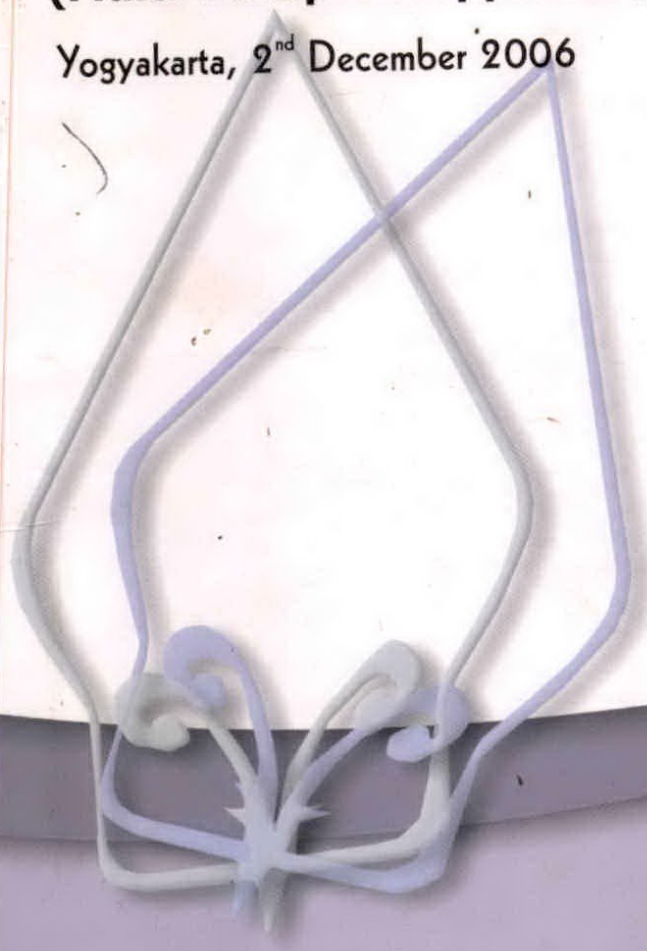


Proceeding

International Joint Seminar

**Muslim Countries and Development :
Achievements, Constraints and Alternative Solutions
(Multi-Discipline Approach)**

Yogyakarta, 2nd December 2006



Organized by:



ISBN 979-3700-10-6

Proceeding

International Joint Seminar

**Muslim Countries and Development :
Achievements, Constraints and Alternative Solutions
(Multi-Discipline Approach)**

Yogyakarta, 2nd December 2006

Organized by:



Universitas
Muhammadiyah
Yogyakarta



International
Islamic
University
Malaysia



Education and
Cultural Attache
Embassy of The Republic
Indonesia in Malaysia

**MESSAGE FROM THE RECTOR OF
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA (UMY)**

Assalamu'alaikum warahmatullahi wabarakatuh

All praise be to Allah SWT, Lord of the world. Peace and blessings on Muhammad SAW, His Servants and Messenger.

First of all, as the rector of Universitas Muhammadiyah Yogyakarta (UMY), I would like to welcome to the honourable guests, Rector, Dean of Postgraduate Studies (CPS), Dean of ISTAC, Dean of IRKHS, Deputy Deans and Head Departments from various Kulliyah, lecturers, postgraduate students of International Islamic University Malaysia (IIUM), and all participants in this joint seminar.

Academic cooperation between UMY and IIUM started several years ago. The cooperation between us is based on a solid foundation; both us are Islamic universities having same missions to develop Islamic society, to prepare future generations of Islamic intellectuals, and to cultivate Islamic civilization. In fact, improving academic quality and strengthening our position as the producers of knowledge and wisdom will offer a meaningful contribution to the development of Islamic civilization. This responsibility is particularly significant especially with the emergence of the information and knowledge society where value adding is mainly generated by the production and the dissemination of knowledge.

Today's joint seminar signifies our attempts to shoulder this responsibility. I am confident to say that this joint program will be a giant step for both of us to open other pathways of cooperation. I am also convinced that through strengthening our collaboration we can learn from each other and continue learning, as far as I am concerned, is a valuable ingredient to develop our universities.

I sincerely wish you good luck and success in joining this program

Wassalamu'alaikum Wr, Wb.

Dr. Khoiruddin Bashori

Rector, UMY

**MESSAGE FROM THE RECTOR OF
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA (IIUM)**

Assalamu'alaikum warahmatullahi wabarakatuh

In the name of Allah, the most Gracious and the most Merciful. Peace and blessings be upon our Prophet Muhammad (S.A.W).

First and foremost, I felt honoured, on behalf of the university to be warmly welcomed and to be given the opportunity to work hand in hand, organizing a respectable conference. Indeed, this is a great achievement towards a warmer bilateral tie between the International Islamic University Malaysia (IIUM) and Universitas Muhammadiyah Yogyakarta (UMY) after the MoU Phase.

I would also like to express my heartfelt thanks to Centre for Postgraduate Studies (CPS), Postgraduate Students Society (PGSS), contributors, paper presenters, participants and our Indonesian counterpart for making this program a prestigious event of the year.

