World Vision®

The Natural Environment in Development and Well-Being

A World Vision Guide

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Authors: Mary Morris, Christopher Shore, Natural Environment and Climate Issues Community of Practice. Content editing: Rebecca Russell. Copyediting: Katie Klopman.

Contents

Executive Summary

World Vision, because of our child focus, has a greater obligation than most organisations to take an active interest in the health and resilience of natural resources and systems. It is not possible to sustain child well-being in the absence of a healthy, effective natural environment.

Children's well-being is built on both the well-being of the environments that surround them and the well-being of the people who care for, protect and guide them. In developing and poor contexts, the well-being of caregivers and communities is intimately dependent on the well-being of their own environments. It is possible, therefore, to significantly positively have an impact on both of these major determinants of children's well-being by securing or increasing the well-being of natural environments.

The natural environment directly influences children's well-being by playing significant roles in food and nutrition, water and sanitation, disease and immunity, physical and mental development, and hope and security. Indirectly, the natural environment influences well-being, especially the well-being of children in developing and in poor contexts, by facilitating caregivers' capacity to provide for material needs, their ability to access educational and cultural resources for themselves and their families, and the quality of caregivers' physical and mental health.

Empowering caregivers to strengthen their natural environments, and thereby strengthen livelihoods, food production and security of their resource base, empowers them to make life choices that most protect and enhance their children's well-being. High levels of well-being reduce pressure for caregivers to make choices that harm children. Most families with the right knowledge and secure resources work to create the best life possible for their children.

A healthy natural environment is the foundation of successful long-term development. International development has evolved throughout its 50-plus years from a focus on saving lives alone to facilitating progress out of conditions of chronic vulnerability and poverty into conditions supporting ongoing, progressive well-being. In a world where the vast majority of people make their living from their environments and where climate change increasingly places all of civilisation at risk, securing healthy, productive environments is not optional but, rather, foundational to all developmental transformation – especially for the most vulnerable countries and communities.

Today, every person in the world lives in a state of environmental consequences, and these consequences will intensify if the state of the environment is not effectively – and very quickly – addressed. The purpose of this paper is to clearly describe the critical need to make functioning ecosystems a major development and relief priority. World Vision holds a responsibility to partner with our hundreds of local communities across the globe to capitalise on this window of opportunity to achieve multiple successes with each investment of money, time, effort and other resources.

Because the environment functions in intricately connected webs and cycles rather than on individual or linear elements, problems involving the environment are complex and risky. However, for this same reason every environmental intervention is likely to affect multiple systems – and multiple child well-being outcomes. Many activities that reduce the degree of climate change involve restoring the environment. By the grace – and the design – of God, these same activities also promote the well-being and development of poor communities. It is rare to get this sort of triple win, and it is critically important to take advantage of such opportunities.

Nowhere else in development is this kind of complementarity, even synergy, as easily and as inexpensively available.

The Natural Environment in Development and Well-being

World Vision, as a child-focused relief and development organisation, has a greater obligation than most organisations to take an active interest in the health and resilience of natural resources and systems. All human life depends on the health and resilience of the natural environment, and children have the greatest stake in the health of the environment.

Healthy environments are critical to children's well-being for three primary reasons:

- Children are much more vulnerable to environmental harm than adults, because children are smaller and still in the process of developing. This is even more significant for children from conception through their second year of life.
- Today's children will live with the consequences of environmental actions for far longer than today's adults will.
- For the majority of children in World Vision communities, the environment provides their caregivers' livelihoods and, therefore, their ability to care for their children. The state of the environment not only affects children's immediate survival and well-being, but also affects the hope for future ability to sustain their own families and chosen livelihoods.

The purpose of this paper is to clearly describe the critical need to make functioning ecosystems[1] a major development and relief priority.

Achieving World Vision's mission depends significantly on successfully – and rapidly – restoring local and global natural environments to as full function as possible, and maintaining this. We do not provide a detailed plan for how to achieve success in this document; there are project models, guidance, tools and many experienced practitioners within World Vision and partner organisations who can provide this information. This document primarily establishes rationale for a strong organisational focus on building the environment; other resources are available with detailed 'how-to' information.[2]

Why Is the Natural Environment[3] Important in Child-focused Development?

