Young People’s Views on the Importance of Conserving the Environment

Rawatee-Maharaj-Sharma

Science curricula at all levels of the education system in Trinidad and Tobago stress the importance of sustainable development and, particularly, the role of environmental conservation as a fundamental factor in achieving sustainability. This article discusses the findings of a study of the views of 14- and 15-year-olds on the importance of environmental conservation. The findings reveal that there was general disapproval among young people for human economic activities that threatened the environment. Interviews with students, however, indicated a discernible lack of willingness among students to raise awareness among the general public on issues related to environmental conservation. In general, though, students showed a positive attitude towards the need to conserve the environment.

Introduction and Literature Review

One of the main internationally supported products of the 1992 United Nations Conference on Environment and Development (UNCED), popularly known as the Earth Summit, was Agenda 21, a comprehensive programme of action needed throughout the world to achieve a more sustainable pattern of development for the 21st century (UNCED, 1992a). The concept of sustainable development aims to reconcile the two objectives of achieving economic development to secure higher standards of living, and protecting and enhancing the environment. The United Nations World Commission on Environment and Development (WCED) defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (1987). Principle 4 of the Rio Declaration on Environment and Development (UNCED, 1992b) states that: “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.”

The protection of the environment is therefore a precondition for, and an integral part of, sustainable development. Thus, a sound
understanding of environmental conservation is essential for the sustainable use of renewable natural resources. Action plan documents produced by the United Kingdom (1994) highlight the importance of making decisions based on the best possible scientific information, and of increasing people’s awareness of the part that their personal choices can play in conserving the environment to achieve sustainable development.

With this high degree of global attention focused on environmental conservation and with environmental preservation practices included in all national curriculum documents in Trinidad and Tobago, it is an appropriate time to assess young people’s views about the position they hold in relation to environmental conservation, given that one of the central aims of the new secondary science curriculum is to “promote the preservation and protection of the environment” (Trinidad and Tobago. Ministry of Education [MOE], 2002a, 2002b, 2002c).

The national science curriculum of Trinidad and Tobago clearly states that students should be taught about the conservation of homes of animals; about pollution and its effect on the environment; and about conservation of ecosystems, including practices and behaviours necessary for conservation of the environment to ensure the survival of living organisms in their respective ecosystems (MOE, 2002a, 2002b, 2002c).

Recent international studies have indicated that despite increased media coverage and increased emphasis on classroom instruction, young people still fail to consider environmental conservation as a high-priority lifestyle issue (Greaves, Stanisstreet, Boyes, & Williams, 1993; Schelhas & Pfeffer, 2007; Stanisstreet, Spofforth, & Williams, 1993). It is primarily this burning concern that motivated this research.

In a 1996 study conducted by Morris and Schagen, a survey of roughly 1,000 15-year-old students revealed that only 34% regarded environmental conservation as a “very serious” issue. More recent works by Parker et al. (2007) and Anthony (2007) suggest that young people generally display poor attitudes to environmental conservation and preservation, and, further, that there are differing positions on the issue among individuals from different social classes in society. Hazen and Harris (2007) found that attitudes/views on conservation seem to be territorially dependent. In other words, communities that depend directly on the environment for their livelihood (farmers and fishermen) are more aware of the need to conserve it for future generations. Communities that do not depend directly on the environment for their livelihood are more carefree when it comes to environmental issues. This finding is also
supported by Sunderland, Ehriinghaus, and Campbell (2007), who suggest that individuals whose livelihoods do not involve a “close relationship” with the environment tend to be less concerned about adopting environmental conservation practices. In addition, Witherspoon (1994) and Harris (2005) both highlight the existence of what is referred to as a person’s emotional or “romantic” relationship with the environment, which they suggest is very common among individuals who are fond of the outdoors, like hikers, deep sea divers, and mountain climbers. Witherspoon (1994) further claims that the emotional relationship which such individuals have with the environment has a significant impact on their perceptions and views of the need to conserve the environment.

For the large number of individuals in Trinidad and Tobago who do not have either a territorially dependent connection or an emotional (romantic) relationship with the environment, it is difficult to determine their position when it comes to issues related to conservation of the environment. Some researchers advocate that the school is a microcosm of society and that, in a very real sense, attitudes and behaviours cultivated in the school are reflected in the society at large (Cannon, 2002).

In light of this, therefore, this study attempts to probe, in general, individuals’ views on issues related to conserving the environment, focusing specifically on young people, to reveal where they mentally “draw the line” on environmental conservation. In this work, environmental conservation is viewed as a fundamental component of sustainable development, and an attempt is made to explore whether young people regard environmental degradation as a justifiable consequence of some human/economic activities.