This educational and cultural visit is not only an avenue to foster good relationship between organizations and individuals and to learn as much from one another but a step forward in promoting quality graduates who practices their ability outdoor and master his or her studies through first hand experience. The Islamic platform inculcated throughout the educational system namely the Islamization of knowledge, both theoretical and practical, will add value to our graduates. This comprehensive excellent we strived for must always be encouraged through conferences, seminars and intellectual-based activities in line with our lullaby: The journey of a thousand miles begin by a single step, the vision of centuries ahead must start from now.

My utmost support is with you always. Looking forward to a fruitful meeting.

Ma'assalamah

Wassalamu'alaikum Wr, Wb.

Prof. Dato' Dr. Syed Arabi Iddid

Rector, IIUM

**MESSAGE FROM EDUCATION AND CULTURAL ATTACHE
EMBASSY OF THE REPUBLIC OF INDONESIA
KUALA LUMPUR**

Assalamu 'alaikum warahmatullahi wabarakatuh

All praise be to Allah SWT. This is the moment where implementation of MoU between Universitas Muhammadiyah Yogyakarta (UMY) and International Islamic University Malaysia (IIUM) comes in the form of action by organizing this Joint Seminar. The efforts of both sides to implement the MoU are highly appreciated, especially, in the context of which both universities effort to enhance the quality of education.

Substantially, I believe that this Joint Seminar will bring many benefits. In term of the development of knowledge, it is a means for developing academic quality, for exchanging of information on academic development, as well as for constructing intellectual atmosphere at both universities. In term of international relations, both universities have taken part in increasing close relationship between Malaysia and Indonesia. RUM and UNY as well are using 'soft power' to increase bilateral relations among citizens which brings a lot of benefits for both nations.

Therefore, I hope that both RUM and UMY can make use of this program as a 'kick-off' for other programs in the future, especially in using UMY's vast networks with other Muhammadiyah Universities in various cities in Indonesia as well as IIUM's network. The support of IIUM for UMY also means a progress for IIUM and UMY. I hope such joint program will continue in future for betterment of both Indonesia and Malaysia. Embassy of the Republic of Indonesia in Kuala Lumpur will always support these efforts.

To our honorable guests, Rector, Dean of Postgraduate Studies (CPS), Dean of ISTAC, Dean of IRKHS, Deputy Deans and Head Departments from various Kulliyah, lecturers and students of IIUM, I warmly welcome you to Yogyakarta. I hope you enjoy your stay in the cultural city of Yogyakarta.

Finally, as the Attache of Education and Cultural, Embassy of the Republic of Indonesia, Kuala Lumpur, I sincerely wish you good luck *and a successful program with unforgettable memories.*

*Wabillahit Taufiq Wal Hidayah
Wassalamu 'alaikum warahmatullahi wabarakatuh.*

M.Imran Hanafi

Education and Cultural Attache, Embassy of the Republic of Indonesia

MESSAGE FROM DEAN CENTRE FOR POSTGRADUATE STUDIES

Assalamu'alaikum warahmatullahi wabarakatuh

Praise be to Allah. May the peace and blessings of Allah be on the last prophet and messenger, our master Muhammad and on his household and companions. It is a great privilege for me to foreword this message to this wonderful event that is jointly organized by the Universitas Muhammadiyah Yogyakarta (UMY) and International Islamic University (IIUM).

First and foremost I would like to record my special gratitude to management of Universitas Muhammadiyah Yogyakarta for their co-operation.

In order to obtain comprehensive excellence, the Centre for Postgraduate studies has always facilitates postgraduate students of the university to achieve the highest quality in their academic work. This seminar is one of the many programs that Centre for postgraduate studies has to ensure quality graduates.

I would therefore like to thank all the participants and programme coordinators who have worked hard to realize this event.

May Allah SWT shower His blessing upon us.

Wassalamu'alaikum Wr, Wb.

Prof. Dato' Dr. Wan Rafei Abdul Rahman
Dean, Centre For Postgraduate Studies

**MESSAGE FROM THE ACTIVE
PRESIDENT OF POSTGRADUATE STUDENTS'**

Assalamu'alaikum warahmatullahi wabarakatuh

On behalf of Postgraduate Students' Society (PGSS), my gratitude and appreciation to our beloved Dean of Studies, the Embassy of Indonesia in Kuala Lumpur, Muhammadiyah Yogyakarta and the organizing committee of IIUM and the Universitas Muhammadiyah Yogyakarta for their huge success. Postgraduate Students' Society (PGSS) under the supervision of the Center for Postgraduate Studies (CPG) is pleased to host this event.

As I strongly believe that the initial stages of unity are the key to building the new generation, who will represent the future more, such programs, not only achieve the mission of our universities but to achieve the global mission and vision. Therefore, I believe today, we have to have understanding and then only we can appreciate our diverse cultures and acknowledge the different strengths and weaknesses through knowledge in this age of information. I am sure this joint seminar will initiate unity among the future leaders along with integrating them.

Thank you,

Mohd Nabi Habibi

Active President Postgraduate Students' Society (PGSS)

MESSAGE FROM PROGRAM DIRECTOR

Assalamu'alaikum warahmatullahi wabarakatuh.

