clams, can be used to upgrade from Halal-to-Halal *Tyyiba*. If harmful substances are found in the clams, but they are safe to consume in certain quantities, they remain Halal but do not meet the *Halal Tyyiba* concept.

This is based on the discussion by Alzeer et al. (2018), which presented the case of Falafel, a popular Middle Eastern food. While Falafel is considered Halal, if it is fried in repeatedly recycled oil that changes colour and emits a foul odour, it can no longer be deemed *Tyyiba*. This is because recycled oil contains high levels of saturated fatty acids and triacylglycerol. Consuming such oil continuously can pose health risks.

The case study of toxin-contaminated clams also opens another avenue for discussion regarding the implementation of the *Halalan Tyyiba* concept in water usage in Malaysia. Upon closer examination, one of the main causes of the deteriorating quality of the clams, leading to high toxin absorption, is the waste from nearby factories. The basic concept of *Halalan Tyyiba* emphasizes the purity of the production process chain from start to finish, not just focusing on the product. The waste produced during the manufacturing process must also be considered to fully adhere to the comprehensive *Halalan Tyyiba* concept.

In this case, it is proposed that factories that do not manage their product waste responsibly should not be eligible for the *Halal Tyyiba* certification. This is to preserve environmental sustainability and ensure the well-being of local communities that rely on and live around the affected areas. In other words, eco-friendly elements should be mandated as prerequisites for obtaining *Halal Tyyiba* certification.

## CONCLUSION

The implementation of *Halalan Tyyiba* framework within Malaysia's water-based jurisdiction will underscore the nation's commitment to upholding Islamic principles in the management and utilization of essential resources. By delving into the nuanced concepts of *al-Jallalah*, *Istihalah*, and *Istibrak* through the utilization of current issue analysis, this paper has illuminated the pathways through which Islamic jurisprudence can address contemporary challenges in water-related usage and applications.

The application of these concepts demonstrates that Islamic jurisprudence remains relevant and adaptable with the findings of modern science in addressing contemporary issues. By integrating *al-Jallalah*, *Istihalah*, and *Istibrak* into the regulatory framework for water-based Halal jurisdiction, Malaysia will not only reinforce its commitment to *Halalan Toyyiba* but also set a precedent for other Muslim-majority countries grappling with similar challenges. We also strongly support the inclusion of eco-friendly elements as a new criterion for Halal Toyyiba certification. This would assure environmental sustainability for future generations.

In conclusion, the effective implementation of *Halalan Toyyiba* framework in Malaysia's water jurisdiction requires a harmonious blend of Islamic legal principles and contemporary scientific advancements. This approach will ensure that water, as a fundamental resource, is managed carefully in a manner that is both permissible and wholesome, meeting the needs of the Muslim community while upholding the sanctity of Islamic teachings. As this important framework is still non-existent in Malaysia, it is strongly suggested that this policy framework be implemented urgently in Malaysia without any further delay.

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## REFERENCES

- Abd Rahman, Z. Mamat. (2019). Pemakaian Kaedah Istihlak dan *Istihalah* dalam Penentuan Produk Halal di Malaysia Berdasarkan Bidangkuasa Perundangan dan Keputusan Hukum Muzakarah Jawatankuasa Fatwa Majlis Kebangsaan Bagi Hal Ehwal Ugama Islam Malaysia. *Journal of Fatwa Management and Research*, 15(1), 23–43. <https://doi.org/10.33102/jfatwa.vol15no1.194>
- Abdullah, Y. (2021). Spesies kerang di Sungai Geting tercemar. *Kosmo Digital*. <https://www.kosmo.com.my/2021/10/11/spesies-kerang-di-sungai-geting-tercemar/>
- Al-Fawzan, S. (2009). *A summary of Islamic Jurisprudence*. al-Maiman Publishing House.
- Al-Ghazali, Abu Hamid. (1993). *Kitab al-Halal wa al-Haram min Ihya' 'Ulum al-Din*, Cet. III. Beirut: Dar al-Kutub al- 'Ilmiyyah.
- Al-Qaradawi, Y. (2000). *Halal wal-Haram fil-Islam (The Lawful and the Prohibited in Islam)*. Translated by El-Helbawy, K. et al. Burr Ridge, IL. American Trust Publications.
- Al-Syaukani, Muhammas bin Ali. (1994). *Nailul Authar min al-Ahadits Said al-Akhyar Syarh Muntaqa al-Akhbar*. Beirut Daar al-Fikr.
- Alzeer, J., Rieder, U., & Hadeed, K. A. (2018). Rational and practical aspects of Halal and Tayyib in the context of food safety. *Trends in Food Science & Technology*, 71, 264–267. <https://doi.org/10.1016/j.tifs.2017.10.020>
- Awas! Ikan patin, tilapia, keli Afrika diberi makan daging babi. (2006, January 17). *Malaysiakini*. <https://www.malaysiakini.com/news/45843>

