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## Energy Security, Green Job Creation, and Youth Innovation

Elizabeth Burleson

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### Recommended Citation

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# ENERGY SECURITY, GREEN JOB CREATION, AND YOUTH INNOVATION

*Elizabeth Burleson\**

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## I. INTRODUCTION

*The Stone Age didn't end because of a shortage of stones.<sup>1</sup>*

Global energy demand is likely to increase by forty–five percent by 2030.<sup>2</sup> Sustainable development requires that current economic activity not jeopardize the needs of future generations.<sup>3</sup> Climate change will threaten existing employment and necessitate new green jobs.<sup>4</sup> United Nations Secretary–General Ban Ki–moon

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\* Professor Elizabeth Burleson has a LL.M. from the London School of Economics and Political Science, and a J.D. from the University of Connecticut School of Law. She has written reports for UNICEF and UNESCO and is a professor at the University of South Dakota School of Law.

1. Peter Maass, *The Breaking Point*, N.Y. TIMES MAG., Aug. 21, 2005, at E30 (attributing quote to Sheik Ahmed Zaki Yamani).

2. *Changes in Global Oil Demand*, ECONOMIST (U.S. ed.), Nov. 15, 2008, at 110EU.

3. “Sustainable development” refers to development that meets “the needs of the present without compromising the ability of future generations to meet their own needs . . . .” G.A. Res. 42/187, U.N. Doc. A/RES/42/187 (Dec. 11, 1987) [hereinafter Brundtland Report]; see also Karen E. MacDonald, *Sustaining the Environmental Rights of Children: An Exploratory Critique*, 18 FORDHAM ENVTL. L. REV. 1, 27–32 (2006) (discussing interpretations of “sustainable development” in relation to children).

4. See Laura MacInnis, *Millions of Jobs at Risk from Climate Change: U.N.*, REUTERS, Nov. 12, 2007, <http://www.reuters.com/article/environmentNews/idUSL1272325220071113>; see also U.N. ENV'T PROGRAMME, INT'L LABOR ORG. & INT'L TRADE UNION CONFEDERATION GREEN JOBS INITIATIVE, GREEN JOBS: TOWARDS SUSTAINABLE WORK IN A LOW-CARBON WORLD 3 (2007)

notes that youth should take an active role in local, national and global decision-making.<sup>5</sup> Youth innovation can play a powerful role in achieving sustainable development. Defined by the United Nations (“U.N.”) as persons aged fifteen to twenty-four years, youth account for nearly eighteen percent of the world population.<sup>6</sup> U.N. conventions on the legal protection of children generally protect persons under the age of eighteen.<sup>7</sup> While young people have widely varying capacities and interests, they share fundamental rights.

The Wall Street Journal notes that “today’s top graduates are flocking to a new energy boom: that of the start-ups producing wind power, biofuels, solar power and geothermal energy.”<sup>8</sup> Funding has gone towards such renewable energy technologies as wind and solar; such fuel economy options as second-generation hybrids, plug-in electrics, and fuel cell vehicles; increased appliance efficiency; and such water-efficient farming methods as drip irrigation.<sup>9</sup> “Enough wind power

[hereinafter GREEN JOBS INITIATIVE], available at [http://www.unep.org/labour\\_environment/PDFs/Green-Jobs-Preliminary-Report-18-01-08.pdf](http://www.unep.org/labour_environment/PDFs/Green-Jobs-Preliminary-Report-18-01-08.pdf)

(describing the concept of green jobs). The U.N. defines “green jobs” as:

[N]on-exploitative and safe positions in agricultural, manufacturing, scientific and technical, administrative, and service-related activities that alleviate the myriad environmental threats faced by humanity. Specifically, but not exclusively, this includes jobs that help to protect and restore ecosystems and biodiversity, reduce energy, materials, and water consumption through high-efficiency and avoidance strategies, de-carbonize the economy, and minimize or altogether avoid generation of all forms of waste and pollution.

*Id.* In considering the range of renewables, the International Labour Organization (“ILO”) and U.N. Environmental Programme (“UNEP”) focus on wind-generated electricity, solar photovoltaics, solar thermal energy, biomass, geothermal energy, and hydroelectricity. *Id.* at 33. Since large-scale dams displace millions of people and cause significant environmental damage, the ILO and UNEP do not include huge dams in their green jobs analysis. *Id.* at 34. Similarly, their report concludes that:

[N]uclear power is not considered an environmentally acceptable alternative to fossil fuels, given unresolved safety, health, and environmental issues with regard to the operations of power plants and the dangerous, long-lived waste products that result. Being capital-intensive, the nuclear energy industry is also not a major employer, and is thus similarly ill-suited as a solution to the world’s employment challenge.

*Id.* at 33.

5. *Young People Should Have Active Role in Combating Climate Change—Ban*, U.N. NEWS SERVICE, Aug. 12, 2008, <http://www.un.org/apps/news/> (conduct advanced search with “young people” in first keyword and “combating” in second keyword; set “after” date to Aug. 11, 2008; click search).

6. U.N. Programme on Youth, <http://www.un.org/esa/socdev/unyin/qanda.htm> (last visited May 13, 2009); UNESCO, UNESCO: Acting with and for Youth, <http://unesco.org/en/youth> (last visited May 13, 2009).

7. U.N. DEP’T OF ECON. & SOC. AFFAIRS [DESA], WORLD YOUTH REPORT 2005: YOUNG PEOPLE TODAY AND IN 2015, 142 n.2, U.N. Doc. ST/ESA/301 (Oct. 2005) (preliminary report), available at <http://www.un.org/esa/socdev/unyin/documents/wyr05book.pdf>.

8. Jessica Resnick-Ault, *New Priorities: For Some Job Seekers, Oil Companies Are Out; Alternative—Energy Start-Ups Are the Place to Be*, WALL ST. J., Oct. 29, 2007, at R8.

9. *See Increased Employment Could Be Climate Change’s Silver Lining—U.N.*, U.N. NEWS SERVICE, Dec. 6, 2007, available at <http://www.un.org/apps/news/> (conduct advanced search with “climate change” in first keyword and “silver” in second keyword; set “after” date to Dec. 5, 2007; click search) (noting jobs available); GREEN JOBS INITIATIVE, *supra* note 4, at 67 (noting that a twenty percent reduction in EU energy consumption could create up to one million jobs in the EU.); Elaine Korry, *Morning Edition: Green Jobs Seek Entry-Level Workers* (NPR radio broadcast Dec. 17, 2007), <http://www.npr.org> (type in search box “green jobs seek entry-level workers”; then hit search) (discussing types of green jobs available to young workers); *Green Jobs Created by Global Warming Initiatives: Hearings Before the S. Comm. on Env’t and Pub. Works*, 110th Cong. 8 (2007) (statement

blows through the Midwest corridor every day to . . . meet 100 percent of US electricity demand,”<sup>10</sup> according to Al Gore, who calls upon the U.S. to achieve 100 percent of our electricity from renewable energy within ten years.<sup>11</sup> “To those who say 10 years is not enough time, I respectfully ask them to consider seriously what the world’s scientists are telling us about the risks we face if we don’t act in less than 10 years,”<sup>12</sup> Gore urges. Dr. Hansen notes that “[i]f humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and ongoing climate change suggest that CO<sub>2</sub> will need to be reduced from its current 385 ppm to at most 350 ppm, but likely less than that.”<sup>13</sup> Companies are beginning to ramp up technologies to full-scale production and provide infrastructure that enables consumers to use new energy options. Greater investment is needed to finance such infrastructure. Governments are passing legislation that will facilitate carbon trading and offer tax benefits to purchasers of renewable energy and efficiency measures.

