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**Persepsi tentang Organisasi Bukan Kerajaan menggunakan sebagai internet sebagai medium untuk mewujukan kesedaran pembangunan lestari.**

Kajian kes mengenai Water Watch Penang


## Abstrak

Kajian ini bertujuan untuk menganalisa persepsi Organisasi Bukan Kerajaan dan internet dalam mempromosikan kesedaran mengenai pembangunan lestari. Organisasi Bukan Kerajaan Malaysia yang menggunakan internet untuk mempromosikan kesedaran pembangunan lestari yang dikenalpasti untuk tujuan kajian ini ialah Water Watch Penang. Ahli-ahli dari WWP telah ditemubual dengan pelbagai soalan untuk mengenal pasti bagaimana Internet boleh mewujudkan kesedaran tentang pembangunan lestari. Laman web bagi WWP juga telah dianalisis untuk tujuan yang sama. Walaupun kajian menunjukkan rakyat Malaysia adalah antara pengguna Internet tertinggi di dunia, namun mereka lebih suka melayari Internet untuk laman web rangkaian sosial. Kesedaran pembangunan lestari di Malaysia belum lagi dikenalpasti sejauh ia berada di dalam minda rakyat Malaysia Perkara ini belum lagi diteroki sebagai rancangan tentang prmbangunab lestari di Malyais masih baru

Ia adalah juga telah dikenalpasti bahawa internet boleh menjadi alat yang berkuasa untuk memberi dan menerima makluma jika ia digunakan untuk memperolehi pengetahuan am dan ia juga bergantung kepada kumpulan orang yang melayari laman web. Kumpulan ini adalah terdiri daripada ahli akademik, aktivis, pengguna, orang ramai, pelajar dan penyelidik. Kesemua pihak ini akan mempunyai keperluan tersendiri untuk melayari internet tetapi bagi mereka untuk melayari laman web Water Watch Penang untuk mencari maklumat tentang penjimatan air adalah bergantung kepada keperluan individu untuk

mengetahui tentang kepentingan air.Ini adalah kerana individu tersebut mungkin a sesuatu projek dan mungkin dia akan melamari web untuk tujuantersebut sahaja. Di Malaysia, kita tidak menghadapi masalah kekurangan air oleh kerana itu pembelajaran tentang penjimatan air belum lagi yang boleh disedari berbanding dengan negara-negara seperti India, Afrika dan Sudan. Kepentingan air perlu direalisaikan didalam minda setiap rakyat Malaysia supaya kita tidak akan menghadapi masalah ini masa akan datang. Generasi baru harus menyedari tentang pentingnya air.

Langkah-langkah yang dikenal pasti adalah dengan mencadangkan interne digunakan sebagai alat utama untuk mewujudkan kesedaran tentang pembangunan lestari. Daripada penemuan kajian ini internet boleh digunakan oleh Organisasi Bukan Kerajaan bagi maksud mempromosikan pembangunan mampan menunjukkan bahawa alat internet berkuasa sebagai alat komunikasi yang menyebarkan maklumat tetapi ia juga perlu digunakan secara luas oleh Organisasi bukan kerajaan di kalangan ahli-ahli mereka. Laman web WWP dengan sendirinya mempunyai banyak maklumat mengenai isu pembangunan mampan, penglibatan dengan forum dan seminar dalam talian boleh membuat ahli-ahli interaktif dengan orang ramai.

# THE PERCEPTION OF NON-GOVERNMENTAL ORGANIZATION USING INTERNET AS MEDIUM TO PROMOTE SUSTAINABLE DEVELOPMENT IN MALAYSIA


## Abstracts

The purpose of this study is to analyze the perception of NGO using internet to promote sustainable development. A Malaysian based NGO, use the internet to promote sustainable development, for the purpose of this study is Water Watch Penang. The members of Water Watch Penang were interviewed to identify how they promote sustainable development using the internet. The respective WWP's website is also analyzed for the same purpose. Based on the findings, WWP has very interactive website and a lot of their activities promote sustainable development and if concept of sustainable development whether the webpage are fully utilized is analyzed. Although studies show Malaysian are being one of the highest internet user in the world, but most of time Malaysians are viewing or browsing the internet for social networks. The awareness of sustainable development are already in Malaysian but to what extend it is in the mindset of Malaysian are yet to be explore.

