Eco. Env. & Cons. 26 (3): 2020; pp. (1085-1089)

Copyright@ EM International

ISSN 0971-765X

Environmental management: A study on the precautionary principle in siak regency of Indonesia towards sustainable development

Sri Maulidiah¹, Monalisa¹, Zaini Ali¹, Sharifah Zarina Syed Zakaria², Nuriah Abd. Majid², Kadir Arifin³, Zuliskandar Ramli⁴ Emrizal⁵ and Muhammad Rizal Razman⁶

¹Faculty of Social and Political Sciences, Universitas Islam Riau, Jalan Kaharuddin Nasution, No. 113, Simpang Tiga Marpoyan, 28284 Pekanbaru, Riau, Indonesia. ²Research Centre for Environmental, Economic and Social Sustainability (KASES), Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia, 43600 UKM Bangi, Selangor, Malaysia. ³Social, Environmental, Developmental Sustainability Research Centre (SEEDS), Faculty of Social Sciences and Humanities (FSSK), Universiti Kebangsaan Malaysia, 43600 UKM, Bangi, Selangor, Malaysia. ⁴Institute of the Malay World and Civilization (ATMA), Universiti Kebangsaan Malaysia, 43600 UKM Bangi, Selangor, Malaysia. ⁵Faculty of Forestry, Universitas Lancang Kuning, Jalan Yos Sudarso KM. 8, Umban Sari, Rumbai, Pekanbaru, Riau 28266, Indonesia. ⁶Research Centre for Sustainability Science and Governance (SGK), Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia, 43600 UKM Bangi, Selangor, Malaysia.

(Received 3 March, 2020; accepted 16 April, 2020)

ABSTRACT

The use of the precautionary principle to the area of environmental management and sustainability, largely in response to the necessity of every each individual state to protect their rights and interests in order to safeguard the Mother Nature. Therefore, this study examines the used of the precautionary principle in the Siak Regency of Indonesia focusing on the planning laws in relation to the environmental management and sustainability from the legal perspectives; identify actions, which deal with the protection to the environment as well as a tool for the achievement in sustainable development.

Key words: Environmental management and sustainability, Precautionary principle, Planning laws

Introduction

Environmental management as described many researchers is a mixture of various features of life including culture, social, economic and environment (Abdul Samad *et al.*, 2007, Zainal *et al.*, 2011, Zainal *et al.*, 2012). Abdul Samad *et al.* (2007) further defined eenvironmental management as a capacity to sustain the quality of life we value or to which we aspire. In operational words, it is usually analyses

as ornamental the environment, social, cultural and economic well-being of current and future inhabitants (Abdul Samad *et al.*, 2007; Zainal *et al.*, 2011; Zainal *et al.*, 2012). Environmental management have been also submitted as related to the concept of sustainable development.

The concept of sustainable development

The concept of sustainable development has been defined by the World Commission on Environment

and Development as 'development that meets the needs of the present generation without compromising the ability of the future generations to meet their own needs.' The above-said concept covers two essential scopes, i.e. environment and social aspects. This concept of sustainable development has been highlighted in the 1992 United Nations Conference on Sustainable Development in Rio de Janeiro, as the results, Agenda 21 and Rio Declaration has been established. According to Sands (1995, 2003), Agenda 21 emphasises the following matters, which include sustainable human settlement, population, consumption pattern, poverty and human health. On the other hand, Mensah (1996) stated that the Rio Declaration addresses on mankind entitlements and rights, which include health and productive life.

Basically this concept of sustainable development has been an element in the international legal framework since early as 1893. According to the case of United States of America v Great Britain (1893) 1 Moore's Int. Arb. Awards 755, well known as Pacific Fur Seals Arbitration, where in this case the United States of America has stated that a right to make sure the appropriate and lawful use of seals and to protect them, for the benefit of human beings, from meaningless destruction (Razman *et al.*, 2009b; Razman *et al.*, 2010c; Emrizal and Razman 2010).

Sands (1995) indicated that this concept of sustainable development is perhaps the greatest contemporary expression of environmental policy, commanding support and presented as a fundamental at the Rio Summit, Rio Declaration on Environment and Development in year 1992 (Razman *et al.*, 2011, Emrizal and Razman, 2010).

