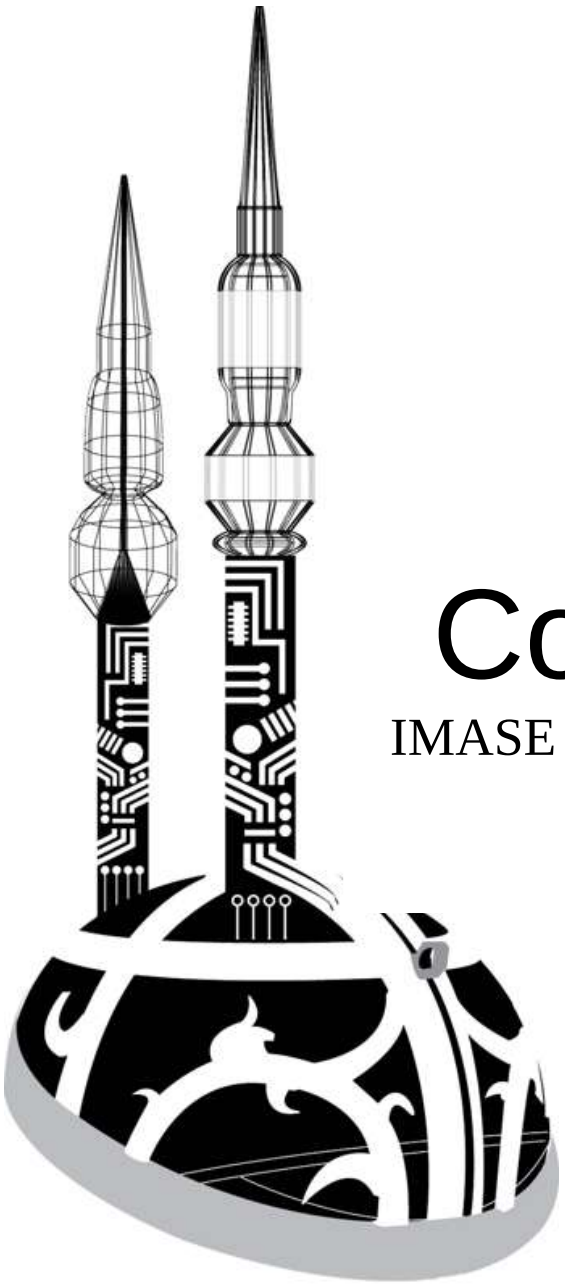

Constellations

IMASE Quarterly Newsletter and Journal

EDITORIAL

Assalāmu ‘alaikum wa rahmatullāhi wa barakātuhu,

Alhamdulillāh with this edition we have completed our third year of Constellations. We would like to thank you; our writers, readers, and all those who have helped and given us moral support to make it this far. With the completion of this third cycle, we will begin our study to gauge if this initiative has managed to achieve its aims and goals. Your comments, criticism and suggestions are welcome. We look forward to hearing from you on this matter.

We write to support the Young Researchers conference conducted by International Institute of Peace Studies (IIPS) to be held in Bangkok this March. For more information, please visit our website on http://www.imase.org

Constellations number 12 centres on our identity as humans and what this means in our relations with climate, creation, science and modernity. Speaking to the attention raised amongst Muslims by the Climate Change conference in Doha (on Al Jazeera’s doorstep), IMASE issued a declaration on the matter to provoke deeper thought and action. We also reproduce a rather exhaustive ready-reckoner reference to address common contentions from climate sceptics. The journal section features a paper from Indonesia exploring the Muslim and youth response to the climate challenge.

The latest of our projects appears in Constellations for the first time; *Wudhu Area Studies* invites you to contribute to greater knowledge and performance of that spiritually transforming, but often physically enduring place in our lives. *The Ayman Series* continues with an exploration of the economic value of our natural forests, and an inspirational organisational case study explores the story of one of the more successful NGOs to come out of Malaysia; the Third World Network.