Simply put:

- Children's physical survival, especially from conception through 5 years of age, is heavily influenced by their natural environment.[i]
- Children's physical and mental development is also significantly affected by their natural environment.[ii]
- The environment is the world's largest employer,[iii] and in developing countries the majority of caregivers derive their livelihood, and thus ability to provide for their children, from their environments.

[1] Ecosystems are living things interacting with each other and with the non-living parts of their environments as interdependent units. See Annex 1 for more detailed definitions.
[2] For further information on how to do environment work, please see the Natural Environment and Climate Issues (NECI) website, https://www.wvcentral.org/community/environment/Pages/default.aspx, or speak to anyone in the NECI Team.
[3] We use the term 'natural environment' to distinguish parts of the environment God made, from modifications added by people. See Annex 1 for more detailed definitions.

- Food security, nutrition security, disease and immunity, disaster risk, mental health and prosperity are all influenced by the health of the environment[iv,v] – not just in developing countries but, increasingly, throughout the globe.

We will explore the links between children's well-being and the health of their environments in more depth. But, let us first briefly review how development thinking evolved, to better understand how we got to where we are today and how our agendas must progress if we are to secure children's well-being in the future.

A Brief History of Development Thinking

There is not space in this paper for an exhaustive history of people's understanding of how the environment has an impact on well-being, or of processes by which communities move from poverty and vulnerability to secure well-being. This brief history attempts only a basic outline of the trajectory of development work, tracking environment concerns within that.

Modern-day international development has its origins in war and disaster relief. These roots played a significant part in shaping development through its first 50-plus years. From the impartial humanitarian response of the Red Cross, through post-World War II (WWII) European reconstruction, to the rise of the modern non-governmental organisation (NGO) in response to such crises as the Biafran war and the Ethiopian famine of the early 1980s,[vi] international assistance largely responded to emergencies with political or humanitarian aid.

Arguably all development efforts were 'sustainable' in intent. That is, humanitarian donors and humanitarian actors were trying to solve problems and likely held the understanding that to solve a problem was to end it. However, most readers will be familiar with development efforts that were ill conceived, ill executed or did not appropriately link with the true goals, needs and capacities of the communities they were meant to serve. Even with the best progress made in development to date, regress and stasis remain significant problems.

For many economies in post-World War II Europe, infrastructure rebuilding was sufficient to return these nations to their level of pre-war development and to restore capacity to sustain their own well-being. For many victims of war or drought, cyclone or earthquake, a bandaging of wounds or some hot meals and building material is sufficient to restore them to the capacity for self-sustaining development.

For those affected by structural, chronic poverty, however, direct transfer of industrialised technology and systems was not always the key to development in the fullest sense. Many development interventions were ecologically, technologically, financially or socially unsustainable for the communities they were introduced to. Some interventions simply missed the scale of progress they were meant to achieve; others proved devastating to the community's well-being and long-term prosperity.

Beyond Relief

As our knowledge grew, our methods of improving development were forced to grow as well. From the post-WWII focus on relief and rebuilding, this knowledge slowly began to influence development thought. Humanitarian actors questioned total neutrality as a working paradigm[vii] and began to actively engage in advocacy and political debates to foster greater justice for affected communities. Others were identifying the direct transfer of industrial methods and technologies as a poor fit for developing countries. Seeking out the knowledge of those in the developing world, and focusing on development options appropriate to their local lands, became requirements for respected programming. As national and international aid departments and NGOs matured, focus shifted from short-term, predominantly emergency interventions, to improving long-term conditions.

Also during this period the international community began to suspect that 'better living through chemistry' might not come without great cost. Several significant studies began to link human activities and environmental risk, and to describe how destruction of natural resources would progressively threaten human well-being. During the 1960s and 1970s, many national and international agencies began to focus attention on how poor stewardship and misuse of environmental resources was placing people at risk.

Divided We Fall

Systems thinking and integration, unfortunately, did not develop first in the march towards best practice in development. National and international agencies, even NGOs and private industries, acted largely in silos that focused on one type of concern, and often, quite naturally in a resource-limited world, found themselves in conflict with the others. Environmentalists against humanitarians, agriculturalists against ministries of forestry, small organisations against large ones – everyone against poverty, suffering and set-backs in human well-being, but no one seeing the change they wanted.