According to Article 33 of the Lome' Convention 1989 states that 'in the framework of this Convention, the protection and the enhancement of the environment and natural resources, the halting of deterioration of land and forests, the restoration of ecological balances, the preservation of natural resources and their rational exploitation are basic objectives that the African-Caribbean-Pacific (ACP) states concerned shall strive to achieve with Community support with a view to bring an immediate improvement in the living conditions of their populations and to safeguarding those of future generations (Razman et al., 2009c; Emrizal and Razman 2010; Razman et al., 2012), which include planning management aspects by promoting the precautionary principle to the area of environmental management and sustainability.

Siak Regency Of Indonesia Planning Law

According to the Law Number 23 Year 2014, it is required for every local government of Indonesia which includes Siak Regency of Indonesia to prepare and design a planning model which covers three main aspects. There are

- a. The substances of the planned activity for the planning model;
- b. Elements that make up the planning model; and
- c. Procedures in preparation the planning model

The presence of planning law plays an important role in the stability of environmental sustainability. Thus, this study examines the implementation of the planning law of the Law Number 23 Year 2014 in Siak Regency of Indonesia based on environmental management towards environmental sustainability. Such study is important because it can help for better understanding the role of the said principle to the area of environmental management and sustainability.

Precautionary Principle

The precautionary principle gives direction and assistance in the development and appliance of the environmental management where there is scientific doubt (Sands 2003; Razman and Azlan 2009; Razman *et al.*, 2010c). This principle derived from the traditional approach in dealing with environmental management. According to the traditional approach, where all parties concerned have been called and these parties created their institutions in order to adopt and apply decisions that are found upon "scientific evidences" or knowledge and information accessible at that particular occasion (Harris, 1991; Sands, 1995; Razman *et al.*, 2010b).

Basically this traditional approach put forward that act shall only be taken where there is scientific findings that noteworthy environmental harm is taking place and on other hand, in the absence of the scientific evidence, therefore, no action may be necessary.

However, in middle 1980s, where a change of the traditional approach has been shown. Example of a change of the traditional approach has been shown include Ministerial Declaration of International Conference on the Protection of the North Sea, 1984, which allows states to take action without the scientific evidence of damaging effects since the damage of the marine environment cannot be remedial or

MAULIDIAH ET AL 1087

irreversible for a short period (Sands 2003; Razman *et al.*, 2009b; Razman *et al.*, 2010b, Sulaiman and Razman, 2010). In addition the Montreal Protocol, 1987, which applies precautionary principle approach rather than the traditional approach where allows states to take action without the scientific evidence of damaging effects in dealing with controlling emission of (chlorofluorocarbon) CFCs.

In 1990, the Bergen Ministerial Declaration on Sustainable Development in Economic Commission for Europe (ECE) region was the first instrument to link with the sustainable development principle and the precautionary principle (Mensah 1996, Sands 1995; Razman *et al.*, 2009c; Razman *et al.*, 2010a).

Since the above-said Declaration, there are a number of the environmental treaties that have adopted the precautionary principle into those instruments. In 1991, Bamako Convention has linked and put together the precautionary principle and the traditional approach, where this formulation in Bamako Convention does not need to be irreversible or serious; and lesser the entrance at which scientific proof might need action (Razman *et al.*, 2009a; Razman *et al.*, 2009c; Razman *et al.*, 2010c; Zainal *et al.*, 2011).

As for parties involved in the Transboundary Watercourses Convention, 1992 agreed upon to adopt the same approach in Bamako Convention, 1991. Some environmental treaties do not specifically express in adopting the precautionary principle as part of their instruments but these environmental treaties in managing environment noted the precautionary principle in their Preamble. For an example, the Biodiversity Convention, 1992 does not expressly specifically adopt the precautionary principle but in the Preamble of the Biodiversity Convention, 1992 Moreover, the Earth Summit at Rio de Janeiro in the year 1992 has adopted the precautionary principle. It is clearly that shown and highlighted in the Principle 15 of the Rio Declaration (Razman et al., 2009a; Razman et al., 2009c, Razman et al., 2010c, Zainal et al., 2011).

