Section I – Farm Level Standard

1. Traceability

Traceability is defined as the ability to follow the movement of shrimp after harvest or inputs such as feed and seed, through specified stage(s) of production. This is a critical component when implementing sustainability improvements. The section attempts to highlight the most important traceability indicators that can be audited at the farm level.

#	Indicator	Compliance Criteria	Level
1.1	Legal compliance for farm operations	Evidence of operational legality[1] via certificate, legal document, or other applicable evidence.	1
1.2	Compliance with Country Good Aquaculture Practice Standard for Shrimp or ASEAN Shrimp GAP	Evidence of compliance with the requirements of the relevant scheme if applicable.	1
1.3	Farm Profile Document	A farm profile document is available and must include, at a minimum: name of farm, owner and/or manager, membership to farming cooperative or other farmers' union if applicable, GPS coordinates, aerial map, farm size, number of ponds, production volume, and species farmed.	1
1.4	Identification of Government Enforcement Officials	The name and contact information (e.g. telephone number and/or e-mail address) of the relevant authorities can be identified	1
1.5	Effective system of segregation between compliant and non-compliant products on the farm[2]	A system must be established to avoid mixing compliant and non-compliant-products via physical identification or product handling procedures, including the relevant records.	1
1.6	Broker License and/or Registration (if applicable)	Brokers must have a license or be registered with the government, or be an approved supplier for a processor	1
1.7	Effective system to identify different batches of product from different farms	Broker will have to provide a written description to the farm about how they differentiate different products from different farms.	1
1.8	Movement of Harvested Shrimp	Movement/sale of all harvested shrimp shall be recorded.	1
1.9	Data Recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[3]	1

[1] Farms have the necessary permits to legally operate at a shrimp farm on that site.

[2] This covers products only on the farm until the point that they enter the processing plant.

2. Shrimp Health Management

Optimizing health, minimizing stress, reducing shrimp disease risks, and maintaining a healthy culture environment at all phases of the production cycle are critical to minimizing the environmental impacts of disease. This section addresses the monitoring of diseases and the use of chemicals, including antibiotics.

#	Indicator	Compliance Criteria	Level
2.1	Monitoring of shrimp health and disease prevalence	• The farm must routinely examine shrimp for health status and disease prevalence • Records of sampling for disease prevalence inside farm and records noting tests that indicate the presence of disease and detailing subsequent actions • Records for all mortalities on farm (except days of allowable/normal/expected mortalities) • Records of causation analysis and corrective actions • Records show that farmer informed the relevant authority upon evidence of outbreak • Records show that farmers are in regular communication with the farmers surrounding the farm regarding disease occurrence and prevention	1
2.2	Monitoring of water quality	The farm must examine and record, at least once weekly, the water quality in shrimp ponds, including, at a minimum: temperature, dissolved oxygen, salinity, pH, and ammonia.	1
2.3	Handling and disposal of dead/infected shrimp and pond water	• Must demonstrate proper[4] disposal of dead/infected shrimp • Must demonstrate how the affected pond water was treated prior to discharge outside of the farm boundary	1
2.4	Use of antibiotics	• Antibiotics highly or critically important for human health[5] are prohibited • Prophylactic use of antibiotics of any kind is prohibited	1

[3] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence that data accurately describes the operation and its potential impact

[4] No direct disposal of dead/diseased animals of any life stage or age into receiving/source waters or anywhere with connection to wild populations or neighboring farms

[5] As defined by the World Health Organization

		• Every use of antibiotics at any time must be recorded, including the product name, dose, and route of administration.	
2.5	Use of veterinary drugs and chemicals	• The use of drugs or chemicals banned by the country of production, importing country, or the country of export is prohibited • Use of trained staff to administer drugs (i.e. therapeutants) and chemicals according to the instructions prescribed by the manufacturer • Every use of therapeutic drugs and chemicals must be recorded, including the product name, dose, and route of administration • Any product used for pond preparation must be recorded by product name and sales company/ agent • The production is allowed a maximum of 1 chemical[6] treatment per production cycle	1
2.6	Use of probiotics and other bioremediation agents	Must have records of use for probiotics and other bioremediation agents (type and dose)	1
2.7	Implementation of basic biosecurity protocols	Existence of a written health management plan that includes, at a minimum, disease monitoring procedures, disease response, active vector or boundary controls, and disposal of mortalities.	1
2.8	Data recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[7] and are available for inspection. Collected data must be available for inspection by auditors and/ or ASIC upon request	1
	Use of chemicals	**No chemical[8] use is permitted[9]**	2
	Infected pond water	**Following disease occurrence or emergency harvest due to suspected disease occurrence, pond water must be retained for a period of time[10] prior to discharge to ensure disease is no longer biologically active OR use chlorination**	2

[6] Chemical is defined as those which are applied as therapeutants

[7] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high that data accurately describes the operation and its potential impacts

[8] A distinct compound or substance, especially one which has been artificially prepared or purified

[9] An exemption may be granted for use of some pond preparation/water treatment that can be demonstrated to have no active chemicals or byproducts before effluent discharge. This may also apply to rainwater if the salinity can be demonstrated to be less than 5 ppt.