This article analyzes how to achieve sustainable human settlements via inclusive and participatory governance. Part II considers the role that governments can play in facilitating green job creation. Part III discusses the importance of energy efficiency in achieving sustainable development. Part IV addresses the challenges of achieving intergenerational good governance. Part V considers how youth involvement can enhance both procedural processes and substantive outcomes. Part VI concludes that engaging youth in emerging green sectors can promote international peace and security.

## II. GREEN JOB CREATION

Substantial renewable energy capital investment is a wise use of money in light of International Energy Agency predictions that once the economy recovers, oil is likely to exceed \$200 a barrel by 2030.<sup>14</sup> The Wall Street Journal notes that “\$1 invested in renewable energy or energy efficiency would yield up to four times

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of Daniel M. Kammen, Professor, University of California) (analyzing investment and growth opportunities in green jobs).

10. Al Gore, *A Generational Challenge to Repower America*, ENERGY BULL., July 17, 2008, available at <http://www.energybulletin.net/node/45947>.

11. *Id.*; see also Claire Cain Miller, *Al Gore and the Purpose-Driven Web*, N.Y. TIMES, Nov. 7, 2008, <http://bits.blogs.nytimes.com> (go to “search this blog” feature and type “purpose driven web”; then hit search) (discussing briefly Al Gore’s position).

12. John M. Broder, *Gore Calls for Energy Shift to Avoid a Global Crisis*, N.Y. TIMES, July 18, 2008, at A17 (quoting Al Gore).

13. James Hansen et al., *Target Atmospheric CO<sub>2</sub>: Where Should Humanity Aim?*, 2 OPEN ATMOSPHERIC SCI. J. 217, 217 (2008), available at <http://bentham.org/open/toascj/openaccess2.htm>.

14. Jeffrey Ball, *Currents-Environment: Does Green Energy Add 5 Million Jobs? Potent Pitch, but Numbers Are Squishy*, WALL ST. J., Nov. 7, 2008, at A13; see also Jim Loney, *U.S. Could Create 4.2 Million Green Jobs by 2038*, REUTERS, Oct. 2, 2008, <http://www.reuters.com> (search “4.2 million green jobs by 2038”) (“The US economy could generate 4.2 million new ‘green’ jobs in the next 30 years, about 10 percent of all the jobs created, according to a study for the US Conference of Mayors released on Thursday. The study found the United States now has about 750,000 green jobs, which generally involve producing renewable energy or providing engineering, legal or research support.”).

as many jobs as \$1 invested in oil and gas . . . .”<sup>15</sup> Retrofitting buildings is more sensible than transporting oil from the Middle East to the United States.<sup>16</sup> Buildings contribute forty percent of carbon emissions—a national retrofit program to insulate homes as well as install efficient windows and lighting can add millions of new green collar jobs.<sup>17</sup> The U.S. should concentrate on energy efficiency and renewable resources.<sup>18</sup> Upgrading to a unified U.S. power grid would require \$400 billion, which could be recouped in less than four years since the U.S. loses \$120 billion annually as a result of power outages.<sup>19</sup> Paul Taylor notes that “governments which have collectively found about \$5 trillion to rescue banks and galvanise economies are hesitant to focus fiscal stimulus measures on clean energy because of the long lead–time for many projects.”<sup>20</sup> Yet, green job creation can be far more effective at stimulating economic growth than one–time economic stimulus checks from the Internal Revenue Service.

Mary Christa Wood calls upon governments to return to the core role of conserving the public trust, noting:

Failure to protect natural inheritance amounts to generational theft . . . . The choice for government is now disaster prevention or disaster relief. This is a chance for politicians to become true leaders, to explain clearly the nature of the threat, and to connect in Americans' minds the need for short–term investment and regulation in order to avoid long–term calamity.<sup>21</sup>

Wood points out that carbon taxes can reduce emissions effectively in a short timeframe.<sup>22</sup> She points out that:

Today's life of convenience will lock us into a future where there is no convenience. Where is the convenience in a family huddled on a rooftop praying that a helicopter will lift them from the floodwaters of Hurricane Katrina? Where is the convenience in half a million Californians evacuating their homes to escape wildfires racing towards them?<sup>23</sup>

A paradigm shift in political expediency is required.<sup>24</sup>

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15. Ball, *supra* note 14.

16. Deborah Zabarenko, *\$100 Billion Could Yield Two Million 'Green' Jobs*, REUTERS, Sept. 10, 2008, <http://www.reuters.com> (search “Deborah Zabarenko green jobs”).

17. Miller, *supra* note 11.

18. Deborah Zabarenko, *Al Gore Group Urges Obama to Create U.S. Power Grid*, REUTERS, Nov. 7, 2008, <http://www.reuters.com> (search “Deborah Zabarenko Obama Gore grid”).

19. Miller, *supra* note 11.

20. Paul Taylor, *Green New Deal Makes Sense but Unlikely*, REUTERS, Nov. 18, 2008, <http://www.reuters.com> (search “Green New Deal Makes Sense but Unlikely”).

21. *Id.* at 10657, 10659.

22. *Id.* at 10658.

23. *Id.* at 10659.

24. As this article goes to print, President Obama has signed the Edward M. Kennedy Serve America Act. In addition to increasing funding to AmeriCorps, the act creates five new service corps:

Transitioning to clean electricity sources in the US will cost between \$1.5 and \$3 trillion, roughly the figure to build greenhouse gas producing coal plants to meet existing demand.<sup>25</sup> The International Atomic Energy Agency (“IAEA”) estimates that coal power plants are 140 times more carbon intensive than wind energy.<sup>26</sup> Professor Benjamin Sovacool notes:

The nation's oil, coal, natural gas, and nuclear facilities consume about 3.3 billion gallons of water each day and accounted for almost 40% of all freshwater withdrawals. With electricity demand expected to grow by approximately 50% in the next 25 years, continued reliance upon fossil fuel–fired and nuclear generators could spark a water scarcity crisis. In 2006, the Department of Energy warned that if new power plants continue to be built with evaporative cooling systems, consumption of water for electricity production could more than double by 2030 to 7.3 billion gallons per day. This staggering amount is equal to the entire country's water consumption in 1995 . . . . [T]he American Wind Energy Association estimated that wind power uses less than 1/600 as much water per unit of electricity produced as does nuclear; 1/500 as much as coal; and 1/250 as much as natural gas.<sup>27</sup>

A national renewable portfolio standard (“RPS”) can facilitate the renewable technology manufacturing sector to expand, adding new green jobs where the greatest number of manufacturing jobs has been lost.<sup>28</sup> State legislative requirements for greater use of wind power and the falling cost of wind energy have led to rapid wind development.<sup>29</sup> Joshua Fershee notes that “[i]mportant in considering the likely consumer impact of a national RPS is that many consumers

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(1) Clean Energy Corps (2) Education Corps (3) Healthy Futures Corps (4) Veterans' Corps and (5) Opportunity Corps. Public Law No: 111-13, enacted Apr 21, 2009, available at <http://www.govtrack.us/congress/bill.xpd?bill=h111-1388>.