- Bakri, D. Z. M. A. (2022, February 16). #506 Memakan Ikan Keli yang Dipancing dari Kolam Najis. Maktabah al Bakri. <https://maktabahalbakri.com/506-memakan-ikan-keli-yang-dipancing-dari-kolam-najis/>
- Cañizares-Villanueva, R. O., Domínguez, A., Cruz, M., & Ríos-Leal, E. (1995). Chemical composition of cyanobacteria grown in diluted, aerated swine wastewater. *Bioresource Technology*, 51(2–3), 111–116. [https://doi.org/10.1016/0960-8524\(94\)00099-m](https://doi.org/10.1016/0960-8524(94)00099-m)
- Chaiklahan, R., Chirasuwan, N., Siangdung, W., Paithoonrangsarid, K., & Bunnag, B. (2010). Cultivation of *Spirulina platensis* Using Pig Wastewater in a Semi-Continuous Process. *Journal of Microbiology and Biotechnology*, 20(3), 609–614. <https://doi.org/10.4014/jmb.0907.07026>
- Cheunbarn, S., & Peerapornpisal, Y. (2010). Cultivation of *Spirulina platensis* using anaerobically swine wastewater treatment effluent. *International Journal of Agriculture and Biology*, 12(4), 586–590.
- Fitri, B. U., & Kashim, M. I. A. M. (2018). Penentuan Hukum Penggunaan Baja Daripada Najis Haiwan. *Fikiran Masyarakat*, 6(3), 136–147. <https://www.kemalapublisher.com/index.php/fm/article/view/336>
- Hassan, Z. (2007). Undang-undang produk halal di Malaysia: Isu penguatkuasaan dan pendakwaan. *Kertas kerja dibentangkan di Konvensyen Undang-undang, Fakulti Syariah dan Undang-undang pada*, 11-12.
- Hati-hati, ada ikan diberi makan babi. (2019, February 21). *Malaysiakini*. <https://www.malaysiakini.com/news/465055>
- Holman, B. W., & Malau-Aduli, A. E. O. (2013). *Spirulina* as a livestock supplement and animal feed. *Journal of Animal Physiology and Animal Nutrition*, 97(4), 615–623. <https://doi.org/10.1111/j.1439-0396.2012.01328.x>
- Ibn Taymiyyah. (1995). *Majmu Fatawa of Shaykh al-Islam ibn Taymiyyah (Total Fatawa of ibn Taymiyyah)*. Compiled by: Abd al-Rahman bin Mohammad bin Qasim, Sa'eda Abneh Mohammad, Al-Majled al-Samin wa Eshroun. Ministry of Islamic Affairs, Endowments, Call and Guidance Saudi Arabia.
- Idris, S. R. (2021a, October 11). Kerang-kerangan di Sungai Geting dicemari toksin saraf. *Berita Harian*. <https://www.bharian.com.my/berita/nasional/2021/10/875155/kerang-kerangan-di-sungai-geting-dicemari-toksin-saraf>
- Idris, S. R. (2021b, October 11). Spesis kerang di perairan Sungai Geting dicemari toksin. *Harian Metro*. <https://www.hmetro.com.my/mutakhir/2021/10/765048/spesis-kerang-di-perairan-sungai-geting-dicemari-toksin#:~:text=%22Bahan%20toksin%20itu%20ditemui%20pada,dihubungi%20di%20sini%2C%20hari%20ini.>
- Implementing Penang's SWM Policy*. (2012, December 12). Global Environment Centre Foundation. Retrieved June 10, 2023, from <http://gec.jp/gec/en/Activities/ietc/fy2012/EcoTown/pn03.pdf>
- Jabatan Mufti Negeri Selangor. (2023a). *Hukum Baja Dari Najis Haiwan*. Emusykil.muftiselangor.gov.my. <https://emusykil.muftiselangor.gov.my/index.php/site/jawapan?id=3795>