The relationship between the Divine creation of humanity and evolution theories continue to attract (or distract) Muslim interest, with debate often generating more heat than light. The good news is that a recent conference organised by the Deen Institute in London made a civil space to nurture multi-disciplinary public understanding of related science and theology. Building on earlier engagement published in the first Constellations’ report *Islam and Evolution: An Alternative Perspective,* we make evolution the focus of our latest inflection.

With the spectre of climate change, compounded by the prospect of biotechnology and agribusiness presiding over an unprecedented appropriation of global agriculture through GM, the importance of meaningful dialogue between scholars of natural, social and religious sciences cannot be underplayed.

On a lighter note, Shafiq Morton shares his surfing adventures and brings us a pictorial essay of the natural beauty of Cape Town in South Africa. There is also a rather unusual paper for the mathematically nimble that explores prime numbers in a way most of us would never do.

We hope you are challenged and welcome contributions in the form of articles, papers and letters to the editor. Articles should be no more than 3 pages long and be formatted using single spacing, Times New Roman and font size 12. Papers should be between 5 to 20 pages with the same format as above. All write-ups are to be fully referenced. Letters to the editor should be kept to a maximum of 400 words.

The e-mail address to contact us for any correspondence is: imase.constellations@gmail.com. Please send in your contributions before 15th April 2013 for consideration and inclusion in our next edition. We may not be able to accommodate all requests and therefore ask for your patience if we cannot publish your article.

Thank you for your support.

Wassalām,

IMASE Team (www.imase.org)

Editors for Constellations - Vol. 3, Edition No. 4: Maraz Ahmed (Designer and Artwork), Dr Fuad Ali, Ahmad Abdul Hamid, Dr Mustafa Ahsan, Abdul Huque Yasin, Marwa El-Damanawi, Mahbub Alam, Dr Mohamed Yunus Yasin (Managing Editor)

IMASE is a fully voluntary organisation with a vision “to nurture and exploit knowledge with an Islamic framework, for the advancement of mankind”.

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Journal Section

Solving the Problems: Youth Response to Sustainable Development[7]

Dr Fachruddin Mangunjaya[8]

"*A thousand old can only dream, but a youth can change the world*," (Soekarno, First President of the Republic of Indonesia).

If we talk about the approach we have taken to sustainable development on Earth, then humankind has been responsible for the destruction of 10 hectares of forests every minute, we desertified 12 million hectares annually (this is almost three times the size of Switzerland). We have polluted the oceans with 8 million items of litter, indulged in overfishing to the point of depleting stock and lost over 10 metric tons of potential catch[9-10]. In the last century humans have polluted the air with 33 million tons worth of CO_2 per year (6.4 tons per person). The situation is getting dire. The Earth's current population is 7 billion and rising, with forecasts suggesting this will reach 8 billion by 2050[11]. Added to this we will lose between 200-2000 species[12] annually – a significant blow to the Earth's rich natural heritage.

The core of sustainable development needs to look beyond discourse, and engage with real actions about what we are doing today and its impact on tomorrow. The foretelling of global calamity centres around three major challenges:

1. The degradation of Earth's precious natural resources.
2. Pollution instigated by humankind's actions following the industrial revolution
3. Global Climate Change – the rise in temperature, however minute, will have potentially devastating consequences for human life and the biodiversity of the planet.

Key natural resources such as those that produce non-renewable energy including coal, oil and gas as well as forest are rapidly depleting. These resources are the regulatory support system for the Earth's ecosystem and genetic stocks; these provide the blueprints for a healthy life on the planet.