25. *Gore Aims High on Renewable Energy Goal for U.S.*, PBS ONLINE NEWSHOUR, July 17, 2008, [http://www.pbs.org/newshour/updates/science/july-dec08/gorespeech\\_07-17.html](http://www.pbs.org/newshour/updates/science/july-dec08/gorespeech_07-17.html) (last visited May 16, 2009).

26. Benjamin K. Sovacool & Christopher Cooper, *Congress Got It Wrong: The Case for a National Renewable Portfolio Standard and Implications for Policy*, 3 ENVTL. & ENERGY L. & POL'Y J. 85, 129 (2008). Also important,

[i]n addition to the environmental damage caused by fossil fuel combustion, the production of fossil fuels and uranium—including drilling, mining, processing and transportation—produce a substantial amount of pollution and toxic waste. In the United States, there are more than 150 refineries; 4,000 offshore platforms; 410 underground gas storage fields; 160,000 miles of oil pipelines; and 1.4 million miles of natural gas pipelines. Additionally, nuclear waste is spread across 121 storage facilities in 39 states.

*Id.* at 130.

27. *Id.* at 126–27. According to the Harvard School of Public Health, air pollution produced by conventional energy sources kills between 50,000 and 70,000 Americans annually. *Id.* at 128–29.

28. *Id.* at 146.

29. BUREAU OF LAND MANAGEMENT, U.S. DEPARTMENT OF THE INTERIOR, RENEWABLE ENERGY AND THE BLM: WIND (2009), available at [http://www.blm.gov/wo/st/en/prog/energy/wind\\_energy.html](http://www.blm.gov/wo/st/en/prog/energy/wind_energy.html).

(indeed, roughly half of the country) are already subject to some form of RPS.<sup>30</sup> RPS leads to stable renewable energy expansion by requiring electricity suppliers to accept a percentage of their energy from renewable sources.<sup>31</sup> Congress should enact a comprehensive national renewable portfolio standard.<sup>32</sup>

### III. ENERGY EFFICIENCY

Energy efficiency is one of the least expensive means by which to mitigate climate change and facilitate green job growth. Maine will use proceeds from the first Regional Greenhouse Gas Initiative ("RGGI") carbon auction to fund weatherization and energy efficiency programs this year.<sup>33</sup> The cap-and-trade system requires each fossil fuel emitting power plant to buy permits per ton of carbon dioxide that the plant emits. If a plant is more efficient than required, it can either sell permits to plants that have surpassed their limits or bank permits for future use.<sup>34</sup> The United States consumes one-third of its overall energy cooling, heating and powering buildings.<sup>35</sup> Professor Socolow observes that "[a]dvances in efficiency in the past 30 years have led carbon emissions to grow only half as fast as the world's economy."<sup>36</sup> Unfortunately, increases in consumption and population have offset efficiency.<sup>37</sup> Green building expenses in the U.S. appear to only cost two and a half percent more than those of conventional building.<sup>38</sup> The British government will provide free home insulation to pensioners and people on low incomes, as well as offering fifty percent discounts on insulation for the rest of the population.<sup>39</sup>

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30. Joshua P. Fershee, *Changing Resources, Changing Market: The Impact of a National Renewable Portfolio Standard on the U.S. Energy Industry*, 29 ENERGY L.J. 49, 73 (2008).

31. See generally U.S. DEPARTMENT OF ENERGY, 20% WIND ENERGY BY 2030: INCREASING WIND ENERGY'S CONTRIBUTION TO U.S. ELECTRICITY SUPPLY (2008), available at [http://www.20percentwind.org/Final\\_DOE\\_Executive\\_Summary.pdf](http://www.20percentwind.org/Final_DOE_Executive_Summary.pdf) (analyzing benefits of wind energy in relationship to electricity).

32. See *Iberdrola Renewables: Hearings Before the S. Comm. on Energy and Nat. Resources*, 110th Cong. 2 (2008) (testimony of Donald N. Furman, Senior Vice President, Iberdrola Renewables) (discussing the link between electrical grids and renewable energy); 26 U.S.C. § 45 (2008) (creating statutory scheme of credits for renewable energy use); Robert J. Michaels, *National Renewable Portfolio Standard: Smart Policy or Misguided Gesture?*, 29 ENERGY L.J. 79 (2008) (discussing viability of a federally sponsored RPS program).

33. Kevin Miller, *Energy Programs Receive First Wave of CO2 Money*, BANGOR DAILY NEWS (Maine), Oct. 8, 2008, at B6.

34. *Id.*

35. Doug Struck, *A Big Drop in Emissions Is Possible with Today's Technology*, WASH. POST, Jan. 21, 2008, at A6.

36. *Id.*

37. *Id.*

38. Kate Galbraith, *Debating the Green Building Premium*, N.Y. TIMES, Nov. 20, 2008, <http://greeninc.blogs.nytimes.com> (go to "search this blog" feature and type "Debating the Green Building Premium"; then hit search); see also Deborah Zabarenko, *Green Architecture Opportunity in Financial Woes*, REUTERS, Oct. 8, 2008, <http://www.reuters.com> (search "Green Architecture Opportunity in Financial Woes").

39. *Brown Unveils Billion-Pound Energy Saving Plan*, REUTERS, Sept. 11, 2008, <http://www.reuters.com/article/companyNews/idUKADD13541720080911?symbol=CNA.VX>.

Laws that guarantee access to the electrical grid at given prices and that establish production targets have driven the renewable energy sector.<sup>40</sup> In contrast, sporadic energy and efficiency policies have caused instability.<sup>41</sup> The International Labour Organization (“ILO”) and United Nations Environment Programme (“UNEP”) urge governments to:

[E]stablish an ambitious and clear policy framework to reward, support, and drive sustainable economic and social activity and be prepared to confront those whose business practices continue to pose a serious threat to a sustainable future. This means a decisive and urgent shift in government policy at the global as well as national and local levels with regard to subsidy and tax policy, adequate financing flows and mechanisms, scaling up of promising projects and ventures, sharing of green technologies and relevant information, and replicating both successful regulations and incentives and best industry practices.<sup>42</sup>

Executive Director of UNEP, Achim Steiner, notes that transitioning to renewables “is being spurred on by the existing Kyoto climate agreement with its carbon trading and clean development mechanisms and the anticipation of further, deeper and more decisive emissions reductions post-2012.”<sup>43</sup> In addition to multilateral climate cooperation, the ILO and UNEP call for governments to expand “feed-in/pricing laws, quota systems such as renewable portfolio standards; tradable renewable energy certificates; capital subsidies, grant or rebates; investment excise or other tax credits; sales tax, energy tax, or VAT reductions . . . .”<sup>44</sup> The labor and environmental experts at the U.N. also call for net metering and substantial public/private funding.<sup>45</sup>

It is time to institute a Green New Deal and take climate change as seriously as the banking bailout.<sup>46</sup> While the world economy more than doubled between 1981 and 2005,<sup>47</sup> the Bank of England estimates that the global financial sector has lost

40. GREEN JOBS INITIATIVE, *supra* note 4, at xi.

41. *Id.*

42. *Id.* at xiii. The ILO and UNEP also state:

Projects to protect against rising sea levels and storm surges, flood shelter construction, reforestation initiatives, measures to enhance the resilience of infrastructure and industries, and research into more hardy, drought-resistant and saline-tolerant crops are among the many important tasks. With adequate funding, they can become a source of millions of jobs . . . .”