It has also been identified that the internet can be a powerful tool to disseminate information if is it used for knowledge based and it depends on the group of people assessing the webpage. The group of people that are accessing the webpage could be academician, activist, stakeholders, consumers, public, students and researchers. All these people will have the own need to browse the internet but for them to browse the Water Watch Penang's website and to find about water it is depend on the need of the individual to k now about the importance of water In order for the person to visit a website he may have a project to do and that is why he is browsing the webpage. In Malaysia, we are not facing any water scarcity so the need to know about water saving is not realized compared to countries like India, Africa

and Sudan. The importance of water need to cultivate in the mind set of Malaysia in order we do not have this problem in the future. The new generation should be thought the importance of water. Various steps were identified and suggested on promoting the webpage of the WWP using the internet as main tool to promote on sustainable development. From the interview conducted with regard to internet usage by the NGO for the purpose of promoting sustainable development shows that internet is a powerful tool of communication that can disseminate information but it has to be used vastly by the NGOs and also among their members. The webpage of WWP itself have a lot of information on issue of sustainable development, engagement with online forum and seminar can make the members to be interactive with the public

# CHAPTER 1:

# INTRODUCTION

## 1.0 Background of the study

Globalization continues to develop almost everywhere across the world and many nations are fighting with the "side effects" of the growing economies in the present situation of world. In the current thinking mind there are a lot issue that has been given a thought they are about the development of global economies and societies: the challenge of environmental sustainability, and the potential of information and communications technology.

Towards the end 1980s and early 1990s, the World Commission on Environment and Development and the subsequent UN Summit on that theme, held in Rio de Janeiro and popularly known as the Earth Summit, focused the world's attention on sustainable development. They recognized that growth that depended on short-term depletion of natural resources could not lead to long-term prosperity or welfare. They defined sustainable development as "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs." (WCED 1987, part 1, sec. 2, para. 1).

The importance of sustainability has been increasingly recognized in development of policymaking since the Earth Summit in Rio, Brazil1992, where major international meetings to bring sustainable development to mainstream .Although it is concerned with economic and social as well as ecological sustainability, environmental issues and particularly climate change have continued to sharpen this emphasis. However, the record on moving towards sustainability so far appears to have been quite poor. The concept of sustainability means

many different things to different people, and a large part of humanity around the world still live without access to necessities.

Comparable attention to information and communication technologies (ICTs) development arose in the late 1990s and early years of the present century, and also focused around a UN Summit; in this case, the two-part World Summit on the Information Society held in 2003 and 2005. Dramatic changes in the technology and economics of communications enabled rapid and far-reaching expansion of communications access and the range of communications services, including the advent and spread of the Internet. At the least, these changes in communications have had profound effects on economic and social structures and on individual behavior. These potential changes are yet to come to represent the transition to a postindustrial information society, in which knowledge and networks play a more prominent role than capital and hierarchy for many in this field(IISD,2010).

It have to recognized that the world's present approach to growth is built upon foundations that are not sustainable because of resource depletion and the negative impacts of pollution and greenhouse gas emissions on the relationship between people and the planet. Climate change in particular is having an impact on people's not only lives and livelihoods, but on the increasingly urgent search for "green growth," it could be said that the economic strategies are now trying to meet the needs of the present situation without compromising the opportunities that will be lost by the future generations.

It is also widely acknowledged that new technologies, particularly ICTs, are having a major contact on economic and social relationships among individuals, communities and nations. The usage of high technology gadgets has made the economics of country rise, the mobility of connection has communicated the whole world. High-speed telecommunications

have been a major driving force of globalization in capital, labor and product markets. Mobile telephones have, for the first time, made immediate communications at a distance available to the majority of individuals worldwide. The use of internet has transformed the availability of information and in way disrupted and influence the traditional way of social and economic structures, from intellectual property and trade in goods and services to privacy, political debate and social mores (IISD,2010( b)). This can be seen in the human that they are very dependent on technology and traditional instrument are not are in usage any more. In aspect of social, the internet has made the young generation to lose their moral values.

Sustainable development is widely seen as a challenge that must be met. ICTs and the internet are widely recognized as opportunities to avoid historic development constraints. The old history how the environmental are taken care are forgotten, the new development are cutting down all the tree for new high rise building Both have impacts at global, national and local levels. Both are already shifting the way we think and act as citizens and in communities, in policy and practice. Both will have radical impact on economic and social change in all countries over the next two to three decades, indeed they are likely to have more impact than any other long-term changes that we see around us.

