



***WHITE PAPER ON ENVIRONMENT***  
PRODUCED BY THE WORLD YMCA RESOURCE GROUP ON  
ENVIRONMENT

October 2015



empowering young people  
SPACE | TRANSFORMATION | IMPACT

## 1. Introduction

Environmental degradation, sustainable development and regulating the human impact on our planet will likely be the greatest human challenges of the 21st century. The purpose of this paper is to explain why this is so, why the YMCA should rise to the challenge, and most importantly, how we can do it.

In 1998, the YMCA recognised our responsibility to take care of the earth as the planet we inhabit through YMCA's 'Challenge 21'. In 2014 "The Environment" became one of four strategic pillars for the World YMCA after it was approved as part of the *YMCA Our Way Strategy* at the 18<sup>th</sup> YMCA World Council in Estes Park, Colorado. Building on these commitments, this White Paper seeks to develop and complement the YMCA's environmental stance as set forth in our 2014 Position Paper on Environment.

This White Paper has been prepared by the World YMCAs Resource Group on Environment, comprising representatives from the YMCA movement who have engaged and consulted to produce this Paper for the movement to use.

## 2. What do we mean by the environment and sustainable?

By the *environment* we mean the possibility of living on our current planet. To be able to live on this planet we must think about how we preserve it and minimize our impact upon it. The earth has a number of life-support systems, some of which are very fragile. If disrupted, they will cease to function.<sup>1</sup>

A typical example of such a system is greenhouse gases. They exist in our atmosphere to retain the sun's heat and make the earth liveable, but if we continue emitting as we do today (mainly from coal and oil), the amount of greenhouse gases will rise, trap too much heat and change our climate.

Why is this important? Because all life-support systems are connected and integrated. A 1-2 degrees temperature rise globally can completely change weather patterns, which will disturb rains and cause floods and droughts. Glaciers are already melting, which will raise sea levels, and in turn cause more flooding.<sup>2</sup> Greenhouse gases are also absorbed by the oceans and seas, making them acidic, which means that coral reefs and fish will start to die. This threatens fish stocks which in turn threaten livelihoods,<sup>3</sup> but the planktons and plants of our seas are also

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<sup>1</sup> Johan Rockström et al. "A Safe Operating Space for Humanity", *Nature* 461, 472-475 (24 September 2009), available at: [http://www.studentsonice.com/antarctic2013/documents/rockstrom\\_2009.pdf](http://www.studentsonice.com/antarctic2013/documents/rockstrom_2009.pdf)

<sup>2</sup> IPCC, *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Summary for Policy Makers* (2014), p. 4, available at: [https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5\\_wgII\\_spm\\_en.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf)

<sup>3</sup> *Ibid.* p. 13; Pavan Sukhdev: "Put A Value on Nature!", *TED-Talk* (July 2011), 14:50-15:50, available at: [https://www.ted.com/talks/pavan\\_sukhdev\\_what\\_s\\_the\\_price\\_of\\_nature](https://www.ted.com/talks/pavan_sukhdev_what_s_the_price_of_nature)

important providers of oxygen and absorbers of carbon dioxide. The same is true of our forests, which also prevent desertification by binding the soil together and are home to great concentrations of the world's biodiversity.

There is a limit not only to our planet's life-support systems, but also to its other resources such as minerals, metals or oil, which we use on a daily basis. If we want these to be available for future generations, we must use them in a *sustainable way*. For example, one of our greatest challenges in the future will be agricultural land-use: how will we manage to grow enough crops sustainably to feed an estimated 9 billion people in 2050, when already many parts of the world suffer from malnutrition and famine?

**Sustainable** means that when we create, build or learn something, we use as few resources as possible. It means that we do not always have to redo or make new things, but rather that which we create lasts for as long as possible. It means we can use it over and over again, and sometimes for different purposes.

Sustainable means being resource efficient. If we decide to learn a language, *learning sustainably* means that we do it in a way by which we remember the words and grammar we have studied. This helps us save time, and our time is often limited. Similarly, the amount of waste and pollution the earth can handle is limited. That is where *sustainable development is needed*. Without it, we risk ruining our planet's life support systems for coming generations.

This is what we mean when we talk about the environment, and why we believe environmental action to be of the greatest importance.

### **3. Why should the YMCA care and take action to preserve the environment and reduce its degradation?**

(1) First of all, environmental degradation and climate change will affect youth and future generations, and the YMCA's mission is to aid and empower young people.