Praise be to Allah. May the peace and blessings of Allah be on the last Prophet and Messenger, our master Muhammad and on his household and companions.

Honestly speaking, we are pleased to be trusted by Postgraduate Students' Society (PGSS) and Centre for Postgraduate Studies (CPS) to organize the programme named Educational and Cultural Visit to Yogyakarta, Indonesia. For this, We express our gratitude to the management of both PGSS and CPS. This programme is of immense value. It has the potentials to promote intellectual endeavor, develop leadership capabilities and enrich cross-cultural understandings. We sincerely believe and hope that program of this kind will be organized in a regular fashion in future.

It is a great privilege for us to play twofold role in organizing this event: *as a host* and *as guest*. In fact, this is a fascinating experience to manage this event. Since our inception here, we have found meaningful interaction of students in an interweaving of cultures into complicated, yet beautiful, embroidery of social fabric. We are proud to say that this dearly loved university has produced graduates of high quality, who are distinct from those of the local universities.

Finally, we wish to express our special thanks to Bapak M.Imran Hanafi, Education and Cultural Attache of Indonesian Embassy, Bapak Herdaus, S.H., Assistant of Immigration Attache of Indonesian Embassy, Bapak Tharian Taharuddin for their immensely valuable assistance and co-operation in making this program a success. I sincerely appreciate all local committees at Yogyakarta, the colleagues and program coordinators and committee members who worked diligently to materialize this event. We wish to pass on good wishes to the PGSS for their valuable efforts it expended for this event.

May Allah s.w.t shower His blessing upon us.

Wassalam,

Nasrullah

Programme Director

Todi Kurniawan

Co-Programme Director

Contents

SCIENCES, TECHNOLOGY AND EDUCATION HUMAN RESOURCES DEVELOPMENT ISSUES

- Surface Waves Technology in Civil Engineering Applications**
Sri Atmaja P. Rosyidi 1-13
- Development of Earthquake Disaster Management
System in Bantul: Study on Housing and Infrastructures
Damages for Their Reconstruction**
Sri Atmaja P. Rosyidi, Surya Budi Lesmana, Chu-Chieh Jay Lin 14-25
- Cardiovascular Reactivity in Normotensive Young Adults
with Family History of Hypertension.**
Noriah M. Noor, Ikhlas M. Jenie, Tariq A. Razak 26-37
- Prevention of HIV/AIDS in Malaysia in The Light of
Qur'anic Solutions: The Role of Irk Students of
International Islamic University Malaysia**
Asmawati Muhamad, Israr Ahmad Khan 38-54
- Fluorescence Detection of Human Premalignant and
Malignant Lesions**
Torla Hasan 55-70
- The Roles of Urban Architectural Landscape on
Shallow Groundwater, Case Study Jakarta Indonesia**
Muhammad Koeswadi 71-83
- The Islamicization of Architecture and Environmental
Design Education: Case Study of Kulliyah
of Architecture and Environmental Design (Kaed),
International Islamic University Malaysia**
Mansor Ibrahim, Maheran Yaman 84-97
- Moringa Oleifera Seeds for Use in Water Treatment**
Eman N. Ali, Suleyman A. Muyibi, Hamzah M. Salleh 98-103

Nursing and Its Contribution to The Health of Ummah

ECONOMICS AND DEVELOPMENT ISSUES

- The Role and Pitfalls of E-Government in Indonesia**
Punang Amaripuja 115-126
- Market Integration and Dynamic Linkages Between Shariah-Compliance Stocks and Interest Rate: Empirical Evidence on The Kuala Lumpur Syariah Index (Klsi) Malaysia**
Muchamad Imam Bintoro 127-134
- The Emerging Issues on The Objectives and Characteristics of Islamic Accounting for Islamic Business Organizations and Its Impact in Indonesia Islamic Accounting Development**
Rizal Yaya 135-150
- Relationship Between Organizational Justice in Performance Appraisal Context and Outcomes; Study on Islamic University in Yogyakarta**
Heru Kurnianto Tjahjono 151-164
- Making The Development More Sustainable and The Role of Women in Islam**
Masyhudi Muqorobin 165-185
- The Analysis of Exchange Rate Fluctuations and Its Implications on Indonesian Economy Empirical Evidence and Islamic Economic Perspective**
Imamudin Yuliadi 186-202
- Value for Money: For The Nigerian Construction Clients**
Olanrewaju Abdul Lateef, Kharuddin Bdul Rashid 203-215
- Environment Related Trade Barriers (Etbs): The Impact on Muslim Countries**
Noor Aini Bt. Zakaria, Rokiah Alavi 216-225
- Toward An Ideal Balance of Islamic Banking Products Portfolio The Case of Sharia Bank Industry in Indonesia**
Muhammad Akhyar Adnan 226-236
- On The Unique Mindset of A Muslim Business Entrepreneur: A Micro Developmental View**
Sabri Osman, Abu Sa'im Md. Shohabuddin 237-255

