

**TWENTY-FIVE YEARS IN THE MAKING:  
WHY SUSTAINABLE DEVELOPMENT HAS  
ELUDED THE U.N., AND HOW  
COMMUNITY-DRIVEN DEVELOPMENT  
OFFERS THE SOLUTION**

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I.	INTRODUCTION .....	546
II.	THE ISSUE OF ENVIRONMENTAL CONSERVATION ON THE INTERNATIONAL STAGE.....	549
	<i>A. A New Concern Emerges .....</i>	<i>549</i>
	<i>B. The Brundtland Commission .....</i>	<i>550</i>
	<i>C. Sustainable Development, Defined .....</i>	<i>551</i>
	<i>D. The Millennium Summit .....</i>	<i>553</i>
	<i>E. The Kyoto Protocol.....</i>	<i>555</i>
III.	A NEW APPROACH? .....	556
	<i>A. Monetary Incentives and Subsidies Are Not Effective On Their Own.....</i>	<i>557</i>
	<i>B. Elements of a New Approach .....</i>	<i>560</i>

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IV.	ECOVILLAGES: A FLAGSHIP FOR THE NEW APPROACH .....	567
	A. <i>An Ecovillage, Defined</i> .....	568
	B. <i>Modeling the Ecovillage in Traditional Communities</i> .....	572
	C. <i>Community-Driven Development in Developing Countries</i> .....	574
	D. <i>The Role of the U.N. in the New Model</i> .....	580
V.	CONCLUSION.....	585

## I. INTRODUCTION

The goal of sustainable development, a term first coined by the United Nations (U.N.) in 1983<sup>1</sup> remains somewhat of a mystery for the countries who aim to implement it. Twenty years after the official introduction<sup>2</sup> of the notion in 2003, it was noted that:

1. [T]he pace, scale, and depth of progress towards sustainable development has been inadequate;
2. [T]he root causes of unsustainability remain firmly in place even if some symptoms have been tackled; and
3. [M]ost people do not yet “feel the burn” to act, whether in government, business, or as individuals.<sup>3</sup>

Today, more than twenty-five years later, scarcity of natural resources and climate conditions now demand that environmental concerns move to the forefront of the decision-making agenda.<sup>4</sup>

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1. Chairman of World Comm’n on Env’t and Dev., *Our Common Future*, at 21, delivered to the General Assembly, U.N. Doc. A/42/427 (Aug. 4, 1987) [hereinafter The Brundtland Report], available at <http://www.worldinbalance.net/pdf/1987-brundtland.pdf>.

2. *Id.*

3. Globalisation and the Environment, *Sustainable Development: Brundtland Commission 20 Years On*, <http://globalisation-and-the-environment.blogspot.com/2007/03/sustainable-development-brundtland.html> (Mar. 21, 2007) (last visited Feb. 6, 2010).

4. See, e.g., U.N. DEPT OF ECON. & SOC. AFFAIRS [DESA], THE MILLENNIUM DEVELOPMENT GOALS REPORT 3 (2008), <http://www.undp.org/publications/>

Because individuals and communities do not feel compelled to act on behalf of the global environment and the future generations that will inhabit it, the statements in aforementioned list items one and two are readily observable. Secondly, the United Nations [U.N.] has not proposed a model for its member states to follow in implementing sustainable development. Furthermore, even if it had set forth a model at some point over the last twenty-five years, no single, homogeneous model mandated by an international authority is suitable for every community on the earth to realize a greater level of sustainability, as the needs of different areas of the world are as diverse as their geographical and cultural surroundings.<sup>5</sup> What the U.N. can do, and must do, is promulgate a set of standards,<sup>6</sup> turning to the many local communities of the world to implement sustainability through means that suit their geographical needs and available resources. This approach would allow communities to use the ingenuity of local residents to develop a specific plan of action and implement a sustainability program that is suitable to each cultural and geographical area.

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MDG\_Report\_2008\_En.pdf (discussing the global food security crisis and climate change, which admittedly could be less dire had the world “kept pace with commitments to sustainable development enunciated again and again over the years”). The commitments Ban Ki-Moon writes about are those beginning in 1972 in Stockholm with the U.N. Conference on the Human Environment, and reintroduced in the Brundtland Report, Agenda 21, and the Millennium Development Goals, to name a few. *See infra* Part II.A–D. The number of living animal species has declined over the last decades, with many species moving toward extinction, and ecosystems are more threatened than ever before in human history. *See* S. Jacob Scherr & R. Juge Gregg, *Johannesburg and Beyond: The 2002 World Summit on Sustainable Development & the Rise of Partnership*, 18 GEO. INT’L ENVTL. L. REV. 425, 431 (2006) (explaining the damage to ecosystems and loss of biodiversity). Further, scientists have theorized that the world is on the verge of dangerous climate change, although conditions have not deteriorated to the point that this trend is irreversible. J. Hansen et al., *Dangerous Human-made Interference with Climate: A GISS ModelE Study*, 7 ATMOSPHERIC CHEMISTRY & PHYSICS 2287, 2306 (2007), available at <http://www.atmos-chem-phys.net/7/2287/2007/acp-7-2287-2007.pdf>.

5. *See* Scherr & Gregg, *supra* note 4, at 438 (describing how “top-down” policymaking model for sustainable development is not effective in the complex reality of a globalized world).

6. Patricia Romano, *Sustainable Development: A Strategy That Reflects the Effects of Globalization on the International Power Structure*, 23 HOUS. J. INT’L L. 91, 111 (2000).

Hence, the power structure behind sustainable development should be the converse of what it has been. Instead of a mandate cast from the U.N. down to member states, a successful strategy should be implemented from the bottom of the global power structure up to the international level. Such a strategy should begin with neighborhoods and municipalities, with a focus on rebuilding the social connections that have deteriorated over the years.<sup>7</sup> Armed with this renewed social capital, communities may self-enforce the values of sustainability that may be brought to the attention of residents through education and awareness.<sup>8</sup>

Ecovillages, either in pure form or some variation thereof,<sup>9</sup> are a very useful tool in the building of sustainability education and social capital,<sup>10</sup> and are widespread enough around the globe to afford a tailored model of sustainability to the many communities of the world.<sup>11</sup>

Part II of this Comment explores the history of environmental conservation as a global concern, detailing past efforts of the U.N. that have fallen short of implementing sustainability through “hard law” treaties and “soft law” commitments. Part III evaluates current U.N. efforts toward sustainable development, and lays out the key elements of a new, successful approach—education and social capital. Part IV proposes inverting the current system to put sustainable development policymaking in the hands of grassroots organizations, utilizing ecovillages and other local efforts as flagships for implementing the appropriate sustainable development strategy for the communities in which they are situated. Part IV also describes how these community-driven

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7. See *infra* Part III.B.2.

8. See *infra* Part III.B.1.

9. See *infra* Part IV.

10. *Id.*

11. *Id.*; 385 ecovillages are registered with the Global Ecovillage Network in 2008, and many others remain unregistered. Erik Assadourian, *Engaging Communities for a Sustainable World*, in STATE OF THE WORLD: INNOVATIONS FOR A SUSTAINABLE ECONOMY 151, 154 (2008), available at [http://www.worldwatch.org/files/pdf/SOW08\\_chapter\\_11.pdf](http://www.worldwatch.org/files/pdf/SOW08_chapter_11.pdf) (last visited Feb. 6, 2010). This number also does not include communities that have adopted aspects of ecovillage life on a broader scale. *Id.*

efforts may solve sustainability problems in developing countries, and explores the proposed role of the U.N. within the new structure, emphasizing that it is aptly situated to aid sustainability education, bringing the goal into the mainstream.

## II. THE ISSUE OF ENVIRONMENTAL CONSERVATION ON THE INTERNATIONAL STAGE

### A. *A New Concern Emerges*

The 1972 U.N. Conference on the Human Environment held in Stockholm, Sweden yielded the creation of the U.N. Environment Programme (UNEP).<sup>12</sup> Stockholm was the first global conference to focus upon environmental issues.<sup>13</sup> Here, world leaders produced a declaration comprising twenty-six principles that note the world's need for guidance in environmental preservation.<sup>14</sup> In the declaration, UNEP called on the governments of U.N. member states to support and implement programs aimed at the preservation of the human environment.<sup>15</sup> This "soft law"<sup>16</sup> mandate set the stage for sustainability, and became the predecessor to the official definition of sustainable development promulgated in 1983.<sup>17</sup>

The principles enunciated in Stockholm included using natural resources wisely so as to not deplete them for future generations,<sup>18</sup> protecting the capacity of the Earth to create resources for the use of its human inhabitants,<sup>19</sup> and the use of "rational planning" to reconcile the inherent conflict between the

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12. Declaration of the U.N. Conference on the Human Environment, A/CONF.48/14 (June 16, 1972) [hereinafter *Stockholm Declaration*] available at [http://www.unep.org/Law/PDF/Stockholm\\_Declaration.pdf](http://www.unep.org/Law/PDF/Stockholm_Declaration.pdf) (last visited Feb. 6, 2010); UNEP: Organization Profile, 8, available at <http://www.unep.org/PDF/UNEPOrganizationProfile.pdf> (last visited Feb. 6, 2010).

13. See James C. Kraska, *Global and Going Nowhere: Sustainable Development, Global Governance, & Liberal Democracy*, 34 DENV. J. INT'L L. & POL'Y 247, 262 (2006).

14. *Stockholm Declaration*, *supra* note 12.

15. *Id.*

16. Scherr & Gregg, *supra* note 4, at 431–32.

17. G.A. Res. 38/161, U.N. Doc. A/RES/38/161 (Dec. 19, 1983) [hereinafter 38/161].

18. *Stockholm Declaration*, *supra* note 12, at princ. 2.

19. *Id.* at princ. 3.

utility of nonrenewable natural resources and their preservation for future generations.<sup>20</sup> As noble and sweeping as these principles may appear, environmental concerns nevertheless continued to attract low attention from the nations of the world.<sup>21</sup> Consequently, deforestation, global warming, and other conditions stemming from the unbridled use of nonrenewable resources continued to deteriorate.<sup>22</sup>

### B. *The Brundtland Commission*

In 1983, the U.N. General Assembly adopted Resolution 38/161, which advocated the advancement toward development of “the Environmental Perspective.”<sup>23</sup> Under the Resolution, the General Assembly created a World Commission on Environment & Development (WCED), led by Norwegian Environmental Minister Gro Harlem Brundtland,<sup>24</sup> to advise the U.N. regarding the achievement of its newly-adopted goal of the “Environmental Perspective to the Year 2000 and Beyond.”<sup>25</sup> WCED was offered four areas of focus in which to work and develop propositions to the U.N., including “long-term environmental strategies for achieving sustainable development to the year 2000 and beyond,” and promoting “interrelationships between people, resources, environment, and development.”<sup>26</sup> At the request of the General Assembly, the WCED was instructed to prepare a

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20. *See id.* at princ. 14 (discussing depletion of resources due to human overusage). Also included in the enumerated principles are values of using resources while remaining mindful of the development of underdeveloped countries and their needs for the same resources, and price stability for raw materials. *See generally id.*, *supra* note 5.