Needless to say the degradation of natural resources will have a profound effect on all life, as we are all dependent on its seamless running to sustain us. The Millennium Ecosystem Assessment (MEA, 2005) illustrated a marked decline in the level of quality and quantity of ecosystem and biodiversity as a supporter of life. The report affirmed that based on scientific evidence the ecosystem is in greater danger of sustaining irremovable damage within the next 50 years. All

[7] Paper presented for World Muslim Leadership Forum: World Muslim Leaders: The Next Generation, 25-27 September 2012, London, UK

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[9] http://www.safebottles.co.nz/News/Plastics+and+the+Environment.html

[10] http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/News/Press_Releases/Protecting_ocean_life/Pew%20OSS%20Food%20Security%20FINAL.pdf

[11] http://en.wikipedia.org/wiki/world_population

[12] WWF estimates that if the low estimate of the number of species out there is true, i.e. that there are around 2 million different species on our planet, then that means between 200 and 2,000 extinctions occur every year, http://wwf.panda.org/about_our_earth/biodiversity/biodiversity

this is exacerbated by human impact and actions. The final assessment for the status of biodiversity that refers to the commitment of the Convention on Biological Diversity (CBD), globally reported that all governments have failed to meet their targets in reducing and preventing the extinction of biodiversity (Butchart *et al*, 2010).

Humanity is facing a dire challenge in the form of climate change which will bring disasters in its wake. Many Muslim countries are foregoing the route of sustainable development and prudent resource management in the name of development. Regardless of these states choosing to ignore or be ignorant of these environmental shifts, they will endure the backlash which will manifest itself in the form of effects on food, health, economy, the social and political landscape, and enhance the likelihood of conflict.

We find ourselves at a juncture. Have we lived up to the expectations of the Bruntland Report and the fervent commitments to sustainable development made in the 1990s? And more importantly what was the result of the commitments of all those nations? The answer is the fact that we face today. There are no guarantees; much more needs to be done by way of ensuring large swathes of humanity have access to food and water, that their basic necessities are being met. In order to achieve the sustainable development future that was proclaimed we desperately need to foster a global effort and partnership. We need nations to collaborate and cooperate so as to manage the natural resource crisis.

The World Commission for Sustainable Development (WCED, 1988) defines sustainable development as "developmental efforts that take into account the needs of the current generation without ignoring the needs of future generations". In principle, it strives for a balance between economic sustainability, social acceptability, and ecological preservation.

According to Hassan & Cajee (2002) sustainable development is not new to Islam or for the whole of pre-industrial civilisation. Islam since its birth has codified the utilisation of natural resources and sought to advance practices in this area. This has been true until the advent of modernity. The Qur'an continues to provide the ethical framework for sustainable development that we ought to utilise, and indeed we need to.

Abumoghli (2010) defined the sustainable development concept within Islam as:

"The balanced and simultaneous realisation of consumer welfare, economic efficiency, attainment of social justice, and ecological balance in the framework of an evolutionary knowledge-based socially interactive model defining the shuratic process."

He emphasises, "The Shuratic process is the consultation or participatory ruling on principles of Islam," thus Islam can impart solutions for the sustainable development challenges. These have a basis in science and human knowledge, and are continuing to evolve today, and will continue to do so for the future.

The sustainable development agenda demands that the social, economic and environmental spheres need to work in harmony in each region in each country. The Prophet Muhammad (peace be upon him) is the perfect guide and behavioural role-model for living a life that corresponds with the ideals of sustainable development.

Islamic teaching forbids people to do mischief on Earth (Qur'an, 7:56) and presents an early warning that the real culprits of corruption on Earth will be human beings (Qur'an, 30:41)[13]. The global warming that has caused climate chaos is an indication that human civilisation is now in the middle of a big challenge if there is no significant action change. The predicament of global warming that precipitated climate change is an indicator of what human civilisation has achieved and what it stands to lose if we continue on this path to excess. We are now faced with a quandary and without significant unitary action humanity may be walking towards catastrophe.

