

- Anh, P. T., Kroeze, C., Bush, S. R., & Mol, A. P. J. 2010. Water pollution by intensive brackish shrimp farming in south-east Vietnam: Causes and options for control. *Agricultural Water Management*. 97 (6): 872–882.
- Biao, X., Zhuhong, D., & Xiaorong, W. 2004. Impact of the intensive shrimp farming on the water quality of the adjacent coastal creeks from Eastern China. *Marine Pollution Bulletin*. 48 (5–6): 543–553.
- Boyd, C. E., & Tucker, C. S. (2019). Water Quality. In: J. S. Lucas, P. C. Southgate, & C. S. Tucker (Eds.). *Aquaculture: Farming Aquatic Animals and Plants*. Wiley Blackwell. Hoboken. 63–92.
- Briggs, M. 2006. Cultured Aquatic Species Information Programme *Penaeus vannamei* Boone 1931. https://www.fao.org/fishery/en/culturedspecies/litopenaeus_vannamei/en (diakses 8 Maret 2022).
- BSN. 2014. Produksi udang vaname (*Litopenaeus vannamei* Boone, 1931) intensif di tambak lining. SNI 8008:2014. Badan Standardisasi Nasional, Jakarta.
- BSN. 2015. Produksi udang vaname (*Litopenaeus vannamei* Boone, 1931) super intensif di tambak lining. SNI 8118:2015. Badan Standardisasi Nasional, Jakarta.
- Bull, E. G., de da Cunha, C. L. N., & Scudelari, A. C. 2021. Water quality impact from shrimp farming effluents in a tropical estuary. *Water Science and Technology*. 83 (1): 123–136.
- Cao, C. 2017. Sustainability and life assessment of high strength natural fibre composites in construction. In: M. Fan & F. Fu (Eds.). *Advanced High Strength Natural Fibre Composites in Construction*. Woodhead Publishing. Cambridge. 533–535.
- Cao, L. 2012. Farming shrimp for the future: a sustainability analysis of shrimp farming in China. Doctoral Dissertation. University of Michigan. Ann Arbor.
- Cao, L., Diana, J. S., Keoleian, G. A., & Lai, Q. 2011. Life cycle assessment of Chinese shrimp farming systems targeted for export and domestic sales. *Environmental Science and Technology*. 45 (15): 6531–6538.
- D'Abramo, L. 2019. Nutrition and Feeds. In: J. S. Lucas, P. C. Southgate, & C. S. Tucker (Eds.). *Aquaculture: Farming Aquatic Animals and Plants*. Wiley Blackwell. Hoboken. 157–182.
- Dunmade, I., Madushele, N., Adedeji, P. A., & Akinlabi, E. T. 2019. A streamlined life cycle assessment of a coal-fired power plant: the South African case study. *Environmental Science and Pollution Research*. 26 (18): 18484–18492.

EPA. 2022a. Understanding Global Warming Potentials. <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials> (diakses 3 Desember 2022)

EPA. 2022b. Sources of Greenhouse Gas Emissions. United States Environmental Protection Agency. <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions> (diakses 3 Desember 2022)

FAO. 2016. Sustainable intensification of aquaculture in the Asia-Pacific region - documentation of successful practice. FAO. Bangkok. 1-6 pp.

FAO. 2020. The State of World Fisheries and Aquaculture 2020. FAO. Rome. 30 p.

FAO. 2021a. FAO Yearbook. Fishery and Aquaculture Statistics 2019. FAO. 32 p.

FAO. 2021b. Global aquaculture production Quantity (1950 - 2020). https://www.fao.org/fishery/statistics-query/en/aquaculture/aquaculture_quantity (diakses 1 Juni 2022)

FAO, NACA, UNEP, WB, & WWF. 2006. International Principles for Responsible Shrimp Farming. Network of Aquaculture Centres in Asia-Pacific (NACA). Bangkok. 1-2 pp.

Fitwi, B. S., Wuertz, S., Schroeder, J. P., & Schulz, C. 2012. Sustainability assessment tools to support aquaculture development. Journal of Cleaner Production. 32: 183–192.

Guinee, J. B., & Lindeijer, E. 2004. Handbook on Life Cycle Assessment. Kluwer Academic Publishers. New York. 71-82 pp.

Haryanto, N. 2022. Standar Nasional Indonesia Menuju Ekolabel Tipe III. <https://bsn.go.id/main/berita/detail/12769/standar-nasional-indonesia-menuju-ekolabel-tipe-iii> (diakses 17 Juni 2022)

Henriksson, J. P. G., Mohan, C. V., & Phillips, M. J. 2017. Evaluation of Different Aquaculture Feed Ingredients in Indonesia Using Life Cycle Assessment. IJoLCAS. 1: 13–21.