21. *See* The United Nations, *Rionewal: Taking Stock*, 34 U.N. CHRON. 7 (1997) (discussing the continued deterioration of environmental conditions).

22. *See id.*

23. 38/161, *supra* note 17.

24. Kraska, *supra* note 13, at 265.

25. 38/161, *supra* note 17.

26. *Id.* The other areas explored include effective means of dealing with environmental concerns on an international level and providing the committee with foresight on potential future issues that may arise and of ways to possible avert them. *Id.* The commission was to take into account the resolutions of a special U.N. session of 1982 of the U.N. Environment Programme (UNEP). *Id.* For more on the role of the UNEP, see *How UNEP Works*, 20 U.N. CHRON. 47 (May 1, 1983).

report that includes strategic insight as to how the U.N. may accomplish its goal of sustainable development.<sup>27</sup>

The WCED, informally known as the Brundtland Commission, first met in 1984, and over the course of 900 days, which included the infamous Chernobyl explosion and a host of other man-made environmental disasters, it explored the areas which it was created to ameliorate.<sup>28</sup> Abiding by its mandate, the WCED presented the Brundtland Report, entitled “From One Earth to One World,” to the U.N. General Assembly in 1987, providing the first U.N. elaboration on the idea of “sustainable development.”<sup>29</sup>

### C. Sustainable Development, Defined

“Sustainable Development” was broadly defined in the Brundtland Report not as “a fixed state of harmony, but rather a process of change in which the exploitation of nonrenewable resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with the future as well as present needs.”<sup>30</sup> A far less cumbersome definition calls it “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>31</sup> Patricia Romano, a commenter on the subject, likens the concept of sustainability to managing one’s finances on a fixed budget—one must use only what he needs for a given period, as overspending in one month means less remains to meet the needs for the next month.<sup>32</sup>

In the decade following the introduction of the Brundtland Report,<sup>33</sup> world leaders held a series of “mega-conferences”<sup>34</sup>

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27. 38/161, *supra* note 17.

28. The Brundtland Report, *supra* note 1, at 20–24.

29. *Id.* at 1; *see also* Kraska, *supra* note 13, at 265–66 (describing how the Brundtland Report redefined the term “sustainable development” as what the world perceives it to mean today).

30. The Brundtland Report, *supra* note 1, at 25.

31. Kraska, *supra* note 13, at 265–66 (citing The Brundtland Report, *supra* note 1, at 43).

32. *See* Romano, *supra* note 6, at 95.

33. Kraska, *supra* note 13, at 261.

34. *Id.* at 261. The first was held in Rio de Janeiro in 1992, and the final summit

regarding the creation of a more sustainable world.<sup>35</sup> At these summits, however, the individual problems of environmental depletion were discussed as remediable through homogeneous, ineffective global solutions.<sup>36</sup> As a consequence, these conferences produced vague goals with no concrete plan of action.<sup>37</sup>

The first meeting of the U.N. Conference on Environment and Development held in 1992 in Rio de Janeiro resulted in the publication of another “soft law”<sup>38</sup> commitment to sustainable development, which consisted of yet another equally-broad statement on the topic of sustainability that contained no true method of implementation other than a recommendation to simply remain mindful of the goal in further development.<sup>39</sup> The Earth Summit, as the Rio conference was named, issued Agenda 21, a title signifying the U.N.’s hope of bringing sustainable development into the twenty-first century.<sup>40</sup>

Agenda 21 revealed no new plan of action, but again merely restated the broad, amorphous goal of sustainable development.<sup>41</sup> The document cited a need to develop strategies to mitigate the negative impact that the human population has on the environment, and it offered ambiguous guidelines to do so through developing better modeling capabilities, increasing public awareness, and attending to the importance of long-term

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was held in Johannesburg in 2002. *Id.*

35. *Id.* at 259–60; Gill Seyfang & Andrew Jordan, *The Johannesburg Summit and Sustainable Development: How Effective Are Environmental Mega-Conferences?*, YEARBOOK OF INT’L CO-OPERATION ON ENV’T & DEV. 19 (2002/2003) (Olav Schram Stokke & Øystein B. Thommessen eds., 2002).

36. Kraska, *supra* note 13, at 260.

37. Romano, *supra* note 6, at 96.

38. Scherr & Gregg, *supra* note 4, at 430, 434–35.

39. Kraska, *supra* note 13, at 268–69. Included in the statement were principles such as “in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it,” a “right to development,” and a right to a “healthy and productive life in harmony with nature.” *Id.*

40. UNITED NATIONS, DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS (DESA), AGENDA 21: EARTH SUMMIT: THE UNITED NATIONS PROGRAMME OF ACTION FROM RIO (1993), available at <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm> [hereinafter AGENDA 21] (last visited Feb. 6, 2010).

41. *See id.* at preamble.

sustainability in policymaking and development.<sup>42</sup> However, instead of acting on the goals that have been repeatedly stated, the Earth Summit merely reissued the same pledge produced by earlier meetings, failing to list standards to be followed in implementing sustainability-oriented policies.<sup>43</sup>

By 1997, fourteen years after the creation of the WCED,<sup>44</sup> ten years after the issuance of the Brundtland Report,<sup>45</sup> and three years shy of its starting deadline of “2000 and Beyond,”<sup>46</sup> the U.N. General Assembly did not find that sustainable development was any closer to being revered as effective world policy, but rather that global conditions had deteriorated even further.<sup>47</sup> By the Johannesburg megaconference in 2002, member states of the U.N. had grown fatigued, and the possibility of implementing the declared policy of environmental sustainability seemed even more remote.<sup>48</sup> As a result, the focus at Johannesburg shifted from solving the greater problem of sustainability as planned to a series of break-out sessions on curing the short-term problems of the individual member states - solutions which the U.N. was too large of an entity to provide.<sup>49</sup>

#### D. *The Millennium Summit*

However, new hope arrived two years prior to Johannesburg at the 2000 Millennium Summit in New York.<sup>50</sup> There, eight new millennium goals were revealed that incorporated sustainable development, though in less explicit terms, while the target year for achieving such goals was pushed back even

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42. *Id.* at ch. 5, para. 4–16.

43. See generally Johanna Son, *Rio +5: Rio Summit Results Fall Short*, INTERPRESS SERVICE, Jan. 6, 1997, available at <http://www.globalpolicy.org/social-and-economic-policy/the-environment/the-rio-process/45459.html> (discussing the disappointing results of the Earth Summit in the years following the adoption of Agenda 21's sustainability goals).

44. 38/161, *supra* note 17.

45. The Brundtland Report, *supra* note 1.

46. 38/161, *supra* note 17.

47. Romano, *supra* note 6, at 95–96.

48. See Kraska, *supra* note 13, at 272; Scherr & Gregg, *supra* note 4, at 427.

49. Kraska, *supra* note 13, at 271–72.

50. *Id.* at 269.

further.<sup>51</sup> The Summit set the year 2015 as the target date for achieving goal number seven of “ensuring environmental stability,”<sup>52</sup> goal number eight of developing a “global partnership for development,”<sup>53</sup> and the six other Millennium Development Goals.<sup>54</sup> Nonetheless, almost ten years later in 2009, future global action must make up for wasted time and opportunity, and the daunting task of sustainability that has been unachievable through the approach taken since 1983 has become even more difficult.<sup>55</sup> Climate change is one such area in which the world must account for lost ground,<sup>56</sup> and the U.N. admits that the current state of the global climate is due to a failure to keep commitments to sustainable development.<sup>57</sup>

Not surprisingly, a bare commitment from national leaders is simply not enough to reach the individuals on whom the true burden of implementing sustainability lies.

The reason that the U.N. could not produce any strategy for truly sustainable development may be identical to the reason “mega conferences” were not effective<sup>58</sup>—a completely homogeneous plan of action, or one certain discrete model, cannot successfully be developed by the U.N. for local governments to implement. Rather, the model must be designed and built by the people who intend to live within it, and it must be supported and guided by the U.N.

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51. U.N. Dep’t of Econ. & Soc. Affairs [DESA], The Millennium Development Goals Report 3 (2008) [hereinafter *MDG Report*], available at [http://www.undp.org/publications/MDG\\_Report\\_2008\\_En.pdf](http://www.undp.org/publications/MDG_Report_2008_En.pdf).

52. *Id.* at 3, 36.

53. *Id.* at 3, 44.

54. *Id.* at 3. The six other Millennium Development Goals (MDGs) applicable worldwide include the eradication of extreme poverty and hunger, the establishment of universal primary education, the reduction of child mortality, the improvement of maternal health, and the combating of HIV/AIDS, malaria, tuberculosis and other diseases. *Id.* at 6–28.

55. *See id.* at 3 (explaining that although progress has been made toward the Millennium Declaration since 2000, no real success has been achieved).

56. *See* Hansen et al., *supra* note 4, § 6.2.1 (indicating that dangerous climate change is at a critical point of irreversible damage unless acted upon immediately).

57. *MDG Report*, *supra* note 51, at 3. These “soft law” commitments, as opposed to “hard law” treaties, are ineffective, especially since the ability to impose sanctions is limited. Scherr & Gregg, *supra* note 4, at 431–32, 434.

58. *See supra* Part II.C.

*E. The Kyoto Protocol*

Aside from megaconference efforts, the U.N. has taken practical “hard law”<sup>59</sup> measures to ensure compliance with its sustainability goals, but even these fall short of “law in action.”<sup>60</sup> The Kyoto Protocol, drafted in 1997 by the United Nations Framework Convention on Climate Change (UNFCCC), is one such U.N. effort to prescribe and enforce greenhouse emissions levels assigned to the signatory countries.<sup>61</sup> Some have hailed this agreement as the best hope for achieving a solution to international climate change.<sup>62</sup> Critics, on the other hand, have called the Kyoto Protocol “toothless,”<sup>63</sup> as well as “virtually obsolete without U.S. support.”<sup>64</sup>

The critics have identified several problems. For one, the Kyoto Protocol did not even become a binding treaty until eight years after it was written.<sup>65</sup> It was not until 2005 that the required fifty-five signatory countries accounting for fifty-five percent of worldwide carbon dioxide emissions ratified the Protocol.<sup>66</sup> Second, the United States is not a signatory to the Protocol because the U.S. government believed that subscription to the treaty would cause grave damage to the U.S. economy.<sup>67</sup>

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59. Scherr & Gregg, *supra* note 4, at 431. These “hard law” treaties are arguably more effective, but as demonstrated by the Kyoto Protocol, they do not produce immediate responses and are only binding on signatory countries. *See id.* at 431–32, 434–35.