Inter-Regional Economic Cooperation Among The Oic Member States: Iternative Solution Towards Poverty Alleviation <i>Muhammad Ghali Ahmed</i>	256-263
The Impact of Rising Oil Prices on The Malaysian and Indonesian Economy <i>Mohd Edil Abd. Sukor</i>	264-277
Ways to Improve Economic Growth in The Third World Nation: Nigeria <i>Sherif Abdul Raheem Ajiteru, El-Fatih Abdel Salam</i>	278-292
Synthesising A Corporate Paradox, Profit Maximisation Versus Social Responsibility: Based on The Quran <i>Siti Maimon Haji Kamso</i>	293-305
POLITICS AND LEGAL ENFORCEMENT ISSUES	
Legal Analysis on The Concept and The Practice of Impeachment: A Comparative Study Between Abdurrahman Wahid Case and William Jefferson Clinton Case <i>Iwan Satriawan</i>	307-339
Perda Syariah' V.S. Constitution: The Study of The Implementation of Perda Syariah (Sharia Byelaw) in Indonesia <i>M. Endriyo Susila, Yordan Gunawan</i>	340-349
State and Islamic Human Development (A Political Perspective) <i>Tulus Warsito</i>	350-365
The Perplexed Issues of Morality and Law: The Case of Ooi Kean Thong <i>Mohd Iqbal Bin Abdul Wahab, Ahmad Ibrahim</i>	366-375
The Ruling on Refusal to Take An Oath in Islamic Jurisprudence and Its Application in The Shari'Ah Courts in Malaysia and Philippines <i>Badruddin Paguimanan Ahmad, Arif Ali Arif Fiqh, Usul Al-Fiqh</i>	376-396
Constraints and Political Developments in Afghanistan, 2001-2006: A Critical Appraisal <i>Mohd Nabi Habibi, El-Fateh Abdul Salam</i>	397-406
Why Does Islamization of Political Science Matter? <i>Ali Muhammad, Wahabuddin Ra'ees</i>	407-413

**The Struggle for Regional Dominance in The Horn of Africa;
Its Historical Roots and Future Scenarios**
Ahmed Omar Abdalleh@fahad, N.M. Yassin Ahmed Ibrahim 414-421

**The New Roles The Muslim Plays in Competitive and Relatively
Repressive International Relations.**
Dr. Bambang Cipto 422-427

SOCIAL, RELIGIOUS AND CULTURAL ISSUES

**An Instrument to Measure Work Values Among
Malaysian Workers**
Wan Rafaei Abdul Rahman, Che Su Binti Mustaffa 429-434

**Islamic Education for All: An Overview of Approaches
Taken Towards Systematizing Inclusive Islamic Education
in Singapore**
Sharifah Thuraiya Su'ad Ahmad Alhabshi, Mohyani Razikin 435-442

**Muslim Education in The Autonomous Region
in Southern Philippines: Problems and Solutions**
Jeehan Daisy Jane C. Orcullo, Ismaiel Hassanein Ahmed 443-448

**The Role of Concordance in Education:
A Case Study of The Meaning of If and Whether**
Suryanto 449-480

**Poverty, Muslim Activism, and Social Welfare The Philanthropic
Vision of Charitable Institutions in Indonesian Islam
(The Case Study of Muhammadiyah)**
Hilman Latief 481-492

**Persuasive Communication in Preaching
(Case Study Abdullah Gymnastiar and Ja'far Umar Thalib)**
Twediana Budi Hapsari, M.Si 493-505

**School Cost Escalation : Critical Ideas for Financial Reform
in Indonesia**
Nurwanto 506-515

**Empowering The Ummah Through Non Governmental
Organization: The Role of Muslim Intellectuals**
Ariff Bin Osman 516-522

**Muslim Countries and Development "Barriers to Development:
How to Address Illiteracy and Poverty in Comoro Islands"**

Environment Related Trade Barriers (ETBs): The Impact on Muslim Countries

Noor Aini Binti Zakaria*
Rokiah Alavi

Department of Economics and Management Sciences, Faculty of Economics and
Management Sciences, International Islamic University Malaysia

Abstract

This paper provides the issues of the Environment Related Trade Barriers (ETB) as trade barriers in the multilateral trade liberalization from the early establishment of GATT. Also the intention of the discussion is to highlight some broad definitions and general idea about the environmental obstacles to trade. Mentioned by Chaturvedi and Nagpal (2003), environment-related trade barriers (ETBs) generally cover all barriers that have been introduced by the importing country to protect the environment, as well as the health and safety of wildlife, plants, animals and humans. They found that some developing countries have experienced losses in exports because of difficulties in complying with sanitary and phytosanitary (SPS)¹ measures in place in import markets. Developing countries (most of Muslim countries are categorized in the developing countries and less developed countries) always find difficulties in order to comply with the existing standards and regulatory structures on SPS in developed countries. Hence, it seems that SPS measures may impede the trade in agriculture and food products in the exports of developing countries. The present expansion on environmental standards and regulations by developed countries may have significant impacts on the market access for developing countries. Many developing countries fear that such standards will act as trade barriers for their products to enter the industrialized country's markets. Moreover, there is some suspicious argument that developed countries try to use environmental standards as a restriction to protect their industries. It is also believed that environmental and health-related standards and regulations in developed-country markets have the potential to create barriers to trade for developing countries (Chaturvedi and Nagpal, 2003). ETBs are largely imposed on agriculture (including foods and shrimp), textiles, and forestry sectors which can be considered as the main sectors of world trade for developing countries including Muslim countries. Hence, ETBs will harm the trade of the developing countries and it becomes the factor that can hinder the growth of their economy.