Henriksson, P. J. G., Guinée, J. B., Kleijn, R., & de Snoo, G. R. 2012. Life cycle assessment of aquaculture systems-a review of methodologies. International Journal of Life Cycle Assessment. 17 (3): 304–313.

Hidayati, N. V., Prudent, P., Asia, L., Vassalo, L., Torre, F., Widowati, I., Sabdono, A., Syakti, A. D., & Doumenq, P. 2020. Assessment of the ecological and human health risks from metals in shrimp aquaculture environments in Central Java, Indonesia. Environmental Science and Pollution Research. 27 (33): 41668–41687.

Honda, M., & Suzuki, N. 2020. Toxicities of polycyclic aromatic hydrocarbons for aquatic animals. International Journal of Environmental Research and Public Health. 17 (4): 1363.

ISO. 2006. Environmental management- Life cycle assessment-Principles and framework (ISO 14040:2006). European Committee for Standardisation. Brussels.

Iswara, A. P., Farahdiba, A. U., Nadhifatin, E. N., Pirade, F., Andhikaputra, G., Muflihah, I., & Boedisantoso, R. 2020. A comparative study of life cycle impact assessment using different software programs. IOP Conference Series: Earth and Environmental Science. 506 (1): 1–7.

Jonell, M., & Henriksson, P. J. G. 2015. Mangrove-shrimp farms in Vietnam-Comparing organic and conventional systems using life cycle assessment. Aquaculture. 447: 66–75.

Jory, D. 2019. Shrimps. In: J. S. Lucas, P. C. Southgate, & C. S. Tucker (Eds.). Aquaculture: Farming Aquatic Animals and Plants. Wiley Blackwell. Hoboken. 499-526.

KKP. 2016. Peta Sentra Produksi Perikanan Budidaya Direktorat Produksi dan Usaha Budidaya. Direktorat Produksi dan Usaha Budidaya. Jakarta.

KKP. 2018. Kelautan dan Perikanan Dalam Angka 2018. <https://kkp.go.id/setjen/satudata/artikel/9669-kelautan-dan-perikanan-dalam-angka-2018-telah-terbit> (diakses 7 Februari 2022).

KKP. 2021. Budidaya udang vaname (*Litopenaeus vannamei*) di tambak milenial millenial shrimp farming (MSF). Balai Perikanan Budidaya Air Payau Situbondo. Situbondo. 1-3 pp.

Klinger, D., & Naylor, R. 2012. Searching for solutions in aquaculture: Charting a sustainable course. Annual Review of Environment and Resources. 37: 247–276.

Klöpffer, W., & Grahl, B. 2014. Life Cycle Assessment (LCA). Wiley-VCH. Weinheim. 191, 329 pp.

Lazard, J., Rey-Valette, H., Aubin, J., Mathé, S., Chia, E., Caruso, D., Mikolasek, O., Blancheton, J. P., Legendre, M., René, F., Levang, P., Slembrouck, J., Morissens, P., & Clément, O. 2014. Assessing aquaculture sustainability: a comparative methodology. International Journal of Sustainable Development and World Ecology. 21 (6): 503–511.

Lekang, O.-Ivar. 2013. Aquaculture engineering. WileyBlackwell. Hoboken. 201 p.

Levasseur, A. 2016. Climate change. In: Hauschild, M.Z. & Huijbregts M. A. J. (Eds.). Life Cycle Impact Assessment. Springer. New York. 39-50.

Silva, D. A. L., Nunes, A. O., Piekarski, C. M., da Silva Moris, V. A., de Souza, L. S. M., & Rodrigues, T. O. 2019. Why using different Life Cycle Assessment software tools can generate different results for the same product system? A cause–effect analysis of the problem. Sustainable Production and Consumption. 20: 304–315.

Mejor, E. 2021. Consider your audience when doing LCA. <https://pre-sustainability.com/articles/consider-your-audience-when-doing-lca/> (diakses 14 April 2022).

Mu'in, Anggoro, S., & Sasongko, S. B. 2013. Kajian dampak lingkungan penerapan teknologi bioflok pada kegiatan budidaya udang vaname dengan metode life cycle assessment. *Jurnal Ilmu Lingkungan*. 11 (2): 110–119.

Mungkung, T. R. 2005. Shrimp Aquaculture in Thailand: Application of Life Cycle Assessment to Support Sustainable Development. Doctoral Dissertation. University of Surrey. Guildford.

Oers, L. van, Guinée, J. B., & Heijungs, R. 2020. Abiotic resource depletion potentials (ADPs) for elements revisited—updating ultimate reserve estimates and introducing time series for production data. *International Journal of Life Cycle Assessment*, 25 (2): 294–308.

Paez-Osuna, F. 2001. The environmental impact of shrimp aquaculture: Causes, effects, and mitigating alternatives. *Environmental Management*. 28 (1): 131–140.