60. Kraska, *supra* note 13, at 272; *see, e.g.*, Kyoto Protocol to the U.N. Framework Convention on Climate Change, U.N. Doc. FCCC/CP/1997/L.7/Add.1, *available at* <http://unfccc.int/resource/docs/convkp/kpeng.pdf> (1998) (detailing policies and measures designed to curtail emissions).

61. *See* Kyoto Protocol, *supra* note 60.

62. BBC News, *Q&A: The Kyoto Protocol*, Feb. 16, 2005, <http://newsvote.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/4269921.stm>.

63. *See id.*

64. *Id.*

65. *Id.* (noting that although the Protocol was agreed to in 1997, it only became legally binding in 2005).

66. *See id.* Fifty-five countries had ratified the treaty in 2002, but due to the failures of the United States and Australia to ratify the Kyoto Protocol, the burden was on Russia to sign to allow for the 55% emissions requirement to be met. *Id.* Ninety days after Russia’s ratification of the Kyoto Protocol, it became an official, enforceable document. *Id.*

67. *Id.*; *see also* CNN.com, *True or False: Kyoto*, Feb. 18, 2008, *available at*

U.S. leaders further rationalized that the Protocol put too much of the burden of sustainable development on developed countries.<sup>68</sup> More than a decade after the creation of the Kyoto Protocol, there remains a higher demand for sustainability in the area of climate change than ever before.<sup>69</sup> This raises the question as to why, in a democracy such as the United States, where citizens have the power to influence their leaders and shape policy, the public has not demanded the U.S.' signature to the treaty. A problem appears to be that the majority of the U.S. public does not share the sense of urgency necessary to further sustainability.<sup>70</sup> The solution lies in empowering ordinary people, through education and awareness, to "feel the burn" toward environmental sustainability.<sup>71</sup>

### III. A NEW APPROACH?

The Brundtland Report observed that environmental protection must not be overlooked in favor of growing economies and industries that fail to account for resource depletion in their bottom line.<sup>72</sup> It pointed out the importance of public policy and community knowledge in implementing a solution to a problem of such great proportions.<sup>73</sup> It also cited government

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<http://www.cnn.com/2008/WORLD/asiapcf/02/18/eco.myth.kyoto/index.html?iref=newssearch> (explaining how the United States "as a non-signatory can only observe discussions and cannot participate in them directly").

68. *Kyoto: Was the US Right to Ditch the Deal?*, BBC NEWS, Apr. 10, 2001, [http://news.bbc.co.uk/2/hi/talking\\_point/1253019.stm](http://news.bbc.co.uk/2/hi/talking_point/1253019.stm).

69. *See, e.g.*, Romano, *supra* note 6, at 95–96 (describing how, in 1997, the goal of sustainable development was more distant than it had been in 1992).

70. *See* Dr. Hari Srinivas, Chief, Urban Env'tl. Mgmt. Unit, UNEP-IETC, Keynote Address at the United Nations Environment Programme: Environmentally Sound Technologies and Sustainable Development (Mar. 3, 2005), *available at* <http://gec.jp/gec/en/Activities/th05-keynote2.pdf> (citing public demand as one of the challenges to sustainable development); *see also* Haydn Washington, *Opinion: Sustainability—The Failure in Urgency*, J. SUSTAINABILITY, Sept. 15, 2009, *available at* <http://journalofsustainability.com/lifetype/index.php?op=ViewArticle&articleId=66&blogId=1>.

71. Globalisation and the Environment, *supra* note 3.

72. *See* The Brundtland Report, *supra* note 1, at 48 (noting that economics and ecology must be completely integrated and development cannot subsist upon a deteriorating environmental resource base).

73. *Id.* at 70, 72.

intervention based on incentive structures as the way to ensure sustainability in agriculture.<sup>74</sup> While large-scale initiatives open up various resources to achieve many ends, they may also fool the recipients of such resources that something beyond their individual capacity to change is being done to reach their goals. In turn, individuals, not government, consume the resources provided by these initiatives without regard to whether such consumption is aligned with the goal of sustainability.<sup>75</sup> Pure reliance on these government incentives sends a message that, as individuals, citizens are not part of the solution.<sup>76</sup> Mindful of this notion, critics of past and present sustainable development efforts have argued that passive reliance on national governments is not enough to achieve the elusive goal of sustainable development.<sup>77</sup>

*A. Monetary Incentives and Subsidies Are Not Effective On Their Own*

In September 2008, the use of monetary incentives and financial aid to implement sustainability garnered media attention, while many critics of the Millennium Development Goals observed that too much emphasis went to raising the greatest dollar amount possible.<sup>78</sup> The inordinate focus on quantity meant less attention was devoted to efficient allocation of these monetary resources.<sup>79</sup> Ironically, this approach is the converse of the principles bound up in sustainable development.<sup>80</sup>

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74. *Id.* at 133–35.

75. *See* Romano, *supra* note 6, at 92 (observing that mere passive reliance on national governments will not allow the world's population to reach sustainability).

76. *Id.* (observing that only relying upon national governments to solve problems facing sustainable development is akin to trying to generate interest in a product that nobody seems to want).

77. *Id.*

78. Neil MacFarquhar, *U.N. Receives New Pledges of Aid Totaling \$16 Billion*, N.Y. TIMES, Sept. 26, 2008, at A12; Jeffrey D. Sachs, *The World's Poor: A Broad Alliance is Trying to Help*, N.Y. TIMES, Sept. 29, 2008, at A20.

79. *See id.* (observing a correlation between the emphasis on quantity and the lack of emphasis on efficiency).

80. *See supra* Part II.C. and the accompanying discussion.

To illustrate the inefficiency of present monetary aid allocations, on September 25, 2008, the U.N. General Assembly devoted an entire one-day conference to the creation of a strategy aimed at increasing development aid,<sup>81</sup> held in response to the failure of U.N. member countries to meet their pledged commitments to the Millennium Development Goals.<sup>82</sup> Much of this development aid, however, is used to pay back debts of the countries who receive it, and this debt relief does not necessarily require that the recipients make their systems more sustainable.<sup>83</sup> Thus, the resources of the present are consumed to meet the demands of the past with no eye to the future.<sup>84</sup> While this “catching up” is necessary to put these countries on a more equal footing, it is not the only solution, and a need for strategy in achieving the Millennium Development Goals in spite of the relative disadvantages of the various states of the world is vital to the achievement of sustainable development.<sup>85</sup>

The Global Reporting Initiative (GRI), published in 2007 by the U.N. Global Compact, is one alternative approach to simply raising money and handing out aid.<sup>86</sup> Instead, the GRI relies on the enforcement of sustainable goals through corporate responsibility.<sup>87</sup> Through the GRI, companies release a “Communication on Progress” (COP) to shareholders, consumers, employees, media, and other interested parties that

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81. Neil MacFarquhar, *Donor's Aid to Poor Nations Declines*, U.N. Reports, N.Y. TIMES, Sept. 5, 2008, at A12.

82. *Id.* (observing that the conference addressed the issue of development aid in response to a task force analysis regarding the underperformance of the Millennium Development Goals).

83. *Id.* (noting that many countries spent more money paying off debts than they did on public health or education).

84. *See supra* part II.C. (defining sustainable development and concluding that systems that are not sustainable compromise the needs of future generations).

85. Paul Collier, *A Measure of Hope*, N.Y. TIMES, Sept. 22, 2008, at A23.

86. *See* U.N. GLOBAL REPORTING INITIATIVE & THE GLOBAL COMPACT, MAKING THE CONNECTION: THE G.R.I. GUIDELINES AND U.N.G.C. COMMUNICATION ON PROGRESS (2007), available at [http://www.unglobalcompact.org/docs/news\\_events/8.1/Making\\_the\\_Connection.pdf](http://www.unglobalcompact.org/docs/news_events/8.1/Making_the_Connection.pdf) [hereinafter GLOBAL REPORTING INITIATIVE] (last visited Feb. 6, 2010) (proposing a process that is “more efficient, more focused, and more sustainable”).

87. *Id.*

elaborates on their efforts toward sustainability.<sup>88</sup> Yet a weakness remains in this initiative similar to that of the Kyoto Protocol:<sup>89</sup> participation hinges greatly on the public's evaluation of the corporation's efforts toward sustainability.<sup>90</sup> The GRI publication even admits that "the values and actions of an organization should drive the reporting process," and then the COPs can drive their actions.<sup>91</sup> Even if some progress is made using this tool, the GRI would be much more effective and much harder to circumvent if the people who serve these corporations, including shareholders, employees, media, and most importantly, patrons, valued sustainability as a fundamental element of decision-making.<sup>92</sup> Greater public awareness would ensure that sustainability concerns either make or break a consumer decision to support a corporation, which would in turn provide enforcement even where "the values and actions of an organization"<sup>93</sup> are lacking.

In spite of these measures, twenty-five years after the birth of the concept, the world's progress toward achieving sustainability is still far behind projected goals while resources are still being depleted.<sup>94</sup> One obstacle is that the U.N. communities have no alternative models illustrating the amorphous concept of sustainable development, nor has the U.N. articulated standards that may be implemented by member states to assure that individual sustainability goals are aligned with those of the rest of the world.<sup>95</sup> So far, the U.N. has

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88. *Id.* at 4.

89. *See supra* Part II.E.

90. *See* David W. Case, *Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective*, 46 U. COLO. L. REV. 379, 423 (2005); Romano, *supra* note 6, at 117 (discussing the role of public demand as essential to effective corporate disclosure).

91. GLOBAL REPORTING INITIATIVE, *supra* note 86, at 14.

92. *See* Romano, *supra* note 6, at 117 (implying that people educate themselves about that which they value).

93. *See* GLOBAL REPORTING INITIATIVE, *supra* note 86, at 14 (connecting increased awareness of corporate values and actions with a consumer decision to support a corporation).

94. *See MDG Report*, *supra* note 51, at 3 (discussing how missed opportunities to achieve sustainability only make the task harder).

95. *See* Romano, *supra* note 6, at 111 (indicating that a set of international

only articulated broadly sweeping, idealistic goals and vague plans of action that plainly appeal to any person<sup>96</sup> without demanding any change of perspective. Currently, sustainable development goals are now as they have always been: distant, utopian ideals.