[10] 2-week hold time is mandatory unless evidence suggests that more or less is required.

3. Source of Stock

This section seeks to address the use of shrimp species in production and ensure that the species used are from sustainable sources.

#	Indicator	Compliance Criteria	Level
3.1	Sourcing fry or post larvae from wild sources	Prohibited except for passive settlement in extensive systems[11].	1
3.2	Movement documents/receipts for seed	Receipts for seed are required from the seed supplier. If farm uses a broker, the farm must have movement documents/receipts from the broker that show the origin of the seed.	1
3.3	Identification of seed providers	The farm has a name and contact information for any seed company that is used.	1
3.4	Sourcing of post larvae	Farmers must source seed that is compliant with Section 7.	1
3.5	Data recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[12] and are available for inspection. Collected data must be available for inspection by auditors and/ or ASIC upon request	1

4. Feed Sourcing and Management

This section seeks to address the sustainability and efficient use of wild fish resources in shrimp aquaculture feed that can be verified at the farm level.

#	Indicator	Compliance Criteria	Level
4.1	Use of commercial pelleted feed	Commercial pelleted feed must be purchased from manufacturers/sellers/ importers that have an operational license from the national government.	1
4.2	Use of approved additives and supplements	Feed additives and supplements must be legal/registered. Their use, including name/type and dose, must be identified and recorded.	1
4.3a	Economic Feed Conversion Ratio (*L. vannamei*)	Shall be less than 2	1
4.3b	Economic Feed Conversion	Shall be less than 1.7	2

[11] Low input farming technique using natural (and passive) recruitment of wild juveniles through tidal flushing

[12] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high that data accurately describes the operation and its potential impacts

	Ratio (*L. vannamei*)		(vannamei)
4.3b	Economic Feed Conversion Ratio (*P. monodon*)	Shall be no greater than 1	1
4.4	Movement documents/receipts for feed	Receipts for feed purchases are required from the feed supplier. If farm uses a broker, the farm must have movement documents/receipts from the broker that show the origin of the feed.	1
	Feed Use	No feed use is permitted for Level 2 monodon production	2 (monodon)
	Use of Fertilizers	Must record Nitrogen in both the ponds and receiving water body. Must ensure that the content of TAN and NH^3 in the ponds does not exceed that of the receiving waterbody [13] Testing frequency to be determined but to be based on biomass	2 (monodon)
4.5	Identification of feed providers	The farm has a name and contact information for any feed company that is used.	1
4.6	Certified feed use	Farmers must use feed that is compliant with Section 8.	1
4.7	Data Recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[14] and are available for inspection. Collected data must be available for inspection by auditors and/or ASIC upon request	1

5. Environmental Impact Management

This section seeks to manage the impacts that shrimp aquaculture operations can have on biodiversity through activities such as farm siting, predator control, or water quality discharges.

[13] ASIC to provide testing strips to support the testing

[14] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high that data accurately describes the operation and its potential impacts

5.1 - Mangrove and Habitat Impacts

#	Indicator	Compliance Criteria	Level
5.1.2	Siting in mangroves and other high value habitat[15]	Farms must not have been sited/built in mangrove ecosystems or other high value habitat after 1999 (or earlier according to national regulations, i.e., the Philippines). GPS coordinates of the farm site are recorded and farms have a document indicating land use from 1999 to the establishment of the farm or historical land use maps/statements. Farms can provide a statement indicating the year of construction of ponds. Farms shall follow local and national regulations about coastal spatial plan if applicable	1
5.1.3	Expansion of farms in high value habitat[16]	Prohibited, except for canals[17], which must provide evidence of successful[18] restoration activity	1
5.1.4	Siting in Protected Areas (PA)	There is evidence that the farm site or related facilities are not within a national or international Protected Area, unless permitted by the relevant authorities and if an effective management plan exists.	1
5.1.5	Cumulative Impacts	Any expansion of farms into habitat not previously converted (see 5.1.2 for mangrove exclusions) must consider their contribution to cumulative impacts. This requirement is not applicable for expansion into areas already in use for agriculture. Farms can consider their impact via the use of Environmental Impact Assessment	1

5.2 – Use and Discharge of Water

#	Indicator	Compliance Criteria	Level
5.2.1	Use of fresh groundwater (below 5ppt)	Shall not be used in the ponds. If permitted under national regulations,	1

