



Introduction

In order to reach sustainable development there needs to be a compromise between environment and development. A report by the International Union for Conservation of Nature (IUCN) suggests that sustainability is not just about natural resources, but that it has a close link with political, social and economical stability.

This very reason was behind the United Nations Conference on Environment and Development, also known as the Rio Summit, in 1992. The result was Agenda 21, which was passed on 14 June 1992. The conference was a turning point in sustainable development. Since then, the issue of sustainability has become a global concern affecting all aspects of life such as poverty, inequality, education and health, the rights of women and children, freedom for different nations, politics, economics and international collaboration, and has been introduced as a way of achieving a better life.

In sustainable development, the human being is the centre of attention: people, in harmony with nature, are entitled to a healthy and prosperous life. Development is concerned not only with the rights of the present generation, but should equally cover future generations. The strategy of sustainable development convinced people that their futures are tied together.

In order to achieve sustainable development it is essential to observe human rights and to protect natural resources and the environment. Without human rights, sustainable development cannot happen. It should be noted that human rights are not only confined to freedoms, such as freedom of speech and prohibiting torture, but also cover some basic rights such as water, health, food, eliminating poverty, education, as well as freedom of information and access to the internet.

As mentioned, the aim of sustainable development is to cover all aspects of life and this cannot be achieved without social development. Social development targets aims such as cultural identities, social alliances, organisational development, citizen participation, and empowering human beings, especially women and youth.

The fundamental question is how the above aims can be achieved.

Policy and legislative context

The Islamic Republic of Iran has signed five important international documents including Agenda 21, the United Nations (UN) Millennium Declaration, the World Summit on the Information Society (WSIS) Declaration of Principles, and the WSIS Action Plan and Tunis Commitment.

The above documents create a framework of new concepts in understanding development and prosperity and insist on a wide spectrum of commitments in the fields of human rights, good governance and democracy. In accordance with these documents, each country agrees to fight poverty and to pave the way for and accelerate a dynamic economy. They also pledge to change consumption patterns, stabilising the world's population at an acceptable level, improve health, provide shelter, integrate environment and development, protect the atmosphere, protect jungles, and limit desertification, amongst other things.

In the social field, empowering women, youth and children, the participation of indigenous people in processes, the participation of NGOs, paying attention to labourers and recognising their unions are all important.

In the field of information and communications technologies (ICTs), with relation to WSIS (phases one and two), the following commitments are considered:

- An emphasis on being global, inseparable, mutually dependent, as well as on human rights and fundamental freedoms, democracy, sustainable development and good governance.
- Equal and free access for all.
- Widening access to global knowledge in relation to health and hygiene.
- Using ICTs to combat poverty and support indigenous products.
- Reducing the digital and gender gap by increasing the participation of women, and protecting children.
- ICT capacity building for all, especially for the youth and older women (highlighting permanent systems for e-learning and education).
- Digitalising historical and heritage data.
- An emphasis on governmental collaboration with NGOs and the private sector (i.e. on multi-stakeholder partnerships).
- The growth of small and medium-sized enterprises (SMEs).

Iran has passed four development programmes and one twenty-year vision strategy which have seen some progress and some failures in their implementation.

The third development programme emphasises decreasing governmental influence, the possibilities of the participation of the private sector, social security and social justice, subsidising essential foods for poor people,

improving science and technology, and creating an environmental policy to ensure the stability of natural resources. It also includes plans that involve supporting environmental NGOs and legalising financial support for environmental organisations, and things like reducing pollution through optimising the fuel systems of vehicles.

In the fourth development programme, action is focused on a number of issues, including paying attention to the knowledge-based economy in terms of the global economy, the protection of the environment, territorial spatial arrangement, training, reducing air pollution, and increasing health and security.

Unfortunately the government has not published progress reports on the third and fourth programmes, but according to official papers by the government watchdog (*Divan-e Mohasebat*) only 80 action steps out of 290 have been implemented on time.

According to the research centre from the Islamic Consultative Assembly of Iran, which reviewed the progress of the fourth development programme based on economic reports for the years 2005, 2006 and 2007, as many as 514 actions were not implemented.