However, there has been surprisingly little interaction between policy-makers and activists concerned with sustainable development and with ICT/Internet public policy. This is not because there are few linkages but there are many complex linkages between them (IISD, 2002(a)).The linkages is that on the how ICT/IT can be incorporate into new technologies and sustainable development. In the words of an earlier IISD report on sustainable development and the Internet has stated:

In the broader view, sustainable development cannot be achieved without global communications and knowledge exchange. The more closer we consider today's

communications channels, the more aware we become of the paramount usage and importance of the Internet to the flow of general knowledge and information. The issues that are debatable in present internet governance are the access, multi stakeholder participation openness and security which is of prime importance to the global communication, knowledge exchange and to that effect it bring out the ability of how to manage the social economic and environmental aspect of sustainable development. (MacLean, Andjelkovich & Vetter, 2007, p. 1).

The problem in leveraging this linkage lies more with the different interests of those concerned with sustainable development and with ICTs and Internet public policy, and with the fact that the issues tend to be dealt with in different forums, among which there has been little interchange. International Institute of Sustainable Development (IISD) believes this gap in understanding and worldview between sustainable development and the ICT/Internet world is detrimental to both, and to the developmental outcomes with which both are concerned. Information and communication technologies and the Internet play an increasingly important part in production and exchange, in social organization and in individual behavior (IISD 2010(a)). It is significant that in the economic sector, the impact is directly because new technologies bring in new business development and new market product to give better push up to the economics. As agents of change in society, economy and culture generally, the internet disrupt many of the assumptions that have been made about the sustainability of current economic, social and environmental structures and alter projections that have been made about these for the future. The projection that the internet alters would be in aspect economics new policy decision could be made. In aspect of environment cutting of trees for development could cause deforestation. In the social aspect the moral value of human are degrading because a lot pornography movies and can be accessed through the internet.

Sustainable development thinking needs to be revised to accommodate the increased and still increasing impact of ICTs and Internet.

The ICT and Internet sector also needs to reflect on the importance of sustainability within its own development. ICTs are increasingly fundamental to the organization of economic production and exchange, to social dynamics and to the exchange of information and other resources. The ways in which communication networks evolve their governance, technology and economics and in which services and information resources is made available over them affect both the quality and the sustainability of economic, social and environmental development. The ICT sector has a responsibility to consider that impact: to maximize the opportunities that it provides (e.g., for poverty reduction, economic opportunity and personal empowerment) and to minimize negative impacts (e.g., in waste generation and greenhouse gas emissions). Governments, businesses and other stakeholders, including standard-setting agencies, NGO's and user communities, all have an important part to play in this reconsideration.

The non-governmental organization globally and locally is very active in promoting sustainable development. In Malaysia, the environmental NGOs are actively engaged with the government on natural resources conservation and environmental protection issue. (Abidin, Z et al, 2010). This study seeks to investigate the role of NGO in using internet as media to disseminate information and promote awareness on sustainable development; to what extent the Water Watch Penang (WWP), WWP in Malaysia and in particular in Penang has involved in sustainable development and the challenges faced by them in educating the public on issue of sustainable development. WWP is one of the pioneers NGO initiated in Penang as part of the Sustainable Penang Initiatives under the patronage of the Socio-economic and Environmental Research Institute (SERI) of Penang.

In Penang, the NGOs are very active and in the next three decades, Penang has continued to add other environmental NGOs such as Sahabat Alam Malaysia and Friends of the Earth (Abidin, Z et al., 2010). Usually the local NGO's in developing countries have limited resources and capacity and they will only address local issues but Penang environmental NGOs have broader vision and willing to take up global and regional issues to the community who are well read and active (Abidin, z et al., 2010).

In the case of WWP's main aim are to promote study, knowledge the awareness of who to conserve, protect and practice water saving society towards sustainable development of water resources and related matters in accordance with the concept of Agenda 21 of the United Nations and Malaysia's Environmental Commitment

WWP's agenda include:

creating awareness and education on the usefulness and importance or water; water resources protection and also the conservation; water resources monitoring; lobbying for water conservation; water demand management; water policies and regulations water tariffs restructuring and other matters related to water in the state of Penang, nationally in Malaysia and also globally. WWP has recognized that in 21$^{st}$ century, water will face scarcity problem and increasingly polluted and therefore sustainable development will come into force to save this situation. Malaysia is considered gifted as for now there is no issue of water scarcity and increase in the price of water and this has made Malaysian to ignore the importance of water.