Patel, R. 2021. Obscure impacts demystified: Acidification. *PRé Sustainability*. <https://pre-sustainability.com/articles/obscure-impacts-demystified-acidification/> (diakses 6 Desember 2022).

Phillips, M., Subasinghe, R. P., Tran, N., Kassam, L., & Chan, C. Y. 2016. Aquaculture Big Numbers. FAO. Rome. 1-2 pp.

PRé. 2020. SimaPro Database Manual Methods Library. PRé Sustainability B.V. Amersfoort.

Priyono, S. B. 2020. Daya dukung lahan pasir pesisir di kabupaten bantul untuk budidaya intensif berkelanjutan udang vaname (*Litopenaeus vannamei* Boone, 1931). Disertasi. Universitas Gadjah Mada. Yogyakarta.

Raugei, M., Kamran, M., & Hutchinson, A. 2020. A prospective net energy and environmental life-cycle assessment of the UK electricity grid. *Energies*. 13 (9): 2207.

Reis, J., Weldon, A., Ito, P., Stites, W., Rhodes, M., & Davis, D. A. 2021. Automated feeding systems for shrimp: Effects of feeding schedules and passive feedback feeding systems. *Aquaculture*. 541: 736800.

Revulaningtyas, I. R. 2013. Life Cycle Assessment Pada Proses Pembesaran Udang Vannamei (*Litopenaeus vannamei*) di PT Indokor Bangun Desa. Tesis. Universitas Gadjah Mada. Yogyakarta.

Rubel, H., Woods, W., Pérez, D., Meyer, A., Felde, Z., Zielcke, S., Lidy, C., & Lanfer, C. 2019. A strategic approach to sustainable shrimp production in indonesia the case for improved economics and sustainability. Boston Consulting Group. Boston. 22 p.

Saiya, H. G., & Katoppo, D. R. 2015. Waste management of shrimp farms as starting point to develop integrated farming systems (case study: Kuwaru Coast, Bantul, Yogyakarta, Indonesia). *Journal of Degraded and Mining Lands Management*. 3 (1): 423–432.

Songsangjinda, P. 2016. Development and dissemination of closed (semi-closed) intensive shrimp farming system in Thailand. In: W. Miao & K. K. Lal (Eds.). *Sustainable intensification of aquaculture in the Asia-Pacific region documentation of successful practices*. FAO. Bangkok. 130–142.

Sun, W. 2009. Life cycle assessment of indoor recirculating shrimp aquaculture system. Thesis. University of Michigan. Ann Arbor.

Sunaryo, F. K., Prasetyo, B. E., Kurniadi, C. B., Setiadi, I., Rabbani, Q., Fajarwati, P. A., & Hernawati, S. 2020. Inventarisasi Emisi GRK Bidang Energi. Pusat Data dan Teknologi Informasi Energi dan Sumber Daya Mineral. Jakarta. 16-18.

Tretyakova, M. O., Vardavas, A. I., Vardavas, C. I., Iatrou, E. I., Stivaktakis, P. D., Burykina, T. I., Mezhuiev, Y. O., Tsatsakis, A. M., & Golokhvast, K. S. 2021. Effects of coal microparticles on marine organisms: A review. *Toxicology Reports*. 8: 1207-1219.

Tukker, A. 2000. Life cycle assessment as a tool in environmental impact assessment. In *Environmental Impact Assessment Review*. 20 (4): 2000.

USDA. Critical Loads - Atmospheric Deposition. https://www.srs.fs.usda.gov/airqualityportal/critical_loads/atmospheric_deposition.php#footnote1 (diakses 17 Januari 2023).

Wati, L. A., Chang, W.-I., & Mustadjab, M. M. 2013. Competitiveness of Indonesian shrimp compare with Thailand shrimp in export market. *Wacana*. 16 (1): 24–31.

Wernet, G., Bauer, C., Steubing, B., Reinhard, J., Moreno-Ruiz, E., & Weidema, B. 2016. The ecoinvent database version 3 (part I): overview and methodology. *International Journal of Life Cycle Assessment*. 21 (9): 1218–1230.

Wiloso, E. I., Nazir, N., Hanafi, J., Siregar, K., Harsono, S. S., Setiawan, A. A. R., Muryanto, Romli, M., Utama, N. A., Shantiko, B., Jupesta, J., Utomo, T. H. A., Sari, A. A., Saputra, S. Y., & Fang, K. 2019. Life cycle assessment research and application in Indonesia. *International Journal of Life Cycle Assessment*. 24 (3): 386-396.

Wu, Y., & Su, D. 2020. Review of life cycle impact assessment (LCIA) methods and inventory databases. In: Su, D. (Eds.). *Sustainable Product Development Tools, Methods, and Examples*. Springer. Nottingham. 39-56

Yuwono, N. W. 2009. Membangun kesuburan tanah di lahan marginal. *Jurnal Ilmu Tanah Dan Lingkungan*. 9 (2): 137–141.