Keywords: Muslim countries; developing countries; ETBs.

¹ The agreement on Sanitary and Phytosanitary (SPS) measures seeks to protect consumers by providing rules for food safety and health of plants and animals.

*Correspondence Author: ainizack82@yahoo.com

Background of Study

The issues about trade and environmental protection such as the impact of environmental policies on trade, and the impact of trade on the environment have been recognized in the early 1970. The concern about the environment and trade has been discussed extensively since the establishment of GATT². The debate on the impact of economic growth on social development and environment led to the 1972 Stockholm Conference (WTO, 2004). This conference is the first major international conference on environmental issues in the United Nation (UN) system. The Secretariat of GATT was asked to undertake a study to be presented at the conference and this has resulted in a study on Industrial Pollution Control and International Trade which focused on the implications of environmental protection policies on international trade (WTO, 2004). It reflected the concerns of trade officials at the time, particularly on policies that could impede trade and become new forms of protectionism (WTO, 2004).

In November 1971, the GATT Council of Representative unanimously agreed to establish a Group on Environmental Measures and International Trade which known as "EMIT group". The participation for this group has been open to all members. Between 1971 up to 1991 no request of GATT members has been put forward for it activation (WTO, 2004). But, during that time the increasing number of trade and the impact of trade on environment have become widespread. So, this situation led to some discussion among the members such as Tokyo Round (1973-1979) and Uruguay Round (1986-1994).

Throughout 1970s and 1980s the relationship between economic growth, social development and environment has been looked closely. In 1970, the international research group from Massachusetts Institute of Technology (MIT) made a study on the effects and limits of continued worldwide growth. They found that the contribution of technological advancement to resource-savings and the role of prices in registering the relative scarcity of resources and consumer preferences in allocating resources efficiently, the "limits to growth" paradigm was quickly overturned (WTO, 2004). While in 1987, the Brundtland Report has introduced the term 'sustainable development' which has been produced by the World Commission on Environment and Development.

WTO rules allow the member countries to restrict the trade when it endangers the environment but it must be employed within the WTO rules. Members are also allowed to impose technical standards which restrict imports to protect the environment (APEC, 2003). Hence, this restriction is considered as environment-related trade barriers.

² GATT (General Agreement on Tariff and Trade) refers to the early establishment of WTO.

Environment Related Trade Barriers (ERTB)

Definition of Environment Related Trade Barriers (ERTBs)

For the purpose of this study, we will define trade barriers as the excessive regulatory standards that give an impact on trade, discriminatory trade measures imposed for environmental purposes, unilateral environmental trade restrictions, measures which make access to markets conditional on acceptance of environmental standards and trade restriction imposed by MEAs (APEC, 2003). Also the measures which restrict trade that appears to be discriminatory by an ordinary judgment (need compliance with methods of processing that are not directly related to the product), or which are sanitary and phytosanitary measures that are not based on science or processes of risk assessment are also considered as related trade barriers.

Barriers can be classified into four categories such as environmental trade barriers, prospective environmental trade barriers, related measures and trade measures under MEAs³ (APEC, 2003). Measures which may expect to be sources of barriers or which may not in fact be trade discriminatory but in spite of that act as a barrier to trade are categorized as "prospective measures". On the other hand, "related measures" which include environmentally based regulations also can acts as barriers to trade. Then the research done by APEC (2003), grouped the barriers into some categories. The categories are:

- Standards regulating levels of toxic substances in products;
- Standards for marketing approval;
- Product waste, disposal and recycling obligations;
- Packaging and labeling requirements;
- Standards mandating energy efficiency/ emission reductions;
- Regulations pursuant to MEAs and other international treatise.

While according to Fontagne, Kirchbarch and Mimouni (2001), in the WTO, the majority of trade related environmental measures have been notified under the TBT agreement. Since the entry into force of the agreement on 1 January 1995, about 2300 notifications have been received of which 11 percent are environment related. As the progressed in the liberalization of tariff and quantitative restriction on trade in agriculture and food products, attention has been focused on the technical measures such as food safety regulation, labeling requirement and quality standards. Hence, it seems that ETB measures may impede the trade in agriculture and food products in the exports of developing countries.

According to WTO, the potential negative impact of free trade on environment not only considered by the issue of polluting industries, but it should take into account the problems of deforestation, non sustainable fisheries, green house effects and global warming also (Fontagne, Kirchbarch and Mimouni ,2001). Hence, in order to achieve the objective of sustainable development, the environment has to be protected and preserved.