## 1.1 Problem Statement

The environment is degrading in the name of progress and has reached the level where it needs protection and conservation. The concern for environment is no longer study of principle because the issue global warming and climate change is discussed on the radio, television and the internet. The human being is aware of the necessity for the change of attitude towards the change of global environment. This however has led the government, the Non Governmental Organization, corporation and other civil society to pay great attention to save the earth from depletion and serious actions has to be taken to overcome this problem and the public have to know the awareness of sustainable development.

Hence, the issue on sustainability had led global leaders, to develop a set of guideline for businesses, non- governmental organization, government organizations and other key drivers of development. The NGO by using the internet can play an important role in promoting sustainable development to the webpage users. It is important that in new era of communication internet plays a vital role and ICT is becoming more advance day by day and it is changing in split second in every part of the world and almost every group of people from young to old know about ICT and the usage of ICT. In many parts of the world, Internet is widely used to promote sustainable development, and it is possible to do it in Malaysia, if the people are IT savvy and they should know the knowledge of sustainability because in Malaysia sustainable development issues are already in practice in some state like Penang and Selangor. In the fast changing world internet can be tool to promote and create awareness because either almost everyone is using the internet everyday in Malaysia at home office or even with their hand phones and the public can use the internet for enhance their general knowledge instead of for social networking.

In Malaysia, there are not many studies that show how the NGO's can use the internet to improve the status of the community and promote sustainability. The motivation of this study is to find out whether the usage of webpage by the NGO can disseminate information about sustainable development. The knowledge that gained from the interview is that the webpage can provide a lot of useful information and it is all depends on the NGO on how interactive are their webpage for their usage first than to the usage of the public. This study will find out if the webpage's can be a good platform for NGO to provide and disseminate information about sustainable development.

This aim of this study is to investigate whether sustainable development can penetrated into the mindset of users by using the internet Walter Leal Filho's theory (2002). In 2002, Walter Leal Filho, in his "The Baltic environmental information dissemination system: a tool for sustainable development in the Baltic Sea Region", concluded that the future of information and dissemination systems is the potential applications of environmental information systems in the context on environmental research as a whole and to sustainable development in particular, is threefold, that is document that exist, disseminate the information and catalyze cooperation and networking between the groups of user. Information systems such as BEIDS, is a vital component that consist of environmental research and management and it is an important element for the modern environment issues because it assist in protecting the environment toward sustainable development.

The challenges faced by the NGO's in promoting sustainable development are given great importance. The Water Watch Penang is selected and a case study was conducted on how do WWP promote and achieve sustainable development in accordance with Agenda 21.

## 1.2 Research Objectives

The research objective is to analyze on the effectiveness and the usefulness of usage of internet by WWP in promoting awareness of sustainable development to the public in Penang in specific and in Malaysia as a whole. This objective can only be achieved by retrieving the webpage and analyze the information in the webpage of WWP. Several factors need to be investigated and understood including how website can be a powerful tool to disseminate information quickly and speedily to public to promote sustainability and if that information is practiced in their daily life.

The first objective of this research is to examine how the use of internet can promote sustainable development.

The second objective is to analyze the types of information on WWP's website to promote the awareness of sustainable development. This objective is achieve by analyzing the webpage of the NGO and the usefulness of the information that are posted on their webpage.

Lastly, this study also analyzes the challenges faced by the NGO's in using the website as tool for promoting awareness of sustainable development.

## 1.3 Research Questions

Questions that are identified relate to the research are:

1. How does the usage of internet by Water Watch Penang internet promote sustainable development?

2. How does information that are posted on the webpage to promote

sustainable development?

3. What are the challenges faced by the Water Watch Penang in promoting awareness of sustainable development in using the webpage?

## 1.4 Definition of Key Terms

### 1.4.1 Internet

The internet is a global system of interconnected computer network that serve billion of users worldwide using the stands Internet protocol suite (TCP/IP). Internet provides a vast range of information and services like infrastructure to support the email and World Wide Web. The internet also has enabled a new form of human interaction through forum, social networking and instant messaging.