### *B. Elements of a New Approach*

The key to making the world “feel the burn”<sup>97</sup> toward sustainable development is to allow each individual upon whom the implementation of sustainability relies to have a hand in developing the solution. I propose that in order to achieve sustainability, the system must be inverted, allowing the plan of action to originate at the grassroots level. After all, the ultimate burden rests on individuals to use more sustainable resources and to implement sustainability in their everyday lives. To initiate this process, the U.N. must focus on 1) public awareness and sustainability education<sup>98</sup> and 2) rebuilding the social capital that has deteriorated over the past few decades.<sup>99</sup>

#### *1. Education*

The need to educate the public cannot be emphasized enough if global sustainability is to be achieved.<sup>100</sup> The Declaration of the U.N. Conference on the Human Environment acknowledged this need when it introduced environmental preservation as an international concern.<sup>101</sup> In Stockholm, the UNEP singled out the younger generation’s education in

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sustainability standards has yet to be developed). *But see* Donald A. Carr & William L. Thomas, *Devising a Compliance Strategy Under the ISO 14000 International Environmental Management Standards*, 15 PACE ENVTL. L. REV. 85, 140–41 & n.133 (1998).

96. *See supra* Part II.A–D.

97. *Globalisation and the Environment, supra* note 3.

98. *See infra* Part III.B.1.

99. *See infra* Part III.B.2.

100. *See* Romano, *supra* note 6, at 117 (explaining that education is an essential ingredient to achieving sustainable development). Romano’s article implies that public education would aid the U.S. Securities Exchange Commission in enforcing the sustainable development initiatives of corporations whose successes depend on the public self-interest. *Id.*

101. *See Stockholm Declaration, supra* note 12, at princ. 19.

environmental conservation as essential to ensuring environmentally “responsible conduct.”<sup>102</sup> In 1983, the U.N. echoed this notion with Resolution 38/161,<sup>103</sup> which acknowledged that youth are critical to shaping the way the WCED must operate to promote sustainability.<sup>104</sup> Involving and educating youth are essential to sustainability promotion, and the U.N. must appeal to younger generations in a way that will instill within them the values of environmental responsibility.<sup>105</sup>

The Brundtland Commission acknowledged in its 1987 report that education empowers a population to work for the interest of the greater unit.<sup>106</sup> It elaborated that education is one tool that states can implement to compensate for the self-interested nature of humans.<sup>107</sup> Specifically, education spotlights those who may currently be acting in the public interest.<sup>108</sup> Focusing on these actors illustrates that working for the improvement of society and future generations also fulfills the need to act in one’s own self-interest.<sup>109</sup>

Sustainability education has fallen short thus far, however, in spite of the acknowledgment of its importance. Agenda 21 proposes strengthening advisory bodies and encouraging public participation in discussions.<sup>110</sup> Although these public discussions will likely help, the public has no incentive to attend if it is unaware that it has a stake in long-term sustainability. As articulated by Agenda 21, building ties with media and entertainment would help promote sustainable development,<sup>111</sup> but in order for the media and entertainment industries to do so profitably, the public must demand such material. To foster

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102. *Id.*

103. 38/161, *supra* note 17, ¶ 9(a).

104. *See id.* (suggesting that to fulfill its terms, the Commission should “maintain an exchange of views. . . particularly [with the] youth” about the relationship between development and the environment).

105. *Id.* (implying that by maintaining an exchange of views, the youth will be instilled with the values of environmental sustainability).

106. The Brundtland Report, *supra* note 1, at ch. 2, ¶ 16.

107. *Id.* at ch. 2, ¶ 20.

108. *See id.* at ch. 2, ¶¶ 16, 20.

109. *Id.* at ch. 2, ¶ 20.

110. AGENDA 21, *supra* note 40, at 36.10.

111. *Id.*

public demand, the public must first be educated. In short, educational efforts must focus on leading people to want to live sustainable lives.

While the importance of public education has thus been emphasized, the U.N. offers no tangible guidelines for achieving the level of education necessary to implement sustainable development.<sup>112</sup> Agenda 21 proposes the creation of information databases and conducting case studies, but it does not elaborate on who should receive access to the information gleaned from these studies.<sup>113</sup> The Millennium Development Goals, the U.N.'s most recent sustainability-oriented resolution, does not mention education of youth as an essential element in sustainable development.<sup>114</sup>

While a pledge from world leaders to promote change in their home countries is a positive move toward sustainability, empowering citizens to demand change from the leaders who represent them and the businesses who serve them is an entirely different—and, I think, much more effective—means of ensuring change.<sup>115</sup>

The U.S. Securities and Exchange Commission has enacted measures to educate shareholders and investors in determining whether the corporation in which they are investing has “financial integrity,”<sup>116</sup> but this approach does not reach outside of the boundaries of the corporation. Reporting to the public, rather than reporting only to an inner circle of executives and investors, “empowers the public to create and enforce corporate norms”<sup>117</sup> rather than allowing the corporation to adopt its own

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112. United Nations Educational, Scientific, and Cultural Organization, *United Nations Decade of Education for Sustainable Development (2005–2014): International Implementation Scheme*, at 30 (Oct. 2005), available at <http://unesdoc.unesco.org/images/0014/001486/148654e.pdf>.

113. AGENDA 21, *supra* note 40, at 5.25–5.28.

114. See The United Nations Millennium Declaration, G.A. Res. 55/2, U.N. Doc. A/RES/55/2 (Sept. 18, 2000), available at <http://www.un.org/millennium/declaration/ares552e.htm>.

115. See Scherr & Gregg, *supra* note 4, at 463 (stating it is the citizen's job to focus his efforts on assuring that his government is accountable for the commitments it makes to other governments).

116. Romano, *supra* note 6, at 118–19.

117. *Id.* at 119.

standards or hide its practices from the general public. Upon discovery of an unsustainable corporate practice, an effective enforcement mechanism would be to hold as collateral a corporation's most vital asset: its patrons, who can choose to boycott the company or invest in a competitor.<sup>118</sup>

Optional educational programs, while helpful, are insufficient on their own. It is during the young, impressionable years that indoctrination of sustainable living is most effective, as children and youth are still forming their views of the world.<sup>119</sup> Through public schools, the government can transfer its role in promoting sustainable development to the masses, thereby achieving its goal more effectively.<sup>120</sup> Children in public schools must learn sustainable development and sustainable living as part of the state-mandated curriculum,<sup>121</sup> whether as a discrete subject or as a unit of a social studies course.<sup>122</sup> Over a child's student career, school classrooms can teach the student that she has a stake in the protection of the future world that she will inhabit.<sup>123</sup> Such a desire to act for her private self-interest can lead to action in the public interest, fulfilling the nation's duty of promoting and achieving a degree of sustainable development.<sup>124</sup>

A public school not only teaches its students what they need to know to pass a test, but it also teaches life lessons and plays a key role in the upbringing of future responsible adults.<sup>125</sup> Sustainability education must also be present in schools outside of the formal curriculum in order to instill in students the values

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118. *See id.*

119. Kids and Sustainable Living—Teaching Sustainability to Children, [http://www.small-farm-permaculture-and-sustainable-living.com/kids\\_and\\_sustainable\\_living.html](http://www.small-farm-permaculture-and-sustainable-living.com/kids_and_sustainable_living.html) (last visited Feb. 8, 2010).

120. Romano, *supra* note 6, at 93–94.

121. *Id.* at 119–20.

122. *See id.* at 120 (likening sustainability education to other subjects flexible enough to suit any level of academic sophistication, and which must be reinforced throughout the duration of education).

123. *See id.*

124. *Id.* at 119–20.

125. Steven D. Schafersman, *Teaching Morals and Values in the Public Schools: A Humanist Perspective*, Mar. 1991, <http://www.freeinquiry.com/teaching-morals.html>.

that will lead them to create a more sustainable world.<sup>126</sup> Among such values is the notion that the individuals of a population, and the population as a whole, should use only the resources that they need, allowing for the availability of the remaining resources to satisfy future needs.<sup>127</sup> This can easily be modeled for students through recycling rules and energy-efficient practices at the school itself. However sustainability education is to be achieved, it is element essential for any effective institutional framework aimed at achieving a goal that is so different from the present worldview.<sup>128</sup>

## 2. *Social Capital*

Social capital is another element necessary to achieve the goal of sustainable development, and is effectively produced through micro-level grassroots strategies.<sup>129</sup> The number of personal connections that an individual encounters daily has dwindled over the past decades.<sup>130</sup> Daily personal interactions between individuals are a factor conducive to building social capital, defined as “the glue that holds communities together.”<sup>131</sup> Social capital, when present, can be used to empower community members to adapt sustainability as a way of life.<sup>132</sup> It acts as a form of peer pressure toward an acceptable goal.<sup>133</sup> A sense of community builds as individuals work

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126. See Romano, *supra* note 6, at 119–20. Sustainability education allows pupils to understand the relationships among a spectrum of issues, including economic, social, and environmental ones. *Id.* at 120.

127. See *id.* at 119–20.

128. Cf. Robin Kundis Craig, *Valuing Coastal and Ocean Ecosystem Services: the Paradox of Scarcity for Marine Resources Commodities and the Potential Role of Lifestyle Value Competition*, 22 J. LAND USE & ENVTL. L. 355, 408–09 (2007) (stating that there is a present lack of awareness and education on public valuation of marine resources).

129. See Assadourian, *supra* note 11, at 152; Scott L. Cummings, *Community Economic Development as Progressive Politics: Toward a Grassroots Movement for Economic Justice*, 54 STAN. L. REV. 399, 461–63 (2001).

130. See Assadourian, *supra* note 11, at 154–55. As compared with social connections in 1985, the average American claims two “confidants” or fewer, versus the three claimed in the earlier study. *Id.* at 154–55.

131. See *id.* at 152, 154.

132. *Id.* at 152.

133. See The Brundtland Report, *supra* note 1, ¶ 20. Erik Assadourian likens this occurrence to the old notion of “keeping up with the Joneses;” only instead of competing

together, interact together, and get a true feel for the impact that they have outside of their own lives.<sup>134</sup>

Social capital consists of reciprocity and trust, which may be channeled to facilitate cooperation in order to achieve a mutual benefit among participants.<sup>135</sup> Reciprocity and trust are cultivated through daily personal connections, allowing a community to become something other than “just people living near each other.”<sup>136</sup> Civic engagement, which compels those living in the society to cooperate, cultivates trust and demands more on behalf of the community as a whole, rather than each individual demanding more for himself.<sup>137</sup>

Suburban sprawl is one aspect blamed for increased isolation, and within it, the decline in social capital as well.<sup>138</sup> Sprawl isolates people from their communities, as it requires longer commutes to urban employment centers and means more time spent alone in a car.<sup>139</sup> Additionally, residents of suburban communities divide their time between urban hubs and other suburban communities around the periphery, reducing their connectedness to and reliance on one single community.<sup>140</sup>

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to have the bigger, more expensive asset, the competition revolves around who effects the more negative ecological impact. See Assadourian, *supra* note 11, at 155.