*Id.*

43. United Nations Environment Programme, Silver Lining to Climate Change—Green Jobs (Dec. 6, 2007), <http://www.unep.org/newscentre/> (search “Silver Lining to Climate Change - Green Jobs”) (last visited May 16, 2009).

44. GREEN JOBS INITIATIVE, *supra* note 4, at 28.

45. *Id.*

46. See Gerard Wynn, “New Deal” Approach Needed for Climate Change: U.N., REUTERS, Oct. 22, 2008, <http://www.reuters.com> (search “New Deal” Approach Needed for Climate Change”); see also Edward Cody, *E.U. Offers Road Map for Policy with U.S.*, WASH. POST, Nov. 4, 2008, at A3 (detailing world economic concerns).

47. Wynn, *supra* note 46.



\$2.8 trillion as a result of the credit crisis.<sup>48</sup> Management of systemic risk has become a high stakes international experiment—one in which China and oil-rich states can play an important role funding an IMF bailout program.<sup>49</sup> The United States pays \$700 billion each year to import oil.<sup>50</sup> South Carolina Governor Sanford notes that the “nation’s unfunded liabilities total \$52 trillion—about \$450,000 per household.”<sup>51</sup> The American Association of Retired Persons observes that “bankruptcy filings among people age 75 to 84 have skyrocketed by 433 percent between 1991 to 2007.”<sup>52</sup> U.K. Prime Minister Gordon Brown notes:

[Economies do not thrive] in places where the roads are impassable, where people have no access to markets, where employees are under-educated or under-fed, where the rule of law is poorly established or poorly respected. Not only does business have the technology, the skills, the expertise for wealth and job creation that if fully mobilised [sic] for global purpose will help meet our goals . . . . While education is the key to empowerment, trade, wealth creation and job creation are the only routes to long term prosperity.<sup>53</sup>

Brown urges the international community to recognize that poverty and climate change are intertwined and must be addressed in a coordinated manner.<sup>54</sup> In response to the onset of the Great Depression, President Franklin D. Roosevelt launched the Civilian Conservation Corps and cash for public-works projects such as the Tennessee Valley Authority.<sup>55</sup> A new international fund to address youth

48. *World Credit Loss '£1.8 Trillion'*, BBC NEWS, Oct. 28, 2008, <http://news.bbc.co.uk/2/hi/business/7694275.stm> (last visited May 16, 2009).

49. *Id.*

50. T. Boone Pickens, Letter to the Editor, *This Is My Plan for American Energy, What's Yours?* WALL ST. J., Sept. 2, 2008, at A22 (“[W]e consume 25% of the world’s oil, but we only have 3% of the oil reserves.”).

51. Mark Sanford, *Don't Bail Out My State*, WALL ST. J., Nov. 15, 2008, at A9; see also Gretchen Morgenson, *Given a Shovel, Americans Dig Deeper into Debt*, N.Y. TIMES, July 20, 2008, at A1 (“Americans carry \$2.56 trillion in consumer debt, up 22 percent since 2000 alone, according to the Federal Reserve Board. The average household’s credit card debt is \$8,565, up almost 15 percent from 2000. College debt has more than doubled since 1995. The average student emerges from college carrying \$20,000 in educational debt. Household debt, including mortgages and credit cards, represents 19 percent of household assets, according to the Fed, compared with 13 percent in 1980.”).

52. *Elderly Face Soaring Prices Amid Economic Slump*, PBS ONLINE NEWSHOUR, Aug. 14, 2008, [http://www.pbs.org/newshour/bb/business/july-dec08/seniorwoes\\_08-14.html](http://www.pbs.org/newshour/bb/business/july-dec08/seniorwoes_08-14.html) (last visited May 16, 2009).

53. Gordon Brown, Prime Minister of Great Britain, Speech at the United Nations in New York (July 31, 2007), available at [http://news.bbc.co.uk/2/hi/uk\\_news/politics/6924570.stm](http://news.bbc.co.uk/2/hi/uk_news/politics/6924570.stm). Brown states that “Lake Chad is no longer a lake but a dust bowl; farmers in Kenya are unable to identify the seasons in order to know when to sow their crops; the Pacific islanders of Tuvalu—only 3 metres above sea level—are already negotiating the right to move to New Zealand.” *Id.*

54. *Id.*

55. Lori Montgomery, *Obama Sets Expansive Goal for Jobs Plan Aims to Create or Save 2.5 Million Positions by 2011*, WASH. POST, Nov. 23, 2008, at A1; see also Robert Frank, *Wealth Gap Is Focus Even as It Shrinks*, WALL ST. J., Oct. 27, 2008, at A2.

unemployment will provide \$2 million towards youth-led development projects.<sup>56</sup> While an important step in the right direction, such funding needs to increase by an order of magnitude.

#### IV. YOUTH, URBANIZATION, AND SUSTAINABLE DEVELOPMENT

Millennium Development Goal Eight calls upon countries to actively generate decent and productive employment opportunities for young people.<sup>57</sup> In a single generation our urban population will grow from half to two-thirds of humanity.<sup>58</sup> The poor are increasingly young and unemployed.<sup>59</sup> Urban capacity to keep pace with young people's need for employment will shape the future of cities.<sup>60</sup> Humanity has grown from 2 billion in 1930 to 6.5 billion in 2007.<sup>61</sup> Sustainable Development requires integrated environmental and human rights protection. Scarcity can lead to competition and conflict. Alternatively, population education and sustainable development can minimize such conflict. Many cities lack the capacity to develop or maintain services and amenities, a problem mushrooming

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56. *Fund Unveiled to Support U.N. Youth-Led Projects for Development*, U.N. NEWS SERVICE, Nov. 5, 2008, <http://www.un.org/apps/news/> (conduct advanced search with "Fund Unveiled" in first keyword and "Projects for Development" in second keyword; set "after" date to Nov. 4, 2008; click search) (last visited May 16, 2009).

57. Target 16 states that "[i]n cooperation with developing countries, develop and implement strategies for decent and productive work for youth," Millennium Project, Commissioned by the UN Secretary General, U.N. Millennium Project, Goals, Target and Indicators, available at <http://www.unmillenniumproject.org/goals/gti.htm>.

58. U.N.-HABITAT, *THE STATE OF THE WORLD'S CITIES 2006-2007: FACTS ON YOUTH*, <http://www.unhabitat.org> (search "State of the World's Cities 2006-2007"; then click on "doc" link for "Youth Are Employed in the Growing Informal Sector" link) (last visited May 13, 2009) [hereinafter STATE OF THE WORLD'S CITIES] ("The exclusion of so many young people around the world from decision-making, education, health, and basic services is both a violation of their human and civil rights and a failure of sound economic policy.")