³ MEAs discuss on the wide range of important topics such as the protection of endangered species, the quality of air, the hazardous waste etc

A Rising Threat to Prosperity through Trade

Over the last decade, more than forty environmental restrictions have been introduced which appear to disregard the rights of members of the WTO not to subject to trade coercion (APEC, 2003). WTO gives members limitation of rights to restrict trade when it endangered the environment. They also can impose technical barriers or standards to protect the environment. But they only can take an action if the health and safety of people, plants or animals at risk.

They cannot create their own standards to restrict the trade because WTO respects the principle of national sovereignty. For example when one member of WTO impose trade restriction on other members unless the latter changes its environmental policies, then the first country is coercing the second country and transgressing its national sovereignty (APEC, 2003). In other terms, WTO prohibits member countries to restrict trade because of disagreement over policies in other countries. Most of the ETB measures have been introduced by European Union, the rest are from Japan and United States and Multilateral Environment Agreement (MEA).

The affected countries are from developing economies such as South Asia, Africa and Asia Pacific region. In the research done by APEC (2003), they identified the environmental trade barriers originating from the European Community amounted to thirty-four barriers. The cases were concentrated from the Netherlands, Germany, Denmark and Austria. While US and Japan has been imposed four barriers each respectively. Half of the trade barriers are considered new since it have been implemented in 1999 and 2000. Some of EU barriers found as early as the late 1980s, although the majority were instituted in the late 1990s (APEC, 2003). However, most of the US barriers were imposed during mid 1990s and Japanese barriers date from 1999.

Experiences of ETBs by Muslim Countries

So far, ETBs faced by Muslim countries are related to foods, textiles products, plastic and vinyl products, consumer goods as well as agriculture (including shrimp). The majority of countries affected are located in Asia which includes Malaysia, Indonesia, Pakistan and Bangladesh and the most affected industry is the fishery sector. This section will discuss ETBs faced by Muslim countries by sectors affected in a greater length.

Agriculture and Fisheries Sector

Pakistan and Malaysia has experienced the imposition of the SPS measures⁴ in their shrimp sector also the ban on importation of shrimp and shrimp products by United States of America. The issue of the ban was related to environment where the countries (such as Malaysia, Pakistan, India and Thailand) should use turtle excluder devices to protect the environment and at the same time it will protect the turtles. This issue then leads to the WTO dispute case between the countries

⁴ The agreement on Sanitary and Phytosanitary (SPS) measures seeks to protect consumers by providing rules for food safety and health of plants and animals.

(Malaysia, Pakistan, India and Thailand) with United States of America (WTO, 2006).

Meanwhile, Bangladesh also having issue related to shrimp sector by the imposition of SPS measures and eco-labelling for the export oriented in their shrimp products by the importers (European Union). In July 1997, EU has imposed a ban on imports of shrimp products from Bangladesh on the basis of the commodity did not meet the EU's regulations. It is originated from the standards in areas related to health safeguard, quality control, infrastructure and hygiene in the processing units (Khatun, 2004). According to Khatun (2004), it also happened due to the lack of trust by EU in the efficiency of the controlling measures by the Department of Fisheries, Bangladesh. Thus, EU determined that to consume the fishery products processed in Bangladesh have a significant risk to the public health of EU member countries.

At the same time, Indonesia facing increasing number of measures in their agricultural and fish exports on the basis of SPS, technical barriers to trade, and the environment. Indonesian exporters have great difficulty in meeting the different standards of various developed country markets and in tracking changes to the regulations in those markets (F AO, 2004). According to Food and Agriculture Organization FAO (2004), in the case of Indonesia, there was evidence that the number of SPS measures has steadily increased over time (from less than 10 holding orders against its processed food exports to Australia in 1993-1995 to 40 in 2001).

Forestry

Furthermore, Malaysia and Indonesia also facing export log bans because of the excessive of the logging activity in their countries, since both countries constitute about 10 percent of world trade in wood-based products (FAO, 1994). The over logging could lead to a deforestation. In order to preserve the forest, certain measure has to be imposed to the activity to slow down the quantity traded. Thus, it will lead to the reduction of the quantity of world trade in wood-based products.

Textile Sector

Pakistan and Bangladesh are affected by the legislations that were imposed by European Union such as Germany, Netherlands and Austria on the textile products such as leather products, clothing, bath towels, footwear, yarns, fabrics, garments, bed linen and towel (APEC, 2003). The regulation bans certain textile products containing formaldehyde, pentachlorophenol, cadmium, azo dyestuffs, hexavalent and chromium.

Table 1 summarized the ETBs imposed on Muslim countries including the legislation, products and sectors affected, the countries affected as well as date of imposition. Most of the ETBs were imposed on Asian countries such as Malaysia, Indonesia, Pakistan and Bangladesh. In the case of foods, textiles, plastics and vinyl products, the imposition of ETBs are from the European Union. While in the agriculture and shrimp sector, the ETBs was imposed by the United States.