134. See *id.* at 154.

135. Robert Putnam, *Bowling Alone: America's Declining Social Capital*, 6 J. DEM. 65, 67 (1995), available at <http://xroads.virginia.edu/~HYPER/DETOC/assoc/bowling.html>.

136. Assadourian, *supra* note 11, at 154. Social capital leads to civic engagement, as reciprocity is felt among the members of community, who in turn trust their community and are more prone to cooperate with each other. Kevin E. Davis & Michael J. Trebilcock, *The Relationship Between Law and Development: Optimists Versus Skeptics*, 56 AM. J. COMPARATIVE L. 895, 928–29 (2008). From a greater feeling of civic engagement grows a collective demand for an increase in the quality of community resources and a willingness to cooperate to build such resources. *Id.* at 929.

137. Davis & Trebilcock, *supra* note 136, at 928–29.

138. See Putnam, *supra* note 135, at 75 (noting that suburbanization has reduced the social connectedness of Americans).

139. Louis Uchitelle, *Lonely Bowlers Unite: Mend the Social Fabric; A Political Scientist Renews His Alarm at the Erosion of Community Ties*, N.Y. TIMES, May 6, 2000, at B9.

140. *Id.*

Social capital is vital to civic engagement.<sup>141</sup> Some credit “dense networks of interaction” for changing the motivation of one from the “I” to the “we.”<sup>142</sup> Without civic engagement, citizens of the state become passive and rely on whoever is willing to assert control.<sup>143</sup> With the destruction of social “rootedness,”<sup>144</sup> people have relocated from urban centers to suburban perimeters, and although homeownership has risen, social ties have become more avoidable as people have become more isolated and self-reliant.<sup>145</sup> With further sprawl and the consequential decrease in the amount of social connections, the individual considers himself as separate from the rest of the community.

The problem with such a void of social capital as it pertains to sustainable development is that limited resources are not consumed in a vacuum, and the overconsumption by one means a lack for another, either presently or in the future. Individuals must remain conscious of the greater community, and the first step toward this consciousness is knowledge of the community. Therefore, the U.N.’s approach toward sustainable development therefore must look to smaller communities to recreate a sense of social connectedness. This reinstated social capital will provide individuals with a personal stake in the common good, which will evolve into affirmative action for the present and future good of the community.<sup>146</sup>

Another byproduct of suburban sprawl is the loss of a “third place” or a neighborhood hangout.<sup>147</sup> These are useful tools to maintain social capital within a community and reinforcing community values.<sup>148</sup> To illustrate, writer Erik Assadourian

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141. See Putnam, *supra* note 135, at 65–66.

142. *Id.* at 67.

143. *Id.* at 65, 68.

144. *Id.* at 74–75.

145. See *id.* at 74–75 (bringing to light the availability of home and internet shopping, the popularity of supermarkets over corner stores, and the prevalence of home media and entertainment).

146. See Davis & Trebilcock, *supra* note 136, at 928–29.

147. See Assadourian, *supra* note 11, at 156.

148. See *id.* (explaining how these public structures are useful in educating the population by holding talks, sponsoring community events, and hosting speakers).

recalls coffeehouses and other locations that were used by early American patriots to discuss the revolution and form the foundation for a country.<sup>149</sup> Over the centuries, however, these “third places” have been replaced with “soulless franchises that are typically identical in design, lack local flavor, and rarely serve community needs.”<sup>150</sup> To ensure the success of local efforts to build social capital, the reestablishment of some form of these “third places” is essential, either actual or abstract, to provide a forum for discussing and reinforcing the community value of sustainability, as well as to incorporate sustainability into the mainstream.<sup>151</sup>

#### IV. ECOVILLAGES: A FLAGSHIP FOR THE NEW APPROACH

I propose a model for implementing sustainable development that is the converse of the current structure in place. Today, the U.N. drafts a “hard law” treaty or “soft law” commitment, and member states subscribe, promising to implement the necessary changes in their home countries.<sup>152</sup> This top-down policymaking model does not work in the complex reality of the world due to the highly intertwined nature of social, economic, and cultural relations.<sup>153</sup> Rather, there is a need for a network of diverse policymakers to implement true sustainability connected by a commitment to a common goal.<sup>154</sup> Indeed, prior to Johannesburg, U.N. Secretary General Kofi Annan admitted that the U.N. would be wise to nurture

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149. *Id.* at 156–57.

150. *Id.* at 156.

151. *See id.* at 156–57 (discussing how local businesses can host talks and eco-art exhibits that make sustainability “hip”); *infra* part IV.A. The businesses themselves can offer a model of sustainability to the communities they serve, and as they are locally run, they can seek to satisfy their business needs with the products of other locally run sustainable businesses. Assadourian, *supra* note 11, at 156.

152. *See generally* Roberto Andorno, *The Invaluable Role of Soft Law in the Development of Universal Norms in Bioethics*, UNESCO ONLINE (July 2007), <http://www.unesco.de/1507.html> (last visited Feb. 6, 2010). *See also* 38/161, *supra* note 17; *MDG Report*, *supra* note 51 (indicating commitments which member countries to the U.N. have pledged).

153. *See* Scherr & Gregg, *supra* note 4, at 438.

154. *Id.*

informal “coalitions for change” across the U.N.’s areas of governance.<sup>155</sup>

Another reason that this top-down policymaking model is ineffective is that governments do not consume nonrenewable resources. It is the people who make decisions to use resources, either on behalf of, or with the allowance of, their government. Therefore, the people should develop the strategy to responsibly use resources in order to ensure that the strategy’s workability and that the community understands the policy underlying it.

Based on these observations, the wealth of opportunities for sustainability education, and the building of social capital available through community-driven development, I suggest that the strategy for sustainable development be created and implemented at the grassroots level with the full support of the U.N. and its member states.

#### A. *An Ecovillage, Defined*

The term “ecovillage” may connote “hippie commune,” but the idea is actually much more prevalent in today’s societies than one might think.<sup>156</sup> In their true form, ecovillages embody the ideal of community-driven sustainable development.

An ecovillage is a cohousing community that generally has access to land surrounding the cohousing unit for agriculture, recreation, and preservation purposes.<sup>157</sup> Ecovillage communities encourage the mixed use of land for commercial, residential, and agricultural purposes.<sup>158</sup> They also promote the use of energy-efficient methods and structures to conserve the daily use of resources.<sup>159</sup> Many contain a cohousing unit and feature a “common house” for daily community activities, including meals and recreation.<sup>160</sup> These full-service, ecofriendly

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155. *Id.* at 439.

156. Assadourian, *supra* note 11, at 154 (enumerating the number of registered ecovillages in the world according to the Global Ecovillage Network).

157. See, e.g., Mark Fenster, *Community by Covenant, Process, & Design: Cohousing and the Contemporary Common*, 15 J. LAND USE & ENV. L. 3, 35–36 (1999) (describing the Ecovillage Cohousing Cooperative in Ithaca, NY).

158. *Id.* at 36.

159. See *id.* at 36–37.

160. *Id.* at 37.

communities aim to create a livable environment where human activities and development coexist with the natural world.<sup>161</sup> These living arrangements are not incredibly rare, either.<sup>162</sup> The Global Ecovillage Network cites the existence of 385 registered ecovillages.<sup>163</sup>

In practice, ecovillages are an effective way to live sustainably. For example, in the United Kingdom, a resident of the Findhorn Ecovillage has half of the “carbon footprint”<sup>164</sup> of a citizen of the United Kingdom living outside of the development.<sup>165</sup>

One illustration of a successful ecovillage in its pure form is the Los Angeles Ecovillage (LAEV).<sup>166</sup> In this particular community, fifty-five residents reside in two apartment buildings, and the residents live and work together in energy-efficient structures, produce their own food, and make sacrifices<sup>167</sup> in order to live greener lives.<sup>168</sup> Outside of the ecovillage, LAEV’s influence is evident in its public support for “green’ mayoral candidates,” as well as its activity in developmental and restoration projects.<sup>169</sup> LAEV has also spawned sustainable businesses that serve the Los Angeles area.<sup>170</sup>

A community-driven project, such as an ecovillage, integrates and reinforces sustainability education into every aspect of a participant’s life. Participants develop eco-friendly solutions to problems presented and educate other participants to ensure positive change. Children raised within these

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161. Assadourian, *supra* note 11, at 154.

162. *See id.*

163. *Id.*

164. *Id.* A person’s carbon footprint is the sum of all greenhouse gas emissions that were induced by that individual’s activities in a certain time frame. Michael P. Vandenberg, *Climate Change: The China Problem*, 81 S. CAL. L. REV. 905, 912 n. 33 (2008).

165. Assadourian, *supra* note 11, at 154.

166. *See id.* at 151–52.

167. *See id.* at 151 (explaining the availability of a rent reduction for residents who live without a car and instead rely on public transportation).

168. *See id.*

169. *Id.*

170. *See id.* (detailing a bicycle repair shop run by LAEV).

communities grow up immersed in the values of sustainability.<sup>171</sup> Through the community goal of sustainability, social capital is cultivated and reinforced on a daily basis.<sup>172</sup>

Ecovillages can play a critical role in the education of the public on sustainable development. The Farm, an ecovillage in Tennessee, hosts workshops open to the public for those who care to learn how to live sustainably in a more familiar environment.<sup>173</sup> The Farm also provides limited internships for those who want to live in a sustainable environment for an extended period of time.<sup>174</sup> These internships can play a key role in educating young developers and architects who are searching for an experience in sustainable development before entering the professional world.<sup>175</sup> These educational opportunities connect ecovillages with the traditional community, and they build reciprocity and trust between populations.

Localizing economic activity is one value embraced by ecovillages that builds social capital and creates awareness about the importance of sustainability.<sup>176</sup> Local businesses keep jobs within the communities, increase community interactions, offer employment to those within the community who will, in turn, support the local business, and keep profits and other benefits within the local economy.<sup>177</sup> Local food production practiced by ecovillages<sup>178</sup> is a “key sector of the economy ripe for localization.”<sup>179</sup> Interstate transportation becomes unnecessary, thereby reducing dependency on oil,<sup>180</sup> and the

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171. See Peta Evans, *Ecovillages Prove to be Sustainable*, EPOCH TIMES, Feb. 13–19, 2008, available at [http://epoch-archive.com/a1/en/au/nnn/2008/02-Feb/Edition%20160/Edition%20160\\_page03.pdf](http://epoch-archive.com/a1/en/au/nnn/2008/02-Feb/Edition%20160/Edition%20160_page03.pdf) (describing how the children raised within the Moora Moora Co-operative Community outside of Melbourne, Australia gain social and life skills and are surrounded by sustainable practices).