The frightening realisations of the 1960s collided in the 1970s and '80s with an oil crisis, international debt crisis and some of the worst environmental disasters yet faced, prompting international communities to take a new look at resource bases and interactions. The global community slowly came to realise that development must take the environment into account if solutions were to have lasting impact.

Reassessing, Refocusing

As the 1980s crested and began to close, it was time for a new relationship with the environment and with the developing world, leading to some positive reflection on successes of the past and to some painful realisations.

The report of the World Commission on Environment and Development[viii] (titled *Our Common Future* and commonly known as the Brundtland report) consolidated several years' of research, hearings, white papers, trends and concerns into a development plan based on tearing down the silos and working at development, environment, food security, economic stability and global relations simultaneously and collaboratively. In fact, it stated, these problems could not be solved if they were not addressed in an integrated fashion.

Following recommendations of the Brundtland report, the International Institute for Sustainable Development, the UN Commission On Sustainable Development,[4] and a number of international, national, private sector and civil society initiatives turned their attention to just stewardship of the environment as a means to promote lasting human development. The 1992 Earth Summit brought together 30 years of research and knowledge-building into a series of conventions and an action plan to halt destruction of the global environment and to reduce or avoid negative impacts of that destruction on human populations. The corporate world also began to consider the significance of environmental degradation[5] to stability and development, and to institute sustainability measures.[ix] The industrial world was by no means a solo player here. Developing country actors were actively addressing local problems such as deforestation, forming organisations that stand today as models of environmental restoration.

[4] 'Sustainable development' means both development that lasts and development that does not destroy the resource base it depends on. See Annex 1 for more detailed definitions.
[5] Environmental degradation means breaking down or decreasing effectiveness of the environment. See Annex 1 for more detailed definitions.

Child Focus

Also during this decade the international community began to focus on the rights and needs of children in all contexts. The United Nations World Summit for Children,[x] and Convention and Rights of the Child[xi] included attention to the impacts of poverty and environment on children's well-being and recognition of children's human rights.[xii]

Sustainability and Integration

Rising understanding of interactions between poverty and disaster risk and poverty and trade justice added to the holistic view of 'development' for poor communities. For civil society, governments and the corporate world, encouraging individuals to see the environment as part of the big picture of sustaining well-being has become necessary. With the turn of the new century came one of the most popular and well-supported of all efforts to address multiple underlying risks to global populations: the United Nations Millennium Development Goals.[6] Created to combat poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women, these ambitious goals incorporated, more than ever before, a focus on root causes of poverty and vulnerability. Climate change[7] impacts started to become obvious, capturing the attention of the industrialised world, which was cushioned from many of the early climate change impacts the developing world had been faced with.

The Development of World Vision Thinking

World Vision, too, had its roots as a humanitarian response to war, in this case the Korean war and the many children orphaned during this conflict. Through the tireless work of Dr Bob Pierce and others in the 1950s and 1960s, World Vision's influence and efforts quickly extended throughout the developing world. As the international community was beginning to acknowledge the need to support developing countries to progress in ways appropriate to and generated by communities in those countries, World Vision was recognising that we needed to work with entire communities if we truly wished to help children in a sustainable way.

The historic Ethiopian famine of the early 1980s transformed World Vision, as it did the relief and development world as a whole. World Vision instituted programmes with long time frames aimed at helping communities not just out of immediate crises, but also out of conditions that made them vulnerable to those crises – expanding its mandate and sectoral foci.

A decade later the HIV and AIDS pandemic, and the enormous population of AIDS orphans left in its wake, once again transformed ways that both World Vision and the international community characterised and addressed poverty, vulnerability and risk. Advocacy and promoting justice became a stronger focus for World Vision.

World Vision, though perhaps needing to catch up a bit in practice, has kept an eye on the environment throughout much of our work in long-term development. Transformational development programmes were designed with the expectation that the changes they facilitated would be sustainable economically, environmentally, socially, psychologically and spiritually.[xiii] World Vision's child well-being aspirations, outcomes and targets strive to cover each of the primary areas of life that enable children to meet their full God-given potential, explicitly recognising the importance of the environment.[xiv] World Vision's ministry framework and theory of change highlight the importance of the environment in successful development.

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[6] For more on the Millennium Development Goals see http://www.un.org/millenniumgoals/reports.shtml.