### 1.4.2 Information and communication technology

Information and communication technology stresses the role of unified communication and the integration telecommunication (telephone lines and wireless signals ) computers, also software, storage, audio –visual systems which facilitate the users to access , create store transmit and also manipulate information.

### 1.4.3 Sustainable development

Sustainable development is a pattern that is used in the present years widely in all developed country and it also aims to meet the needs of human being without endangering the environment so that these need can be meet in the present and for the future generation as stated in Brutdland Commission. In simple words, we need to save all the potential resources

for the future generation and this can only be achieved if the community has the awareness to take care of the environment. Sustainable development focuses on three dimensions that are the economic, and the social and the environment.

Environmental issues are also a major global issue. Humans depend on a sustainable and healthy environment, and yet we have damaged the environment in numerous ways. This section introduces other issues including biodiversity, climate change, animal and nature conservation, population, genetically modified food, sustainable development, and more. is the process of making sure current processes of interaction with the environment are pursued with the idea of keeping the environment as pristine as naturally possible based on ideal seeking behavior.

Economic clearly identified information, integration, and participation as key building blocks to help countries achieve development that recognizes these interdependent pillars. It stresses the need to change from old sector-centered ways of doing business to new approaches that involve cross-sectoral co-ordination and the integration of environmental and social concerns into all development processes.

Social involves, cultural moral an human value whereby human are becoming more business minded an d these are value are degrading. In the business sector the corporate are trying to make money without giving the attention to the environment and social aspect. All the three aspect are important and they are can be link to each other.

### 1.4.4 Awareness

This is referring to the alertness, the consciousness that people have in order to achieve sustainable development. The awareness does come just like that it has to be from

deep of one's heart and mind. The knowledge of awareness is important and vital to put into practice because without that you cannot save the environment.

### 1.4.5 Non-governmental Organization

Non-governmental organization can be differentiated at levels ranging from local to national, regional or global. They are playing progressively larger role in policy-making, in inspiring international conventions, drafting treaties, providing scientific information and monitoring implementation. They can also be critical in environmental policy implementation.

## 1.5 Significance of the studies

This study contributes to the current literature on sustainable development, information communication technology, website and NGO. Firstly, it will fill the gap of knowledge with regards to sustainable development by the NGO's who does not have a webpage. Many of the NGO may have a webpage but it may not be as interactive to attract and create awareness to the academician, public and other researcher for the usage of to enhance their knowledge.

Secondly, the study will provide greater knowledge on how other NGO can use their ICT as a platform to promote sustainable development. The case study in this paper highlights key issues of the NGO that is practicing sustainable development using the internet and how it can help many other NGO to adopt or improve on their websites and create awareness to the public.

The study also to certain extent will enhance the knowledge of the website user on WWP's website, which have powerful information that can penetrate it the mind of public, individual, academician and researchers. This can be achieved when an individual or public browse a webpage they will try to discover on other aspect of sustainable development.

## 1.6 Organization of Thesis

This report is divided into five sections. The first chapter describes about the introduction and also overview of the study. Second chapter provides the literature review that relates to previous studies on NGO, ICT, Sustainable development, Agenda 21 and the internet. The chapter three describes about the research methodology on how this research done. Further, the chapter four states the case findings whereby how the result was achieved from the analysis of the webpage. Finally in the conclusion part the limitation of the research is explained, the future research, conclusion and contribution of the studies.

# CHAPTER 2

## Literature Review

### 2.0 Introductions

NGO is an organization, which consist of professionals whose aim is reduce the human suffering and to develop the poor countries for a betterment (Streen1997). Their contribution in various aspect consist of funding projects, capacity building, engaging in service provision, promoting the self-organization to various groups and also contribution towards creating awareness (Baccaro 2001).

The use of internet in the developing countries is expanding in a tremendous rapid pace. Internet has also been recognized by the government as an important tool to fight against environmental degradation, disease and poverty. In the past, agency for the development was negligent about expanding telecommunication beyond the urban area of South (Zijp, 1996) and only now they are assisting with the countrywide expanding internet service (Richardson, 1996).