The environmental change that has been caused by anthropogenic behaviour as reported by the Intergovernmental Panel on Climate Change (IPCC, 2007) is hardly surprising to many of us. The report emphasised and verified what the Qur'an mentioned fourteen-hundred years ago, that the current global climate change is the result of a blatant failure on the part of human civilisation to secure the balance taught in Islam, because God created a balance, a harmony in nature that nourishes life. The Qur'an mentioned the balance as well as prohibiting the disturbance of the balance: *"And the firmament He has raised high, and He has set up the balance (of Justice). In order that, you may not transgress (due) balance." (Qur'an, 55:7-8)*

The environmental problems plaguing our world are global; equally the solutions need to come *via* global collective actions. These actions need to be continual; we need a shared global mechanism. The problem of climate change is and will continue to collide with socio-economic concerns. All nations need to do their part. No one nation is responsible for our current state of affairs. Firstly nations need to uphold their assurances to reduce emissions or at the very least mitigate the catastrophic increase in global temperatures that will wreak havoc on all life. In February 1991 the United Nations through the Intergovernmental Negotiation Committee (INC) as the representative adopted the United Nations Framework Convention on Climate Change (UNFCCC).

The UNFCC Convention drafted in June 1992, came into force on the 21st March 1994 at a time when there was a rare and genuine environmental concord to move things forward on a global level. Since 1994 the Convention has won the allegiance of 188 states including the European Community. It is widely considered one of the most universally supported international environmental agreements. Every year as a mandate of the convention, all the parties and countries that signed will report their progress on how they can and will reduce their emissions as well as completing a negotiation conducted among the countries in Conference of Parties (COP)[14].

The Role of the Muslim World

Today there are an estimated 1.57 billion Muslims – this constitutes a staggering 23% of the world's population. The participation of Muslims in pushing forward and supporting the sustainable development agenda can have a significant impact in guarding the sustainability potential of Earth. We all have a duty to act and participate; everyone has the potential to make a meaningful contribution. Even the smallest step if taken by every Muslim, will transform the

[13] *"Corruption doth appear on land and sea because of (the evil) which men's hands have done, that He may make them taste a part of that which they have earned, in order that they may return."* (Qur'an, 30:41)

[14] The Conference of Parties 18 of the UNFCCC was held in Doha, Qatar, 26th November – 8th December 2012.

future and add to the value of life on Earth. Surely the environmental actions of a quarter of humanity cannot fail to have a positive impact on the planet.

The leaders of Islamic countries, through official forums such as the OIC (Organisation of Islamic Conference), have responded to the environmental challenge. For example, the Islamic world took action through commitment from environmental ministries which consequently materialised into the Jeddah Declaration, later renamed the "Islamic Declaration on Sustainable Development." This statement is included in the UN World Summit on Development (Johannesburg, South Africa) paper entitled, "General Framework of Islamic Agenda for Sustainable Development Islamic Declaration on Sustainable Development: Background (No. 5)". Guidelines concerning Islam and sustainable development were discussed in this declaration, as well as: economic growth, poverty eradication, population and urban development, health and environment, natural resources (including, water, forest biodiversity, combating desertification and alleviating drought effects, energy and climate change, coasts and sea water), world trade and globalisation, legal and institutional aspects of the environment, involvement of civil society, awareness-raising, education and information programmes, achieving peace and security, and funding. This is a comprehensive document by all accounts.

The follow up by the Muslim world has been disappointing to say the least; they have failed to contribute significantly to reducing the planet's environmental tribulations. For example, as one of the indicators, from 16 Muslim charity organisation, there is only one which is paying attention to sustainable development and poverty [15]. The only charity organisation that is focusing on endangered species and tributes to conservation is the Mohammed bin Zayed Conservation Fund.[16]Although in financial terms the Islamic world can be classified as a strong community with the total GDP of the 57 OIC countries currently standing at US $7.6 trillion (11% of worldwide GDP), their financial contributions to increase capacity and awareness of environmental challanges and sustainable development remains lacking. These challenges are an indication that Muslim states should seek to increase both their economies and giving, so as to increase environmental and sustainability capacity, and also consider the environment as a strategic funding issue.[17]