[15] High Value Habitat includes but is not limited to coastal intertidal areas, estuaries, tidal wetlands and forests, freshwater wetlands, coral reefs, seagrass/ algae beds, freshwater lakes, rivers and streams, and tropical broadleaf mixed forests

[16] High value habitats include: coastal intertidal, coastal/terrestrial shoreline, estuaries, tidal wetlands and forests, freshwater wetlands, coral reefs, seagrass/algae beds, freshwater lakes, rivers and streams, tropical broadleaf and mixed forests

[17] For *high value habitat* removal for canals construction, farms must restore the area being used as much as possible. The restoration could be regreening along the banks of the canal or regreening somewhere else with comparable condition and size.

[18] Successful restoration is defined as 3x the area of the disrupted area. If not on site, the farm must provide the auditor with sufficient evidence to prove that the restored area is maintained and viable (maps, GPS coordinates, aerial photographs, recent photographs)

		record of use of fresh groundwater must be kept, and the potential impacts (salinity of surrounding wells and reduced freshwater availability) must be assessed and recorded.	
5.2.2	Discharge of saline water into natural freshwater bodies and agricultural lands	The farm is designed and managed to ensure that saline water cannot be discharged into freshwater bodies[19] or agricultural lands.	1
5.2.3	Discharge of water from the farm[20]	• Daily average water exchange per farm shall not exceed 10% of pond volume, calculated over the entire production cycle • Records of all water discharge and exchange must be kept	1
	Discharge of water from the farm[21]	• Discharge permitted only after multiple production cycles,[22]	2 (vanna mei)
5.2.4	Effluent water quality monitoring	• Effluent water quality must be tested and recorded over all periods of the production cycle • Records of effluent water quality testing demonstrate compliance with relevant laws and regulations (if applicable) • Visual inspection of sampling procedure confirms testing produces accurate results	1
5.2.5	Disposal of sludge	Dredged sediment from canals, watercourses and ponds is properly contained and/or located to prevent the salinization of soil and groundwater, and does not cause other significant ecological impacts to receiving and/or surrounding environments.	1
5.2.6[23]	Potential impact of effluent water	• Effluent water must be treated[24] if the water quality poses a significant risk[25] of	

[19] Freshwater lakes, rivers, streams (or canals that connect to these water bodies) including non-surface water bodies (i.e. groundwater reservoirs, etc.)

[20] Tidal flow systems are exempted

[21] Tidal flow systems are exempted

[22] Multiple is defined as 2 or more

[23] Applicable to semi-intensive and intensive production systems only

[24] Treated is defined as a practice or action that, by acting on and altering constituents and characteristics of pondwater, successfully mitigates its potential to pose a significant risk to a waterbody that receives it.

5.3 - Predator Control

#	Indicator	Compliance Criteria	Level
5.3.1	Predator control	Active lethal predator[27] (birds, mammals, reptiles) control is prohibited	1
5.3.2	Protection of listed species	Farming activities must not cause mortality of any threatened or endangered species, as listed by the IUCN	1
5.3.3	Records of predator mortalities[28]	Any wildlife/ predator mortalities that occur on the farm, regardless of the reason for the incident must, be recorded including the common name of the species, number of mortalities, and cause of mortality	1
5.3.4	Data recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[29] and are available for inspection. Collected data must be available for inspection by auditors and/ or ASIC upon request	1
	Predator management	A predator management plan must be in place to ensure that predator mortalities do not occur beyond exceptional cases	2
	Number of exceptional	Shall be less than 1/ year	2

[25] Significant risk is defined as having reasonable probability that the quality of water or its constituents will, when discharged from the farm site, impact the ecological functionality of the waterbody that receives it (e.g. reducing habitat suitability for resident organisms by inducing algal blooms, creating hypoxic conditions, marked sedimentation, etc.).

[26] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high that data accurately describes the operation and its potential impacts

[27] Active lethal predator control is defined as the killing of predators by firearms, trapping devices and/ or poison, regardless of whether or not there have been attempts to deter them via passive means.

