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Role of Islamic Economics and Finance in Sustainable Development Goals

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Abstract

In this paper, we discuss that Sustainable Development Goals (SDGs) are in consonance with Islamic ethos and philosophy. Maqasid al-Shariah emphasize on human well-being from spiritual, physiological, intellectual and economic perspectives. Islamic worldview and values framework strengthens moral consciousness, urge pro-social behaviour and engender environmental ethics which can help in influencing our attitudes towards meeting sustainable development challenges. Islamic social finance institutions like *Zakat* and *Waqf* can contribute towards scaling up efforts in commercially non-viable, but socially vital projects and programs. There is much potential for Islamic finance to promote sustainable economic development through such approaches as widening access to finance, financing infrastructure projects, and expanding the reach of Takaful. Real sector based productive enterprise in Islamic finance has positive implications for the ecosystem. Risk-sharing shifts the emphasis from credit-worthiness of the borrower to be placed on the value creation and economic viability of investments that create new wealth. Islamic social finance package can cater to the financially excluded households.

Keywords Islamic Economics, Sustainable Development, Sustainable Finance, Poverty, Hunger
JEL Classification: Q2, Q3, Q5, I3

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1. Introduction

The concept of economic development has evolved consistently since the middle of the twentieth century. The early concept of development treated economic growth and economic development as synonymous. Economic growth was considered as both a necessary as well as sufficient condition for realizing economic development. Nonetheless, later on, it was realized that economic growth does not necessarily lead to economic development. Institutions and economic structures matter a great deal in determining the long term effects of any growth strategy. Growth that raises income inequalities eventually become unsustainable and can undermine democracy and overall well-being of the society.

Income inequality that has been coined by Haq (1963) argue that the term 'functional inequality', which was introduced in the 1960s, of income and social utility of greed could not fulfil the promise of 'trickledown effect' in most of the economic growth stories, especially in Asia. Consequently, Haq (1995) accepted that humans are 'means' as well as 'ends' of any development process or policy. He reasoned that 'ends' cannot be sacrificed for the future. If we ignore the 'ends', then it undermines the entire development process. Development process or policy shall serve human well-being as an end objective rather than treating humans as inputs to the production process and target market for conspicuous consumption. The conceptualization of humans as utility maximizing species or machine like inputs in the production process needs to be replaced with treatment of humans as morally conscious beings who require both material as well as spiritual well-being.

Given the environmental and underdevelopment challenges which we face today, the concept of development again requires a renewed focus on environmental resource preservation and conservation. We require prioritization of goals like equitable income distribution, intergenerational equity and enhancing social infrastructure over the narrow focus on goals like economic growth. We have learned with experience that the concept of human capital development and sustainable development are more significant than the exclusive focus on economic growth. Now, we need synergistic efforts at a grand scale to realize the vision of sustainable existence and development.

In the next section, we discuss environmental and underdevelopment challenges which we face today. Section 3 explains how Islamic philosophy and worldview can renew our attitudes and outlook towards socio-economic problems and environmental challenges. In Section 4, we discuss how Islamic social finance institutions like *Zakat* and *Waqf* can contribute towards scaling up efforts in commercially non-viable, but socially vital projects and programs. In Section 5, we discuss how Islamic finance could stimulate efforts in mobilizing funds for sustainable finance, especially in Muslim majority countries.

2. Sustainable Development Goals – A Different Worldview

The Sustainable Development Goals (SDGs) as successor to Millennium Development Goals (MDGs) represent a broader intergovernmental agreement to foster action on broad based development encompassing economic development, human development and environmental sustainability. Table 1 outlines the 17 goals which are part of sustainable development agenda. We can see that these sustainable development goals revolve around human and societal well-being. In this section, we will prove that Islam has different worldview on development goals.

Table 1: Sustainable Development Goals

1	End poverty in all its forms everywhere.
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
3	Ensure healthy lives and promote well-being for all at all ages.
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
5	Achieve gender equality and empower all women and girls.
6	Ensure availability and sustainable management of water and sanitation for all.
7	Ensure access to affordable, reliable, sustainable and modern energy for all.
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
10	Reduce inequality within and among countries.
11	Make cities and human settlements inclusive, safe, resilient and sustainable.
12	Ensure sustainable consumption and production patterns.
13	Take urgent action to combat climate change and its impacts.
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss.
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Our worldview will start with our proposition that human creation as the central point in development goals.

Proposition 1: Human Creation as the Root of Development

Islam teaches that humans were created by Allah SWT from clay and breathed the spirit of life into them. He separates them from the rest of creation by giving them three divine gifts: intelligence to distinguish the true from the false, a will that can freely choose between them, and the power of speech to worship. Because of these gifts, people are the noblest of Allah's creatures, superior to the rest of nature. However, people are not perfect. Although they are not sinful by nature, humans are vulnerable to temptation. Because they are rebellious and proud, they often forget that they depend on God.