NGOs are also referred to as backbone of civil society (Hyden, 1995). Bureaucracy and corruption are usually associated with the national governments, as compared to NGO's because NGO's are more efficient, less bureaucratic; they have committed participatory, grassroots orientated and contribute towards sustainable development in grassroots communities (Ndegwa, 1996). It can be said that due to the reputation of competent and appropriate programming, the NGO are given more responsibility in country development. William Frederick, in the 1980's and 1990 has stated that, the NGO's contribute to the development of global communication technology (Frederick, 1993). The recent article in

Science and Technology magazine, "*Wired*" also confirmed that the development does not include telecommunication but also it means what is telecommunication (Negroponte, 1998).

However, there is little argument on the potential advantages that would be achieved by using the internet as an information tool and there is increasing realization that if it not used appropriately it would be a useless technology (Du Toit, 1995). The earlier statement states that has been little research done on social science and this research will attempts to do it, whereby whether the stakeholders whose does not have any connection with the NGO's communities will be able to benefit when they associate with them. The stakeholders here are the people who have direct connection with the NGO's. They will engage with the activities with NGO and contribute t to the funding, projects and activities run by NGO's.

Following this argument, this research attempts to add to an area of social science where little research has come before it: understanding whether or not stakeholder communities that do not have connectivity are able to benefit from their association with NGOs that do. Even though the internet technology is popular, the current literature does give little attention to the unconnected stakeholder on the subject of information communications technologies.

## 2.1 Definition of Sustainable Development

In the report of The World Commission on Environment and Development, the Brundtland Commission 1987, sustainable development is defined as;

*"The development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED1987).* It contains two key concepts:

- firstly the concept of 'needs,' this in particular the actual needs of the poor's in the world, whereby overriding priority to be given to whom?

- The limitation imposed by the aspect of technology and social organizations on the environment's ability to fulfill the need of the present and the future generation. (WCED 1987)

The definition of sustainable development emerged from an international enquiry into the relationship between the development and environment and, it is not solely concerned with the environment but the sustainability of the overall developmental context. This usually comprises three main elements:

- Economic development – reducing and seeking to eradicate income poverty, achieving higher levels of prosperity and enabling continued gains in economic welfare;

- Social development – reducing and seeking to eradicate other dimensions of poverty, improving the quality of education, health, housing and other aspects of the welfare of individuals and communities, and enhancing the quality of social interaction, engagement and empowerment;

- Environmental protection – reducing pollution and other negative impacts on the environment, mitigating the effects of industrialization and human activity, and seeking to achieve sustainable use of resources by the future generations (WSSD, 2002a)

Development, in this context, is not a matter merely for developing countries, as the term is sometimes used. It is about development at all levels, from the family, through local

communities, regions and nations, to the planet as a whole. Sustainability needs to be a priority in all countries; post-industrial and industrial as well as developing countries; and in the international system that links them.

The 2005 UN World Summit, which reviewed the Millennium Development Goals, described the three pillars that are economic development, social development and environmental protection as three interdependent and mutually reinforcing pillars of sustainable development (United Nations General Assembly, 2005). Further analysts of sustainability add one or two additional aspects of development to this tripartite framework. These are:

These are:

- Cultural diversity – the continuance of diverse human cultures from past to future within a context of the globalization of communications, economy and society and the more intensive intercultural interactions that result; and

- Governance – the institutional mechanisms, rules and norms that encompass decision making and behavior by governments, businesses and citizens, the interactions among these stakeholders and among different policy domains.

The sustainability of development results not from any individual part of this framework from economic growth, for example but from the framework as a whole: from the cumulative impact of all three (or five) components, from the interactions among them and from the system-wide outcomes that result from these. Sustainable development, in other words, looks at development holistically, rather than from one dimension of the development ecosystem. This is often misunderstood.

The Brundtland Commission (1987) suggested seven critical actions that need to ensure good quality of life for people around the world (WCED, 1987):

- to bring back growth;
- make changes to the quality of growth;
- meet essential needs and of daily life like jobs, food, energy, water and sanitation;
- make sure the sustainable level of population;
- enhance and converse the base for resource ;
- reorient technology and manage risk; and
- include and consider environment and economic considerations in decision-making.