Actually, this is a vast sum, and it underlines the need to distribute this wealth in the most effective and strategic way, including building the capacity of youth and reducing environmental challenges. The monies generated by charitable giving in the Muslim world fail to attend to the environment. Capacity building to involve the youth in protecting the environment is also overlooked. The charitable distribution from *zakât* (alms) is normally restricted to the normative teaching of Islam such as the *eight asnâf*[18] (individuals eligible for alms), and the other Islamic *sadaqah* (charity) is awarded to physical development projects such as mosques,

[15] See Muslim NGOs and charities - http://www.ngoworldpk.com/knowledge-bank/muslim-ngos-and-charities.htm
[16] http://www.mbzspeciesconservation.org.
[17] See "10 Guiding Principles for Muslim Giving, World Congress of Muslim Philanthropy", Istanbul 2008. Guides No 3, states: "Muslim philanthropists should take a closer look at the potential new challenges ranging from **environment** to political conflict, and from Islamophobia to extremism, and set their giving priorities according to the newly emerging socio-political frontiers. http://www.thewcmp.org/img/downloads/pdf/WCMP-10GuidingPrinciples0.pdf
[18] The eight *asnâf* are: (1) **Faqīr** - One who has neither material possessions nor means of livelihood; (2) **Miskīn** - One with insufficient means of livelihood to meet basic needs; (3) '**Āmil** - One who is appointed to collect zakat; (4) **Mu'allaf** - One who converts to Islam; (5) **Fil Riqāb** - One who wants to free himself from bondage or the shackles of slavery; (6) **Ghārimīn** - One who is in debt (money borrowed to meet basic, halal expenditure); (7) **Fīsabīlillāh** - One who fights for the cause of Allah; (8) **Ibnus Sabīl** - One who is stranded on a journey. See: http://www.zpub.com/aaa/zakat-def.html

hospitals and education institution. All of this is undoubtedly vital to developing an infrastructure for improvement. However, environmental education and capacity building for environmental sustainable development, which can serve as capital for a better future, has been grossly neglected to the detriment of humanity. The Muslim world is still woefully underdeveloped in terms of environmental educational development, particularly in relation to environment and sustainable development programmes.

There has been a failure on the part of charities to invest in this integral part of livelihood, especially given that the environment is the primary source of nourishment and survival for the majority of Muslim communities across the world.

We recognise that populations need to utilise resources but again these needs to be done in a way that is in alignment with sustainable development, as we must work to preserve these precious resources for generations to come. The dilemma remains attaining a balance. The literacy standards in many Muslim states remain inadequate. On the other hand we must ask can we achieve sustainable development if the basic needs of communities are yet to be met. The Muslim world is faced with a double edged sword: they need to invest in both education and sustainable development to increase their capacity to make the best use of existing resources.

The Millennium Development Goals (MDG) advocate for the alleviation of poverty. This relies on the improving and strengthening support for the less fortunate in gaining their right to manage their own natural resources and maintain ecosystem services. These communities need to be empowered, and this is central to eradicating poverty in a manner that is sustainable and long lasting.

On the global scale, toward sustainability the *Rio Declaration on Environment and Development* fleshes out the definition by listing 18 principles[19]:

- People are entitled to a healthy and productive life in harmony with nature.
- Development today must not undermine the development and environment needs of present and future generations.
- Nations have the sovereign right to exploit their own resources, but without causing environmental damage beyond their borders.
- Nations shall develop international laws to provide compensation for damage that activities under their control cause to areas beyond their borders.
- Nations shall use the precautionary approach to protect the environment. Where there are threats of serious or irreversible damage, scientific uncertainty shall not be used to postpone cost-effective measures to prevent environmental degradation.
- In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process, and cannot be considered in isolation from it. Eradicating poverty and reducing disparities in living standards in different parts of

[19] Quoted from http://www.iisd.org/rio+5/agenda/declaration.htm

the world are essential to achieve sustainable development and meet the needs of the majority of people.