[7] Climate means simply the overall or long-term weather patterns of an area, including variables like temperature, amounts of precipitation, winds, humidity, etc. Climate change, also called global warming, is a shift in the overall climate of the entire earth due to increased global atmospheric temperatures. See Annex 1 for more detailed definitions.

World Vision must now put our understanding fully into practice. We have the systems and much of the capacity in place to make a significant impact on environmental drivers of well-being and

sustained development. The international community still lags behind, especially in funding, but trends are driving it towards a fuller response on environmental issues. It is time to meet, then exceed, current bounds of development thinking.

Looking to the Future

In recent years, topics of environment and climate have inspired controversy and have been used for financial, political and ideological ends. Specialised marketers seek to increase confusion about the reality of environmental problems, including climate change. World Vision does not wish to stir up controversy, but to do the work of transformational development. Our experience over 50 years of work across the world, as well as our research and understanding of the overwhelming consensus of scientific evidence, clearly demonstrate that environmental destruction and continued global warming place children, and communities at risk, erode and destroy developmental gains, and increase poverty and disasters.

Every person in the world today lives in a state of environmental consequences. Through lack of knowledge, expedience, and sometimes more sinister motives, we have broken the system that supports our very lives, and it's going to take some work to fix that. It will probably also take long enough to fix that we will experience real pain before we are done.

Some effects that we are already seeing and that all reliable data suggests will intensify in the future (barring changes in development processes) are as follows:

As of 2010, roughly 350,000 people were dying each year due to climate change.* As with many environmentally related problems, the poor, the vulnerable, and the small and fragile – children – made up the vast majority of these deaths. It is almost certain that this number must increase before it begins to decrease, because we have set ourselves on a course that corrects more at the pace of an aircraft carrier than of a race car.

* DARA, *Climate Vulnerability Monitor 2010* (2010). <*http*://daraint.org/climate-vulnerability-monitor/climate-vulnerability-monitor-2010/download-the-report/>

- **Droughts** will increase in frequency and duration, possibly also in range.
- **Hunger** will increase as weather patterns shift, soils and watersheds are depleted, food prices fluctuate, dietary patterns shift, and fuel production reduces the amount of crops available for humans.
- **Disease** will increase with temperature and precipitation shifts, and with compromised nutrition and added migration. Disease corridors may shift and will enlarge. Poverty- and migration-related illnesses such as HIV and AIDS may increase. Lifestyle-related illnesses will increase, and heat- and cold-related illness and death will increase.
- **Extinction** will accelerate, possibly destabilising ecosystems and certainly creating loss of current and potential benefits.
- **Loss of livelihoods** will increase.
- **Resource-driven conflict** will increase.
- **Migration**, both temporary and permanent, will increase as soil and pasture fertility decrease and livelihoods are compromised, and as water quality and availability shifts. Sea-level rise and inundation of cities and nations will also increase migration.
- **Weather and poverty-related disasters** will increase in frequency, duration and power.
- **Economic and social development** may stagnate and regress.
- **Climate change** itself will increase as feedback loops open and may become irreversible and catastrophic.

All of these impacts, and many that haven't been listed here, are increasing much more rapidly than in the past. Healing and building both the local and global environment is the fastest, least expensive and most efficient way to address a majority of these problems. It is possible to make significant impact in securing development and child well-being – but not without understanding the role of the environment in these aims.

There is nothing to be done about the past; at this point what matters is how quickly and effectively we begin changing in the present to ensure the future we want. Destruction of local environments is a serious problem that heavily influences lives, health and livelihoods. Global climate change is an additional significant problem. Climate change compounds or accelerates existing degradation and, in many cases, increases the impacts of degradation on people's lives. Both have to be addressed quickly and unusually effectively if we wish to salvage development.

Fortunately these do not generally have to be addressed separately. Many activities that reduce the degree of climate change involve restoring the environment. By the grace – and the design – of God, these same activities also promote the well-being and development of poor communities. It is rare to get this sort of triple win; let us not ignore such a valuable opportunity.

Incorporating Environment and Development: The Opportunity to Secure Both

A healthy natural environment is the foundation of successful long-term development. A healthy natural environment is also the foundation of child well-being – indeed, of all human well-being. Let us look briefly at some of the most obvious connections between ecological health and human development and well-being.

The natural environment is the single largest employer in the world.