(2) Secondly, if you look around you, our effect on the environment is clear, and environmental action makes common sense both from a practical and economic standpoint.

(3) Finally, scientific research tells us that unless we take urgent action today, there will be unprecedented and worse consequences in the future.

#### **Because of Young People**

Climate change, environmental degradation, more frequent storms, floods and droughts, water security, the diminishing availability of drinking water and farmland; none of these are

problems of the future. They are already affecting youth in vulnerable countries, and will continue to do so. In November of 2013, the greatest storm ever - super typhoon Haiyan - devastated large parts of the Philippines. Several local YMCA branches were affected and aided in the emergency response efforts.<sup>4</sup> Funds were raised by YMCAs from all over the world. The problem is that these super typhoons are becoming the norm: they are what we can expect from now on.<sup>5</sup>

Natural disasters, floods and droughts effect young people and children the most. It disrupts their homes, families and education. This robs them of the security and stability every young person needs to build their life. It is the young people of today that will suffer the climate change consequences of the future.

As the world's largest youth movement, the YMCA is obliged to take action on young people's behalf, and on behalf of future generations. As advocates of future generations, we have a duty, as a movement, to take action to create a world that is *sustainable*: a world that both we and our children can continue to prosper in, even a hundred years from now.

## Because of Common sense

You live in the world.

You have seen what we've done to our oceans - you have seen all the plastics, waste and oil that we dump. You have seen our landfills; the mountains of garbage that we build. You have seen how we cut down our forests. If you live in a large city, you can taste and smell the acid pollution surrounding you. In some of the world's largest cities, the sun can no longer shine through the thick layers of grey smog. If you are a farmer, you will have noticed the erratic weather patterns that have affected your crops over the last few years. You may have read or seen, or even experienced yourself, the increase in extreme weather events and natural disasters. Something is wrong with our planet and you can see it, every day. Something needs to be done. Something needs to be done now.

In the next section we will look at what the scientific community is saying regarding climate change and environmental degradation. First however, let us take a brief moment to point out that the need for environmental action, regardless of the scientific reports issued, simply makes common sense. It is both economical and practical. For example:

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<sup>4</sup> World YMCA, "Update on typhoon in the Philippines" (26<sup>th</sup> February 2014), available at: [http://www.ymca.int/what-matters-now/featured-stories/?tx\\_newsflexible\\_article%5Bid%5D=280&cHash=ec55400be5c46c38b6d7cc6244c8ff62http://action.ymca.int/philippines-standwithyou-solidarity-is-the-beginning/](http://www.ymca.int/what-matters-now/featured-stories/?tx_newsflexible_article%5Bid%5D=280&cHash=ec55400be5c46c38b6d7cc6244c8ff62http://action.ymca.int/philippines-standwithyou-solidarity-is-the-beginning/)

<sup>5</sup> IPCC, *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Summary for Policy Makers* (2014), pp. 12, 13, available at: [https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5\\_wgII\\_spm\\_en.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf); *The Economist*, "Is it global warming or just the weather?" (9<sup>th</sup> May 2015), available at: <http://www.economist.com/news/international/21650552-scientists-are-getting-more-confident-about-attributing-heatwaves-and-droughts-human> . See also note 10 below and accompanying text.

- Sustainable products last longer.
- Caring for the environment keeps your local area clean and means you can enjoy the outdoors.
- A clean environment makes the food you eat, the air you breathe, and the water you drink healthier. A clean environment makes YOU healthier.
- Energy efficiency saves you money.
- Renewable energy prices are more stable. They do not depend on sudden and unpredictable changes in global demand, like oil and coal.
- For most countries, renewable energy will mean they do not have to import important energy and can produce their own, locally. Furthermore, for countries which have not yet developed energy infrastructure such as roads, oil pipelines or power lines, renewable energy means towns and villages can act on their own, without having to wait for their central governments to take action.

These benefits will be further illustrated under part 4.

## The Scientific Rationale

The *Stern Review on the Economics of Climate Change* was a 700 page report commissioned by the British Government on the future costs of Climate Change and published in 2007. Discussing the basis of climate change, the report notes:

*“...that the build-up of greenhouse gases in the atmosphere will lead to several degrees of warming, rests on the laws of physics and chemistry...”<sup>6</sup>*

These laws were known in the 18th century already. There is a long running scientific consensus that greenhouse gases, for example carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>), help trap the sun’s heat and make the earth on average 30° C warmer. Put simply, more greenhouse gas emissions from burning oil, gas and coal, means more heat will be trapped in the atmosphere and temperatures will rise.