59. *Id.*; see also UNICEF, *INVESTING IN CHILDREN AND ADOLESCENTS ARGUMENTS AND APPROACHES FOR ADVOCACY*, available at [http://www.unicef.org/india/Investing\\_in\\_children\\_and\\_adolescents.pdf](http://www.unicef.org/india/Investing_in_children_and_adolescents.pdf) (noting that roughly 60 percent of children under 12 and 50 percent of young people ages 13 to 19 live in poverty).

60. Lack of work is stressful for youth, most of whom cannot afford to remain unemployed and thus fall off of the unemployment rosters when they take casual work. Most often, they become "under-employed in the informal economy." Int'l Labour Org., *Asian Employment Forum: Youth Employment: "We Are Not the Problem, We Are the Solution"* (Aug. 9, 2007), <http://www.ilo.org> (in search box on top of page, search for "We Are Not the Problem, We Are the Solution") (noting that low earnings, poor working conditions, lack of career prospects, and uncertain social protection can lead youth to resort to illegal activities); see also Daniel de Vise, *New Figures Show High Dropout Rate; Federal Officials Say Problem Is Worst for Urban Schools, Minority Males*, WASH. POST, May 10, 2007, at A6 (noting that two out of three U.S. high school students graduate with their class, with black and Latino students dropping out at the highest rates); *Nation in Brief*, WASH. POST, Mar. 15, 2007, at A4 (stating that nearly one fourth of college students in the U.S. meets the medical criteria for addiction); *World in Brief*, WASH. POST, April 28, 2007, at A15 (noting dropping cocaine prices in U.S.); UNITED NATIONS: OFFICE ON DRUGS & CRIME (UNODC), *PREVENTING AMPHETAMINE-TYPE STIMULANT USE AMONG YOUNG PEOPLE: A POLICY AND PROGRAMMING GUIDE 4* (2007), available at <http://www.unodc.org/pdf/youthnet/ATS.pdf> (analyzing drug use amongst vulnerable youth).

61. Chris Rapley, *This Planet Ain't Big Enough for the 6,500,000,000*, INDEP. (U.K.), June 27, 2007, <http://www.independent.co.uk/environment/climate-change/this-planet-aint-big-enough-for-the-6500000000-454859.html>.

with the unplanned growth of informal settlements.<sup>62</sup> According to the World Bank, “[o]ver the next 15 to 20 years, many cities in Africa and Asia will double in size.”<sup>63</sup> Sustainable human settlements in an urbanizing world require inclusive and participatory governance.

It is important to strengthen the capacity of local governments and stakeholders to work together.<sup>64</sup> Vulnerable young people often lack access to decision-making forums.<sup>65</sup> Inclusive communities have begun involving young people in present and future policy-decisions.<sup>66</sup> The 1995 World Programme of Action for Youth to the Year 2000 and Beyond recommended that

[g]overnments and organizations should create or promote grant schemes to provide seed money to encourage and support enterprise and employment programmes for young people. Businesses and enterprises could be encouraged to provide counterpart financial and technical support for such schemes. Cooperative schemes involving young people in production and marketing of goods and services could be considered. The formation of youth development banks could be considered. The Committee for the Promotion and Advancement of Cooperatives is encouraged to develop models for cooperatives run by youth in developed and developing countries. Such models could include guidelines for management training and training in entrepreneurial techniques and marketing.<sup>67</sup>

Over a decade later, 500 youth representing hundreds of youth organizations recommended the creation of the youth-led development fund at the Youth Assembly of the 2006 World Urban Forum.<sup>68</sup>

The World Urban Forum occurs every other year and addresses rapid urbanization.<sup>69</sup> The 2006 Forum was organized by the U.N.–HABITAT and Canada and gathered 15,000 participants from 150 countries.<sup>70</sup> The World Youth

62. U.N.–HABITAT, GLOBAL CAMPAIGN ON URBAN GOVERNANCE POLICY DIALOGUE SERIES: YOUTH, CHILDREN AND URBAN GOVERNANCE 8 (2004) [hereinafter GLOBAL CAMPAIGN ON URBAN GOVERNANCE], available at <http://www.unhabitat.org/prnss/getPage.asp?page=bookView&book=1810>.

63. World Bank, Urbanization (2007) available at <http://youthink.worldbank.org/4teachers/pdf/urbanization/urbanization.pdf>.

64. See GLOBAL CAMPAIGN ON URBAN GOVERNANCE, *supra* note 62, at I.

65. *Id.*

66. *Id.*

67. G.A. Res. 50/81, annex ¶ 35, U.N. Doc. A/RES/50/81 (Dec. 14, 1995).

68. U.N.–HABITAT, *Governments Approve New U.N. HABITAT Youth Fund*, April 19, 2007, <http://www.unhabitat.org/> (search “Governments Approve New U.N. HABITAT Youth Fund”; click on first returned search result) (last visited May 14, 2009).

69. U.N.–HABITAT, *Theme: Harmonious Urbanization: The Challenge of Balanced Territorial Development*, <http://www.unhabitat.org/categories.asp?catid=535> (click “read more” for full article) (last visited May 14, 2009).

70. IISD, Globe Foundation & U.N.–HABITAT, *A Daily Report of the Third Session of the World Urban Forum*, 125 WORLD URB. F. BULL. 1 (June 19, 2006), available at <http://www.iisd.ca/download/pdf/sd/ymbvol125num1e.pdf>.

Forum preceded the World Urban Forum, providing an opportunity for participants to meet with high-level U.N. representatives to discuss youth-led initiatives.<sup>71</sup>

The Youth Assembly of the 2006 World Urban Forum called for the establishment of an accessible and financially sustainable global youth-led advisory council.<sup>72</sup> The World Youth Forum called upon “[g]overnments, NGOs, development agencies, civil society groups and other stakeholders [to] involve youth in the design, implementation, monitoring and evaluation of development programmes.”<sup>73</sup> U.N.-HABITAT has established computerized One Stop Youth Centres where youth can learn to design a C.V. and other job application materials. Youth can search through job postings and explore entrepreneurial opportunities.<sup>74</sup> “As demonstrated by the riots in Paris in late 2005, high youth unemployment, particularly within marginalized ethnic minorities, can create urban unrest, which can challenge government authority and endanger national stability,”<sup>75</sup> U.N.-HABITAT explains. On a global scale, the U.N. Secretary-General launched the Youth Employment Network (“YEN”) in collaboration with the ILO and the World Bank in July 2001.<sup>76</sup> YEN is based on equal opportunities, employability, entrepreneurship, and employment creation.<sup>77</sup>

The World Bank points out that it takes money to make money: “The global wave of economic and technological change is demanding more from workers than basic skills . . . . The young, even if they have the brightest of prospects, have no credit ratings, are inexperienced, and can offer no collateral to borrow money to start a livelihood.”<sup>78</sup> Micro-lending for renewables can play a role in many developing countries and help create jobs.<sup>79</sup> Youth micro-enterprise conferences bring together specialists that can share cross-sectoral strategies to facilitate economic opportunity among youth.<sup>80</sup> Young entrepreneurs can share their

71. *Id.* at 3.

72. U.N.-HABITAT, World Urban Forum and Youth Declaration (June 2006), available at [http://www.eya.ca/wuf/WUFY\\_Declaration\\_eng\\_final.doc](http://www.eya.ca/wuf/WUFY_Declaration_eng_final.doc) (last visited May 14, 2009).