The concept of economic development (as human-centered development) that focuses from human to human as vicegerent and servant of Allah should be understood as a development process that takes into account the interests of man as a manifestation of all the people. Our understanding

about economic development may produce the idea of progress, and it implies a forward-looking approach. Thus, economic development should be understood as a multi-dimensional process involving major changes in the social structure, the attitude of society and national institutions, as well as the acceleration of economic development, the reduction of inequality, and the eradication of absolute poverty.

Therefore one of the most important domains of economic development is the human centered development. Human-centered development strategy has the ultimate goal to improve the quality of life and quality of *akhirah* (hereafter) of all people. In essence, the objective in human-centered development strategy is to eradicate absolute poverty, the realization of distributive justice, and significantly increased public participation. Initial priorities for people centered development should be reserved for areas that are not profitable and social groups are prone to be affected, including women, children, young people who cannot afford, the elderly, and other marginalized groups.

Proposition 2: Development Policy That Focus on Human

As part of the human's duty as caliph who serve to prosper the earth, the development policy play as an effective role as well as in influencing the final objectives (Maqasid al-Shari'ah). Effective role, in the sense that a particular objective cannot be implemented individually by the society. In this regards, the aim of a development policy is to realize at least two main objectives as follows: *first*, preserving *al Dien* (faith) - two things could realize in preserving *al Dien* (faith), namely: to safeguard and make it grow. Preserving faith means maintaining the essence of Islam, its meaning, and spread it among humans as submitted by the Prophet SAW, his companions and the generation after them. It also includes maintaining the sanctity of religion of any distortion or suppressed by the *kuffar*. Implementing Islam means implementing its legal jurisprudence in all aspect of human's life; relations between human, and financial transactions. In the context of the nation, it also covers the international law and international relations etc. Human shall also perform enjoining *Ma'ruf* (goodness) and forbidding *Munkar* (badness). This is because any possible virtue could not survive if badness also exists.

Second, managing *al dunia* (the Planet) based on Sharia – the purpose of managing the world based on *al Dien* (Shariah) is to manage the nation and the people in the form of realizing *maslahah* and reducing *mafsadah*. It can be done via abiding the sharia principles and legal jurisprudence, or *istinbat* (deduction) through a proper method of *ijtihad* (reasoning).

In relation to the above two main objectives, the development policy is required to perform:

(a) *Establishing Social Justice among humans*

The people as a member of society and the government (who propose the development policy) as an authority in charge of people's affairs are inseparable unit. Various programs launched by the government will not run properly without the support and loyalty of the people. The various problems faced by the people would not be over without government concerns. The goodwill between government and the people is the provision that must be maintained.

It is clear that a nation is not an end in itself. However, the end is the development of a community who stand up for equity and justice and for right against wrong. Alternatively, phrase it differently, for the creation of such conditions, as it would enable the greatest possible number of human beings to live spiritually, morally and physically in accordance with the teachings of Islam. Thus, the founding of a nation is not a sort of "worldly activity," something that is undesirable, as some people wrongly suppose, but the sine qua non of social justice, as demanded by Islam.

(b) *Protecting the Freedom and Individual Liberty*

The nation is authorized to lay hands upon it through due process of law. As the nation is meant to enforce the law of the Sharia within its territorial jurisdiction, it is duty bound to make itself an efficient organ for transforming the high ideals of Islam into reality. The Qur'an, while enumerating the main functions of the nation, says:

*"Those who, if We establish them in the land, observe worship, and pay the poor-due and enjoin good and forbid evil"*³

The law provides freedom of expression as one of the fundamental rights of the citizen that a nation must respect. Then, it is also the duty of the nation to see that no citizen remains unattended with respect to the basic necessities of life, via, food, clothing, shelter, medical aid and education. In this perspective, the Holy Prophet (PBUH) said: "The government is the guardian of those who have no guardian."⁴ Moreover, the nation is bound to create such conditions in which the good reigns supreme in the society and evil is suppressed and exterminated, and its citizens learn to live as good Muslims.

(c) Providing the Needs of the People

By providing people's needs such education, jobs, and all the people's need in their lives. In this cases related to well-being, the definition of the concept of welfare then is very complex. However, according to Qur'an , there are at least four major indicators of welfare⁵, i.g. the Islamic value system, economic power in the real sector (industry and trade), fulfillment of basic needs and distribution systems, as well as social security order. The basis of prosperity is when the teachings of Islam became guidance in the economic life of a nation. The true prosperity can never be achieved through a rebellion against the rule of Allah SWT. This opposition became a source of losing prosperity and blessing to human life⁶. Prosperity will not be achieved when economic activity in the real sector is not working as it should. The real sector that absorbs most of the labor force and become the core of Islamic economics. Even Islamic finance should designed to strengthen the real sector. Furthermore, the terms of prosperity is when people's basic needs can be met. In other words, the system of economic distribution plays a very important role. Islam teaches that a good distribution system is a distribution system that can guarantee low rates of poverty and inequality, as well as ensuring that the wheels of the economy can be enjoyed by all segments of society without exception⁷ . Similarly, the aspects of security and social order, in which prosperity can never be realized, when safety is missing from the lives of the people, as a result of destructive horizontal conflict.