- Nations shall cooperate to conserve, protect and restore the health and integrity of the Earth's ecosystem. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.
- Nations should reduce and eliminate unsustainable patterns of production and consumption, and promote appropriate demographic policies.
- Environmental issues are best handled with the participation of all concerned citizens. Nations shall facilitate and encourage public awareness and participation by making environmental information widely available.
- Nations shall enact effective environmental laws, and develop national law regarding liability for the victims of pollution and other environmental damage. Where they have authority, nations shall assess the environmental impact of proposed activities that are likely to have a significant adverse impact.
- Nations should cooperate to promote an open international economic system that will lead to economic growth and sustainable development in all countries. Environmental policies should not be used as an unjustifiable means of restricting international trade.
- The polluter should, in principle, bear the cost of pollution.
- Nations shall warn one another of natural disasters or activities that may have harmful trans-boundary impacts.
- Sustainable development requires better scientific understanding of the problems. Nations should share knowledge and innovative technologies to achieve the goal of sustainability.
- The full participation of women is essential to achieve sustainable development. The creativity, ideals and courage of youth and the knowledge of indigenous people are needed too. Nations should recognise and support the identity, culture and interests of indigenous people.
- Warfare is inherently destructive of sustainable development, and Nations shall respect international laws protecting the environment in times of armed conflict, and shall cooperate in their further establishment.
- Peace, development and environmental protection are interdependent and indivisible.

The Rio Declaration's latest update to form a new commitment to sustainable development was held in 2012 – the Rio+20 Earth Summit – to the theme "The Future We Want". It produced 283 principles appealing towards the future that we want, including political commitment to reform,

the green economy in the context of sustainable development and poverty eradication, institutional framework, a framework for follow-up action, and registration.[20]

Behaviour Change

We are at a crossroads and need to take tangible action now that will determine our future. Therefore it is imperative that there is meaningful behavioural change at all levels of society. Current behaviour trends are responsible for damaging the environment. The excessive use of resources due to human actions is indicative of the fact that a behavioural shift needs to take place sooner rather than later (Doppelt, 2008). The behaviour and actions of humans cannot be separated from human interest in resources, but these actions need to recognise that it is no longer viable to continue on this path of eagerly using up key resources. Behavioural patterns need to shift towards conservation not ceaseless consumption. This is why environmental awareness is crucial to changing behaviours and consequently actions; these can be triggered by four factors: (1) education, (2) faith (belief), (3) law enforcement, and (4) market demand.

Education is a key to increasing awareness of sustainability and environmental concerns. Regardless of the opinion that the education system has failed to produce people with high levels of ecological literacy in the modern world, we must persevere and believe that education can and will assist in creating environmentally aware human characters. We need vigilance at the individual as well as collective level, the starting point of which is education and ecological literacy (Orr, 1992).

In the early 2000s, the United Nations launched the Decade of Education for Sustainable Development (DESD) – 2005-2014, which explores the critical relationship between education and sustainable development. The objective of the DESD includes:

"*… to integrate values, activities and principles that are inherently linked to sustainable development into all forms of education and learning and help usher in a change in attitudes, behaviours and values to ensure a more sustainable future in social, environmental and economic terms.*" (UNESCO, 2007)

UNESCO (2010) emphasised that social, economic and ecological harmony are the pillars of sustainable development. However, we also need the cultural and ethical dimensions to unravel this global and contextual challenge.

As inhabitants of Earth, the Muslim communities are found in almost all corners of the world, with unique identities and a myriad of cultures, all of which can serve to contribute to sustainable development. The one thing we do have in common is faith and this is central to shifting behaviour patterns.

Faith may spur Muslims to environmental action, for instance environmental activities in Indonesia have shown that Muslims are able to contribute to the environmental movement through their faith (Mangunjaya & MacKay, 2012).

[20] Earth Summit 2012 – 'The Future We Want' outcome document - http://www.earthsummit2012.org/resources/useful-resources/1157-the-future-we-want-rio20-outcome-document. Last accessed on 2nd September 2012.

