

## **Interest on Costs and Benefits Approach in Urban Sustainability: Focusing on the Precautionary Principle**

<sup>1,2</sup>H.M. Rusli Zainal, <sup>3</sup>Muhammad Rizal Razman and <sup>2</sup>Jamaluddin Md Jahi

<sup>1</sup>Riau Governor's Office, Pekanbaru, Riau, Indonesia

<sup>2</sup>Institute of the Malay World and Civilization (ATMA),

<sup>3</sup>Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia,  
43600 UKM Bangi, Selangor, Malaysia

---

**Abstract:** Interest approach which concerns with costs and benefits would lead for environmental co-operations that plays an important role in urban sustainability by promoting the precautionary principle. The used of the precautionary principle to the area of urban sustainability, largely in response to the necessity of every each individual state to protect their rights and interests in order to safeguard the environment in urban area. Therefore, this study will examine the used of the interest approach which concerns with costs and benefits which promote the precautionary principle in relation to the urban sustainability from the legal perspectives; identify actions which deal with the protection for the human habitat and environment as well as a tool for the achievement in sustainable development in urban area.

**Key words:** Environment, urban area, cost and benefits, human habitat, urban sustainability, Malaysia

---

### **INTRODUCTION**

Urban sustainability as described many researchers is a mixture of various features of life including culture, social, economic and environment (Hadi *et al.*, 2007). Hadi further defined urban sustainability 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 (Hadi *et al.*, 2007). Urban sustainability has been also submitted as related to the concept of sustainable development.

### **INTEREST ON COST AND BENEFIT APPROACH**

According to Barrett (2003) and Hasenclever *et al.* (1997), the interest approach is one of the essential elements that influence in environmental co-operation which include urban surrounding to achieve sustainable development. These scholars also argue that this approach helps states around the globe to realise the common interests during the environmental co-operation negotiations. This interest approach can be divided into two groups (Barrett, 2003; Hasenclever *et al.*, 1997), namely; the 1st group that emphasises on the international institutions and the 2nd group which is less

using the international institutions. The 1st group emphasises on the international institutions effort to bring together states around the globe to realise the common interests that balance with benefits and costs involvement in creating environmental co-operations (Hasenclever *et al.*, 1997). The international institutions always ensure that all states will be benefited with the co-operation that being created in order to achieve joint gains and to reduce potential costs expenditure. Nevertheless, the international institutions are capable of making all states that are involved to notice the common interest in that particular environmental co-operations even when the elements that brought them in the first place being no longer effective (Hasenclever *et al.*, 1997).

As for Hasenclever *et al.* (1997), this situation as co-operation under the umbrella of anarchy or utilitarian approach. In addition, Hasenclever *et al.* (1997) also regarded this approach as a game theory. Meanwhile, Keohane (1984) and Oye (1986) argued that the international institutions will not be able to fulfill the optimal outcomes of every member state for instance in the position of the Prisoner's dilemma game. However, the international institutions may facilitate and smooth the progress of gaining common benefits by heartening reciprocity in the negotiation which treated others as you would like to be treated with upgrading level of communication and information. Therefore, the

international institutions will be able to persuade state response in order to maneuver results in the international environmental co-operations. According to Barrett (2003), the 2nd group is less using international institutions and the game theory as vehicles to gain from the interest approach in the environmental co-operations. As for Barrett (2003), interest in environmental co-operations must be derived from individual state needs and capacity. Each individual state will calculate its own benefits and perceived costs that will be incurred. Interest of a state begins when a particular issue that is being raised has shown a lot of benefits to the said state (Snidal, 1991; Barrett, 2003; Sands, 2003). Finally, it is very important to bring in the interest approach in the negotiations of creating of the environmental co-operations, regardless if the interest approach is using the 1st group theory or the 2nd group ideas. The main purpose to build up the environmental co-operations is to tackle environmental problems (Snidal, 1991; Barrett, 2003; Sands, 2003) in urban area and subsequently able to achieve sustainable development.

#### **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), 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 vs. 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.

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). The Article 33 introduces into legal framework the concept of sustainable development with one of the approach under the precautionary principle.