(d) Developing the Wealth of Nation

By making an effort to secure the wealth of nation which can be enjoyed by all citizens and providing comfort and a good standard of living for the people. In other words, economic independence is an urgently matter.

It is undeniable that the stability economic of nation and civilization strongly influenced by the economic independence of the society. In this regard, there are three main indicators of economic independence should be created; the optimization of local resources, the quality human resources, and the culture of sharia business. On the optimization of the local potential, the parameter is how the nation able to explore, elaborate and optimize the potential of locally owned. Do not rely on what produced by other nation. For example, if we prefer to import fruit compared to locally produced, by arguing easier and cheaper, then we can be sure that we will be disrupted the economic independence.

³ QS.22:41

⁴ Narrated by Muslim

⁵ See QS. 106:104

⁶ QS. Taha: 124

⁷ QS al Hasyr: 7

While the indicator of human resources quality, the role of educational institutions is very critical. The high demand for qualified human resources must be addressed through well-planned education system and not merely by short-term training. Similarly, the urgency of Islamic business cultures development. In this context, Islam is rich with the principles of sharia business culture. For example, the Prophet Muhammad said: *"Verily, the best of income is the income of traders, when speaking not lie, when given the amanah not treacherous, when promised not deny it, when buying not denounce, when selling not excessive (in raising prices), when owe not procrastinate, when collect (a repayment) not aggravate those who in trouble"*⁸

This hadith gives us a guidance on how business culture must be developed, both in relation to the personal character we should have (honesty, trusty and commitment), the process of negotiating the right business (un-denounce, no exaggeration), and on debt, i.e The principles and how to collect debts.

3. Human in Relation to Environment/The Anthropogenic Challenge to Environment

Just over three centuries after the arrival of industrial revolution, we have achieved unprecedented economic growth. Gross World Product which combines the GDP of all countries and regions has risen from a mere \$100 billion in the year 1700 to \$78 trillion in 2014. During the twentieth century, world population increased by a factor of 4, whereas industrial output sharply rose by a factor of 40. On the other hand, the intensity with which environmental resources are used up in the production processes has increased sharply. The last two generations in the twentieth century alone brought an increase in energy consumption by a factor of 16. However, as noted by Dasgupta (2010), the challenge to biodiversity and environment can be appreciated from the fact that fish harvesting has increased by a multiple of 35 and carbon and sulphur emissions grew 10 times in the last half century.

We have pushed planetary boundaries through unprecedented burning of fossil fuels, rapid deforestation, contamination of seas and which has caused rise in temperature, frequent heat waves, floods, melting of glaciers and enormous loss of marine and tropical forest species. It is estimated that continued use of fossil energy will lead to an increase of the average global temperature by 1.0–3.5 degree Celsius in the coming 50–100 years. (Dagobert, 2000). Cook et al. (2013) reveal that 97.1% scientists endorsed the consensus position that humans are causing global warming. The recently concluded COP21 conference in Paris in 2015 on climate change put forward an agreement to reduce greenhouse emissions and control global warming; however, the agreement will become legally binding only if it is joined by at least 55 countries which together represent at least 55% of global greenhouse emissions.

In addition to the above anthropogenic disruptions, the global sea levels have risen by about 8 inches since 1870, according to World Research Institute. As the ice caps melt and sea level rises, the potential of floods increases. Sea levels are predicted to rise by 20 to 80 inches by 2100, according to a report by Surging Seas. Ironically, we have a garbage island of the size of India, Europe and Mexico combined floating in our oceans. The oceans absorb as much as 25% of all human carbon dioxide emissions. On the other hand, we also waste almost half of the food that we produce (Lundqvist, 2008).

Forests cover 30 percent of the planet's land, and provide vital protection from sandstorms and flooding as well as an essential natural habitat for wildlife. Yet, every single year we lose an area the size of Panama. Humans have already chopped down about 50% of the rainforests that once existed on the planet in the last half century alone. Deforestation simply means clearing of green cover.

Over the last 250 years, surface acidity of the ocean has increased by an estimated 30%. The acidity is expected to increase by 150% by 2100. According to a research published in Nature, by 2050, rising temperatures could lead to the extinction of more than a million species.

⁸ Narrated by Baehaqi

According to the World Health Organization, air pollution is now the world's largest single environmental health risk. Air pollution is responsible for approximately 3.7 million deaths a year. Going forward, cities will generate approximately 2.2 billion tonnes of solid waste per year by 2025 which could poison soil and waterways, kill plants, and harm humans and animals.

According to United Nations Environment Program (2016), natural capital has declined in 116 out of 140 countries. Greenhouse gas emissions add energy to the Earth's system at a rate equivalent to the detonation of four nuclear bombs every second. On average, 26.4 million people have been displaced from their homes by natural disasters every year since 2008. Quite alarmingly, one third of the world's arable land is jeopardized by land degradation, triggering economic losses of \$ 6.3 to \$10.6 trillion per year.

All these alarming statistics emphasize on the need for pre-emptive action to help change the way we produce, consume and live. It requires structural transformation of our business processes, food production and technological capacities. We need a reflective change in our value system to have a more caring relation with the eco-system. In the next section, we discuss how Islamic worldview provides a promising basis of looking at our relation to the environment.