Environmental management: The precautionary principle experiences in siak regency of Indonesia

Basically Siak Regency of Indonesia's local government is using a specific planning model known as Management of Change Model with applying based on the precautionary principle. The implementation of this kind of planning model is according to Law Number 23 of 2014 (Rauf *et al.*, 2016; Rauf, 2018).

The precautionary principle is one of the principles in the management change model. The idea that managers' choice of organizational structure and control systems depends on - precautionary on characteristics of the external environment in which the organization operates (Rauf *et al.*, 2016; Rauf, 2018). Every organization operating within a particular environment needs to adjust and ensure precautionary toward the demands of the external environment in which it is located. The precautionary principle is considered an important mile-stone in the development of management change model (Rauf *et al.*, 2016; Rauf, 2018).

Based on the explanation above, it can be seen that there is a change in the planning model for the implementation planning activities in Siak Regency based on the discretion article on Law Number 30 Year 2018 concerning Government Administration, based on article 1 point (9) the Act states that Discretion is: / or actions determined and / or carried out by government officials to overcome concrete problems faced in the administration of government in terms of legislation that provides choices, does not regulate, is incomplete or unclear, and / or there is government stagnation.

In connection with the discretion, then in Article 22 of Law Number 30 of 2014, it is stated that:

- Discretion can only be carried out by authorized government officials.
- (2) Every use of the discretion of government officials aims to:
- a. Launch governance;
- b. Fill in the legal vacuum;
- Overcoming the stagnation of government in certain circumstances for benefit and public interest

Furthermore, the discretion was also explained in article 23 of Law Number 30 of 2014, namely, Discretion of government officials includes:

- Taking decisions and / or actions based on the provisions of legislation that provide a choice of decisions and / or actions.
- b. Taking decisions and / or actions because the laws and regulations do not regulate.
- c. Taking decisions and / or actions because the legislation is incomplete or unclear.
- d. Taking decisions and / or actions due to government stagnation for wider interests.

Therefore, in the implementation of discretion in the implementation of government, there are several requirements as stated in 24 Law Number 30 of 2014 concerning Government Administration stating that, Government officials who use discretion must meet the requirements.

Based on the above discussion, it can be said that government officials can take decisions or actions in the public interest in the form of discretion, so that government activities can be carried out in accordance with the demands and needs of the local community towards sustainable development. Finally, the precautionary principle approach may be considered as one of sources of the planning law as the principle position as a general principle of law and also the management change model of planning in order to attain sustainable development by promoting the precautionary principle to the area of environmental management and sustainability.

Conclusion

The legal standing of the environmental management and sustainability by promoting precautionary principle in order to achieve sustainable development is still developing, at least, nevertheless, there is enough proof of states conduct and put into practice to give good reason for the wrapping up that the above-said principle as highlighted in those above-mentioned planning laws of Indonesia have recently acknowledged the satisfactorily extensive support to permit an excellent argument to be created which it reflects the legal standing to ensure the the Siak Regency of Indonesia on regards planning laws aspects by promoting the precautionary principle to the area of environmental management and sustainability to achieve sustainable development.

Acknowledgement

This study was conducted by using the research funding of the (XX-2018-008) research project.

References

Abdul Samad Hadi, Shaharudin Idrus, Abdul Hadi Harman Shah and Ahmad Fariz Mohamed, 2007. Shaping livable cities for Malaysia. In: Abdul Samad Hadi, Shaharudin Idrus, Abdul Hadi Harman Shah, Ahmad Fariz Mohamed and Norlida Mohamed Hamim (eds.). Modelling local sustainability: Developing a conceptual framework for sustainable development: 11-18. Bangi: Institute for Environment & Development (LESTARI), Universiti Kebangsaan Malaysia.