All these factors place a demand on us to:

- Produce differently by increasing efficiency and reducing material used in production. The goal is to increase resource productivity four times so that wealth is doubled, and resource use is half of the usage.
- Consumption pattern should be different so that it would reduce the ecological footprint of development and meet the needs of all people at the same enjoy the good quality of life.
- Organize differently by engaging all stakeholders and improving public participation in all aspect of planning, implementation, evaluation of policies and action, reduce global subsidies at the same time applying some of these in sustainable development.

The Brundtland Commission's define sustainable development as such, as that has been elaborated over the years into a set of fundamental principles, notably at two UN Summits,

the Earth Summits, held in Rio de Janeiro on 1987 and in Johannesburg on 2002. The consensus arising from these global forums can be summarized as follows (IISD, 2010a):

- Sustainable development policy aims to achieve the goal that human well-being for people everywhere in world need to measure on factors of security, satisfaction of material needs, health, social relations, freedom of choice and action following the principle of equity and fairness. In order to achieve this it is necessary to generate and distribute wealth in properly to reduce poverty and provide a decent standard of living for people everywhere.

- This aspect can only be achieved in the long run whereby polices and strategies, balance the growth of economics together with the social development and also environmental sustainability, and also applying that principles of global system thinking in policy and strategy development with the view to mitigate unpredictable and drastic consequences. on sequences that may result from triggers in other parts of the system.

- In the long term balance between human development and the natural environment is important for sustainable development so the technology and social organization plays critical role.

In 1992, the Earth Summit in Rio adopted Agenda 21, this is a global plan of action for sustainable development for the 21$^{st}$ century that emphasized and incorporated environmental, economic and social policy framework. The Agenda 21 contains powerful proposals and recommendations for action on a various issues that include resource management, wasteful consumption, poverty mitigation, and biodiversity, protection of the oceans and atmosphere and lastly promoting sustainable agricultural practices.

Since the Earth Summit in Rio, there have been several expansions and strengthening of its outcomes at several UN sessions, notably at the two Earth Summits. Sustainable development was a significant theme in the 2005 review of the Millennium Development Goals, and is reiterated in other UN summit declarations. The United Nations General Assembly has continued to reaffirm the objectives of Agenda 21, emphasizing the importance of five thematic clusters, including transport, chemicals, waste management, mining and changing patterns of production and consumption. Climate change has also come to the fore, as the utmost environmental challenge faced by the world community.

Progress towards sustainability, however, remains difficult to achieve; as the 2009 Climate Change Conference in Copenhagen so clearly demonstrated. It requires both international coordination and action by individual governments, businesses and citizens. A third UN Earth Summit is scheduled to be held in Brazil in 2012. This summit will focus on two major themes: the green economy where the issue of poverty eradication and sustainable development and the institutional framework for sustainable development. The Summit will try to balance the economic, social and environmental dimensions of sustainability, at local, national, regional and also international levels. In the meantime, a High-Level Panel on Global Sustainability appointed by the UN Secretary General is addressing the challenges involved.

Information and communication technologies are increasingly important in this context, but there has been too little interaction between sustainability and ICT domains. The 2002 Johannesburg Earth Summit, for instance, acknowledged the value of ICTs "as tools to increase the frequency of communication and the sharing of experience and knowledge," (WSSD, 2002b) but discussion about ICTs in sustainability forums and about sustainability in forums concerned with ICTs remains limited and shallow.

## 2.2 Agenda 21

With regards to this case study Agenda 21 will be discussed because the element of NGO, sustainable development, the important of water resources and the stakeholder have been discussed .This is important for this study. Agenda 21 addresses the critical issues that faced by the global community: continuing damage to ecosystems, the worsening of poverty, hunger and ill health, increasing world population and illiteracy. Agenda 21 is composed of 40 chapters that identify each challenge and propose simple realistic solutions towards sustainable development, which is meeting the needs of the present without compromising the ability of future generations to meet their own needs. (UNCED, 1992).

Most part of the world, governments, businesses, non-governmental and other organizations are already putting the ideas based on Agenda 21 to work. It is crucial to maintain the momentum of the Rio process and implement the agreements that were reached. This task will require vision, cooperation and work of every citizen and also the leadership and funding of governments and business, Sustainable development cannot be achieved without all the sectors of society working together. (UNCED, 1992). Regard to this study only certain chapter will be consider and the chapter are as stated below:

*a) Part One: Linking Society Economy and Nature (Chapter 1 to Chapter 22)*

This section focuses on the importance of international cooperation to implement and speed up our progress toward sustainable development. It also stresses the necessity for the governments of each individual developed and developing country to implement new policies, laws and strategies aimed at socially responsible development. However, governments cannot do it alone, they will need to work with the private sector, non-governmental organizations and individuals. (UNCED, 1992).