4. Concept of Tawheed and Khilafah & their Implications to Ecosystem Relations

The concepts of *Tawheed*, *Khilafah* and *Akhirah* govern the Islamic way of life. Belief in the single source of creation defies racial, ethnic or gender basis of biases. According to Islam, all creations belong to Allah. Animals and plants are partners to man in the universe (Mian et al., 2013). Simultaneously, the concept of *Khilafah* raises the stature of human beings as moral beings with inbuilt and active conscience, which provides the ability to differentiate moral from immoral acts. It inculcates the responsibility of custodianship, trusteeship and stewardship in human beings with regards to the use and ownership of physical property and environmental resources. The two worldly view of life in Islam extends the decision horizon of economic agents, be they firms or consumers.

While the concept of *Tawheed* creates an equal basis for humans to use what is bestowed in nature, the concept of *Khilafah* instils stewardship towards the responsible use of natural and environmental resources without pushing planetary boundaries and causing precious loss of biodiversity. Hope & Jones (2014) investigate the link between faith and attitudes to environmental issues. As per the findings, the Muslim participants argued that the continued burning of fossil fuels would be immoral because they could disrupt the balance of nature, leave a dubious inheritance for future generations, and would constitute poor stewardship of Allah's creation, for which they would be judged. According to World Values Survey sixth wave (2010-2014), 29% respondents in 21 OIC member countries state that 'looking after the environment and to care for nature and save life resources' best describes their view and attitude towards environment as compared to 21% stating the same view in 39 non-Muslim majority countries. Ansary (2010) also gives account of how religious motives in practice prove to be strong motivators for environment friendly actions like conservation and tree plantation than the laws of the land.

Environmental stewardship requires that we use natural resources ethically so as to equally improve the welfare of society, other living organisms, and future generations (Alghamdi, 2014). The relationship between human and nature is one of custodianship or guardianship, and not of dominance (Islam, M. N. & Islam, M. S., 2015). The earth's resources are available for humanity's use, but these gifts come from God with certain ethical restraints. We may use the resources to meet our needs, but only in a way that does not upset ecological balance and that does not compromise the ability of future generations to meet their needs (Riham, 2014). These principles lead Kula (2014) to conclude that Islam is an environment friendly religion.

The Islamic moral injunctions influence preferences through moral filtering of the consumption set by identifying the moral 'BADS'. The moral philosophy imbued with socio-ethical spirit extends the decision horizon of consumers. It encourages the transformation of self-centric self-interest into self-

cum-social centric self-interest. The moral injunctions explicitly extol virtuous philanthropy. Finally, by flattening all other basis of distinction except on piety, Islamic values garner contentment whereby, the consumer is asked to shun envious and conspicuous consumption of luxuries.

Islamic philosophy of life prioritizes equitable distribution over Pareto efficiency. Overreliance on Pareto efficiency paralyses the equity and ethical concerns of development policy change. As per Pareto efficiency, it is inefficient to help millions of poor to make them better off while making any single rich person worse off. While Islamic principles allow freedom and liberty in lawful consumption within the moral boundaries, they induce affirmative action to promote wellbeing when people possess the means. In contrast, according to consumer sovereignty, as long as people can put up dollar votes for their preferences, resources will be allocated on producing, marketing and distributing inessential goods even if a quarter of world population lives in poverty and suffer from hunger, malnourishment and curable diseases.

Rather than complimenting humans in their animalistic instincts to keep having one-eyed focus on material well-being only, Islam inculcates piousness, kindness, cooperation and communal responsibility in humans. In some instances, Islam guides explicitly to avoid extravagance, lavishness and using certain products and services which harm a human's ethical existence and well-being either individually and/or harm the society in the process. Islamic economics incorporates ethical values and excludes from the consumption bundle various goods which bring either private loss or welfare loss to the society.

Islamic philosophy of life brings a long term perspective to the pursuit of self-interest by informing humans about the positive and negative consequences of their actions and choices in the life hereafter. In the secular worldview, due to the absence of afterlife accountability, the rich people with absolute and inviolable property rights can command natural and environmental resources whose potential lifespan is much more than the lives of their owners. But, if the rich people believe in no afterlife accountability, they can extract and exploit these resources quickly and deprive future generations of their use.

Extinction of species, global warming, climate change, depletion of ozone layer and massive carbon emissions are inevitable results of the secular and individualistic paradigm. Climate change is a slow, but cumulative process. Individual human lifespan is only an infinitesimally small fraction of the life of environmental resources and eco-system services. Hence, the self-centric and this worldly view of life are incompatible with the concerns of sustainability and socially responsible behaviour. Rather, the dogmatic commitment to self-centric secular worldview results in inevitable proliferation of pollution as a right and product to be bought and sold in the market economy.

Mortazvi (2004) contends that Western economics has become a discipline devoid of values. Exploitation of the natural environment can be abated when individuals consider intergenerational welfare and justice to be important factors in their economic decisions. Na'iyā (2007) suggests that the effective solution to the environmental problems lies on the overall worldview which spells out the relationship between man, nature and his Creator as well as the implications of one's actions in the hereafter.