- Emrizal and Razman, M.R. 2010. The study on international environmental law and governance: Focusing on the Montreal Protocol and the role of Transboundary Liability Principle. *Social Sciences*. 5 (3): 219-223.
- Harris, D.J. 1991. Cases and Materials on International Law. London: Sweet and Maxwell.
- Perundangan Mensah, C. 1996. The United Nations Commission on Sustainable Development. In: J Werksman (Eds.). *Greening International Institutions*. 21-37. London: Earthscan.
- Rauf, R. 2018. Principles for Organizing Regional Government. Pekanbaru: Zanafa Publishing.
- Rauf, R., Nurman, Zakaria, S.Z.S. and Arifin, K. 2016. Trend analysis of operation: Local governance perspectives in Indonesia. *Information*. 19 (6A): 1729 - 1736.
- Razman, M.R. and Azlan, A. 2009. Safety issues related to polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) in fish and shellfish in relation with current Malaysian laws. *Journal of Food, Agriculture and Environment.* 7 (3-4): 134-138.
- Razman, M.R., Azlan, A., Jahi, J.M., Arifin, K., Aiyub, K., Awang, A. and Lukman, Z.M. 2010a. Consumer protection on food and environmental safety based on statutory implied terms in Malaysian sale of goods law: Focusing on urban sustainability. *International Business Management*. 4 (3): 134-138.
- Razman, M.R., Azlan, A., Jahi, J.M., Arifin, K., Aiyub, K., Awang, A. and Lukman, Z.M. 2010b. Urban sustainability and Malaysian laws on environmental management of chemical substances. *Research Journal of Applied Sciences*. 5 (3): 172-176.
- Razman, M.R., Hadi, A.S., Jahi, J.M., Arifin, K., Aiyub, K., Awang, A., Shah, A.H.H., Mohamed, A.F. and Idrus, S. 2009a. The legal approach on occupational safety, health and environmental management: Focusing on the law of private nuisance and International Labour Organisation (ILO) Decent Work Agenda. *International Business Management*. 3 (3): 47-53
- Razman, M.R., Hadi, A.S., Jahi, J.M., Shah, A.H.H., Mohamed, A.F., Idrus, S., Arifin, K., Aiyub, K. and Awang, A. 2009b. The international law mechanisms to protect human habitat and environment: Focusing on the principle of transboundary liability. *International Business Management*. 3 (3): 43-46.
- Razman, M.R., Hadi, A.S., Jahi, J.M., Shah, A.H.H., Sani, S. and Yusoff, G. 2010c. A study on the precautionary principle by using interest approach in the negotiations of the Montreal Protocol focusing on the international environmental governance and law. *Journal of Food, Agriculture and Environment*. 8 (1): 372-377.
- Razman, M.R., Hadi, A.S., Jahi, J.M., Shah, A.H.H., Sani,

MAULIDIAH ET AL 1089

- S. and Yusoff, G. 2009c. A study on negotiations of the Montreal Protocol: Focusing on global environmental governance specifically on global forum of the United Nations Environmental Programme. *Journal of Food, Agriculture and Environment*. 7 (3-4): 832-836.
- Razman, M.R., Yusoff, S.S.A., Suhor, S., Ismail, R., Aziz, A.A. and Khalid, K.A.T. 2011. Regulatory framework for land-use and consumer protection on inland water resources towards sustainable development. *International Business Management*. 5 (4): 209-213
- Razman, M.R., Jahi, Z.M., Zakaria, S.Z.S., Hadi, A.S., Arifin, K., Aiyub, K. and Awang, A. 2012. Law of private nuisance as a tool of environmental awareness in Malaysia towards sustainable development. *International Business Management*. 6 (2): 270-276.
- Sands, P. 1995. Principles of International Environmental Law

- *I: Frameworks, Standards and Implementation.*Manchester: Manchester University Press.
- Sands, P. 2003. *Principles of International Environmental Law*. Cambridge: Cambridge University Press.
- Sulaiman, A. and Razman, M.R. 2010. A comparative study on the International and Islamic Law: Focusing on the transboundary liability and trespass for better living environment in urban region. *Social Sciences*. 5 (3): 213-218.
- Zainal, H. M. R., Razman, M.R. and Jahi, J.M. 2011. Interest on costs and benefits approach in urban sustainability: Focusing on the precautionary principle. *International Business Management*. 5 (3): 114-118.
- Zainal, R., Razman, M.R. and Jahi, J.M. 2012. A study on urban sustainability and the principle of transboundary liability: The interest approach paradigm. *Journal of Food, Agriculture and Environment*. 10 (2): 984-987.