172. Putnam, *supra* note 135, at 66; Davis & Trebilcock, *supra* note 136, at 928–29.

173. Assadourian, *supra* note 11, at 162.

174. *Id.*

175. Interview with Laura Carroll, Resident Intern, Earthaven Ecovillage, in Asheville, N.C. (Jan. 4, 2009).

176. See Assadourian, *supra* note 11, at 157.

177. *Id.*

178. *Id.*

179. *Id.*

180. *Id.* Eating locally can reduce a single person’s carbon footprint by about 2,000

food is healthier as well.<sup>181</sup> Local markets increase community pride and create social capital.<sup>182</sup> Additionally, local food production can realistically supply a significant portion of the food that a community consumes.<sup>183</sup> The collapse of the Soviet Union and the long-standing U.S. trade embargo on Cuba<sup>184</sup> led to Cuba's need to produce its own food on a local level.<sup>185</sup> Today 25,000 tons of food is produced annually from Havana's 26,000 local farms and gardens.<sup>186</sup>

Local food production can also educate children who live in traditional communities on the importance of sustainability. At Sanchez Elementary School in Austin, Texas, the "Get Going, Get Growing!" project in partnership with the 4-H CAPITAL Urban Youth Development program offers students an important lesson on local farming.<sup>187</sup> The school houses a garden where students plant and care for their crops throughout the year.<sup>188</sup> The students also learn to value social capital through the program, as they are given an opportunity to attend state and local events to celebrate sustainable achievements.<sup>189</sup>

The Texas Department of Agriculture has acknowledged the importance of this program and others like it through its Urban School Agricultural Grant Program, offering endowments of

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kilograms per year. *Id.*

181. See Assadourian, *supra* note 11, at 157.

182. See *id.* at 157–59 (discussing how local farming increases community interactions).

183. See *id.* at 158.

184. The tightening of the U.S. trade embargo against Cuba in 1989, coupled with the dissolution of the Soviet Union in the early 1990s, cut off the oil supply to Cuba and devastated the Cuban economy. Patricia M. DeChristopher, *Flexibility, Efficiency, Integration: Local Lessons In Sustainable Development*, 16 COLO. J. INT'L ENVTL. L. & POL'Y 157, 171–72 (2005). For more information on the Cuban embargo and Cuba's consequential implementation of sustainable urban development, see *id.* at 170–88.

185. *Id.* at 171, 174.

186. Assadourian, *supra* note 11, at 158–59.

187. Press Release, Tex. Dept. of Agriculture, Commissioner Staples Announces Urban School Grant Awards (Nov. 14 2007) available at [http://www.agr.state.tx.us/agr/media/media\\_render/0,1460,1848\\_17053\\_17780\\_0,00.html](http://www.agr.state.tx.us/agr/media/media_render/0,1460,1848_17053_17780_0,00.html).

188. See *id.* (describing the "Get Going, Get Growing!" program which provides children with hands-on agricultural experience).

189. See *id.*

\$2,500 for the continuation of such projects.<sup>190</sup> The Urban School Agricultural Grant Program, as well as support from other non-governmental organizations and government branches, are vital for local sustainable agriculture to become a reality.<sup>191</sup> Ecovillages need assistance from the state and its leaders in order to increase sustainability awareness in towns and larger municipalities.<sup>192</sup> It is these state and community-level programs that cultivate leadership within communities and provide the sustainable development model for the local area.<sup>193</sup>

*B. Modeling the Ecovillage in Traditional Communities*

Elements of community-driven development may be implemented into a less foreign and yet sustainable way of life. One alternative exists in co-housing communities.<sup>194</sup> In these communities, building social capital is the chief aim<sup>195</sup> and sustainability is a beneficial byproduct.<sup>196</sup> Neighbors live in close proximity to each other, eliminating the need for cars.<sup>197</sup> A clubhouse is the crux of a co-housing development, providing a common space for dinners with neighbors and other activities that build social capital between residents.<sup>198</sup> A similar idea has been implemented in Papamoa, New Zealand.<sup>199</sup> In Papamoa, a new development was created to emphasize walking instead of driving, amenities are located near residences, and a village-

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190. *Id.*

191. Assadourian, *supra* note 11, at 159.

192. *See id.* at 162. Some ecovillages and other communities are getting involved in local politics to increase sustainability awareness. *Id.* at 163. For example, Project Laundry List is an initiative that helps coordinate appeals to homeowners' associations to allow for the use of a clothesline in lieu of a much less sustainable electric dryer. *Id.*

193. *Id.* at 152.

194. *Id.* at 154.

195. *Id.*

196. *See id.* (describing how, because of the high-density housing nature of these highly interactive communities, more space is left open for recreation).

197. *See id.*

198. *Id.*; *see also supra* Part III.B.2.

199. Juliet Rowan, *Walking the Walk to Make New Friends*, N.Z. HERALD, Sept. 22, 2008, at A07.

type atmosphere encourages interaction.<sup>200</sup> Developments such as this are gaining popularity, particularly as the “green” movement gains steam in urban settings.<sup>201</sup> Grassroots movements are thus critical in bringing the principles upon which ecovillages are founded into the mainstream.<sup>202</sup>

Communities need not undergo dramatic reorganization in order to implement aspects of the community-driven ecovillage model. Assadourian writes that “many of the projects that [ecovillages] implement are readily replicable by any group of like-minded neighbors.”<sup>203</sup> Ideas demonstrated by ecovillages are translatable to any neighborhood today through ongoing neighborhood communications aimed at reinforcing “green” thinking and the implementation of measures that may lead to sustainability.<sup>204</sup>

No dramatic reorganization was necessary in Seattle, Washington, where sustainable efforts reinforced by a city grant were devoted to neighborhood-based, anti-climate change efforts.<sup>205</sup> In Lyndney, England, residents created a social group called the Community Energy Club which centers its activities around sustainability efforts.<sup>206</sup> No drastic lifestyle change was necessary to implement this measure—only a change in the way of thinking of its members, reinforced through the social capital that accumulates as a result of membership in any social group.<sup>207</sup>

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200. *Id.*

201. *Id.*

202. See Avi Brisman, *Toward A More Elaborate Typology of Environmental Values: Liberalizing Criminal Disenfranchisement Laws and Polices*, 33 NEW ENG. J. ON CRIM. & CIV. CONFINEMENT 283, 372 (2007) (discussing the importance of public participation in the governmental decision making process, calling it “integral to the concept of sustainable development”).

203. Assadourian, *supra* note 11, at 154.

204. See *id.* (describing how “ad hoc ecovillages,” such as the neighborhood of Phinney Ridge in Seattle, Washington, may be created through local gatherings and environmental conservation groups).

205. *Id.*

206. *Id.* at 152. The Community Energy Club has accrued over 100 members and spared the globe of approximately 4,000 tons of CO<sub>2</sub> emissions since the projects were first implemented. *Id.*

207. *Id.*; see *supra* Part III.B.2 (discussing how social capital is created and maintained).

Another alternative is the “eco-municipality,” as illustrated in Overtonea, Sweden.<sup>208</sup> Eco-municipalities are developed once a city recognizes a need for sustainability. These are cooperative efforts between citizens, NGOs, and municipal officials that create a plan of action to implement long-term sustainability within a community.<sup>209</sup> Unlike pure ecovillages who establish themselves separately from a municipality, these structures involve municipal governments, businesses, and traditional households that follow a set of ordinances to promote sustainable practices.<sup>210</sup> Eco-municipalities demonstrate that sustainable development can be effectively implemented on a larger scale and in a more familiar urban environment than ecovillages.<sup>211</sup>

### C. Community-Driven Development in Developing Countries

Community-driven development based on the ecovillage model may also be implemented in developing countries to ensure long-term sustainability as these countries modernize. This strategy empowers communities that are most impacted by development efforts to determine how financial aid will be spent.<sup>212</sup> As a consequence of learning together the means of sustainable development, which is put into action by working and thinking together, social capital accrues. A case study of the successful use of sustainability education and social capital through community-driven development is found in Nigeria and

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208. Assadourian, *supra* note 11, at 164.

209. *Id.*

210. Sustain Dane, *Ecomunicipalities: What Are They?*, [http://sustaindane.org/Pages/ecomunicipality\\_what.htm](http://sustaindane.org/Pages/ecomunicipality_what.htm) (last visited Feb. 6, 2010).

211. *See id.* (discussing how ecomunicipalities host healthy local economies that rely on local business, grow local food, and undertake community recycling initiatives). Some of these communities have reduced fossil fuel use between forty and ninety-nine percent over periods of five years or more. *Id.*

212. *See* Assadourian, *supra* note 11, at 160. With community-driven development efforts, the recipients of aid are allowed to set their own priorities regarding how the aid will be used. *Id.* These efforts are initiated by the people directly or by NGOs that provide the aid. *Id.* In Zambia, for example, a wildlife conservation organization offered development money to communities to promote farming and other more sustainable ways of living as an alternative to poaching. *Id.* Fourteen years later, this program reaches over 35,000 people. *Id.*

its program with the World Bank.<sup>213</sup> Although the World Bank's Local Empowerment and Environmental Management Project (LEEMP) targets poverty reduction, a lesson in sustainable development to the community is unavoidable.<sup>214</sup> The program empowers grassroots communities to utilize authority to direct developmental and agricultural projects under the guidance of the government.<sup>215</sup> Through the LEEMP, communities are educated first-hand about the implementation of sustainability in their area.<sup>216</sup> Because the individuals in the communities are not only directing, but are directly affected by, their own developmental decisions, the people of the community are more concerned with the security of resources for the future.<sup>217</sup> This success is not unique to one community—nine African states, ninety-six local government areas, and 1,300 communities have seen results from this program.<sup>218</sup>

Community-driven development may be used to develop successful sustainable solutions to other concerns that developing countries may have. For example, the task of rural electrification in sub-Saharan Africa is currently at the forefront of the World Bank's financing concerns.<sup>219</sup> The lack of an adequate power sector in this region has impeded the economic growth of the continent, causing, on average, fifty-six days of blackouts each year.<sup>220</sup> Currently, less than twenty-five percent of sub-Saharan Africa has access to electricity.<sup>221</sup> Regional electricity projects are key here, as they would allow each region to exploit renewable energy sources unique to its geographical

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213. Onyebuchi Ezigbo, *1,300 Communities Benefit from FG's Poverty Alleviation Projects*, THIS DAY (Nig.), July 28, 2008, <http://www.thisdayonline.com/nview.php?id=118077>.

214. *Id.*

215. *Id.*

216. *Id.*

217. *See infra*, Part III.B.1; *see* Assadourian, *supra* note 11, at 160 (discussing the benefits of community-driven development).