Islamic worldview provides such meaningful conditioning which enables bringing the right balance between human aspirations and the physical limits of nature. Religion also promises salvage from the limitedness of this worldly life in heaven which will be awarded to the most righteous people. This, in turn, provides a permanent incentive to choose righteous behaviour as an end with the hope and fear of deterministic results in the life hereafter.

5. Role of Islamic Social Finance in Sustainable Development

Since the sustainable development goals are ambitious and the time-frame set for these goals is short, it is important that all-encompassing efforts are undertaken involving all sorts of institutions to make the largest leap forward. It is especially crucial for countries that are much behind the targets and need

considerable effort and resources to pull themselves up to meet the targets. In Table 2, we show the state of development indicators in the Muslim majority, non-Muslim majority middle income and non-Muslim majority high income countries. It clearly shows that Muslim countries on average have to travel much more distance in achieving the development targets as compared to middle income and high income countries.

Table 2: Comparison of Socio-Economic Indicators across Country Groups

Indicators	High Income	Middle Income	Muslim Countries
Economic			
GDP Per Person Employed (Constant 2011 PPP\$)	76,507	29,631	40,341
Poverty Ratio at PPP \$1.90 a Day (% of Population)	0.56	5.95	24.58
Education			
Literacy Rate (% of Adult Population)	98.46	93.22	73.46
Net Enrolment Ratio in Primary (%)	96.92	92.34	85.55
Health			
Hospital Beds (Per 1,000 People)	5.18	3.37	1.98
Improved Sanitation (% People with Access)	97.14	81.85	64.53
Improved Water Source (% People with Access)	99.28	91.89	82.04

Source: World Development Indicators, 2015

Religious institutions which have a socio-economic character can also be employed in creating synergistic efforts towards achieving the sustainable development goals, especially in Muslim majority countries.

5.1 Role of Zakat in Sustainable Development

The first sustainable development goal is to have no poverty by 2030. If we look at the institution of *Zakat*, we find that the payer of *Zakat* and the receiver of *Zakat* belong to two different income classes. The payer of *Zakat* is non-poor with surplus wealth above *Nisab*. On the other hand, the receiver of *Zakat* is usually a poor person with no surplus wealth above *Nisab*. Thus, the threshold wealth of *Nisab* makes a distinction between the payer and receiver and helps to achieve targeted income and wealth transfer to the people who are usually the poor people.

Since this redistribution is based on wealth rather than income, it can achieve the redistribution objectives more effectively and consistently since wealth fluctuates much less than income over the business cycles. Metwally (1983) argues that *Zakat* has a wider base and it is applicable on both the incomes and the wealth. He emphasizes that the *Zakat* system has an inbuilt mechanism to reach the right targets in terms of *Zakat* collection and disbursement. This ensures increasing the propensity to consume more emphatically and quickly.

Furthermore, the accumulated wealth can be much more than the single period income, especially in the high net worth individuals of the society. That is why, in the absence of broad based wealth taxes and loopholes in taxing off-shore wealth, the progressive income taxes alone have been unable to reduce income inequality and wealth redistribution. Hartman (2002) cites the case of US economy and argues that the progressive taxes were designed to reduce income inequality. But during the last four decades, while the share of income taxes levied on the upper tenth of incomes rose 15%, the after tax income share of the remainder of incomes declined by 13%.

Oxfam (2017) reports that 8 individual persons have as much wealth as bottom 50% of the entire global population. Their combined wealth is \$426.2 billion as of end-2016. As per World Bank, there are 767 million people below the poverty line of \$1.90/day. It means that poverty gap is \$531.9 billion ($1.90 \times 767,000,000 \times 365$) per year. Comparing the wealth owned by only the richest 8 persons (\$426.2 billion) and the total global poverty gap funding requirement (\$531.9 billion), one can see how redistribution of wealth can help in pooling poverty alleviation funds. Oxfam (2017) reports that global wealth has reached \$255 trillion. It is enough to give \$1 a day to 767 million poor people for 910 years. A single year 2.5% Zakat on it will give \$1 a day to 767 million poor for 23 years.

The second sustainable development goal is to end hunger. According to Food and Agricultural Organization (FAO), there are approximately 800 million people who suffer from hunger and are food insecure in their routine lives. Most of the poor countries lack basic resources to kick start growth and to invest in health and education. The mere scientific solutions to health and education issues solve the supply side problem, but not the demand side problem since these essential services are produced and marketed in the global market economy on commercial basis. If only 70% of the people in a country can afford to pay the market price of food, then for whom should the food be produced, i.e. the 70% of those who can afford or the 100%? The answer by market economy where price mechanism reigns supreme is that it is quite possible to have market equilibrium at a price where only the 70% non-poor could afford food and 30% remain unserved and unfed unless they get charity or government's support. Thus, the redistribution of resources is vital to enhance income as well as the capacity to earn sustainable incomes, which requires income support programs, basic health and education as well as microfinance to build small enterprises.