*Chapter 8: Making Decisions For Sustainable Development***:** There is a tendency to treat the environment as a "free good" and to pass the cost of environmental damage to other parts of society, other countries or future generations. Nations and corporate enterprises should integrate environmental protection and restoration costs in their decision-making.

*b) Part Two: How Can We Protect Our Resources (Chapter 9 to Chapter 22)*

This section focuses on the importance of how we can protect our available resources. It stresses the necessity for the governments of each individual developed and developing country to implement new policies, laws and strategies aimed at socially responsible development to protect our available resources. However, governments cannot do it alone, they will need to work with the private sector, non-governmental organizations and individuals. (UNCED, 1992).

*Chapter 18: Protecting And Managing Water*: In the developing world, one person in three lacks safe drinking water and sanitation; basic requirements for health and dignity. A cleanup of the most obvious sources of pollution is needed in order to have safe water and sanitation for all by the year 2025.

C) *Part Three: Who Can Make A Difference? (Chapter 23 to Chapter 32)*

Sustainable development is primarily the responsibility of every government, but the commitment and involvement of all social groups is critical to the effective implementation of the objectives, policies and mechanisms agreed to by all governments at the Earth's Summit In Chapter 24 to Chapter 31,Agenda 21 states the people who can make the differences to the world are one of them is NGO, women, children, youth, indigenous people, local authorities, business and industry in improving the efficiency of resource use, minimizing wastes and protecting human health and environmental quality.

*d) Part Four: Where Do We Start? (Chapter 33 to Chapter 40)*

The use of sustainable development should start from financial resources transfer of technology, science for sustainable development, education and public awareness, creating capacity for sustainable development, international institutional arrangements, international law and mechanisms, sharing information and data for decision-making because there must be commitment from this aspect in order for sustainable development to take place.

*e) Chapter 27 of Agenda 21: Strengthening the Role of Non-governmental Organizations: Partners for Sustainable Development*

Non-governmental organizations play a vital role in the shaping and implementation of participatory democracy. Their credibility lies in the responsible and constructive role they play in society. Formal and informal organizations, as well as grass-roots movements, should be recognized as partners in the implementation of Agenda 21. The nature of the independent role played by non-governmental organizations within a society calls for real participation; therefore, independence is a major attribute of non-governmental organizations and is the precondition of real participation (UNCED, 1992).

One of the major challenges facing the world community as it seeks to replace unsustainable development patterns with environmentally sound and sustainable development is the need to activate a sense of common purpose on behalf of all sectors of society. The chances of forging such a sense of purpose will depend on the willingness of all sectors to participate in genuine social partnership and dialogue, while recognizing the independent roles, responsibilities and special capacities of each other.

Non-governmental organizations, including those non-profit organizations representing groups addressed in the present section of Agenda 21, possess well-established and diverse

experience, expertise and capacity in fields, which will be of particular importance to the implementation and review of environmentally sound and socially responsible sustainable development, as, envisaged throughout Agenda 21. The community of non-governmental organizations, therefore, offers a global network that should be tapped, enabled and strengthened in support of efforts to achieve these common goals.

To ensure that the full potential contribution of non-governmental organizations is realized, the fullest possible communication and cooperation between international organizations, national and local governments and non-governmental organizations should be promoted in institutions mandated, and programmes designed to carry out Agenda 21. Non-governmental organizations will also need to foster cooperation and communication among themselves to reinforce their effectiveness as actors in the implementation of sustainable development.

*f) Section II, Chapter 18, of Agenda 21 on Conservation & Management of Resources for Development*

Protection of the Quality & Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management & Use of Water Resources: (UNCED, 1992).

Freshwater resources are an essential component of the Earth's hydrosphere and an indispensable part of all terrestrial ecosystems. The freshwater environment is characterized by the hydrological cycle, including floods and droughts, which in some regions have become more extreme and dramatic in their consequences. Global climate change and atmospheric pollution could also have an impact on freshwater resources and their availability and, through sea-level rise, threaten low-lying coastal areas and small island ecosystems.