The key message of the report is that not only is climate change happening, but we need to address it urgently. The report concludes:

*“Our actions over the coming few decades could create risks of major disruption to economic and social activity, later in this century and in the next, on a scale similar to those associated with the great wars...The earlier effective action is taken, the less costly it will be.”<sup>7</sup>*

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<sup>6</sup> Nicholas Stern, *The Stern Review: The Economics of Climate Change* (2007), p. 6, available at: [http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview\\_report\\_complete.pdf](http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf)

<sup>7</sup> Nicholas Stern, *The Stern Review: The Economics of Climate Change - Executive Summary* (2006), p. i, available at: [http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/Executive\\_Summary.pdf](http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/Executive_Summary.pdf)

Among a great range of different academic sources, the *Stern Review* relies on the *Assessment Reports* of the International Panel on Climate Change (IPCC), set up by the United Nations. The job of the IPCC is to look at all available academic research on Climate Change, compile the available data and publish authoritative reports assessing what the current research is indicating. Since 1990 the IPCC has published five such reports, and the certainty that human activity is causing a rise in temperature has constantly increased. The first part of the *Fifth Assessment Report* was published in 2013. Its main conclusions are:<sup>8</sup>

- Warming of the climate system is clear. Many of the observed changes are unprecedented over decades to millennia.
- Continued emissions of greenhouse gases will cause further global warming.
- The amount of greenhouse gases in the atmosphere is higher than any time in at least the last 800,000 years.
- It is 95-100% certain that human influence was the dominant cause of global warming between 1951-2010.
- Limiting climate change will require large and continued reductions of greenhouse gas emissions.

In October of 2012, the *World Bank* also published a highly significant report on climate change: *Turn Down the Heat: Why a 4 Degree Warmer World Must Be Avoided*. This comprehensive study likewise concluded that greater ambition to tackle climate change is urgently needed. If countries continue to emit as they do currently, by the year 2100 the global average temperature will have risen by 4-10°C. The report estimated that in less than one lifetime, a 4° increase would lead to:<sup>9</sup>

- Today's extreme heatwaves becoming the new normal summer, and the coolest month's in 2100 being warmer than today's warmest months.
- More carbon dioxide (CO<sub>2</sub>) would dissolve into the oceans, making them acidic. Many marine species cannot survive in acid waters - especially coral reefs - all of whom will have disappeared along with most of the fish that inhabit them.
- The sea level will have risen by 0.5-1 meter. Island nations such as the Maldives will disappear and coastal cities and areas will be under water. Agricultural land will be inundated by salt water and become useless.

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<sup>8</sup> *Climate Change 2013: The Physical Science Basis: Summary for Policy Makers* (2013), available at: [http://www.climatechange2013.org/images/report/WG1AR5\\_SPM\\_FINAL.pdf](http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf) On the 30th of March 2014, over a hundred governments unanimously approved the report. See also parts 2 (referred to in notes 2,3 and 5 above) and 3 published in 2014, available here: [https://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.shtml#1](https://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml#1)

<sup>9</sup> *Turn Down the Heat: Why a 4 Degree Warmer World Must Be Avoided* (2012), available at: [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/12/20/000356161\\_20121220072749/Rendered/PDF/NonAsciiFileName0.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/12/20/000356161_20121220072749/Rendered/PDF/NonAsciiFileName0.pdf). See also the World Bank's second climate change report: *Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience* (2013), available at: <http://www.worldbank.org/en/topic/climatechange/publication/turn-down-the-heat-climate-extremes-regional-impacts-resilience>

- Floods, droughts and severe weather events will likely double in frequency.
- Human displacements on massive scales as territories become uninhabitable due to droughts, floods and sea water rise.

That a mere 4°C degree increase in average global temperature can have such devastating and far-reaching effects, shows the interconnectedness and fragility of the Earth's eco- and life support systems. Yet it is not only climate change which is important to consider. In a widely acclaimed article published in the pre-eminent academic journal for the natural sciences, *Nature*, a large team of scientists identified nine planetary boundaries we cannot overstep.<sup>10</sup> If we do, the Earth's life support systems will cease functioning. Among the areas identified were ocean acidification, freshwater use, chemical pollution, the biochemical cycle of nitrogen and phosphorous, biodiversity (fauna and flora) loss, and climate change. With regards to the last three, we have *already* overstepped our planetary boundaries! Our human impact in these areas is therefore in dire need of swift reduction.