According to The Hunger Project, 2.4 billion people do not have adequate sanitation and each day, nearly 1,000 children die due to preventable water and sanitation-related diarrheal diseases. It is partly because sanitation is not good business as compared to cellular services and life's other comforts and luxuries. Interestingly, according to the Food and Agricultural Organization (2013), for the world as a whole, per capita food supply rose from about 2,200 kcal a day in the early 1960s to more than 2,800 kcal a day by 2009. The institution of *Zakat* could help in providing income support to the poor people who are food insecure due to lower and unsustainable incomes.

Another important sustainable goal is to have good health and well-being. Nearly 50 percent of the people living in extreme poverty are 18 years old or younger. This goes on to show that a significant portion of our global population would not have a fair start to achieve socio-economic mobility. Thus, proper nourishment, basic medicines and vaccinations are necessary to avoid ill-health, stunting and loss of capacities for independent productive living in adulthood. Some life-saving medicines cost less than a dollar, but they are underprovided due to commercial reasons. Unless effective redistribution happens, the purchasing power cannot be enhanced which is vital to afford even the basic necessities today, such as food, water and medicines.

The sustainable development goal of quality education is vital for achieving permanent poverty exit, enhancement of skills and capacities, and to ensure upward social mobility. The financial institutions can come to the rescue once the people are able to hold enough assets and skills for enterprise. But, much before that, people require survival and human capital development in the early stage of life. There are mosque based schools in the Muslim majority countries which effectively channelize *Zakat* funds to ensure basic religious and secular education. Effective administration and management of the *Zakat* funds can help in scaling up the benefits in terms of strengthening institutions to create synergistic effects.

Decent work and economic growth is the most vital sustainable development goal to realize sustainable reduction in poverty and in ensuring upward socio-economic mobility. On one hand, *Zakat* from endowment surplus households (those having higher wealth than *Nisab*) to the endowment deficient households can help in providing income support and affordability for skills enhancement programs. *Zakat* could also be used to provide funding for educational and health institutions, thereby contributing to human capital development which can provide decent work. On the other hand, the

institution of *Zakat* would ensure circulation of wealth in the productive enterprise, thereby directing capital to go in the real sector of the economy rather than sitting idle in the hands of the wealthy individuals.

5.2 *Role of Waqf in Sustainable Development*

Waqf is an important social institution in the Islamic framework. In the institution of *Waqf*, an owner donates and dedicates a movable or immovable asset for perpetual societal benefit. The beneficiaries enjoy its usufruct and/or income perpetually. *Waqf* can be established either by dedicating real estate, furniture or fixtures, other movable assets and liquid forms of money and wealth like cash and shares.

The cash *Waqf* can pool liquid donations in order to build institutions, such as schools, hospitals, and orphanages (Sadeq 2002). Cash *Waqf* can pool more resources and ensure wider participation of individual donors (Aziz et al., 2013). *Waqf* provides flexibility in fund utilisation as compared to *Zakat* since *Zakat* funds must be utilized for specific categories of recipients. The institution of *Waqf* can be used to provide a wide range of welfare services, such as educational institutions, health institutions, environmental preservation programs and financial institutions like *Waqf* based microfinance (Habib, 2007) and socially driven banks (Mohammad , 2011).

Along with income support and cash transfers, poor people also require skills and productivity enhancement in order to get out of poverty and achieve social mobility. Haneef et al. (2014) argue that lack of finance and business training requires institutional support to unleash the potentials of micro-entrepreneurs and to establish viable micro-enterprises. Obaidullah (2008) explains that growth-oriented micro-finance programmes also need to provide training, insurance, and skills enhancement facilities. In this regard, the institution of *Waqf* can improve the chances of socio-economic mobility by providing a rather permanent, effective and efficient funding source for the health and education infrastructure. The increased and improved provision of education and health infrastructure funded through *Waqf* can enhance the income-earning potential of beneficiaries.

6. **Role of Islamic Finance in Sustainable Development**

Achieving sustainable development rests on availability of funds, infrastructure, inclusive growth, creation of jobs, 'environment friendly' technological advancements and business processes reengineering. All of this is not going to be possible without availability of funds. By some estimates, around \$3.5 trillion to \$5 trillion is needed every year to make desirable progress on SDGs. At global level, investment in infrastructure is estimated to be US\$ 100 trillion over the next two decades (Ahmed et al., 2015).

In Middle East, there is immense potential to use solar energy alongside oil. In Arab world, the annual per capita share in water resource will be less than 500 cubic meters, less than 10% of global average. Lack of financing is one of the major obstacles for minimal use of renewable energy in developing countries. Financial sectors of developing countries are often underdeveloped and are unable to efficiently channel loans to produce renewable energy.

As per World Bank, developing countries spend about \$1 trillion a year on infrastructure. An additional \$1-1.5 trillion will be needed through 2020 in areas such as water projects like dams, desalination plants, power projects and transportation projects. Asian Development bank estimates that emerging Asian economies alone will require \$8 trillion over the next decade to satisfy growing demand in the areas of energy, water and transportation.