The eleven major faiths on Earth have incomparable influence in terms of changing behaviour amongst their adherents – who represent about 85% of the global population. (O'Brien & Palmer, 2007). Religion does have great power and support systems that can facilitate positive developments. The Alliance of Religion and Conservation (2009) determined seven key areas that have the potential to assist in the long term plan to protect Earth through belief. They emphasised that the major world faith traditions can generate constructive environmental actions through their resources, traditions and beliefs in the following ways: (1) faith-consistent use of assets – land, investment, medical facilities, purchasing and property; (2) education and young people – in both formal and informal situations including school-buildings and curriculum, as well as teaching and nature camps; (3) wisdom – including theological education and training, as well as past rediscovering teaching, understanding the natural world from religious text, and helping people adapt to new situation in areas where climate change makes this necessary; (4) lifestyle; (5) media and advocacy; (6) partnership, eco-twinning, creating and funding environment departments; and (7) celebration.

Law enforcement is determined by judicial policy and by the legislature of a sovereign state, but these frameworks can also be influence by international conventions where applicable. The law cannot work well without being accompanied by strong law enforcement. Therefore, any conventions or aligned negotiations in the global environmental arena would be far more effective if accompanied by binding agreements: which may come in the form of material and social sanction. Strong law enforcement can aid in enforcing behaviour change. A legally binding document coupled with enforcement can be a driving force for change in a country. For example, in an effort to reduce emissions, Australia as a signatory to the Kyoto Protocol has begun to implement a carbon tax, which will hopefully prompt behaviour change from various types of industries that are the foremost carbon emitters[21].

Market forces and demands are central to influencing behaviours of consumers and producers. Climate change negotiations and global warming are complex issues for all nations, especially since resolving them is closely related to energy utilisation and the lifestyles of humans in the liberal market age. Nonetheless dialogue on climate change encourages opportunities such as managing the usage rate of non-renewable energy. It allows us to exchange ideas on renewable energy schemes and carbon emissions with a new scheme known as New Market Mechanism. Due to negotiation and the clausal Common but Differential Responsibilities (CBDR), emission reductions in the developing states is expected to reap positive rewards. It is expected that improvements in social life and better environment structures can be developed, because there is a commitment of funding, capacity building and technology transfer from developed countries.[22] For instance industries that produce energy-efficient and clean products will be considered more competitive than those who produce the 'dirty' way. A 'clean' gap emission or capability for emission reduction can be certified and used when entering the 'carbon trading' business.

[21] Australia introduces controversial carbon tax - the law forces about 300 of the worst-polluting firms to pay a A$23 (£15 or US$24) levy for every ton of greenhouse gases they produce - http://www.bbc.co.uk/news/world-asia-18662560.

[22] The COP 13 2007 held in Bali adopted an action plan that set out the mandate for the ongoing negotiations on long term cooperative action under UNFCCC, and states that negotiations are to consider "enhanced action on the provision of financial resources to support action on mitigation, adaptation and technology cooperation".

The Youth Response

In 2010 Hassan *et al,* undertook a research exercise to determine the awareness levels of secondary school students regarding sustainable development in Malaysia. The research concluded that high school students in Malaysia do generally have a 'high awareness' of sustainable development issues. Unfortunately, this awareness of sustainability is not supported by sufficient actions – there is limited response to the caring actions taken towards sustainable development.

No.	Item Statement	Total (%) VA+A		Category	Response
		Malaysia*	Indonesia**		
1	I always discuss environmental problems with my friends	28.5	45.3	Sustainability practice awareness	Practices are seldom or dislike being done
2	I compost food residue to make fertiliser	19.1	27.4		
3	I do not use plastic bags to wrap things	18.3	19.8		
4	I deliver information on the environment to my family members	27.6	52.7		
5	I am involved in the environmental awareness activities in school	33.2	66.7		
6	I appreciate biodiversity	69.1	93.3	Behavioural and attitude awareness	Practices are moderately done
7	I try to reduce the amount of waste at home by collecting materials that can be recycled	46.2	52.8		
8	I conserve use of electric energy at home	65.9	56.6		
9	I read about environmental issues in the mass media	67.0	52.6		
10	I conserve the use of water supply	62.7	68.7		
11	I am concerned about environmental problems at my place	70.3	80.6	Emotional awareness	Practices / feelings are most likely experienced
12	I feel disappointed with air pollution	86.7	93.9		
13	I feel disappointed with river pollution	88.9	93.7		
14	I am concerned about smoke that is omitted by vehicles	68.2	47.8		
15	I aware of my responsibility towards the environment	75.8	88.5		