[28] Predator is limited at birds, mammals and reptiles

[29] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high that data accurately describes the operation and its potential impacts

5.2.7	Data recording and availability	Data relevant to compliance criteria in this section are collected using robust methods and are available for inspection. Collected data must be available for inspection by auditors and/ or ASIC upon request.	1

	mortalities		

5.4 - Escape Management

	#	Indicator	Compliance Criteria	Level
	5.4.1	Stocking records	The number of shrimp stocked, their average weight, and total biomass must be recorded at stocking and at harvest	1
	5.4.2	Escape prevention	• Farm shall employ appropriate measures to prevent the escape of cultured shrimp, including secondary containment at harvest • Appropriate escape prevention measures in place must include double screens or secondary catchment mechanisms on outlet gates that are inspected and maintained regularly, and records of inspection (with any maintenance activity if enacted) are kept	1
		Escape prevention	• Effluent discharge permitted ~~once~~ only after multiple ~~per~~ production cycles, exchange at harvest. • Farms must use fail-safe escape prevention methods or active Best Management Practices for design, construction and management of escape prevention (biosecurity)	2 (vanna mei)
	5.4.3	Escape reporting	• In the event of a large[30] escape, relevant authorities, including ASIC, must be informed • Records (size of animal estimated number of escapees, their size, and estimated recapture if applicable) of any escape event must be kept	1
	5.4.4	Data recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[31] and are available for inspection. Collected data must be available for inspection by auditors and/ or ASIC upon request.	1

Section II – Hatchery Standard

[30] Any large-scale escape (>25% of standing stock)

[31] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high that data accurately describes the operation and its potential impacts

One of the most important ways to minimize the environmental impacts of shrimp farming is to ensure that species used in production are sufficiently domesticated, as well as, screened for disease. This section designed to be audited at the hatchery, and may require a visit by the auditor or an official declaration.

7. Use of Species

#	Indicator	Compliance Criteria	Level
7.1	Health status of post larvae	Must be in compliance with any existing national standards	1
7.2a	Sourcing of broodstock from wild sources (*L.vannamei*)	Prohibited	1
7.2b	Sourcing of broodstock from wild sources (*P. monodon*)	Records kept for sourcing of broodstock, including at a minimum: number, location, date, and method of collection	1
	Status of broodstock fishery	~~• Must not be overfished according to the FAO OR~~ • Have achieved a Seafood Watch "Good Alternative" level of performance ~~OR~~ • ~~Be a part of the ASIC Fish improvement program~~	2 (monodon)
7.3a	Use of non-native species	Non-native species shall not be used for production unless[32] already established for commercial production and approved by the national government	1
7.3.b	Use of native species	All pond stock must be spawned directly by wild-caught broodstock (i.e. F1 progeny from F0 wild-captured parents)	1
7.4	Movement of broodstock and post larvae-within the country of production	• The seed supplier must provide a movement document/receipt to the farm/broker • Movement of post larvae and broodstock must be in compliance with national and/or regional laws, if applicable	1
7.5	Data recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[33] and are available for inspection. Collected data must be	1

[32]

[33] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high in the quality of the data

		available for inspection by auditors and/ or ASIC upon request.	

Section III – Feed mill Standard

The use of fishmeal and fish oil is of the most important negative environmental impacts associated with shrimp production. This section is designed to be audited at the feedmill, and may require a visit by the auditor or some sort of official declaration. It is important to ensure that the use of fishmeal and fish oil from illegal, unregulated, or unreported fisheries is minimized or eliminated.

8. Feed Ingredients Sourcing

#	Indicator	Compliance Criteria	Level
8.1	Sources of wild fish used as feed	Wild fish sources, including by-products, used as fish meal and fish oil must be identified by species and must not be illegal[34].	1
8.2	Percent Inclusion of Fishmeal	Shall be less than 20%, or 25% if fisheries byproducts[35] account for at 20% of the fishmeal used in the feed formula.	1
8.3	Percent inclusion of fish oil	Shall be less than 4%.	1
8.4	Maximum protein in the feed	Shall be less than 40%.	1
	Sources of wild fish used as feed	Only fisheries byproducts are allowed for use in fisheries ingredients[36,37]	2 (vanname i)
	Percent Inclusion of Fishmeal	Shall be less than 25%	2 (vanname i)
8.5	Movement of feed products within the country of production	• The feed supplier must provide a movement document/receipt to the farm/broker • Movement of feed must be in compliance with national and/or regional laws, if applicable • The name and contact information for all feed suppliers used by the farm must be available	1
8.6	Data recording and availability	Data relevant to compliance criteria in this section are collected using robust methods[38] and are	1

[34] Illegal Fisheries fall under the common definition of Illegal, Unreported, and/ or Unregulated.

[35] Byproducts are defined as: non-edible, (i.e. trimmings) or processing wastes

[36] Note the committee is working on definitions of sustainability for a future version

[37] Byproducts are defined as: non-edible, (i.e. trimmings) or processing wastes

[38] Complete, detailed, and available without averaging or aggregation; up to date within reason, and covering relevant timeframes; collected using appropriate methods (e.g., frequency of collection, number of data points, etc.); overall, assessor confidence is high that data accurately describes the operation and its potential impacts

		available for inspection. Collected data must be available for inspection by auditors and/ or ASIC upon request	