73. WORLD YOUTH CONGRESS, YOUTH-LED DEVELOPMENT: A FRAMEWORK FOR ACTION 4 (2005), available at <http://www.peacechild.org/PCIOff/brazil/WYCpolicydocument.pdf>.

74. See U.N.-HABITAT, U.N.-HABITAT & YOUTH: ENGAGING, INFORMING, ADVISING, CONNECTING, EMPOWERING, CONSULTING, DOING 4 (2006), available at <http://www.unhabitat.org/pmss/getPage.asp?page=promoView&promo=2428>.

75. STATE OF THE WORLD'S CITIES, *supra* note 58, at 2.

76. See, e.g., *The Secretary-General's Youth Employment Network (YEN) Newsletter* (Decent Work for Young People) (Feb. 2008) at 1, available at [http://www.un.org/esa/socdev/social/documents/youth\\_%20newsletters/YENnewsFeb08.pdf](http://www.un.org/esa/socdev/social/documents/youth_%20newsletters/YENnewsFeb08.pdf) (last visited May 14, 2009).

77. Anna Tibajuka, Under-Secretary-General, United Nations and Executive Director of U.N. HABITAT, Address at the Opening Ceremony of the Young Entrepreneurs Day, Nairobi. (Apr. 15, 2007), available at <http://www.unhabitat.org> (search “Address at the Opening Ceremony of the Young Entrepreneurs Day”) (last visited May 14, 2009).

78. WORLD BANK, WORLD DEVELOPMENT REPORT 2007: DEVELOPMENT AND THE NEXT GENERATION 82 (2006), available at <http://www-wds.worldbank.org/> (search “all” for “World Development Report 2007: Development and the Next Generation”).

79. See GREEN JOBS INITIATIVE, *supra* note 4, at 19.

80. See Making Cents Int'l, *Global Youth Enterprise Conference: Purpose & Background*, [http://www.ymeconference.org/purpose\\_background.asp#top](http://www.ymeconference.org/purpose_background.asp#top) (last visited May 14, 2009).

organizations' products as well as best practices.<sup>81</sup> Discussions enable youth entrepreneurs to synthesize and share recommendations.<sup>82</sup>

The U.N. and NGOs have hosted global and regional electronic networks that advance good governance and sustainable development.<sup>83</sup> The Commission on Sustainable Development has facilitated the ongoing participation of youth delegates as the CSD Youth Caucus:

[A]n international network of over 1000 youth leaders from hundreds of organizations, many of which are themselves national networks, that brings together young people with a desire to build a more sustainable world. The focus of the caucus is two-fold. First, to facilitate youth input into the United Nations Commission on Sustainable Development, the primary international forum concerned with issues of Sustainability, and secondly to foster information sharing and communication between a diverse network of youth organizations who share a common interest in sustainability.<sup>84</sup>

National youth organizations such as SustainUS facilitate youth involvement in international decision-making. Youth delegates from around the world participate in such environmental proceedings as the U.N. Framework Convention on Climate Change ("UNFCCC") and U.N. Commission on Sustainable Development ("CSD") proceedings.<sup>85</sup>

## V. YOUTH PARTICIPATION

The Ibero-American Convention on Young People's Rights entered into force on March 1, 2008.<sup>86</sup> Article 21 of the Ibero-American Convention ensures youth participation,<sup>87</sup> while Article 35 requires countries to support youth organizations.<sup>88</sup> This regional treaty is the most progressive recognition of youth rights, building upon the four foundation principles of the Convention on the Rights of the Child ("CRC"): (a) non-discrimination; (b) best interests of the child; (c) right to survival

81. *See id.*

82. *See id.*

83. *See* UNESCO, Networks: Communities in the Domain of Communication and Information, <http://www.unesco.org/> (follow hyperlink on left to "Communications and Information"; follow "Networks" hyperlink on right side of screen) (last visited May 14, 2009); YouthxChange.net, Career Compass, <http://www.youthxchange.net/main/jobs.asp> (last visited May 14, 2009).

84. CSD Youth Caucus, Welcome to the CSD Youth Caucus, <http://www.youthcaucus.net> (last visited May 14, 2009).

85. *Id.*

86. Ibero-American Convention on Rights of Youth, *opened for signature* Oct. 10, 2005, [hereinafter ICYR], *available at* [http://www.unicef.org/lac/IberoAmerican\\_Convention\\_on\\_the\\_Rights\\_of\\_Youth.pdf](http://www.unicef.org/lac/IberoAmerican_Convention_on_the_Rights_of_Youth.pdf); *see also* Child's Rights Information Network, IBERO-AMERICA: First Youth Rights Convention, <http://www.crin.org/resources/infoDetail.asp?ID=16822> (last visited May 14, 2009) (providing technical details of the convention).

87. ICYR, *supra* note 86, at art. 21.

88. *Id.* at art. 35.

and development; and (d) views of the child.<sup>89</sup> Since it entered into force in 1990, only two members of the U.N., the U.S. and Somalia, have yet to ratify the CRC.<sup>90</sup> Recognizing that children have a right to participate and be heard, Article 12 of the CRC calls upon countries to involve youth in decision-making.<sup>91</sup>

Professor Cleveland Ferguson notes that “[d]esignation of ‘the child’ as a legal ‘actor’ on the international stage, with the same standing as nation-states have had for centuries, was a monumental factor in developing a law recognizing the human rights of children.”<sup>92</sup> Yet, child labor continues to intensify youth unemployment by precluding children from obtaining an education with which to compete in the labor market as young adults.<sup>93</sup> The World Bank believes that additional years of schooling increase a person’s earnings.<sup>94</sup> ILO Conventions Nos. 138 and 182 clarify that work that does not harm children’s health and development or reduce their schooling can be positive.<sup>95</sup> The worst forms of child labor include “slavery, trafficking, debt bondage and other forms of forced labor, forced recruitment of children for use in armed conflict, prostitution and pornography, and illicit

89. UNICEF explains that “[t]he CRC Committee has identified four CRC articles as ‘foundation’ principles that underpin all other articles: non-discrimination; best interests of the child; right to life, survival and development; and views of the child.” UNICEF, HUMAN RIGHTS FOR CHILDREN AND WOMEN: HOW UNICEF HELPS MAKE THEM A REALITY 8 (1999), available at [http://www.unicef.org/publications/files/pub\\_humanrights\\_children\\_en.pdf](http://www.unicef.org/publications/files/pub_humanrights_children_en.pdf). U.N.–HABITAT notes:

[I]n 1995, the U.N. General Assembly adopted the *World Programme for Action for Youth to the Year 2000 and Beyond*. During its 58th session, the General Assembly decided to devote, in 2005, two special plenary meetings to review the world situation of youth and the achievements produced in the implementation of the programme. In 2002, the U.N. General Assembly Special Session on Children issued its Declaration and Plan of Action *A World Fit for Children* (WFFC), pledging to put children and youth at the heart of development.

GLOBAL CAMPAIGN ON URBAN GOVERNANCE, *supra* note 62, at 4.

90. Office of the U.N. High Comm’r for Human Rights, *Status of Ratifications of the Principal International Human Rights Treaties* (June 9, 2004) at 11, available at <http://www.unhcr.ch/pdf/report.pdf>.