218. Ezigbo, *supra* note 213.

219. Zephania Ubwani & Irin Sakwari, *Africa: Solve Power Woes Says World Bank*, CITIZEN (Dar Es Salaam), June 4, 2008, <http://allafrica.com/stories/200806040510.html>.

220. *Id.*

221. Khadija Sharife, *Damnation for Africa's Big Dams?*, PAMBAZUKA NEWS, July 30, 2009, <http://pambazuka.org/en/category/panafrican/58092>.

area.<sup>222</sup> The lack of any electric infrastructure in these regions provides a “clean slate” upon which populations may be educated as to the importance and practicality of sustainable energy sources, thereby empowering the community itself to decide the most sustainable solution. The process of bringing electricity to communities within a certain region would serve to build and reinforce social capital within these communities, which would further be bolstered by pride in the knowledge that the source of energy is truly local.

To ensure the success of “green” energy production in sub-Saharan Africa, however, the affected community must truly drive development and make informed decisions about what energy sources should be utilized. The African Development Bank has endorsed the view that

[p]eople often do not care what energy systems [sic] is in place so long as the service needs are met. Awareness of the potential and types of technologies that can be used by communities then becomes less of a requisite and developing local capacity for assessment, designing, developing, installing operation and maintenance takes a more centre stage.<sup>223</sup>

This mindset discounts the capacity of local residents to understand environmental sustainability and suggests that a local population should fully rely on a larger, more general entity to decide what would best fulfill the energy needs of its specific region with even more specific, exploitable, and nonrenewable resources.<sup>224</sup> However, armed with education on sustainability<sup>225</sup> and the practical knowledge of the community’s most reliable renewable resources, local residents and leaders are aptly situated to design and develop a solution to their unique situation.

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222. See Ubwani & Sakwari, *supra* note 219 (discussing the World Bank’s emphasis on developing the power sector based on regional renewable energy sources, such as hydroelectric power in Ethiopia).

223. Daniel Theuri, *Scaling up Access to Energy Agenda: Decentralized Small Hydropower Schemes in Sub Sahara Africa*, FINESSE NEWSLETTER, AFRICAN DEV. BANK, available at [http://finesse-africa.org/newsletter/200604/hp\\_africa.php](http://finesse-africa.org/newsletter/200604/hp_africa.php).

224. See *id.* (discussing a vast array of region-specific nonrenewable resources, and how each region’s electrification plan may depend on what sources are available).

225. See *supra* Part III.B.1.

This local component is lacking in Kenya and Uganda, where the construction of massive hydroelectric dams as the means to generate electricity has proven unreliable due to extreme irregularities in rainfall.<sup>226</sup> These projects are funded and driven by outside financial institutions<sup>227</sup> that merely seek a monetary return on “green” investments, and are controlled by political elites<sup>228</sup> who fail to consult with the local farmers and residents affected by the damming of major rivers and lakes.<sup>229</sup> Local populations have effectively been ignored in developing the solution to their own sustainability needs.

Nor do these massive hydroelectric projects adequately serve the communities they burden.<sup>230</sup> Rather, these dams provide electricity for foreign-owned industry at the expense of local farmers and communities.<sup>231</sup> All that a Northern Kenyan population of 300,000 realizes from one dam in Ethiopia is a reduction in food security, the destruction of local business, and the disruption of an ecosystem that supports a diverse animal population.<sup>232</sup> Although “green,” these projects are simply unsustainable<sup>233</sup> due to a failure to educate and involve the local

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226. *Country Set to Tap Power from Renewable Energy*, THE NATION/ALL AFRICA GLOBAL MEDIA, July 6, 2009, available at <http://www.geni.org/globalenergy/library/technical-articles/generation/general-renewable-energy/all-africa-global-media/country-set-to-tap-power-from-renewable-energy/index.shtml>; Sharife, *supra* note 221. Drought and erratic rain have made hydroelectric generation unworkable in the area. *See id.*

227. *Id.*; *Environment Group Calls to Suspend Funding of Ethiopia's Dam*, MCCLATCHY-TRIBUNE REG'L NEWS, May 8, 2009 [hereinafter *Environment Group*], available at <http://www.geni.org/globalenergy/library/technical-articles/generation/hydro/mcclatchy-tribune-regional-news/environment-group-calls-to-suspend-funding-of-ethiopia%27s-dam/index.shtml> (naming the African Development Bank and the World Bank as financial backers of large hydroelectric generation projects).

228. Sharife, *supra* note 221.

229. *Environment Group*, *supra* note 227; David Cronin, *Europe: Aid for Ethiopian Dam Challenged*, INTER PRESS SERVICE NEWS AGENCY, Jan. 26, 2008, available at <http://ipsnews.net/africa/nota.asp?idnews=40938>.

230. Sharife, *supra* note 221.

231. *Id.*

232. *Environment Group*, *supra* note 227; *European Bank Withdraws Funding from Ethiopia's Dam*, ABBAY MEDIA, June 5, 2009, <http://abbaymedia.com/News/?p=2543>.

233. *See* Sharife, *supra* note 221 (quoting Professor Thayer Scudder, the world's leading expert on dams and development, as stating that “there is nothing sustainable

population on developing the solution to electrification that serves the area it burdens.

Another disadvantage to the current approach to electrification projects in sub-Saharan Africa is that it fails to build, and perhaps even destroys, the social capital that is vital to long-term sustainability.<sup>234</sup> Reliance on outside investors and developers and the discounting of the local population's potential to direct its own plan for sustainability counteracts community connectedness efforts. Residents of the communities making sacrifices in the name of "green" energy projects fail to see the benefits,<sup>235</sup> thus fostering hostility toward these projects from the local residents who could possibly learn a lesson in sustainability and renewable energy.<sup>236</sup> Projects that build social capital and connectedness, developed by the local community for the local community, would empower residents to justify making necessary sacrifices in exchange for the greater goal of truly sustainable electrification.<sup>237</sup>

In response to the unreliability of hydroelectric generation, Kenya has turned to renewable energy sources such as geothermal energy, wind, biofuel, and even solid waste.<sup>238</sup> The taskforce for these renewable projects includes Kenyan political elites,<sup>239</sup> the ministers for Energy, Industrialisation,

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about large dams at all").

234. See *supra* Part III.B.2 (defining social capital and describing how it is cultivated).

235. *Environment Group*, *supra* note 227; Sharife, *supra* note 221.

236. See Sharife, *supra* note 221 (discussing the negative effects of water shortages and reduced agricultural production endured by many African residents as a result of the effect of drought on hydroelectric generation projects); see also Assadourian, *supra* note 11, at 151–52 (suggesting that communities greatly benefit from working together to plan and implement sustainable and renewable energy products).

237. Assadourian, *supra* note 11, at 151–52; see *supra* Part III.B.2.

238. *Country Set to Tap Power from Renewable Energy*, NATION/ALL AFRICA GLOBAL MEDIA, July 6, 2009, available at <http://www.geni.org/globalenergy/library/technical-articles/generation/general-renewable-energy/all-africa-global-media/country-set-to-tap-power-from-renewable-energy/index.shtml> [hereinafter *Country*]; *Geothermal Key to Local Power Needs*, NATION/ALL AFRICA GLOBAL MEDIA, Oct. 9, 2008, available at <http://www.geni.org/globalenergy/library/technical-articles/generation/geothermal/all-africa-global-media/geothermal-key-to-local-power-needs/index.shtml> [hereinafter *Geothermal*].

239. *Country*, *supra* note 238. Such political elites include the Prime Minister of

Environment and Agriculture, Kenya Private Sector Alliance and Association of Large Power Consumers, and the National Environmental Management Authority.<sup>240</sup> This task force is a step in the right direction, because it is made up of those who have a stake in the welfare of Kenya, and who are well-situated to garner any necessary financial support. However, the task force must also involve the local residents that internalize the costs in both the design and implementation of electrification measures, and ensure delivery of the benefits of such efforts to meet the local community's energy needs. A U.N.-supported local approach emphasizing education and social capital is key in the development of a sustainable energy sector in sub-Saharan Africa.

The first step in this process is U.N. education of communities on available nonrenewable energy sources, how these sources may be used to achieve the goal of electrification, and the importance of responsible use of such resources. An educated community is aptly situated to develop sustainable energy projects, as the community has a stake in truly sustainable use of renewable energy sources other than the monetary return on its investment.<sup>241</sup> Armed with such knowledge, the community will be empowered to decide which energy sources it can afford to most efficiently and sustainably exploit, and to what extent it may do so.

Second, the local community must be fully supported by world and national leaders in the implementation of its sustainability plan. This support must take two forms: education of world leaders on the need to involve local communities in sustainable development efforts,<sup>242</sup> and monetary support for renewable energy projects in developing local communities.<sup>243</sup> The U.N.'s shift in focus from "mega-

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Kenya, his permanent secretary, and two of his deputies. *Id.*

240. *Id.*

241. *But see* Sharife, *supra* note 221 (discussing outside investors' monetary motivations in "green" energy).

242. *See* Assadourian, *supra* note 11, at 164–65 (discussing the potential impact of "ecomunicipalities" at the community level).

243. *See* Ubwani & Sakwari, *supra* note 219 (stating that "Africa's most cost-effective energy resources are concentrated in countries that are remote from major

conference”-type problem solving sessions<sup>244</sup> to local ecovillage-type efforts to solve the problem of sustainable development may satisfy the former requirement. Once world and national leaders know the importance of looking to community-driven development efforts, the U.N. and partnering NGOs may begin to develop a solution to the need for funding<sup>245</sup> through world awareness and effective “hard law” commitments. One such measure that may improve the funding problem is a U.N. carbon trading initiative embodied by a hard law treaty such as the Kyoto Protocol, wherein a subscribing developed country can offset its carbon dioxide emissions by funding clean energy projects in a developing region.<sup>246</sup> Foreign and local private investors may also subsidize these projects, checked by initiatives such as the GRI,<sup>247</sup> which will be made more effective through U.N. efforts to educate and build social capital via ecovillages and community-driven development all around the world.

*D. The Role of the U.N. in the New Model*

Although grassroots movements are key to the effective implementation of sustainable development, this does not mean that the United Nations has no business in promoting sustainable development. National and global level initiatives are essential for building a more sustainable world.<sup>248</sup> One such potentially successful initiative is the COMPACT Program (Community Management of Protected Areas Conservation).<sup>249</sup> This program provides grants of up to \$50,000 to communities that are engaging in sustainable projects that enhance the community while remaining sensitive to the surrounding

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centers of demand, and too poor to . . . finance . . . [development]”).

244. See Kraska, *supra* note 13, at 259–62 (discussing the megaconference era).

245. See Assadourian, *supra* note 11, at 160–62 (discussing various community development financing methods that have been used to promote sustainability). In some cases, the use of local nonrenewables in energy production is less expensive than fossil fuel production. *Geothermal*, *supra* note 238.