#### **PRECAUTIONARY PRINCIPLE**

According to Article 38 (1) of the Statute of the International Court of Justice, sources of the international law are:

- International conventions
- International custom as an evidence of a general practice accepted as law
- The general principles of law recognised by civilised nations
- Judicial decisions of the International Court or Tribunal

It is clearly that the general principles of law are being considered as the sources of the international law. Basically, there are seven general principles of law that concern with international environmental protection which is shown as (Sands, 1995):

- Precautionary principle
- Preventive principle
- Polluter-pays principle
- Good neighbourliness and international co-operation principle
- Common but different responsibility principle
- Principle 21 of the Stockholm Declaration and Principle 2 of the Rio Principle

Therefore, this study will concentrate and discuss one of the above-said general principles of law which is

the precautionary principle and this study will look into the role of the principle in protecting the environment in order to achieve sustainable development based on the international legal perspectives. The precautionary principle gives direction and assistance in the development and appliance of the international environmental law 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 international environmental protection. 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). List of International conventions that required scientific evidence in taking actions is shown as (Sands, 1995):

- International Whaling Convention, 1946
- Antarctic Seals Convention, 1972
- World Heritage, 1972
- London Convention, 1972
- Bonn Convention, 1979

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 irreversible for a short period (Sands, 2003; 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 1st instrument to link with the sustainable development principle and the precautionary principle (Mensah, 1996; Sands, 1995, Razman *et al.*, 2010a). According to paragraph seven of the Bergen Ministerial Declaration on sustainable development, 1990 states that:

In order to achieve sustainable development, policies must be based on precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are treats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation

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. According to the Article 4 (3) (f) Bamako Convention, 1991 states that:

the preventive, precaution approach to pollution which entails, inter alia, preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm. These parties shall co-operate with each other in taking the appropriate measures to implement the precautionary principle to pollution prevention through the application of clean production method

As for parties involved in the Transboundary Watercourses Convention, 1992 agreed upon to adopt the same approach in Bamako Convention, 1991. Based on the Article 2 (5) (a) of the Transboundary Watercourses Convention, 1992 provides that:

by virtue of which action to avoid the potential transboundary impact of the release of the hazardous substances shall not be postponed on the ground the scientific research has not fully proved a causal link between those substances on the other hand and the potential transboundary impact on the other hand

Some environmental treaties do not specifically express in adopting the precautionary principle as part of their instruments but these environmental treaties 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 provides that:

where there is a threat of significant reduction or loss of biological diversity, lack of full there is a scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat

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. The Principle 15 of Rio declaration states that:

Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as reason for postponing cost-effective measures to prevent environmental degradation

### **INTEREST ON COSTS AND BENEFITS APPROACH IN URBAN SUSTAINABILITY: FOCUSING ON THE PRECAUTIONARY PRINCIPLE**

Based on the discussion, according to paragraph seven of the Bergen Ministerial Declaration on sustainable development, 1990 states that inter alia where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. It is clearly that the above-said provision tries to emphasize the adoption of the interest approach on costs and benefits which include urban area by promoting precautionary principle in order to achieve sustainable development by using the words of should not be.

On the other hand, the Principle 15 of the Rio declaration provides that inter alia where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as reason for postponing cost-effective measures to prevent environmental degradation. This provision of the Rio declaration has highlighted that the application of the interest approach on costs and benefits which include urban area by promoting precautionary principle in order to achieve sustainable development as mandatory based on the words of shall not be.

An additional essential transformation would be adopted by an interpretation of the precautionary principle, increasingly extensively held that would shift the burden of proof (Sands, 1995; Razman *et al.*, 2009a; Sulaiman and Razman, 2010). Based on the current approach that is the precautionary principle approach would shift the burden of proof and need the project proponent who intends to develop a project to bring evidences which the said project will not cause harm to the environment in order to attain sustainable development (Sands, 1995; Razman *et al.*, 2010c). Whereas, the traditional approaches indicate that the burden of proof is on the shoulder of the party who oppose a development project. Later the oppose party to the said development project is required to bring

evidences to proof that the said development project is likely to cause harm to the environment (Sands, 2003; Razman *et al.*, 2010b) which include urban area in order to achieve sustainable development.

As for Malaysia is concerned, the Environmental Quality Act, 1974 has adopted the precautionary principle approach, especially based on section 34A of the Environmental Quality Act, 1974. According to section 34A (2) of the Environmental Quality Act, 1974 states that:

Any person intending to carry out any of the prescribed activities shall before any approval for carrying out such activity is granted by the relevant approving authority, submit a report to the Director General. The report shall be in accordance with guidelines prescribed by the Director General and shall contain an assessment of the impact such activity will have or is likely to have on the environment and the proposed measures that shall be undertaken to prevent, reduce or control the adverse impact on the environment

Clearly that the above-said provision requires the project proponent to bring evidences in the form of a report which indicate that the development project will not cause harm to the environment in order to achieve sustainable development and if the project is likely to harm the environment, the project proponent is required to proposed measures that shall be undertaken to prevent, reduce or control the adverse impact on the environment (Razman and Azlan, 2009; Razman *et al.*, 2010a).

According to Malaysian experience on environmental impact assessment which has been discussed before, it is clearly shown as the state practice to attain sustainable development. The state practice has adopted precautionary principle approach in order to achieve sustainable development. Based on Article 38 (1) (b) of the statute of the International Court of Justice identifies state practice as the international customary law and this international customary law being classified as one of the sources of the international law. Finally, the precautionary principle approach may be considered as one of sources of the international environmental law as the principle position as a general principle of law and also an international customary law in order to attain sustainable development which include urban sustainability.