#### 4. What are the YMCAs doing today around the world?

A survey of YMCA activity from around the world was undertaken in the preparation of this paper.

This information is in the support document; '*YMCA Environmental Survey Results, January 2015*'. It also includes case studies and stories from many YMCAs.

A summary of the findings is included in this table, showing where YMCAs are currently putting their environmental efforts:

Areas of intervention	Percentage
Environmental education/awareness	58%
Renewable Energy	23%
Clean Water	23%
Afforestation/Tree planting	33%
Waste and Energy Efficiency	23%
Sustainable Agriculture	23%
Climate Change	23%

This confirms that most of the YMCAs surveyed have environmental programs or initiatives. Pleasingly, the reach of this impact meets approximately 1.8m directly or indirectly. Renewable energy and clean water initiatives reach 700,000 people each.

#### 5. Which are the examples of actions YMCAs can take?

<sup>10</sup> Johan Rockström et al, "A Safe Operating Space for Humanity", *Nature* 461, 472-475 (24 September 2009), available at: [http://www.studentsonice.com/antarctic2013/documents/rockstrom\\_2009.pdf](http://www.studentsonice.com/antarctic2013/documents/rockstrom_2009.pdf)

Based on the results of the survey, a number of proactive initiatives have been successfully implemented at YMCAs, including:

- **Forming your local Green Team**

We recognise that we cannot do it alone. No one can do it alone. Everyone needs a group, team, or community to push green initiatives forward. In turn, every group, team and community needs to connect with other groups, since our environment is an issue that affects us all and it takes personal as well as communal responsibility to make change happen globally. By developing Green Teams in YMCAs all over the planet, the YMCA movement is in a unique position to lead by mobilising its vast and interconnected network to work together for a cause that will have a global impact for generations to come.

- **Join the World YMCA Resource Group on Environment (YMCA-RGE)**

To mobilise our global movement and awaken the sleeping giant that is the global YMCA movement, in 2012 the World YMCA established the *YMCA Resource Group on Environment*. The YMCA-RGE is an online advocacy group of young people which aims to connect national and local YMCAs and support and share their green initiatives and best practices. It also aims to create global green campaigns, represent the YMCA in international forums such as the United Nations and is the author of this white paper. We highly encourage all national YMCAs to join the YMCA-RGE and participate in its work. More info can be found here: [action.ymca.int](http://action.ymca.int).

- **Reducing waste**

Reduce, reuse and recycle are the three code words for reducing waste. Here are some examples of how this can be done:

- If your community allows for recycling, separate paper, cardboard, glass, plastic, metal, electronic devices and food waste. You may be able set up your own compost for food waste.
- Reuse furniture and other fixtures to reduce the amount of materials going to landfills.
- Increase the use of recyclable products.

- **Energy Efficiency**

Energy does not only produce harmful emissions, but is expensive as well. Here are some easy steps you can take to reduce wasteful consumption:

- Encourage staff, volunteers and members to commit to turning off lights when leaving rooms and turning off computers at the end of the day.
- Use low energy light bulbs and appliances.



- Use power switches or timers since many electronic devices use standby mode.
- Walk, cycle, travel together or use community transport to try to minimize car usage and emissions.
- If possible, identify opportunities for the use of solar, geothermal and wind power to reduce your dependence on the electrical grid.

- **Buying Green**

Buying green products means looking at their environmental performance and taking into account whether they are:

- locally produced (which reduces transport emissions),
- recyclable or long-lasting,
- if appliances, have low energy usage,
- if food, have low water and energy use (for example seasonable vegetables and not beef).

Buying green also means achieving value for money for the long term. Saving on energy, transport and investing in reusable products all come with economic benefits and contributes to the overall sustainability of your YMCA branch and operations.

- **Awareness Campaigns**

Raising awareness around the environmental issues within your community is an excellent way of taking action. Posters, events, marches and social media campaigns are all good ways in which to increase people's awareness.

- **Creating an Environmental Policy**

Introducing a local or nationwide policy or strategy document can be a good first step. This can set out goals, targets and if appropriate, use some of the examples above to explain how the targets can be achieved. This can be a good way to create awareness within your own movement.

For further information on this paper or the Resource Group please contact:

**Romulo Dantas**

Executive Secretary for Youth Empowerment

World YMCA

12, Clos-Belmont - 1208 Geneva - Switzerland

Phone: [+41 22 849 51 11](tel:+41228495111) - Fax: [+41 22 849 51 10](tel:+41228495110) e-mail: [romulo@ymca.int](mailto:romulo@ymca.int)