Table 1 – Youth Sustainability Awareness in Malaysia and Indonesia (Hassan et al, 2010 and Mangunjaya, 2012)

Notes: A = agree, VA = very much agree, n = 350 high school students in Selangor, Malaysia*, n = 514 Islamic boarding school students in West Java, Indonesia.

Similar findings were also confirmed in a *pesantren* (Islamic boarding school) in West Java, Indonesia. The senior students did demonstrate a high level of sustainable development

awareness and had an emotional awareness related to sustainable development, but they fell short when it came to good practices and actions (Mangunjaya, 2012). The recommendation as a solution regarding this phenomenon according to Mangunjaya (2012) is that schools, including Islamic boarding schools or *madrasah*, ought to facilitate and develop productive environmental programmes which can be translated into daily actions allowing students to undertake practical actions and contribute to their environment.

Islamic schools need to develop environmental programmes to increase capacity and facilitate more positive responses from the youth, which would go a long way towards tackling climate change and the challenges that come with it. In essence it would prepare and equip them with the tools and knowledge to alleviate the situation in their countries. Environmental programmes need to be gradually introduced into schools across the country, similar to eco-schools that can be adopted in several Muslim countries[23].

I believe that young people have received much exposure from the media and are aware of environmental harm. The young people do have an emotional attachment to the environment and felt discomfort at pollution and other environmental concerns. Therefore, it is vital that society and schools work together to empower young people so they may make meaningful contributions and responses to their environment.

There are some important points that might be conducted in an effort to involve youth in sustainable development actions:

1. Introduce the environment at an early age; it will influence their future professional behaviour. This can optimistically affect their future as the early foundations will underpin their activities and life character.

2. Provide opportunities – they may be at an age to make a real difference and do so consistently. Their work may prove something that can be appreciated and utilised by both themselves and the community at large. They may go on to innovate, invent, and discover that their future is in this area. So they can enjoy this profession and find a lifelong passion.

3. A programme is needed that engages with youth and enhances their awareness of sustainable development which translates into an improved action-orientated attitude towards the environment. This alignment can happen if adequate financial support is given for environmental issues, especially by the Muslim world.

Conclusion

The three major challenges facing the planet are: depletion of natural resources, pollution and climate change. Sustainable development requires that we take joint action involving not just our consciousness but behavioural changes at the individual, state and regional levels. Changes in behaviour are influenced by four factors: education, faith, law enforcement and market demand. Education needs to have a sustainability agenda embedded into the curriculum (UN Declaration on Education for Sustainable Development). It is hoped this will steer the youth into action as well as increase their awareness of the important role that sustainable development can and ought to play in combating the challenges of climate change. The youth must go beyond

[23] Eco School is an international programme of environmental and sustainable developmental education for schools. See http://www.eco-schools.org

awareness and effectively engage with communities and environmental projects to respond to the changing environment.

The youth have proven themselves to have a high potential for environmental awareness. Unfortunately, this capacity is not sufficiently capitalised to lead to a consistent understanding and action so as to better contribute to building a sustainable civilisation and environment. While the Muslim world has a good modality and opportunities, there remains a gap amongst the youth in their perception of sustainable development and the practice of it. It is now necessary to maintain environmental programmes in the Muslim world to connect the youth and their activities to the real practice of sustainable development, so that they are able to make a contribution to this agenda.

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