91. Article 12(1) of the CRC states: “States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.” Convention on the Rights of the Child, art. 12, Nov. 20, 1989, 1577 U.N.T.S. 3.

92. Cleveland Ferguson III, *Of Politics and Policy: Can the U.S. Maintain Its Credibility Abroad while Ignoring the Needs of Its Children at Home?—Revisiting the U.N. Convention on the Rights of the Child as a Transnational Framework for Local Governing*, 14 TULSA J. COMP. & INT’L L. 191, 224 (2007).

93. The Director-General, *The End of Child Labour: Within Reach*, 62, delivered to the International Labour Conference, Report I(B) (2006) [hereinafter ILO, *The End of Child Labour: Within Reach*], available at <http://www.ilo.org/public/english/standards/reim/ilc/ilc95/pdf/rep-i-b.pdf>.

94. See Julian R. Betts, *Returns to Quality of Education*, ECON. OF EDUCATION SERIES 1 (1999), available at <http://siteresources.worldbank.org> (search “Returns to Quality of Education”; click on first returned result) (discussing the increase in earnings for those with extra schooling); World Bank, Education, available at <http://web.worldbank.org/> (click on “News” tab; click on “Issues Briefs” hyperlink; click on “Education” link under “Health and Education”) (last visited May 14, 2009) (“[E]ducation is one of the most powerful instruments for reducing poverty and inequality and helps lay a foundation for sustained economic growth.”).

95. Minimum Age Convention, June 26, 1973, 1015 U.N.T.S. 297; ILO Convention Concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour, art. 3(d), June 17, 1999, 2133 U.N.T.S. 161; see also ILO, *The End of Child Labour: Within Reach*, *supra* note 93, at 23.

activities.”<sup>96</sup> The World Youth Report 2005 notes that “[i]n environments that provide few attractive options for employment, armed conflicts often have offered young people a way of generating income. Providing opportunities for meaningful work for youth decreases the risk of young people being recruited into or voluntarily joining hostile forces.”<sup>97</sup> The ILO is helping nations define hazardous child labor.<sup>98</sup> The ILO clarifies that child labor dehumanizes children, reducing them to an economic asset.<sup>99</sup> Youth-led consumer pressure has induced corporate self-regulation and sectoral alliances to keep the products of child labor out of supply chains, thanks to campaigns on garments, footballs, sports shoes, and tobacco products.<sup>100</sup>

Through increased opportunities to engage in advocacy children gain expertise in and appreciation for consensus building. Professor Roger Hart clarifies the distinction between community participation and social mobilization by noting that, participation “fosters a sense of local responsibility and a long-term development of citizenship, rather than simply providing a short-term solution to some community problem through the use of free labor.”<sup>101</sup> Intertemporal resource misallocations occur when politicians base decisions upon short-term outcomes at high discount rates.<sup>102</sup> They place little value on future harms.<sup>103</sup> Involving youth in

96. ILO, *The End of Child Labour: Within Reach*, *supra* note 93, at 24.

97. DESA, *supra* note 7, at 141.

98. ILO, *The End of Child Labour: Within Reach*, *supra* note 93, at 18.

99. *Id.* at 2. As the ILO notes:

‘Child labour’ is a narrower concept than ‘economically active children’, excluding all those children aged 12 years and older who are working only a few hours a week in permitted light work and those aged 15 years and above whose work is not classified as ‘hazardous.’ The concept of ‘child labour’ is based on the ILO Minimum Age Convention, 1973 (No. 138), which represents the most comprehensive and authoritative international definition of minimum age for admission to employment or work, implying ‘economic activity.’

*Id.* at 6.

100. See generally PAULO SERGIO PINHEIRO, UNITED NATIONS WORLD REPORT ON VIOLENCE AGAINST CHILDREN 31–42 (2006), available at <http://www.violencestudy.org/a553> (click on link for chapter 2) (discussing children’s rights and the impact of such rights on labor law).

101. R. Hart, *Children’s Role in Primary Environmental Care*, 2 CHILDHOOD 92, 94 (1994); see also U.N. Programme on Youth, Div. for Soc. Policy & Dev., Dept. of Econ. & Soc. Affairs, *Report of the Expert Group Meeting on Youth Development Indicators*, ¶ 51, available at <http://www.un.org/esa/socdev/unyin/documents/youthindicatorsreport.pdf>.

102. Children have a right to express their opinions, particularly in relation to their own rights. Youth participation would be greatly facilitated through such events as annual days of access. This would directly respond to Agenda 21’s call that

[e]ach country should, in consultation with its youth communities, establish a process to promote dialogue between the youth community and Government at all levels and to establish mechanisms that permit youth access to information and provide them with the opportunity to present their perspectives on government decisions, including the implementation of Agenda 21.

UNITED NATIONS, *Chapter 25: Children and Youth in Sustainable Development*, in AGENDA 21: PROGRAM OF ACTION FOR SUSTAINABLE DEVELOPMENT (1993), available at <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter25.htm>. Agenda 21 was adopted by more than 178 governments at the 1992 Rio U.N. Conference on Environment and Development (“UNCED”). United Nations, Documents: Agenda 21, <http://www.un.org/esa/sustdev/documents/agenda21/index.htm> (last visited May 14, 2009).

103. Daniel C. Esty, *Toward Optimal Environmental Governance*, 74 N.Y.U. L. REV. 1495, 1514–16 (1999).

genuine environmental decision-making can facilitate intergenerational equity and sustainable development. Public participation offers youth the opportunity to voice their recommendations—voice goes beyond expression to encompass recognition and involvement in decision-making.<sup>104</sup> The World Youth Report of 2005 explains that “[e]ffective youth participation requires changes in how societies perceive young people. These changes need to be reflected in appropriate funding, in innovative ways to spread information, in training to facilitate intergenerational collaboration and in organizational structures that welcome new voices.”<sup>105</sup>

The Youth Forum to the 2007 UNESCO General Conference recommended the “development of a new energy culture, based on the responsibility for the future of energy, shared by each of us, and on the understanding that energy is not a weapon, but a tool for global development.”<sup>106</sup> The Youth Forum called for (1) better utilization of fossil fuels, also reducing their environmental impact; (2) development of alternative energy sources on a global scale; (3) raising energy efficiency (4) technology and knowledge transfer and (5) political commitment on energy issues.<sup>107</sup>

Youth Forum delegates also highlighted the importance of Youth Forum online discussion spaces in facilitating communication and the work of youth networks.<sup>108</sup> The U.N. has launched an effort to insure that “communication with young people be relevant to their needs and consistent with their own forms of interaction.”<sup>109</sup> UNESCO’s strategy of action with and for youth arose from the World Programme of Action for Youth to the year 2000 and Beyond, adopted by the U.N. General Assembly in 1995.<sup>110</sup> The UNESCO Youth Forum is held every other year at the beginning of the UNESCO General Conference as a means of

104. See WORLD BANK, WORLD DEVELOPMENT REPORT 2007, *supra* note 78, at 52; LeRoy C. Paddock, *Green Governance: Building the Competencies Necessary for Effective Environmental Management*, 38 *Envil. L. Rep. News & Analysis* 10609, 10640 (2008) (“[T]he principal public participation methods historically used by government agencies—public hearings, public meetings, and notice-and-comment rulemaking procedures—frequently do not serve well as methods for true public engagement in government decision-making. They do not create conditions necessary for effective, or ‘authentic’ public participation.”). *Id.*

105. DESA, *supra* note 7, at 72. The World Youth Report notes: “Student movements have played a crucial role in a number of major social and political transitions that have occurred in various countries in recent history and are likely to continue to be at the forefront of the struggle for democratization and progressive social action.” *Id.* at 73.