Agriculture and forestry account for more than 40 per cent[xv] of all world employment. Millions more people in developing and in industrialised countries make their living through fishing, hunting and building or crafting based on natural resources. This does not even account for industries like tourism based on environmental assets, scientists working on environmental issues or purely extractive industries such as mining and fossil fuel production.

If any employer should be sustained, it is one contributing to the support of such a vast host of humanity. For the majority of the poor, their livelihoods derive significantly from the use of natural resources, be these soil, water, plants, animals, minerals, etc. As with any livelihood, when assets and resources that humans need to prosper are robust and growing, their livelihoods are more secure. When assets and resources are degraded, damaged, or simply no longer exist, livelihoods diminish or disappear.

> 'The environment is the key of prosperity of each community; therefore, it is very important. The environment is the source of production…'
>
> WV Somalia staff and community survey

A robust, resilient environment is the foundation of well-being and prosperity for most developing communities. Many caregivers whom World Vision works with provide their children's food, water, clothing and even medicine directly from the environment, through the work of their hands; most derive all or part of their income directly from their environment. A weak, failing or dangerous natural environment diminishes their hopes for development and prosperity.

Natural environment-based livelihoods are often underestimated by those influenced by the industrial mind-set and colonialism. However, as environmental degradation and global warming decrease the quantity and quality of arable land – and perhaps even the amount of land that remains above water – sustainable use of existing natural resources will become vastly more valuable.[xvi]

Those who know how to produce crops in sustainable ways – who know how to maintain sustainable populations of animals, bees, fish, etc., in low-impact ways; who understand and can steward their environment – have an opportunity to achieve high-quality and healthy livelihoods, which contribute to full and excellent lives.

World Vision can contribute significantly to people's abilities to adapt to changes, and this will contribute significantly to the sustained well-being of children and the prosperity of communities.

It is not possible to sustain child well-being unless degradation and destruction of the environment is halted and reversed.

This applies on a local level, as it has for millennia. But in our current age, for the first time, we see it applied on a global scale as well.

Children's well-being is tied to two important components: the well-being of the environments that surround them and the well-being of people who care for, protect and guide them. The well-being of mothers, fathers, other caregivers and communities is intimately dependent upon the well-being of their own environments; it is possible, therefore, to significantly and positively influence both of these major determinants of children's well-being by securing or increasing the well-being of natural environments.

> 'Environmental degradation, first seen as mainly a problem of the rich nations and a side effect of industrial wealth, has become a survival issue for developing nations.'
>
> World Commission on Environment and Development, *Our Common Future*

Directly, the natural environment influences children's well-being[xvii] – especially the well-being of children in developing and in poor contexts – by playing significant roles in:

- food and nutrition
- caring practices
- water purity and availability
- nutrient and toxin cycling
- disease and immunity
- sanitation
- physical and mental development
- hope and security.

Indirectly, the natural environment influences well-being, especially the well-being of children in developing and in poor contexts, through caregivers' capacity to provide for material needs, ability to access educational and cultural resources, and quality of caregivers' physical and mental health, including manageable levels of tension.

High levels of well-being reduce the need for choices that harm children. Most families with sufficient knowledge and secure resources attempt to create the best life possible for their children. Families typically do not make choices they know are damaging to their children's well-being unless resource constraints or other factors force them to conclude better options are out of reach.

Empowering caregivers to strengthen their natural environments, and thereby strengthen livelihoods, food production or security of their environment – or all of the above, empowers these caregivers to make more decisions from a basis of security. Such decisions are more likely to place the needs of their children over the urgencies of an under-resourced life.

Families with secure and sufficient access to critical components for their well-being may also be more willing, or more able, to risk incorporating new information into established paradigms, and may therefore be more able to improve their livelihoods, lives and care of children.

Every man, woman and child on earth is dependent on the natural environment.

In an industrialised context, it can be difficult to see the environment as fundamental to the provision of our needs: we may not as easily notice the role of the environment as do those whose daily activities more directly connect to the environment. Nonetheless, every human's well-being is intimately tied to natural environments and the global climate.

Food is derived from soil, water and sunlight. Our bodies – and even our minds, research has progressively shown – require space, clean air, water and interaction with natural elements to be fully fit and healthy.[xviii] Our immune systems, and the illnesses that test them, are often directly related to natural environmental elements. Most critically, the global biosphere – that complex set of structures, systems and interactions enabling the earth to support plant, animal and human life – *is* the environment, and damage to it affects everyone on earth to a greater or lesser extent.