An official international benchmark such as the Human Development Index (HDI) provided by the United Nations Development Programme (UNDP) shows that Iran is dropping in its position, and was ranked 88th out of 182 countries for 2009.

In comparison with the Persian Gulf countries, Iran has a slower rate of progress and holds the lowest ranking with reference to the life quality index.¹ We have to note that with respect to Iran's twenty-year vision, the country should have achieved first place amongst the Middle Eastern countries.

ICTs and the environment

As mentioned, environmental development is not separable from other aspects of development and for this reason the downfall in protection of the environment can also be seen.

Air pollution

Tehran is one of the most polluted cities in the world. Reports suggest that this year the pollution is 38 times more than the acceptable standard. As many as 5,000 people die from this each year. According to authorities, 70% of the pollution is caused by vehicles. New cars manufactured in Iran generate the same amount of pollution as 30-year-old vehicles, the reason being that the industry is a monopoly in the hands of those close to the government. One of the reasons for the high volume in vehicle presence on the roads is organisational bureaucracy. This can be reduced with the help and use of ICTs, with the knock-on reduction in air pollution. City traffic is one of the major concerns in Iran, and causes a waste in time and energy, air pollution,

and psychological illnesses as result of stress, all of which can be solved by ICT development.

City management

As we know, managing the city involves controlling the city's affairs and pursuing benchmarks aimed at raising the standard of life in all aspects. This includes social, economic and cultural aspects, taking into account the effects and presence of all official and non-official related factors with the aim of reaching overall and stable development. In city management, managing town design, town planning, city economics, waste, utilities, transport and education have an important place. The best way for managing these issues in this present time is through the use of ICTs: that is, by working towards e-government and smart cities.

In the past years, considering the above solution has been at the centre of academic reviews. In the government of former president Mohammad Khatami a project evolved called TAKFA, which aimed to advance the use of ICTs in managing government. The change of government in Iran, and the coming to power of Mahmoud Ahmadinejad, meant that the allocated budget for this project changed – instead money was spent on means to suppress opposition and in creating more internet sites linked to the government.

Drought and mismanagement of water resources

Drought is a phenomenon which is unpredictable. The desert belt surrounding Iran is spreading. This complicated climate has serious social impacts, such as the migration of rural people to the cities, causing a rise in unemployment and homelessness, as well as an increase in drug addiction. Implementing ICTs and making use of environmental NGOs can help to combat drought and limit its social implications.

New trends

Even though there are serious obstacles in the field of sustainable development in Iran, there are some positive signs. These include a rise in academic levels, the use of ICTs, and the push for democracy and human rights, including environmental issues and calling for free internet access.

The state is one of the main actors currently preventing the better use of ICTs to combat environmental problems, such as climate change. For instance, one of the serious issues in Iran with regard to the use of ICTs is the blocking of TV transmitters with noise in order to prevent people from receiving satellite communications. This also causes dangerous health hazards for the Iranian people.

The use of different methods such as virtual private networks (VPN) and proxies to combat filtering information is now common, and the reality is that the youth and people interested in using ICTs have been successful in their struggle. The political uncertainty in the country and harsh suppression of civil society have resulted in less attention being given to environmental issues and climate change.

1 hdr.undp.org/en

Instead, an organised civil society, and relatively disorganised social networks with a common aim, have been developed. The common approach of these networks is to combat censorship and to fight for democracy with non-violent means.

Action steps

Sustainable development in Iran

Sustainable development is included in the third and fourth development programmes and the twenty-year vision strategy, but there is a lack of commitment, especially after 2005. Therefore there should be special attention and focus by the government on its international agreements.

Digital divide

Even though the use of dial-up has passed its expiry date, it is a common way of accessing the internet in Iran. Filtering has prevented accessing free information by intellectuals, especially the youth and women, and has widened the digital divide in the country. As all governments agreed to reduce the digital divide, there should be a demand on the government to bridge the divide by providing fast and cheap internet. A connected society is one that can respond better to the imperatives of sustainability. ■