Table 1: ETBs faced by Muslim countries

Legislation	Products and Sectors affected	Exporters affected	Date
Commission Regulation 466/2001 setting maximum levels for certain contaminants in foodstuffs as amended.	Food – cereals, dried fruits, nuts such as peanuts, fruits and vegetables, milk and milk products	Malaysia, Indonesia.	2002
Directive 2002/61/EC amending for the nineteenth time Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations (azo colorants).	Textiles – leather products, clothing, bedding, towels, footwear, toys, yarns, fabrics	Pakistan	1999
Directive 91/338/EEC amending for the 10th time Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the member states relating to restrictions on the marketing and use of certain dangerous substances and preparations.	Plastics and vinyl products such as plastic bags, children's toys, also electronic equipment	Indonesia	2000
Directive 2002/61/EC amending for the nineteenth time Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations (azo colorants)	Textiles – leather products, clothing, bedding, towels, footwear, toys, yarns, fabrics	Pakistan	1999
Directive 91/338/EEC amending for the 10th time Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the member states relating to restrictions on the marketing and use of certain dangerous substances and preparations.	Plastics and vinyl products such as plastic bags, children's toys, also electronic equipment	Indonesia	2000
Netherlands – Azo dyes (Commodities Act) Decree	Textile products	Bangladesh Pakistan	1998
Germany – Amendments to the Consumer Protection Act 1994, prohibiting the use of azo dyes	Textiles- bed linen, bath towels, garments	Bangladesh Pakistan	Amendments 1995 1996 1997
Austria – Azo Dyes Decree pursuant to the Consumer Goods Act prohibiting the use of certain azo dyestuffs and azo pigments in consumer articles	Textiles – clothing and consumer articles made of textile material or leather	Bangladesh Pakistan	1998
Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations 1989, 16USC1826 (Large-scale driftnet fishing), 50CFR222 (Endangered and Threatened Marine Species)	Agriculture, Food – shrimp	Malaysia Pakistan	1989, implementing guidelines amended 2000.

Source: The Australian APEC Study Centre, 2003.

The Impact of ETBs

The present expansion on environmental standards and regulations by developed countries may have significant impacts on the market access for Muslim countries. So, many developing countries including Muslim countries fear that such standards will act as trade barriers for their products to enter the industrialized country's markets. Moreover, there is some suspicious argument that developed countries try to use environmental standards as a restriction to protect their industries. It is also believed that environmental and health-related standards and regulations in developed-country markets have the potential to create barriers to trade for developing countries (Chaturvedi and Nagpal, 2003).

According to WTO (2003), market access can be impeded by a wide variety of environmental measures, including regulations, standards, and import controls. Such measures are being used increasingly and by more countries. Sometimes, particular measures are justified on environmental grounds, and exporters will want to adjust their production to meet importing country product standards. The environmental measures applied by importing country might be discriminatory and protectionist in nature thus it will violate the rules of the WTO.

Khatun (2004), wrote on the implications of eco-labelling for the shrimp sector in Bangladesh where the ban has put the shrimp industry under the severe strain and led to serious market disruptions. It caused the shrimp processing factories to change the processing process according to the regulations. It also affects employment as well as foreign exchange earnings of Bangladesh. At the same time, eco-labelling involves costly process and technology modifications in order to make the product environmentally friendly (Khatun, 2004).

International Centre for Trade and Sustainable Development (2005) reported that in the case of Bangladesh, an EU ban on shrimp exports in 1997 led to a net loss of nearly US\$15 million and longer-term impacts on producers, processors and others in supply chain.

Relationship between environmental regulations and trade flows has been studied by Ederington and Minier (2000). They found countries used environmental regulations to protect their domestic industry and it has been used as a secondary means for trade barriers. Empirical evidence showed that environmental policy has much stronger impact on imports levels of one country.

The research done by APEC (2003) showed that most ETBs have been imposed by EU, US and Japan on developing countries export on agriculture, textiles, foods and woods products. The measure they used often affects trade by requiring the exporter to adopt certain domestic environmental measure as conditions to access their markets. Fontagne, Kirchbarch and Mimouni (2001) concluded that 1983 products out of 4917 are affected by environmental protectionism. They found on average 40 percent of exports from Less Developed Countries (LDCs) significantly more exposed to ETBs than any other group of countries. This is especially due to agricultural products that are mostly exported products by this group.

Chaturvedi and Nagpal (2003) made study on the Indian case and they found that developing countries have had to adjust their production processes in response to changing environmental regulations in developed countries. The

measure such as the pesticide maximum residue levels (MRL) that has been permitted in the foodstuffs, emission standards for machines, also packaging requirements have put some pressures on exporters. These measures are believed will impede the trade of developing countries either implicitly or explicitly.

Beghin and Bureau (2001) argued in their writing that minimum quality standards, mandatory labeling and certification that will be imposed to the would-be exporters will increase the cost of production and may lead them give up to the trade opportunities. Thus, the would-be exporters are discouraged to enter the export market.

Now, ETBs become the emerging trends of developed countries against the developing countries. This is most clearly illustrated by the case of action to protect the dolphin. The unilateral bans imposed by the US on imports of tuna to coerce some countries to alter the fishing methods in order to protect dolphin has now become the international law. The international convention has been held to solve the case and each member of the convention then commits to adopt the new law (national law fishing regulations) to protect the dolphin (APEC, 2003).