External interventions are not securely sustainable or empowering; healthy environments are.

All manner of risks can take an NGO out of a community, but if a strong and resilient resource base remains and is valued and cared for by the local community, it can provide lasting and even growing benefits. Infrastructure must be maintained. Food aid and other inputs are consumed but are no longer available when the project ends. Individual nutrients may be injected or ingested, but they cannot begin to substitute for a rich diversity of nutrients in a high-quality diet. The resource base on which livelihoods and food security are sustained, if stabilised and made strong, can remain highly productive through generations. Stewardship practices and skills, if appropriate and effective, also remain in the community long after those who taught these have left and can even be transferred to other community members,[xix] across generations or geographic boundaries. Rebuilding resources, truly, *is* sustainability.

An Inconvenient Truth

Human communities have the technology and critical mass necessary to destroy the capacity of the earth to sustain life. This will still take long enough to either complete or reverse that substantial suffering will precede the final outcome. The poor, the vulnerable, the children, the elderly, will endure the largest portion of this suffering, just as they have experienced by far the earliest and most severe impacts to date.

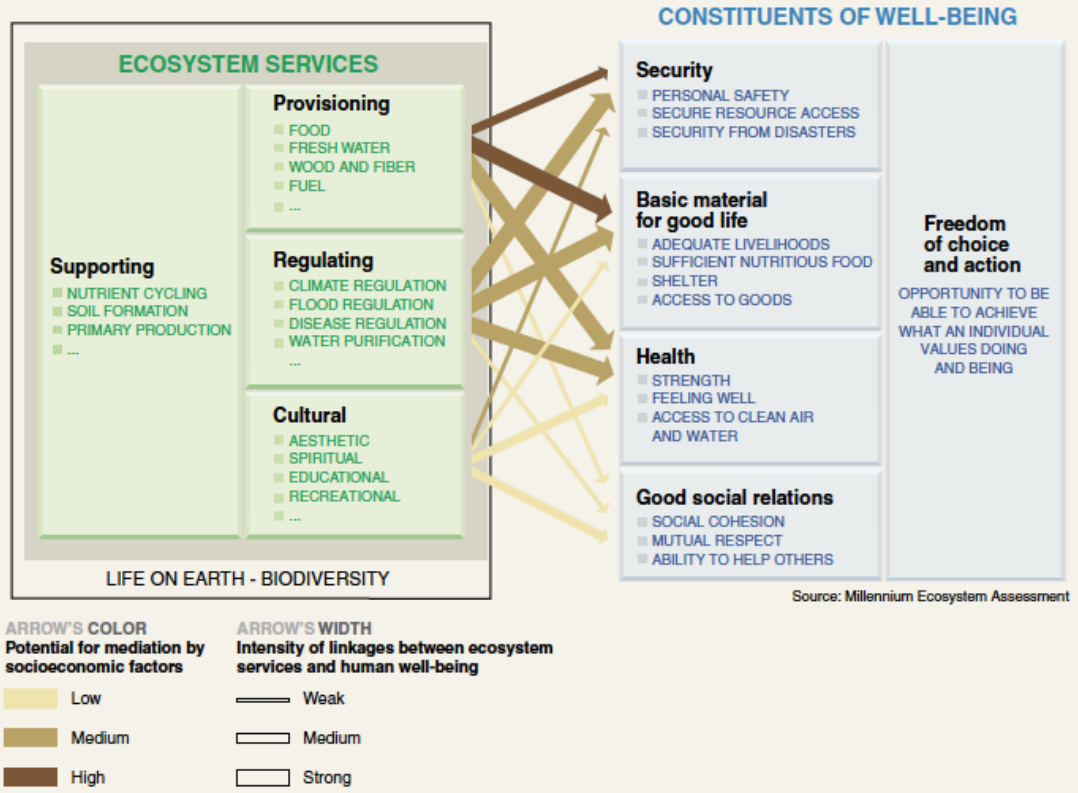
Our global environment already functions at severely diminished capacity. We may be standing in the last window of opportunity to restore some regions to even near-sustainable function. Because we did not heed early warnings about the potential for runaway fossil fuel use to permanently alter the global climate, children face more severe risks than they should and also face a future in which life as they and their caregivers know it will not be possible to return to by the time they themselves have children.