- Jabatan Mufti Negeri Selangor. (2023b, October 28). *Status Kesucian Ikan Yang Diberi Makanan Tidak Halal - Jabatan Mufti Negeri Selangor*. Mufti Selangor. <https://www.muftiselangor.gov.my/2023/10/28/status-kesucian-ikan-yang-diberi-makanan-tidak-halal/>
- Jabatan Mufti Negeri Sembilan. (2022, October 5). *Status Kesucian Ikan Yang Dipelihara - Jabatan Mufti Kerajaan Negeri Sembilan*. Jabatan Mufti Kerajaan Negeri Sembilan. <https://muftins.gov.my/fatwa/status-kesucian-ikan-yang-dipelihara/>
- JAKIM. (2018). *Status Kesucian Ikan Yang Diberi Makanan Tidak Halal*. JAKIM: i-FIQH. Islam.gov.my. <https://i-fiqh.islam.gov.my/portal/view.php?id=15296>
- Jamaludin, M. A. (2009). *Teori istihalah menurut perspektif Islam dan sains: aplikasi terhadap beberapa penghasilan produk makanan* [Master's dissertation, University of Malaya]. studentsrepo.um.edu.my. <http://studentsrepo.um.edu.my/5267/>
- Jung, F., Krüger-Genge, A., Waldeck, P., & Küpper, J. (2019). Spirulina platensis, a super food? *Journal of Cellular Biotechnology*, 5(1), 43–54. <https://doi.org/10.3233/jcb-189012>
- Karkos, P. D., Leong, S. C., Karkos, C. D., Sivaji, N., & Assimakopoulos, D. A. (2011). Spirulina in Clinical Practice: Evidence-Based Human Applications. *Evidence-Based Complementary and Alternative Medicine*, 2011, 1–4. <https://doi.org/10.1093/ecam/nen058>
- Kementerian Kesihatan Malaysia. (2024, July 22). *BKKM: HACCP*. Hq.moh.gov.my. <https://hq.moh.gov.my/fsq/haccp>
- Kushwah, A., & Kumar, R. (2017). HACCP - Its Need and Practices. *Acta Chemica Malaysia*, 1(2), 01–05. <https://doi.org/10.26480/acmy.02.2017.01.05>
- Lim, H. R., Khoo, K. S., Chew, K. W., Chang, C., Munawaroh, H. S. H., Kumar, P. S., Huy, N. D., & Show, P. L. (2021). Perspective of Spirulina culture with wastewater into a sustainable circular bioeconomy. *Environmental Pollution*, 284, 117492. <https://doi.org/10.1016/j.envpol.2021.117492>
- Maktabah, E. (2021, September 20). *Hukum Memakan Haiwan Akua (Haiwan Air) Yang Diternak Dan Diberi Makan Najis*. Jabatan Mufti Negeri Perlis. <https://muftiperlis.gov.my/index.php/himpunan-fatwa-negeri/572-hukum-memakan-haiwan-akua-haiwan-air-yang-diternak-dan-diberi-makan-najis>
- Manan, S. & Mazlan, H. (2006, January 17). Sungai di Pahang 'samak' patin babi rebus. *Harian Metro*. [https://www.hmetro.com.my/Current\\_News/HM/Wednesday/BeritaUtama/20060118083036/Article/indexm\\_html](https://www.hmetro.com.my/Current_News/HM/Wednesday/BeritaUtama/20060118083036/Article/indexm_html)
- Manzur, I. Muhammad ibn Mukrim Ibn Ali. (1999). *Lisan al-Arab. Tahqiq: Muhammad Abdul Wahab wa Muhammad al-Sadiq al-Aubaydi*. Bayrut: Dar Ihya'al-Turath al-Arabi. Cet, 3.
- Mezzomo, N., Saggiorato, A. G., Siebert, R., Tatsch, P. O., Lago, M. J. G., Hemkemeier, M., Costa, J. a. V., Bertolin, T. E., & Colla, L. M. (2010). Cultivation of microalgae Spirulina platensis (Arthrospira platensis) from biological treatment of swine wastewater. *Food Science and Technology*, 30(1), 173–178. <https://doi.org/10.1590/s0101-20612010000100026>

- Mstar. (2014a, December 3). MB Arah Siasat Isu Ikan Tilapia Diberi Makan Bangkai Babi. *mStar*. <https://www.mstar.com.my/lokal/semasa/2014/12/03/mb-siasat>
- Mstar. (2014b, April 8). Fenomena Ledakan Alga. *mStar*. <https://www.mstar.com.my/lain-lain/rencana/2014/04/08/fenomena-ledakan-alga>
- Mubarakfuri, A. (1979). *Tuhfatul Ahwadzi Syarah Jami' al-Tirmidzi*. Pustaka Azzam.
- Nawawi, A. Z. (1970). *Kitab al-Majmuk (Volume 1)*. Maktabah al-Irsyad.
- Nazih Hammad. (2004). *Al-Mawad al-Muharramah wa al-Naiasah fi al-Ghiza' wa al-Dawa' bayna al Nazariyyah wa al-Tatbiq*. Dar al-Qalam.
- Pejabat Mufti Wilayah Persekutuan. (2017, November 3). al-kafi #456: hukum makan ikan keli dan ikan patin yang diberi makan daging khinzir. <https://muftiwp.gov.my/artikel/al-kafi-li-al-fatawi/1853-al-kafi-456-hukum-makan-ikan-keli-dan-ikan-patin-yang-diberi-makan-daging-khinzir>
- Sampel tulang haiwan kolam ikan patin di Perak sah babi. (2014, August 15). *Berita Harian*. <https://www.bharian.com.my/berita/nasional/2014/08/660/sampel-tulang-haiwan-kolam-ikan-patin-di-perak-sah-babi>
- Soni, R. A., Sudhakar, K., & Rana, R. (2017). Spirulina – From growth to nutritional product: A review. *Trends in Food Science and Technology*, 69, 157–171. <https://doi.org/10.1016/j.tifs.2017.09.010>
- Tengku Zainal Abidin, T. N. H., Ahmad, H., & Abdul Rahim Mohd-Hairul. (2017). Konsep halal dan al-Istibra' Pangasius Sutchii menurut perspektif Islam dan sains akuakultur. *Journal of Contemporary Islamic Studies*, 3(1). <https://ir.uitm.edu.my/id/eprint/30338/>
- Zuhaili, M. (2008). *Al-Mu'tamad al-Fiqh al-Syafi'i*. Dar al-Qalam.
- Zuhaili, W. (1986). *Ushul al-fiqh al-islami*. Dar al-Fikr.