Although there is much information in the print and electronic media about environmental conservation practices, schools still have a key role to play in influencing environmental awareness and action among young people (Morris & Schagen, 1996). For the majority of young people, there is very little formal opportunity for discussion of environmental issues outside a school setting, so it is likely that views held at this level will remain unchanged during adulthood. It is important, therefore, that classroom learning experiences are used meaningfully to shape the views of young people within the school context.

**Method**

Students from three (1 urban, 1 suburban, and 1 semi-rural) co-educational secondary schools in north Trinidad took part in the study. A
questionnaire was administered to the students at the end of the Form 2 curriculum year. The questionnaire was piloted with 61 students, and subsequent discussion and scrutiny of the answers indicated that all the students had completed the questionnaire without difficulty. All students in the pilot showed an adequate understanding of the terms used in the questions and of what the questions asked. The final version of the questionnaire was completed by 401 students (205 girls and 196 boys).

Environmental conservation can be an emotive issue, and conscious steps were taken to avoid responses that might result from peer pressure or peer collaboration. To ensure that the students’ answers best reflected their own views, students were asked not to confer, and the questionnaire was administered during normal class time under the supervision of their class teachers. Students were assured that it was not a test and that only the researcher would see their individual responses. They were asked to think carefully about each statement and to indicate their response by ticking the appropriate boxes. The Likert type questionnaire (Oppenheim, 1986), which was based on the findings of Agrawal (2005) and Brandon (1998), was in two parts:

- In Section I, students were given three options: Yes (Y), No (N), Uncertain (U)
- In Section II, students were given five options: Strongly Agree (SA), Agree (A), Uncertain (U), Disagree (D), and Strongly Disagree (SD)

In the first section (Appendix A), students were presented with a list of human activities that are known contributors to environmental degradation (Brandon, 1998) but which are also fundamental to economic growth or to human quality of life. Students were asked whether these activities are acceptable even if they threaten the environment.

The second section (Appendix B) asked students to note the extent to which they agreed or disagreed with statements about conserving certain aspects of the environment. The responses were coded on a five-point scale (strongly agree = 5 and strongly disagree = 1). A high score thus indicated a positive attitude and an average of 3 represented a neutral attitude. Scores were averaged to obtain an overall attitude rating among the respondents (Oppenheim, 1986).

Once this phase of the data collection was complete, 15 of the respondents (9 girls and 6 boys) were randomly selected and invited for an interview two weeks later. The aim here was to verify questionnaire responses with verbal responses by cross-checking. The interviews lasted
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about 3 minutes each and the questions asked were identical to those in Appendix B. If respondents attempted to expand on any given response during the interviews, opportunity was provided for such elaboration and these were captured in the researcher’s notes.

Findings

Responses to the questions about the importance of environmental conservation in relation to economic and other human activities are shown in Table 1 and Figure 1. Figure 1 shows the percentage of students who rejected each activity as an unacceptable threat to the environment. The data showed that, generally, more girls than boys rejected each activity. Most students, girls and boys, viewed environmental degradation as an unacceptable consequence of industry, road building, and housing, in decreasing order. Although more girls (40%) rejected the relative importance of intensive farming, 28% of boys found this to be unacceptable and an almost equal number of boys (27%) accepted it. Subsequent interviews revealed strongly polarized views between boys and girls on the importance of intensive farming. One boy reflected the views of his peers, saying that “farming is important because we need to be able to feed ourselves ... we may end up with a lovely environment, but no food to eat if we do not use the land for intensive farming....” In any event, however, there was a fair amount of uncertainty among girls and boys alike over the importance of intensive farming (43% girls, 44% boys).

With regard to industrial activities, both girls and boys seemed to agree that such activities were not justified if they threatened the environment; only 9% of the boys were of the view that industrial activities were justified. The degree of uncertainty among the students surveyed was small (18% girls, 17% boys), perhaps suggesting that students of both genders generally did not agree that industrial activities were justified if they resulted in threatening levels of environmental degradation.

Building roads and houses were almost equally rejected activities among the students. More girls (76% and 64%) than boys (50% and 55%) rejected road building and house building, respectively, as activities that were sufficiently justifiable to excuse environmental degradation. Twenty-five percent of all the students surveyed expressed uncertainty that building roads was a justified activity even if it negatively compromised the environment, while 31% were uncertain about building houses.
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For activities that were considered recreational, 3% of the girls felt that these were OK, while 70% of the girls indicated that, despite apparent benefits, the pursuit of recreational activities was not worth compromising the environment. Among the boys, 22% felt that recreational activities were justifiable while 64% of them believed that it was not. Twenty-seven percent of the girls and 14% of the boys (totalling 21% of the sample) were uncertain as to whether recreational activities were acceptable even if they threatened the environment. Table 1 and Figure 1 summarize the findings.