Governments in developing countries have much more distance to travel in achieving the SDG targets and yet they generally have weak tax base to work with. Because of the transformative and sustainable nature of the new development agenda, all possible resources must be mobilized if the world is to succeed in meeting its targets (Ahmed et al., 2005). The financial crisis of 2007-09 and subsequent contagion effects has not helped in improving on the commitment to provide 0.7% of Gross

National Income as Official Development Assistance (ODA) by the developed countries to the underdeveloped ones. With resources allocated to development by donor countries remaining insufficient coupled with the headwinds of financial and economic crises affecting many countries worldwide, it is important to explore alternative and complementary innovative financing mechanisms such as Islamic finance.

There is much potential for Islamic finance to promote sustainable economic development through such approaches as widening access to finance (including microfinance), financing infrastructure projects, and expanding the reach of *Takaful* (Islamic insurance). As part of its commitment to the SDGs, the Islamic Development Bank has announced it will increase its funding of SDG related activities through its ten year strategy framework, from \$80 billion recorded during the MDGs, to \$150 billion over the next 15 years (2016-2030).

Global Shari'ah-compliant assets totaled \$2.0 trillion at the end of 2015, and are expected to exceed \$3 trillion by 2020. With resilient growth, effective risk mitigation and participative modes of financial products, Islamic banking and finance promises to play a significant role, especially in the Muslim world. Islamic finance also can enhance financial inclusion, as it incorporates people who are excluded from the traditional financial system for religious reasons.

Islamic finance has some distinct advantages over the money based usurious interest based financial intermediation. In the US, the share of total corporate profits generated in the financial sector grew from 10% in the early 1980s to 40% in 2006. These earnings are transaction costs for the productive sector. Financial institutions that were just supposed to be playing a supportive role to the productive economy got much bigger and unregulated through shadow banking practices. Islamic finance as a form of financial intermediation offers tremendous potential in reinforcing links between finance and real economy.

Real sector based productive enterprise in Islamic finance has positive implications for the ecosystem. Risk-sharing shifts the emphasis from credit-worthiness of the borrower to be placed on the value creation and economic viability of investments that create new wealth. High levels of debt in the conventional interest based financial architecture are one of the prime causes of financial crises (Buiter & Rahbari, 2015; Mian & Sufi, 2015).

As per Islamic Development Bank (2015), innovative Islamic financial instruments especially for infrastructure development such as *Sukuk* can be used to mobilize resources to finance water and sanitation projects (SDG-6), sustainable and affordable energy (SDG-7), build resilient infrastructure (SDG-9) and shelter (SDG-11).

Islamic social finance package includes institutions like *Zakat*, *Waqf* and Microfinance which can cater to the financially excluded households who are missed by the commercial banks. Wilson (2007) also contends that Microfinance is best provided by non-banking institutions. Sadiq & Mushtaq (2015) suggest that *Zakat* and *Waqf* based Microfinance institutions can be used to serve the social sector. Real estate-based *Waqf* can generate proceeds through the rental of properties, which then can be used to finance social development needs. Cash and commodity based *Waqf* can provide interest-free loans (*Qard Hassan*) to the needy in sectors like education, health and agriculture. Lastly, *Takaful* is an insurance concept based on the principles of shared responsibility, solidarity and cooperation. Thus, we see that Islamic finance has sufficient institutions and product structures to contribute in financing assets, which will be critical for making progress towards achieving SDGs.

7. Conclusion

Sustainable development goals revolve around human and societal well-being. They are in consonance with Islamic ethos and philosophy. We know that *Maqasid al-Shariah* emphasize on human well-being from spiritual, physiological, intellectual and economic perspectives. In this paper, we discussed how Islamic values and institutions engender environmental ethics which can help in influencing our attitudes towards sustainable development challenges. We also discuss the role of Islamic social

finance and commercial finance in contributing towards achieving sustainable development goals, especially in Muslim majority countries. Islamic philosophy and worldview can renew our attitudes and outlook towards socio-economic problems and environmental challenges. Islamic social finance institutions like *Zakat* and *Waqf* can contribute towards scaling up efforts in commercially non-viable, but socially vital projects and programs. There is much potential for Islamic finance to promote sustainable economic development through such approaches as widening access to finance (including microfinance), financing infrastructure projects, and expanding the reach of *Takaful* (Islamic insurance).