246. *Out of Africa: Firms Address Climate Change*, BUS. & ENV'T, Feb. 2009, at 3.

247. See *supra* Part III.A.

248. Assadourian, *supra* note 11, at 152.

249. *Id.* at 160.

environment.<sup>250</sup> While criticism in the past has surrounded the U.N.'s practice of offering money grants to countries needing to implement programs based on higher sustainability,<sup>251</sup> an increased focus on education and awareness of the importance of sustainable development will improve the efficiency with which the money is implemented in these projects.<sup>252</sup>

The U.N. may also subsidize educational efforts regarding the necessity for sustainability projects done by ecovillages. As of today, public impressions of ecovillages may be low or negative.<sup>253</sup> The U.N., as the international political structure of the world, has resources and media relations that may be used to positively affect the public perception of sustainable efforts.<sup>254</sup> The U.N.'s role is also critical in educating national policymakers regarding the benefits of local efforts and in challenging them to mobilize both their local governments as well as the communities which they govern. This, Assadourian writes, is the "key [to] mobilizing [sustainable] communities around the world."<sup>255</sup> Educated member states may issue press releases and official statements that fully advocate sustainable development to their citizens, feature efforts on news broadcasts, aid advertisements issued by NGOs, and make other efforts to make sustainability mainstream.

Although relatively small and local in nature, ecovillages, co-housing communities, and other similar developments should not be overlooked by national governments with regard to their ability to address global environmental problems.<sup>256</sup> In fact, they should be used by the U.N. to implement sustainable

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250. *Id.*

251. *See supra* Part III.A (discussing criticism of the Millennium Development Goals).

252. *See supra* Part III.B.1 (discussing the importance of public education in promoting sustainable practices among businesses and governments).

253. *See, e.g.,* Dean Schabner, *Hippie Communes Live On*, ABC NEWS, July 22, 2004, <http://abcnews.go.com/US/Story?id=96711&page=1> (likening ecovillages to the popular commune stereotype that gained attention in the 1960s for illegal drug use and other socially rebellious behavior).

254. George Russell, *Seal the Deal or Sell It? U.N.'s High-Pressure Green Game*, Nov. 19, 2009, <http://www.foxnews.com/story/0,2933,575758,00.html>.

255. Assadourian, *supra* note 11, at 165.

256. *Id.* at 164.

development through the social capital and education that they may foster. Ecovillages need assistance from U.N. member states because there are two significant obstacles to the establishment of these communities: 1) overcoming resistance from local authorities regarding conventional building codes, and 2) financing the construction of more expensive, ecologically sound structures for ecovillage inhabitants to occupy.<sup>257</sup>

For example, in British Columbia, rural ecovillages have had the support of the government since 2006 with the establishment of ecovillage zoning.<sup>258</sup> The new zoning regulations allow for higher density housing,<sup>259</sup> leading to greater potential in fostering the community and building social capital in areas that were once “rural residential.”<sup>260</sup>

The United Kingdom has taken a step forward in recognizing these sustainable efforts by passing the Sustainable Communities Act, which connects local councils with the Secretary of State, thereby increasing the councils’ accessibility to national resources.<sup>261</sup> The act also provides for the transparency of government through reports detailing expenses made by local authorities.<sup>262</sup> Under this law, the Secretary of State has a duty to assist local communities to implement sustainable development programs chosen by the local population.<sup>263</sup>

Before these initiatives can work, however, the U.N. must prescribe and articulate a set of standards regarding sustainable development with which the communities of the world should conform their efforts.<sup>264</sup> Romano describes the ideal set of

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257. Fenster, *supra* note 157, at 36.

258. Michael Hale, *How Yarrow Ecovillage Got “Ecovillage Zoning,”* ECOVILLAGES NEWSLETTER, available at [http://www.ecovillagenews.org/wiki/index.php/How\\_Yarrow\\_Ecovillage\\_Got\\_”Ecovillage\\_Zoning”](http://www.ecovillagenews.org/wiki/index.php/How_Yarrow_Ecovillage_Got_”Ecovillage_Zoning”) (last visited Feb. 8, 2010).

259. *Id.*

260. *See id.* (discussing how the ecovillage no longer fits into the “Rural Residential” zoning category since it was planning cottage industries, businesses, and a learning center, among other projects).

261. Sustainable Communities Act, 2007, 2 Eliz., c. 23 (Eng.) available at [http://www.opsi.gov.uk/acts/acts2007/ukpga\\_20070023\\_en\\_1](http://www.opsi.gov.uk/acts/acts2007/ukpga_20070023_en_1) (last visited Feb. 8, 2010).

262. *Id.* § 6.

263. *Id.* § 1(4).

264. *See* Romano, *supra* note 6, at 111–12 (discussing the use of corporate

standards as “objective, precise, exclusionary, and globally consistent.”<sup>265</sup> Broadly sweeping, overly idealistic declarations such as Agenda 21 do not fit this criteria.<sup>266</sup> While they provide a starting point from which individuals in communities may begin to rethink their lifestyles, and offer the U.N. some good publicity, they are too abstract to be unambiguous.<sup>267</sup> Nor do these standards have the precision necessary for a promulgated standard to be effective.<sup>268</sup> Because such declarations are so large in scale, they do not, and cannot, address community-specific problems or provide local solutions to the problem of unsustainability.<sup>269</sup> Thus, attempts to use global conferences and broad declarations to plan for sustainable development will deteriorate to discussions oriented around local problems, as occurred in Johannesburg in 2002.<sup>270</sup> The U.N. must promulgate the specific goals of sustainability and require member states and municipal organizations to develop plans of action. These plans must welcome ecovillages and variations thereof to gain insight as to how sustainability may be achieved in a given locality. The U.N.’s sustainability statement must insist that member states rely on community-driven efforts, such as ecovillages, ecomunicipalities, and NGOs, to inform local policy and implement effective outreach programs for community education and the building of social capital.

A treaty modeled after the Kyoto Protocol could offer narrower and more objective standards. The Protocol prescribed an “emission limitation” and “reduction commitment” for each signatory country.<sup>271</sup> Strict emission allotments can then be further allotted among government subdivisions of the member

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disclosure as a means to enforce sustainability, and the necessity for an international standard to compare sustainability efforts).

265. *Id.* (footnotes omitted).

266. DeChristopher, *supra* note 184, at 182.

267. *See id.* (discussing how declarations such as Agenda 21 are helpful to initiate discussion, but have little practical application thereafter).

268. Romano, *supra* note 6, at 111–12.

269. DeChristopher, *supra* note 184, at 182.

270. *See* Kraska, *supra* note 13, at 271–72 (discussing the effects of “conference fatigue” and how the megaconferences were deteriorating into “sound-bite opportunities without lasting effects on policies or the quality of the environment”).

271. Kyoto Protocol, *supra* note 60, art. 2–3, annex B.

states, creating a community effort, not simply a national pledge. In taking some of the pressure off of national governments to realize the emissions reduction, the treaty should emphasize the importance of educating local communities, note the importance of local programs already in place, and rely on their smaller governmental counterparts to actually implement sustainability.

To avoid the Kyoto problem<sup>272</sup> and to ensure that the United States and other democracies are compelled to subscribe to a hard law treaty, the U.N. must refocus on public education and awareness of the need for sustainability. Through incentives like money and perhaps national and international recognition of outstanding efforts toward sustainability, education may become a part of school curricula<sup>273</sup> and receive critical media attention. Focus must also go to those initiatives, such as ecovillages, that are already educating the communities in which they operate and rebuild the social capital that has been lost.<sup>274</sup> With enough time and energy directed toward raising awareness among the smaller communities, individual citizens of democracies will be empowered to demand cooperation from their governments.<sup>275</sup>

To ensure that each community adopts the ideal model tailored to its geographical and cultural needs, the U.N. must also publicly endorse those ecovillages that provide strong examples of sustainability. This can be done by acknowledging community-driven efforts that have either met the promulgated standards or have put forth considerable efforts to rebuild lost social capital and educate their communities.

Once the public is enlightened, the idea of sustainable development may be enforced through the measures indicated by Agenda 21, such as media and entertainment,<sup>276</sup> as well as

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272. See *supra* Part II.E (discussing America's resistance to signing the Protocol).

273. Romano, *supra* note 6, at 119–20; see Sustainable School Project, *About the Sustainable School Project*, available at <http://www.sustainableschoolsproject.org/about/> (discussing “a dynamic new model for school improvement”).

274. See *supra* Part IV.A. (describing the impact that ecovillages have on their surrounding communities).

275. See *supra* Part II.E.

276. AGENDA 21, *supra* note 40, at 36.10; see Assadourian, *supra* note 11, at 156–57 (discussing the use of talks, eco-art exhibits, educational displays and other forms of

through a renewed commitment to education<sup>277</sup> and social capital created through “peer pressure” by renewed social interactions.<sup>278</sup>

## V. CONCLUSION

Through this proposal, I suggest that the U.N. is not faced with as daunting of a task as appears in implementing sustainable development. The implementation structure must simply be reversed, and sustainability strategies must be developed at the community level. The true test arises for those upon whom the ultimate task of ensuring the availability of resources for future generations lies.<sup>279</sup> An ecovillage contains many of the elements necessary for the success of a sustainable society,<sup>280</sup> and due to its widespread presence around the globe,<sup>281</sup> it is already working toward the goal of environmental preservation in numerous ways. Whether used for the education of developers, builders, or any other user of resources, community-driven efforts implement sustainability in ways that may be imitated on any scale, and the value of these measures cannot be overstated.<sup>282</sup> Community-driven efforts are also a powerful source of social capital that reinforces the ideal of greener living on a personal level.<sup>283</sup> With the unequivocal support of local, national, and world governments and the promulgation of objective and universal standards to aid efforts toward the implementation of sustainability, the goal which has eluded the U.N. for over twenty-five years<sup>284</sup> may be closer to attainment.

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entertainment as useful ways for the creation of social capital and as meaningful educational tools).

277. See Assadourian, *supra* note 11, at 155–56 (discussing the institutionalization of educational efforts and providing an ecocentric curriculum).

278. *Id.* at 155 (discussing the notion of “keeping up with the Joneses”).

279. The Brundtland Report, *supra* note 1 (defining sustainable development).

280. See *supra* Part IV.A.

281. Assadourian, *supra* note 11, at 154 (explaining the abundance of ecovillages and similar communities).

282. *Id.* at 164; see *supra* Part IV.B–C.

283. Assadourian, *supra* note 11, at 152.

284. 38/161, *supra* note 17 (addressed to the General Assembly of the United Nations in 1983, over twenty-five years ago).