**Table 1. Students’ Views of Acceptability of Activities That May Cause Environmental Degradation**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes (Y) %</th>
<th>No (N) %</th>
<th>Uncertain (U) %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F M All</td>
<td>F M All</td>
<td>F M All</td>
</tr>
<tr>
<td>Intensive farming</td>
<td>17 27 22</td>
<td>40 28 34</td>
<td>43 44 44</td>
</tr>
<tr>
<td>Recreation/leisure</td>
<td>3 22 13</td>
<td>70 64 67</td>
<td>27 14 21</td>
</tr>
<tr>
<td>Building houses</td>
<td>2 18 10</td>
<td>64 55 60</td>
<td>34 27 31</td>
</tr>
<tr>
<td>Building roads</td>
<td>2 22 12</td>
<td>76 50 63</td>
<td>22 28 25</td>
</tr>
<tr>
<td>Industrial activities</td>
<td>0 9 8</td>
<td>82 67 75</td>
<td>18 17 18</td>
</tr>
</tbody>
</table>

Figure 1. Percentage of students giving negative responses to the question: Do you think the following activities are OK if they threaten environmental degradation?
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Average attitude scores shown in Table 2 indicate that students, overall, had positive feelings about conserving the environment. Girls consistently showed a more positive attitude towards conservation than boys. On average, however, students showed negative feelings towards starting a campaign to raise awareness among the general public about the need to conserve the environment.

Combined results (Table 2) show that the majority of students agreed or strongly agreed with adopting practices and behaviours that promoted conservation of the environment. With respect to planting trees, 85% of the girls surveyed (55% strongly agreed; 30% agreed) were of the view that this was a worthwhile practice for humans to adopt to promote environmental conservation. Interview responses such as those below, obtained from girls who shared this view, suggest that they were aware of the detrimental effect that felling of trees had on the environment and, further, that humans have a responsibility to make conscious efforts to plants trees to replace those lost due to deforestation:

Girl 1: ...trees hold the soil together... to prevent erosion and landslide....
Girl 2: Those who cut them [trees] down destroy animal homes....and they must replant trees...
Girl 3: The environment looks dull without trees....trees should be planted in empty areas...
Girl 4: ...beautiful trees which we plant will keep the environment nice for our children
Girl 5: ...planting trees is useful to animals, people, the land.....
Girl 6: Trees produce the carbon dioxide we need.....they are very important.....

A total of 77% (27% - SA; 50% - A) of the boys surveyed also shared the view that planting trees was a necessary activity for environmental conservation. Cleaning the surroundings around the home was also another practice that students felt was important for environmental conservation. While more girls (83%) than boys (67%) either agreed or strongly agreed that this was important for environmental conservation, none of the students strongly disagreed, and only 8% each of boys and girls disagreed. With regard to reduce, reuse, and recycle 44% of the girls and 27% of the boys strongly agreed that this was an important practice that should be adopted to conserve the environment. In regard to public transport and carpooling, 44% of the girls and 28% of the boys
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**strongly agreed** that this was a necessary environmental conservation practice.

**Table 2. Students’ Views About Adopting Practices Aimed at Promoting Environmental Conservation**

<table>
<thead>
<tr>
<th>Practice</th>
<th>SA %</th>
<th>A %</th>
<th>U %</th>
<th>D %</th>
<th>SD %</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Plant trees</td>
<td>55</td>
<td>27</td>
<td>30</td>
<td>50</td>
<td>8</td>
</tr>
<tr>
<td>Clean homes and surroundings</td>
<td>51</td>
<td>24</td>
<td>32</td>
<td>43</td>
<td>9</td>
</tr>
<tr>
<td>Reduce, reuse, and recycle</td>
<td>44</td>
<td>27</td>
<td>37</td>
<td>41</td>
<td>12</td>
</tr>
<tr>
<td>Use public transport or carpool</td>
<td>44</td>
<td>28</td>
<td>34</td>
<td>40</td>
<td>18</td>
</tr>
<tr>
<td>Stop burning garbage</td>
<td>40</td>
<td>27</td>
<td>37</td>
<td>37</td>
<td>20</td>
</tr>
<tr>
<td>Use ozone friendly products</td>
<td>22</td>
<td>23</td>
<td>56</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>Choose biodegradable products</td>
<td>21</td>
<td>18</td>
<td>46</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Start an environmental awareness campaign</td>
<td>3</td>
<td>13</td>
<td>5</td>
<td>23</td>
<td>44</td>
</tr>
</tbody>
</table>