References

- Ahmed, H., Mohieldin, M., Verbeek, J. & Aboulmagd, F. W. (2015). "On the Sustainable Development Goals and the Role of Islamic Finance". Policy Research Working Paper, World Bank, No. WPS7266.
- Alghamdi, M. (2014). "Deforestation and the Islamic Stewardship Ethic". Masters Thesis. Rochester Institute of Technology.
- Ansary, W. E. (2010). "Islamic Environmental Economics and the Three Dimensions of Islam: 'A Common Word' on the Environment as Neighbour". In Muslim and Christian Understanding (pp. 143 – 157). Palgrave Macmillan US.
- Aziz, M. R. A., Johari, F. & Yusof, M. A. 2013, "Cash Waqf Models for Financing in Education", *Proceedings of the 5th Islamic Economic System Conference (IECONS2013)*.
- Buiter, W. H., & Rahbari, E. (2015). "Why Economists (and Economies) Should Love Islamic Finance". *Journal of King Abdulaziz University: Islamic Economics*, 28(1): 139 – 162.
- Cook, J., Nuccitelli, D., Green, S. A., Richardson, M., Winkler, B., Painting, R., Way, R., Jacobs, P. & Skuce, A. (2013). "Quantifying the Consensus on Anthropogenic Global Warming in the Scientific Literature", *Environmental Research Letters*, 8(2): 1 – 7.
- Dagobert, G. K. (2000). "Global Warming - Facts, Assessment, Countermeasures", *Journal of Petroleum Science and Engineering*, 26(1-4): 157 – 168.
- Dasgupta, P. (2010). "The Place of Nature in Economic Development". *Handbook of Development Economics*, 5, 4039 – 5061.
- Food and Agriculture Organization of the United Nations 2013, "Part 3: Feeding the World" in FAO Statistical yearbook 2013, pp. 173 – 181. FAO, Rome.
- Habib, A. (2007). "Waqf-based Microfinance: Realizing the Social Role of Islamic Finance". Paper presented at the International Seminar on Integrating Awqaf in the Islamic Financial Sector, Singapore, 6-7 March.
- Haneef, M. A., Muhammad, A. D., Pramanik, A. H. & Mohammed, M. O. (2014). "Integrated Waqf based Islamic Microfinance Model (IWIMM) for Poverty Alleviation in OIC Member Countries", *Middle-East Journal of Scientific Research*, 19(2): 286 – 298.
- Hartman, D. A. (2002). "Does Progressive Taxation Redistribute Income", *The Road Map to Tax Reform Series*, Policy Report 162.
- Haq, M. (1995). "Reflections on Human Development", Oxford University Press: New York.
- Haq, M. (1963). "The Strategy of Economic Planning: A Case Study of Pakistan", Oxford University Press: Karachi.
- Hope, A. L. & Jones, C. R. (2014). "The Impact of Religious Faith on Attitudes to Environmental Issues and Carbon Capture and Storage (CCS) Technologies: A Mixed Methods Study", *Technology in Society*, 38: 48 – 59.
- Islamic Development Bank (2015). "The Role of Islamic Finance in Achieving Sustainable Development Goals". Published by Islamic Development Bank.
- Islam, M. N. & Islam, M. S. (2015). "Human-Animal Relationship: Understanding Animal Rights in the Islamic Ecological Paradigm", *Journal for the Study of Religions and Ideologies*, 14(41): 96 – 126.
- Kula, E. (2014). "Islamic Ethics towards Environmental Protection", *Afro Eurasian Studies*, 3(1): 34 – 45.
- Lundqvist, J., de Fraiture, C. & Molden, D. (2008). "Saving Water: From Field to Fork – Curbing Losses and Wastage in the Food Chain", SIWI Policy Brief. Stockholm International Water Institute.
- Metwally, M. M. (1983). "Fiscal Policy & Resource Allocation in Islām", Islamabad: Institute of Policy Studies.

- Mian, A., & Sufi, A. (2015). "House of Debt: How they (and you) Caused the Great Recession, and How We Can Prevent it from Happening Again". University of Chicago Press.
- Mian, H. S, Khan, J. & Rahman, A. (2013). "Environmental Ethics of Islam", *Journal of Culture, Society and Development*, 1, 69 – 74.
- Mortazavi, S. (2004). "Islamic Economics: A Solution for Environmental Protection, Trade, Growth and the Environment". Oxford University.
- Mohammad, M. T. S. H. (2011). "Towards an Islamic Social (*Waqf*) Bank". *International Journal of Trade, Economics and Finance*, 2(5): 381 – 386.
- Na'iyah, I. I. (2007). "Environmental Issues & Islamic Economics: Nature and Solutions", *Proceedings of the 2nd Islamic Conference*. Islamic Science University, Malaysia.
- Obaidullah, M. (2008). "Role of Microfinance in Poverty Alleviation: Lessons from Experiences in Selected IDB Member Countries", *Islamic Development Bank*.
- Oxfam (2017). "Oxfam Briefing Paper: An Economy for the 99%", Oxfam GB, Oxford.
- Riham, R. R. (2014). "Islamic Environmental Ethics", *Journal of Islamic Accounting and Business Research*, 5(2): 194 – 204.
- Sadeq, A. M. 2002, "*Waqf*, Perpetual Charity and Poverty Alleviation", *International Journal of Social Economics*, 29(1/2): 135 – 151.
- Sadiq, S. & Mushtaq, A. (2015). "The Role of Islamic Finance in Sustainable Development", *Journal of Islamic Thought and Civilization*, 5(1): 46 – 65.
- United National Environment Program (2016). "Moving from Momentum to Transformation in a Time of Turmoil". Inquiry: Design of a Sustainable Financial System.
- Wilson, R. (2007). "Making Development Assistance Sustainable through Islamic Microfinance". *International Journal of Economics, Management and Accounting*, 15(2): 197 – 217.
- World Values Survey Association (2014). "World Values Survey Sixth Wave (2010-2014)". Study No. 906-WVS2010.