106. World Energy Council, Youth Declaration 2007—Rome Congress Youth Programme, [http://www.worldenergy.org/news\\_events/future\\_energy\\_leaders\\_community/rome\\_congress\\_2007\\_youth\\_programme/1021.asp#](http://www.worldenergy.org/news_events/future_energy_leaders_community/rome_congress_2007_youth_programme/1021.asp#) (last visited May 16, 2009); see also UNESCO, Supporting the Capacity-building of Youth Organizations, [http://portal.unesco.org/shs/en/ev.php-URL\\_ID=11024&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/shs/en/ev.php-URL_ID=11024&URL_DO=DO_TOPIC&URL_SECTION=201.html) (last May 16, 2009) (“Strengthening the capacity of young people and their organizations to participate as equal partners in development is one of the main objectives of UNESCO’s action with and for youth.”).

107. *Id.*

108. UNESCO General Conference, Oct. 12–13, 2007, *Youth Forum*, U.N. Doc. 34C/INF.10 (Oct. 17, 2007) [hereinafter *Youth Forum*], available at <http://unesdoc.unesco.org/images/0015/001540/154087e.pdf>.

109. UNESCO, Youth-Strategy, [http://portal.unesco.org/shs/en/ev.php-URL\\_ID=11075&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/shs/en/ev.php-URL_ID=11075&URL_DO=DO_TOPIC&URL_SECTION=201.html) (last visited May 16, 2009).

110. *Id.*



facilitating youth perspectives into UNESCO's ongoing work.<sup>111</sup> Regional youth forums also meet during important conferences throughout each year. For instance, as part of the follow up to the first Americas Youth Forum, a Youth Networks and Policies forum took place during the International Conference of the Americas in October of 2008.<sup>112</sup> Leading up to the regional meeting, youth participants were involved in a five-week online discussion, establishing an outline and road map for the conference.<sup>113</sup> This enabled youth to strengthen their knowledge and capacities to research, sustain youth networks, communicate, and build consensus in developing official recommendations to the U.N.<sup>114</sup>

The Indigenous Youth Caucus project page enables participants to coordinate involvement in ongoing U.N. Climate Change proceedings; communicate with one another; and access such information on the work of the caucus as past proceedings, statements, and recommendations.<sup>115</sup> This forum enables participants to build consensus on cross cutting issues such as climate change. The U.N. Indigenous Youth Caucus called for free, prior and informed consent that respects indigenous decision-making traditions; noted that poverty and homelessness are direct results of displacement from traditional territories; and asked the U.N. to host a World Forum on Indigenous Urban Issues.<sup>116</sup>

Youth participation can encompass both international decision-making and local environmental opportunities. Youth around the globe have been active in environmental fieldwork, providing valuable information for policy-makers. A case in point is the work of Harbor Watch/River Watch. Students have been conducting water measurements with Harbor Watch/River Watch since Dick Harris founded the organization in 1986.<sup>117</sup> At fourteen, this author began analyzing high

111. *Id.*

112. UNESCO, Regional Meeting: Youth Networks and Policies, Oct. 15–19, 2008, *Building the Present and Future of the Americas*, [http://portal.unesco.org/shs/en/ev.phpURL\\_ID=12257&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/shs/en/ev.phpURL_ID=12257&URL_DO=DO_TOPIC&URL_SECTION=201.html) (last visited May 16, 2009) [hereinafter Youth Networks]. The meeting was organized by UNESCO, the United Nations Association of the Dominican Republic (UNA-DR) and the Fundación Global Democracia y Desarrollo (FUNGLODE), in collaboration with the Ministry of Youth and the Permanent Delegation of the Dominican Republic to UNESCO, the Dominican National Commission for UNESCO and UNESCO's Montevideo Field Office. *Id.*

113. *See id.*

114. *See id.*

115. U.N. Int'l Indigenous Youth Caucus [IYC], *Recommendations from the United Nations Indigenous Youth Caucus*, [http://www.unicef.org/explore\\_4268.html](http://www.unicef.org/explore_4268.html) (last visited May 16, 2009); *see also* United Nations, IYC Project Page, <http://groups.takingitglobal.org/indigenous> (last visited May 16, 2009) (providing up-to-date information and coverage on youth forums and caucuses "to create a unified network of indigenous youth").

116. The detention of indigenous youth leaders has increased with urbanization. Displaced, unemployed youth are vulnerable to human trafficking. Indigenous youth call upon countries to work with communities to safely recover trafficked Indigenous peoples without criminalization and further exploitation. The IYC notes that "[w]hen a person is targeted for violence because of their gender, sexual preference or because of their Indigenous identity, their fundamental rights have been abused." IYC, Indigenous Peoples Youth Caucus, June 16 – 23, 2006, *Ayateway Declaration*, art. 2, <http://www.eya.ca/wuf/Ayateway%20Declaration.doc> (last visited May 16, 2009).

117. Ryan Jockers, *Water Keepers: Volunteer Monitor Quality of Norwalk, Silvermine Rivers*, STAMFORD ADVOCATE, Dec. 12, 2004, at A3.

bacteria and low oxygen levels in rivers flowing into Long Island Sound.<sup>118</sup> Relying primarily on federal and state grants, Harbor Watch/River Watch established a certified chemistry lab, graphed pollution trends, and met with town planners.<sup>119</sup> Youth conducted a legislative impact study on the population of such wetlands indicator species as diamond back terrapin turtles. Long Island Sound provides a microcosm of the jurisdictional fragmentation that occurs internationally. Harris points out that “[y]ou are one person, but you are setting an example and other people see it and you have a mouth and you can talk to other people.”<sup>120</sup> A generation of youth owe a great deal to the capacity of Harris to involve young people in field/lab scientific monitoring, research, analysis, writing, teaching peers and educators, and negotiating solutions with town planners and city officials.

## VI. CONCLUSION

The international community stands at the crossroads with unprecedented human capital, financial wherewithal, and understanding of the price of inaction. We must become aware of past problems, assess our present opportunity, and kindle enthusiasm for the future. The U.N. explains that green job growth “at the scale and intensity needed to end unsustainable practices . . . [requires] public investment, subsidy shifts, new R&D priorities, and ecological tax reform . . . . The tools are available, but they need to be applied with much greater urgency if large-scale green employment is to become a reality.”<sup>121</sup> Let us find the collective courage with which to achieve genuinely intergenerational sustainable development. Good governance and engaged community cooperation can achieve international peace and security.

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118. *Id.*

119. *Id.*

120. Videotape: Harbor Watch/River Watch Film (Dick Harris), available at [http://www.earthplace.org/environment/water\\_quality.html](http://www.earthplace.org/environment/water_quality.html) (click “View a movie about Harbor Watch” hyperlink) (last visited May 14, 2009).

121. GREEN JOBS INITIATIVE, *supra* note 4, at xxvii.