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“Education as a Bridging Factor of All Dimensions of the Sustainable Development Goals”

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Introduction

The Journalists and Writers Foundation (JWF) believes that education is one of the key factors that affects all dimensions of sustainable development and can credibly enhance the integration of the dimensions in a cross-sectoral manner. Apart from being one of the sustainable development goals (SDGs) itself, education has a transformative characteristic that, if delivered properly, can significantly trigger equitable economic development, increase social inclusion, foster environmental sustainability and improve governance. Numerous academic studies suggest that higher level of education in a nation has statistically significant impact on all dimensions of sustainable development. More detailed arguments and findings of these research studies are provided below in the brief background paper.

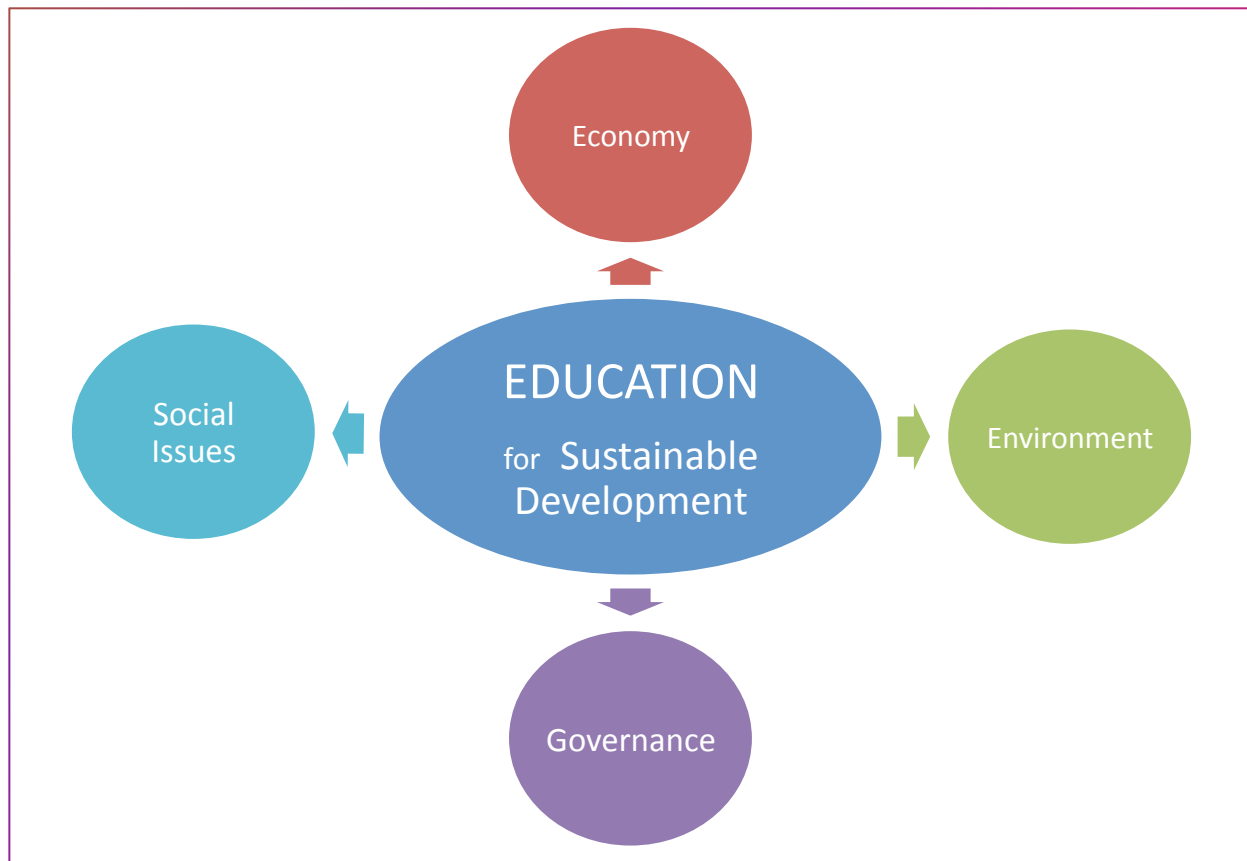
The JWF, with many schools and educational institutions throughout the world that have been inspired by our honorary president, would like to share an incredible experience in delivering high quality education to the youth and adults in five continents. As many reports and studies suggest, availability and accessibility of education are necessary but not sufficient conditions for sustainable development. Quality education is what is crucial for economic development, social inclusion, environmental sustainability and good governance. These schools and institutions, partnered with private business sector, have a

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deep expertise in science and mathematics education. Hundreds of students in those schools are awarded medals in International Science and Math Olympiads and project competitions related to environmental challenges every year. In addition, these schools have played a role of “social mediator” in conflict regions around the world, where students and parents from different sides of conflicts interact in a neutral or even a positive platform, building a path for peace.

The paper briefly argues that the level and quality of education have a significant direct or indirect impact on all dimensions of sustainable development. Education, along with few other factors, is the centerpiece of sustainable development and therefore requires a special attention. It is tied to the dimensions through different aspects that are explained in the following sections. The paper provides a brief summary of the literature on the affects of education on economic, social, environmental dimensions of the sustainable development.