On the positive sides, the case of Uganda has come into the focus of EU where the veterinary experts from EU has work together with Uganda officials to assist the handling of fish rights from the lakes, fish processing factories and prior to export. The assistance also extended to the fisheries department of Uganda in improving fish inspection and surveillance (FAO, 2006). Greenhalgh (2004) mentioned in the long term the sectors will gain the benefits. It will improve their marketing strategy, strengthened the institution and to some extent the sector will be better in the processing equipment in order to face with such measures and standards. Bostock, Greenhalgh and Kleih (2004) have same opinion that the sectors will recover well and improved their equipped processing sector in the medium to long term.

Conclusion

The emerging trade and environmental debate is highly complicated and ambiguous in nature. In the context of WTO, the nature of linkage between the trade and environmental measures in promoting sustainable development has become a major concern for developing countries (Chaturvedi and Nagpal, 2003). The national technical regulations and standards pertaining to the environment had been brought into the discussion by the WTO members. Since most of the ETBs have been imposed by the developed countries against the developing countries, (including Muslim countries) it may have impact on the export of the developing countries itself. Certain measures that have been used by developed nations may require the exporter to adopt certain environmental measures as conditions to access their markets.

From the discussion, we can see that ETBs are largely imposed on textiles and fisheries sector (including foods) which can be considered as the main sectors of world trade for Muslim countries. Hence, ETBs will harm the trade of the Muslim countries and it becomes the factor that can hinder the growth of their economy in the short run. The countries will hurt more compared to developed nations because they cannot afford to bear the compliance cost of upgrading the standards.

The Muslim world in general and the less developed countries (LDCs) in particular, will be adversely affected by the implementation of the barriers. The volume of their trade will decline time by time because of the imposing barriers. ETBs also considered as non-tariff barriers which also hamper the promotion of trade between member countries of the Organization of Islamic Conference (OIC) with the rest of the world (Missouri, 2001).

Alternatively, Muslim countries can improve their trade by tearing down tariff barriers among them and having a common market where they can trade together. They can strengthen their economic cooperation through the preferential trading system as done by ASEAN in lowering the tariffs gradually among the members. Perhaps this is the first step to move to the closer economic integration among OIC countries. Islamic Development Bank (IDB) also can provide help by giving a financial assistance for the countries that having a joint project among the Muslim countries to boost up their economy.

References

- Beghin, John C., Bureau, Jean-Christophe, (2001), Quantification of Sanitary, Phytosanitary and Technical Barriers to Trade for Trade Policy Analysis, Working Paper 01-WP 291, Centre for Agricultural and Rural Development, Iowa States University, Iowa.
- Chaturvedi, S., Nagpal, G. (2003), WTO and Product-Related Environmental Standards Emerging Issues and Policy Options, Economic and Political Weekly available at <http://www.international-food-safety.com/docs/epwspecial.doc>
- Ederington J., Minier, J. (2000), Environmental Regulation and Trade Flows, University of Miami, Florida.
- Fontagne, L., Kirchbarch, Von F., Mimouni, M. (2001), A First Assessment on Environment-Related Trade Barriers, Paris, France.
- Food and Agriculture Organization for United Nations (1994), The State of Food and Agriculture 1994, FAO Agriculture Series, No. 27, FAO, Rome (Italy) – Available online at <http://www.fao.org/docrep/t4450e/T4450E00.htm>
- Greenhalgh, P., (2004) Policy Research, Implication of Liberalization of Fish Trade for Developing Countries, Trade Issues Background Paper: Sanitary and Phytosanitary (SPS) Measures and Technical Barriers to Trade (TBT), Food and Agriculture Organization (FAO), United nations, Rome.
- Javelosa, J., Schmitz, A. (2006), Cost and Benefits of a WTO Dispute: Philippine Bananas and the Australian Market, the Estey Centre Journal of International Law and Trade Policy, Volume 7 Number 1 2006/p. 58-83
- Khatun, F. (2004), Fish Trade Liberalization in Bangladesh: Implication of SPS Measures and Eco-Labeling for the Export-Oriented Shrimp Sector, Food and Agriculture Organization (FAO) of the United Nations, Rome.
- Powell, M. (1997), Science in Sanitary and Phytosanitary Dispute Resolution, Discussion Paper 97-50, Washington DC.

Report International Centre for Trade and Sustainable Development (ICTSD) (2005), *Untangling Fisheries and Trade: Towards Priorities for Action*, ICTSD Dialogue, 9-10 may 2005, Geneva.

Secretariat Document, April 2004, www.wto.org

Sultan, A. (2006), *WTO Successor to GATT: Implications for the Muslim World*
<http://www.islamonline.net/english/index.shtml>

The Australian APEC Study Centre (2003), *European Unilateralism Environmental Trade Barriers and the Rising Threat to Prosperity through Trade*, Based at Monash University in Melbourne.

Workshop of Non-tariff barriers.impact on inter-Islamic trade held in Casablanca
<http://www.arabicnews.com/ansub/Daily/Day/010613/2001061329.html>

World Trade Organization, www.wto.org, www.tradeandenvironment.com