*Key: SA – Strongly Agree; A – Agree; U – Uncertain; D – Disagree; SD – Strongly Disagree*

The students surveyed also identified desisting from burning garbage as another high priority practice that humans should adopt. The following were the findings with respect to burning of garbage:

**SA** – (40% girls; 27% boys)

**A** – (37% girls; 37% boys)

Neither using ozone friendly products nor choosing biodegradable products was selected as a **strongly agreed** practice by many of the students, but they were selected as an **agreed** practice by most of them.
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What is also interesting in this case is that none of students viewed either of these practices as strongly disagreeable practices.

Students were very articulate during the interviews about how important it was for humans, in general, to become more conscious of their activities and the impact these can have on the environment. Several recommendations were volunteered during the interviews and the passion with which the students presented these was evident to the researcher. Some of the recommendations that emerged were as follows:

Choose brown bags instead of plastic bags at the grocery store...
Reuse brown bags to put lunch and snacks...
Take turns when carpooling ... so that one person alone does not feel pressured...
Read products when buying...like insecticides...only buy ozone friendly products...
Make a compost heap with biodegradable garbage... instead of throwing it in the garbage container...
Encourage friends and family to plant trees... and take care of the environment...
Keep surroundings clean... school, home... playgrounds... do not throw garbage on the ground...use bins...

What concerned the researcher, though, was that while the students knew about the need to conserve the environment and most of them generally agreed (or strongly agreed) with many of the conservation practices, they were very reluctant to make the individual personal commitment the researcher thought would naturally result. In fact, responses obtained from the latter section of the second questionnaire (Appendix B), which focused on starting an environmental awareness campaign, revealed that students were reluctant to take ownership of the responsibility to sensitize people to adopt the practices that they themselves strongly advocated. Only 3% of the girls and 13% of the boys strongly agreed that this was an important activity towards conserving the environment, while 5% of the girls and 23% of the boys agreed that it was. When probed during the interviews, students raised issues such as shyness, inexperience, lack of resources and support, and lack of time as reasons why they personally would not venture out on an environmental awareness campaign. A total of 20% disagreed and 32% strongly disagreed that an awareness campaign would be effective in promoting
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environmental conservation. The following responses from the interviews capture their disagreement:

I’m too shy to tell older people they are doing wrong things…. Like burning garbage….
I will need an adult to work with me … a child like me alone cannot do a campaign …
I am not sure how to do a campaign…
I could make a poster and put it up ….but I don’t want to have to speak to the people…
It is a good thing… to save the environment … but I cannot go and tell people….
...sometimes people just don’t listen… even when they know they are doing a wrong thing….

Table 3 shows the combined views of boys and girls in respect to students’ views on each of the environmental conservation practices.

Table 3. Students’ Combined Views (Boys and Girls) on Environmental Practices

<table>
<thead>
<tr>
<th>Practice</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant trees</td>
<td>41</td>
<td>40</td>
<td>16</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Clean homes and surroundings</td>
<td>38</td>
<td>38</td>
<td>17</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Reduce, reuse, and recycle</td>
<td>36</td>
<td>39</td>
<td>20</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Use public transport or carpool</td>
<td>36</td>
<td>37</td>
<td>25</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Stop burning garbage</td>
<td>34</td>
<td>37</td>
<td>25</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Use ozone friendly products</td>
<td>23</td>
<td>46</td>
<td>25</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Choose biodegradable products</td>
<td>20</td>
<td>34</td>
<td>35</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Start an environmental awareness campaign</td>
<td>8</td>
<td>14</td>
<td>27</td>
<td>20</td>
<td>32</td>
</tr>
</tbody>
</table>

Key: SA – Strongly Agree; A – Agree; U – Uncertain; D – Disagree; SD – Strongly Disagree
Discussion

This study attempts to identify some of the gaps between the views on environmental conservation advocated by environmentalists and scientists and the views of secondary school students. These gaps must be minimized if our educational goal is to raise students’ awareness of environmental conservation issues, particularly in the context of sustainable development.

The findings indicate that young people generally do not approve of human economic and developmental activities that threaten the environment, although fewer boys than girls hold this view. The notable exceptions to this were using ozone friendly products and starting an environmental campaign; in each case, fewer girls than boys approved these activities.