### **CONCLUSION**

The legal standing of the interest approach on costs and benefits urban area 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 before-mentioned treaties have recently acknowledged the satisfactorily extensive support to permit an excellent argument to be created which it reflects the legal standing to ensure to urban sustainability through the interest approach on costs and benefits.

#### ACKNOWLEDGEMENT

Part of this study was conducted by using the research funding of the UKM-GGPM-PLW-037-2010 project.

#### REFERENCES

- Barrett, S., 2003. *Environment and Statecraft: The Strategy of Environmental Treaty Making*. 1st Edn., Oxford University Press, Oxford, UK., ISBN: 0-19-928609-4.
- Emrizal and M.R. Razman, 2010. The study on international environmental law and governance: Focusing on the montreal protocol and the role of transboundary liability principle. *Soc. Sci.*, 5: 219-223.
- Hadi, A.S., S. Idrus, A.H.H. Shah and A.F. Mohamed, 2007. *Shaping Livable Cities for Malaysia*. In: *Modelling Local Sustainability: Developing a Conceptual Framework for Sustainable Development*, Hadi, A.S., S. Idrus, A.H.H. Shah, A.F. Mohamed and N.M. Hamim (Eds.). LESTARI, Universiti Kebangsaan Malaysia, Bangi, pp: 11-18.
- Harris, D.J., 1991. *Cases and Materials on International Law*. Sweet and Maxwell, London.
- Hasenclever, A., P. Mayer and V. Rittberger, 1997. *Theories of International Regimes*. 1st Edn., Cambridge University Press, Cambridge, MA., ISBN-13: 9780521591454.
- Keohane, R., 1984. *After Hegemony: Cooperation and Discord in the World Political Economy*. 1st Edn., Princeton University Press, Princeton, New Jersey, USA., ISBN-13: 978-0-691-12248-9.
- Mensah, C., 1996. *The United Nations Commission on Sustainable Development*. In: *Greening International Institutions*, Werksman, J. (Ed.). Earthscan, London, pp: 21-37.
- Oye, K., 1986. *Cooperation Under Anarchy*. 1st Edn., Princeton University Press, Princeton, New Jersey, USA.
- Razman, M.R. and A. Azlan, 2009. Safety issues related to polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) in fish and shellfish in relation with current Malaysian laws. *J. Food Agric. Environ.*, 7: 134-138.
- Razman, M.R., A.S. Hadi, J.M. Jahi, K. Arifin and K. Aiyub *et al.*, 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. *Int. Bus. Manage.*, 3: 47-53.
- Razman, M.R., A.S. Hadi, J.M. Jahi, A.H.H. Shah and A.F. Mohamed *et al.*, 2009b. The international law mechanisms to protect human habitat and environment: Focusing on the principle of transboundary liability. *Int. Bus. Manage.*, 3: 43-46.
- Razman, M.R., A.S. Hadi, J.M. Jahi, A.H.H. Shah, S. Sani and G. Yusoff, 2009c. A study on negotiations of the montreal protocol: Focusing on global environmental governance specifically on global forum of the United Nations environmental programme. *J. Food Agric. Environ.*, 7: 832-836.
- Razman, M.R., A. Azlan, J.M. Jahi, K. Arifin, K. Aiyub, A. Awang and Z.M. Lukman, 2010a. Consumer protection on food and environmental safety based on statutory implied terms in Malaysian sale of goods law: Focusing on urban sustainability. *Int. Bus. Manage.*, 4: 134-138.
- Razman, M.R., A. Azlan, J.M. Jahi, K. Arifin, K. Aiyub, A. Awang and Z.M. Lukman, 2010b. Urban sustainability and Malaysian laws on environmental management of chemical substances. *Res. J. Applied Sci.*, 5: 172-176.
- Razman, M.R., A.S. Hadi, J.M. Jahi, A.H.H. Shah, S. Sani and G. Yusoff, 2010c. A study on the precautionary principle by using interest approach in the negotiations of the montreal protocol focusing on international environmental governance and law. *J. Food Agric. Environ.*, 8: 372-377.
- Sands, P., 1995. *Principles of International Environmental Law I: Frameworks, Standards and Implementation*. Manchester University Press, Manchester.
- Sands, P., 2003. *Principles of International Environmental Law*. Cambridge University Press, Cambridge.
- Snidal, D., 1991. Relative Gains and the pattern of international cooperation. *Am. Political Sci. Rev.*, 85: 701-726.
- Sulaiman, A. and M.R. Razman, 2010. A comparative study on the international and islamic law: Focusing on the transboundary liability and trespass for better living environment in urban region. *Soc. Sci.*, 5: 213-218.