Model: Effects of Education on All Dimensions of Sustainable Development



1. Education and Economic Dimension

- a. **Ending Extreme Poverty:** Numerous studies at the micro and macro levels have shown that increase in the level of education increases individual and national income. Eradication of extreme poverty requires a complex approach of which education comes first. Making primary, secondary and higher education available and accessible for people in extreme poverty make them develop necessary skills and become more compatible in the labor market. However, one issue to be cautious of is that not only accessibility to education but also the quality of it is often crucial for becoming skilled labor.

- i. Psacharopoulos and Patrinos (2004) find that the rate of return to investment in education is on average 10 percent meaning that another year at school increases earnings of an individual by 10 percent. Interestingly, low-income and middle-income countries have the highest rate of return. These countries are mostly in sub-Saharan Africa, Latin America and the Caribbean regions. Another interesting finding is that women receive higher returns to their investments in education. This signifies the importance of girls' education, particularly in the least developed countries.
 - ii. Sala-i-Martin et al. (2004) find that primary education is the second most robust factor affecting GDP per capita growth out of sixty-seven independent variables.
 - iii. Gylfason (2001) shows that 40 percentage point increase in secondary-level enrollment in a country is associated with an increase of one percentage point in the annual rate of growth of GNP per capita.
- b. Equitable Growth:** Increase in GDP or GDP per capita does not necessarily imply that the well-being of all citizens of that country is increased and that the wealth is evenly and fairly distributed among all. Many economists specializing in studying inequality have statistically shown that the high level of education in a nation reduces income inequality (e.g. De Gregorio and Lee 2002) and significantly develops a middle class in a society. Universality, accessibility and quality of education are the key determinants of an equitable economic growth.
- c. Entrepreneurship:** Educated people are more entrepreneurial, and skills acquired in schools give invaluable input in developing profitable business plans. In turn, the more entrepreneurs in a society, the more jobs they create for the populations including those affected by the extreme poverty. Kolstad and Wiig (2009), in their study in Malawi, find that an additional year of education in schools increase entrepreneurial profits by 6 percent. Van Der

Sluis et al. (2008) support this finding and report that the returns to schooling in entrepreneurship are higher for females than for males.

- d. **Foreign Direct Investments:** It is widely recognized that multi-national companies invest in nations with skilled labor force. Education, especially quality education in science and engineering, is one of the key elements in attracting FDI to a nation. The more FDI a nation attracts the higher economic growth it experiences.

2. Education and Social Dimension

- a. **Human Rights and Socio-Political Inclusion:** Educated citizens are more aware and knowledgeable about their fundamental rights. In fact, the more literate citizens are the more demanding they become and the more pressure they are likely to exert on their governments and local authorities. Particularly, ethnic or religious minorities and women are the most affected segment of population in terms of violations of human rights. Educating those groups will necessarily increase their awareness and put pressure on policy makers to abandon discriminatory policies.
- b. **Conflicts and Internal Violence:** Conflicts, violence and civil wars are the most significant barriers to the sustainable development. As we have witnessed, countries affected by conflicts have not been able achieve any of the MDGs. This implies that ending and preventing internal violent conflicts need to be a number one priority of many nations in order to develop in sustainable manner. Many studies including that of Collier and Hoeffler (2002) have confirmed that the level of education has a strong statistical association with the onset of conflicts and its duration. Nation with a large uneducated population has a high likelihood of experiencing a civil war or violent conflicts because these people are easily recruited to different rebel groups. Unable to find other sources of income, uneducated citizens are likely to join violent groups that promise an immediate better life or a greater future.

The schools and educational institutions which are established by the JWF or strongly endorsed by it, have had significant contributions to the peace in Bosnia and Herzegovina, Iraq, Afghanistan, and other nations experienced violent conflicts. Formal and informal education in these schools has contributed to development of culture of peace in many regions.

- c. Empowering Girls and Women for Gender Equality:** While some nations have explicit public policies which discriminate against women and girls, other may have policies which implicitly exclude women from participating in public, social and economic sphere. Exclusion of women from the public life significantly affects economic growth and increases the likelihood of that nation to experience violent conflicts. Uneducated women are unable to adequately educate their children and give them a vision to build better career and life. Therefore, education of girls and women should be one of the top priorities. Schools supported and endorsed by the Journalists and Writers Foundation are concerned about education of girls in traditional societies and have established many entities throughout the world to address this issue. In more traditional societies where parents have cultural sensitivities to public education, single-sex schools have been established in order to provide high quality education to girls who have been deprived from their fundamental rights.
- d. Health:** As the Report of the Global Thematic Consultation on Health 2013 confirms, health is essential for sustainable development. And for that matter, education is one of the key factors affecting health. Cutler and Lieras-Muney (2006) have studied the relationship between education and mortality and found that an additional four years of education decreased five-year mortality by 1.8 percent. They also found that education reduced the risk of heart disease by 2.16 percent and the risk of diabetes by 1.3 percent. As the Journalists and Writers Foundation, we believe that education improves the issues related to health in the following manner:

- i. **Nutrition:** Better-educated citizens are more aware of which nutrition is essential for healthier life. Being able to read and engage in on-site and online discussions gives a good opportunity to people to choose their food and nutrition, which in turn significantly decreases the levels of numerous preventable diseases. Even in the remote regions of the world, key information acquired from distributed flyers or books by the parents can save many lives and prevent diseases through better nutrition.
- ii. **Child Mortality and Maternal Health:** Educated parents are able to read and consult an expert or doctor before, during, and after the pregnancy. With knowledge they acquire through reading they significantly decrease the likelihood of deaths of themselves and their new-born children. Internet and civil societies have made information widely available but only literate parents can analyze that information and take necessary actions.
- iii. **Malaria, HIV, TB and Other Diseases:** Prevention of many diseases is easier than treating them, and a little knowledge is enough for the prevention in most cases. Educating the youth and adults in schools about these diseases and prevention of them is an effective way to deal with these challenges.

3. Education and Environment Dimension

Nations around the world are concerned about the environmental challenges because these problems directly affect economic development, agriculture, migration, conflict and general well-being of citizens. Education plays a crucial role in addressing some of these issues. Incorporating issues such as biodiversity, climate change, disaster management and sustainable consumption into teaching and learning at schools can make a significant difference. In fact, UNESCO manages different projects in this regard and holds workshops with educators.

- a. **Natural Resources:** Educated people learn to appreciate natural resources and pressure their governments to use the resources sustainably. Most of the

nations with abundant natural resources do not invest in other industries to diversify their economy and sources of income. Natural resource dependent economies are mostly not sustainable as shown in many scholarly studies. Education makes a huge difference because it makes citizens knowledgeable and aware that natural resources are not limitless and that responsible production is a must.

- b. Sustainable Consumption and Production:** Education makes citizens become aware of sustainable consumption and production, as indicated in the 2013 report of the High-Level Panel of Eminent Persons. Consuming water, electricity and other resources in daily life with minimum waste has a direct implication to environmental challenges nowadays and can be taught through education in schools.
- c. Sustainable Energy:** While some nations are rich for oil and gas to satisfy energy demand, others use nuclear and hydro energy for their industries and consumption. However, these energy sources are not only limitless, but also cause significant amount of tensions and conflicts both within a nation and in the whole region. Diverting rivers and building dams for hydro energy can be damaging for local and indigenous people and also trigger a tension with neighboring countries in the up or downstream countries. Although these issues are resolved at the government level, citizens need to be informed about future implications of current energy projects of the states. Formal and informal education and advocacy is necessary to make citizens aware and active in the process of energy-related projects.

4. Education and Governance

Although Rio +20 outcome document refers to three dimensions many reports and experts working on post-2015 development agenda study the governance as the fourth dimension of sustainable development goals (e.g. SDSN's 2013 report). Development economists and political scientists have widely studied both what determines good governance and what the implications of governance are for development. For example, Rajkumar and Swaroop (2008) examine the efficacy of

public spending on education and health and argue that it can be explained by the quality of governance in respected nations. Public spending on health reduces child mortality rates in countries with good governance. Also, public spending on primary education is more effective in primary education enrollments in nations with better governance indicators. In contrast, public spending has no significant effect on child mortality and primary education in countries with poor governance. The implications of this and similar research findings are huge for the sustainable development. Without improving governance we need to be cautious about spending huge amounts of money and providing international development aid for some nations.

Education, in this regard, improves lives of the citizens and stimulates economic growth through many channels such as creating an environment for better governance by improving health and fostering income equality (Aghion et al. 1999).

- a. Accountability:** Good governance can be achieved through holding decision makers at government and local levels accountable for public policies. While accountability mechanism varies across different regime types, it is certain that the more accountability increases the quality of governance and improves the efficiency of public spending. For accountability to work, decision makers at national and local levels need to provide sufficient information about public policies and spending. Citizens, in turn, need to be able to acquire information whenever it is not easily achievable and analyze the information. The level of education of nation's citizens is one of the crucial determinants of accountability. Acquisition and analysis of information received from government requires skills which can only be acquired through education. Moreover, educated citizens are more aware of the implications of their government's policies and in most cases willing to protest bad public policies in different ways. Particularly in the age of information and social media, educated people are well aware of the ways how to respond to damaging public policies, how to share that information,

and how to hold responsible agencies accountable by organizing masses of fellow citizens.

- b. Corruption:** Corruption is one of the main elements of governance. Lower level of corruption is highly associated with better governance, which in turn increases the efficacy of public policies. Many scholars of public choice have empirically found that significant determinant of the corruption is the level of education. Ahrend (2002) found that secondary and higher education, along with the developed civil society, significantly decreased the level of corruption. Lipset (1960) had famously argued that education decreases corruption because educated citizens and voters are more willing and able to monitor policy makers and take actions whenever necessary. Glaeser and Saks (2006) have investigated federal states in the US and found that better educated states were less corrupt.

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