One of the most surprising findings in this work was the relatively high number of girls and boys who showed a positive attitude towards conserving the environment (up to 81% viewed planting trees as an important environmental conservation practice). This number is substantially higher than that reported in the work by Stanisstreet et al. (1993), in which only 46% of the sample expressed positive attitudes on environmental conservation issues and practices. It may be that students in this study were more focused on the concept of conservation and more aware of the impact of human activities on the environment, and therefore more critical of these activities.

According to Morris and Schagen (1996), girls are more environmentally aware and active than boys, tending to express a more “sympathetic” view about conservation. The findings here support this claim, as in all instances, except starting an environmental campaign, more girls than boys strongly agreed (Table 2) with adopting practices aimed at promoting environmental conservation. Except for what has been reported in this paper, the follow-up interviews did not reveal any specific reasons why students, particularly girls, did not view an environmental campaign as important as the other practices they strongly advocated. This aspect of the findings warrants further investigation.

It is interesting to note that significantly more boys than girls were undecided (Table 2), suggesting perhaps that, as indicated by Witherspoon (1994), it may have been easier for girls to adopt a position and hold onto it firmly. Additionally, it would seem that the three factors—“social values, rational perceptions and romantic world views”—identified by Witherspoon (1994) and Harris (2005) may have influenced views expressed by students in this work. Brief elaborations (captured in the researcher’s notes) obtained from the nine girls
interviewed revealed that the emotional or romantic stance over environmental conservation may have been the most influential one for the girls under study. Phrases like “breathing fresh air is healthy” and “…to maintain ...the beauty of outdoors” in their interview responses were interpreted in the context of Harris’ (2005) work to imply this perceived romantic stance among the girls. Boys generally did not elaborate on their responses during the interviews.

This perceived stance was revealed more explicitly from the responses given by girls (to the issues raised in Appendix B), for example, while more boys than girls felt that intensive farming is more acceptable as a threat to the environment than building houses or roads (Table 1), more girls than boys felt that planting trees is more beneficial to the environment than using public transportation or using biodegradable products (Table 2). In the absence of empirical data to validate this apparently more positive attitude displayed by the girls in this study towards environmental conservation, this “romantic” attitude remains a perception. In addition, other issues need to be considered before it can be definitively stated that girls display a more positive attitude towards the environment.

Morris and Schagen (1996) advocate that the development of positive attitudes among students can only be fostered through meaningful opportunities to interact with the environment and to explore the implications of human economic activities on the environment. They suggest that such attitudes can only be cultivated/developed over a period of time through structured and well-planned activities inside and outside the classroom, complemented by focused, follow-up initiatives.

In the local context, it may be possible to foster increased awareness among students (primary and secondary) by deliberately initiating brief discussions and decision-making exercises with them about conservation issues. Morris and Schagen (1996), as well as Hazen and Harris (2007), suggest that such initiatives, if properly implemented, could spark real interest and prove to be invaluable in developing young people’s thinking about the complex relationship between environmental conservation and sustainable development.

So what are young people’s views on conserving the environment? Generally speaking, young people seem to be aware of the significance of the environment in their lives and there is a strong indication that they regard environmental conservation as a key requirement for sustainable development. They appreciate the need to adopt conservation practices and, while those who participated in this study expressed some reluctance to take action to sensitize the larger public, they seem to agree
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that discussions on environmental issues in classrooms will have meaningful impact on others like themselves.

We still have a long way to go if we are to encourage and manage such discussions in our classrooms, but it is the firm view of the researcher that efforts to promote a thrust in this direction must be diligently pursued to encourage not only students, but also communities at large, to make informed decisions and choices about wider issues linked to sustainable development.

References


**Appendix A**

**Section I**

Environmental conservation is often in conflict with economic development and other human activities. Do you think the following activities are OK even if they result in threatening levels of environmental degradation? Indicate Yes, No or Uncertain by placing a ‘Y’ for Yes, an ‘N’ for No and a ‘U’ for Uncertain, next to each statement.
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Intensive farming
Recreation and/or leisure activities
Building houses
Building roads
Industrial activities

Appendix B

Section II

We (humans) should:

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant trees to beautify the environment</td>
<td></td>
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<tr>
<td>Clean the areas around or homes (such as yards and drains) to maintain a clean environment</td>
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<tr>
<td>Reduce waste by reusing and recycling as much as possible</td>
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<tr>
<td>Use public transport and carpools to reduce pollution of the environment</td>
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<tr>
<td>Stop the practice of disposing garbage by burning</td>
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<tr>
<td>Use only ozone friendly product</td>
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<td></td>
</tr>
<tr>
<td>Choose biodegradable products over non-biodegradable products</td>
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<tr>
<td>Start a campaign to raise awareness among the general public about the need to conserve the environment</td>
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</tbody>
</table>