The authors of the Millennium Ecosystems Assessment have presented important links between human well-being and the ecological systems that support us. The graphic below is taken from one of these reports.[8] (The figure is easiest to read if viewed in colour.)

[8] Access the full document here: http://www.unep.org/maweb/documents/document.353.aspx.pdf.

Figure 2. Linkages between Ecosystem Services and Human Well-being

This Figure depicts the strength of linkages between categories of ecosystem services and components of human well-being. It includes indications of the extent to which it is possible for socioeconomic factors to mediate the linkage. For example, if it is possible to purchase a substitute for a degraded ecosystem service, then there is a high potential for mediation. The strength of the linkages and the potential for mediation vary according to the specific ecosystem and region. In addition, other factors—including other environmental factors as well as economic, social, technological, and cultural factors—influence human well-being. Ecosystems are in turn affected by changes in human well-being.



Millenium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Washington, DC, 2005). Used with permission.

A Logical Way Forward

The global human community is now faced with the challenge of repairing systems that were misunderstood, neglected or actively damaged, both because of lack of development and because of unsustainable development – before we can even hope to break even. To ensure that communities in developing nations are able to reach their full potential and that communities in all nations do not begin to see quality of life deteriorate, it is necessary to quickly enact effective measures to repair what is broken and strengthen local and global life support systems.

Throughout all of development, it has been necessary (regardless of whether anything was done) to ensure the protection and improvement of the environment as a means of making human development secure and sustained. In the past 20 years, however, this task has become enormously more critical and immediate. With significant desertification, recurring famines, recurring droughts, and now with the acceleration of climate change, ignoring the environment has gone from a 'risky activity that will eventually have consequences', to a set of serious consequences becoming progressively more severe.

In a relatively short time frame, we need to secure global and local access to sufficient, nutritious food and sufficient, safe water to

- adapt our livelihoods and lifestyles to the unpreventable impacts of climate change
- limit as much as possible the further increase of climate change
- prepare for a future in which the impacts of climate change alter what is possible, what is valuable, and what is needful in every community on the planet.

The focus of development thought is shifting again. Sustainable development has moved from 'the latest thing' to a necessary mainstream. Current and projected impacts of climate change, soil loss, water degradation and loss, and possible land mass loss require a restorative paradigm to undo some of the damage of the past 100-plus years in a time frame closer to 10 years. Many of the needed systems and capacities already exist. The international community now has to pick up diverse pieces from small and large actors around the globe and weave these into a large-scale transformative-ready state for a risk-filled future.[xx]

> 'World Vision is not interested in making 15-year investments of human and financial resources that fail because we did not properly address the foundational issues, including environmentally sustainable work and management.'
>
> Christopher Shore, World Vision Director for Natural Environment and Climate Issues

Critical capacities for the foreseeable future include the following:

- low-input, restorative agriculture adapted to harsher and more variable climatic conditions
- massive, global-scale reforestation
- health programming that focuses on underlying drivers of health, such as nutritional diversity and environmental connections
- processes that capture or destroy carbon and other greenhouse gases as a by-product of their function, such as regenerative forestry, soil-building and some forms of energy production
- rebuilding of the natural world's ability to protect people from the impacts of climate change and increased disaster risk, as in mangrove and wetlands restoration, watershed restoration, tree-planting and regeneration, and integrated agro-ecological practices.

An Unprecedented Opportunity

The most important thing development actors need to comprehend about the environment is that its functioning is based on intricately connected webs and cycles rather than on individual or linear elements. This makes problems that involve the environment complex and risky, but it also presents enormous opportunity. Environment-focused programming can affect multiple systems – and multiple child well-being outcomes – with each intervention. Nowhere else in development is this kind of complementarity, even synergy, as easily and as inexpensively available.

Some really good news: Small, poor, undeveloped communities have some of the biggest opportunities to make an impact in repairing the global life support system. Poor communities often live in more sustainable ways than rich communities. Because of this, they have more opportunity to embrace sustainable development since it does not require extensive conversion of existing systems and structures. Less-industrialised communities can therefore invest in sustainable energy, agriculture, transport and city planning from a much earlier stage of development than can those in long-term industrialised settings. Many developing communities also have more knowledge of how to sustainably steward the land, because of their greater livelihood ties to it.

Some of the most critical activities for reducing environmental risk and restoring environmental assets include building soil, building watershed systems, building biodiversity and building forests.[xxi]

Each of these activities has the distinction of building the lands, livelihoods and future prosperity of communities living in underdeveloped nations. Rural communities, often the poorest and most vulnerable, have especially strong roles to play in this area, although urban communities are by no means excluded.

What Is World Vision's Role in this Process?

World Vision has an opportunity and a responsibility to partner with our hundreds of local communities across the globe to capitalise on this window of opportunity to achieve multiple successes with each investment of money, time, effort and other resources.

Key areas for

- improving community health, livelihoods and well-being
- securing livelihoods and hope for future generations
- reducing the severity of global climate change
- reducing the impacts of climate change at community level
- capitalising on opportunities presented by shifts in global values due to climate change, peak oil, oil and food price crises, and severe environmental degradation
- reducing exposure to and severity of disasters
- eliminating poverty and globalised injustice

are within World Vision's programming and advocacy capacity as well as communities' stores of knowledge and ability.

Established and Readily Available Programming

World Vision is already implementing programmes focused on restoring soil, trees, and watersheds and landscapes. The scale is still small, and it is important that we scale this up. But, the potential to make significant impact already exists – in fact it's being realised.

Areas that represent 'quick wins', ready to implement immediately with current resources and knowledge, include the following:

Building soil – Restoring soil fertility increases potential for crop and animal farming, clearly, but also increases ability of land to retain water, increases biodiversity, discourages use of harmful and expensive external inputs, and increases the amount of carbon removed from the atmosphere.

World Vision practitioners and communities are skilled in many methods of restoring and protecting soils. A few examples include conservation and sustainable no-tillage agriculture, use of leguminous trees to increase soil nutrients, terracing and other forms of physical soil conservation, using livestock to secure and build soil, as well as composting and other means of transforming wastes into nutrient and organic matter in soils.

> '[Working to restore our environment] is important as it helps in arresting the problem of drought and its root causes, thereby, increasing soil ground cover reduces erosion, and increases water conservation and retention by soil. This work will in the long run raise the water table [and will] lead to increased fuel wood supply, thus reducing workload for women and children.'
>
> World Vision staff member, Africa

Restoring forests – Forests come in many shapes. Pine trees, hardwoods, mangroves and desert shrubs may all make up forests of economic and ecological value. Forests improve the quality of the soil beneath them, provide food and products for people and animals, support more diverse plant and animal life that better resists illness and predation, acquire and hold water, decrease erosion and disaster risks, sink carbon, cool the area beneath them, and protect crops from sun, sand and wind. Grasslands, too, are landscapes that provide people with opportunities to improve their lives and livelihoods by caring for their ecosystem. Restoring these systems usually requires more work than money and demonstrates incremental improvements such that immediate rewards may be realised in a short time with additional rewards being added as ecosystems grow stronger.

World Vision is a leader in regenerating forests through community-managed tree regeneration. We also have communities using *zai* and other indigenous and locally adapted tree propagation methods, tree and mangrove planting (where that is viable), and reducing need for wood fuel through efficient stove production.

Restoring watersheds[9] and landscapes – Restoring watershed and landscape scale systems can transform an entire area in which a community operates. This is where desertification is reduced and reversed. This is where cyclical drought is eliminated. This is where seasonal migration for work is rendered unnecessary. This is where livelihoods and food security are returned and where hope and resilience are restored.

Restoring watersheds and landscapes includes many of the above measures, as well as additional programmes and advocacy that help tie together discrete activities and their impacts, allowing broad-scale transformation. This broad-scale transformation, ultimately, is the goal of environmental programming in World Vision, because we know that communities are affected by the whole of their ecosystem, not by just one element in isolation.

Additional Avenues to Bring On Line

Through regenerating forests alone, World Vision communities are already making a significant triple-win difference in increasing access to food and water locally, improving livelihood security, and reducing climate change risks. Some additional areas we have begun to explore, which need to be enhanced, include the following:

Increasing access to energy – This applies particularly to sustainable energy sources that do not exacerbate ecological risks and are not themselves vulnerable or dangerous. Examples include wind, solar, bio-gas, micro-hydro and others. This often affects forest cover, of course, if wood is a primary fuel, but it also improves health and education goals, as well as in many cases improving livelihoods and reducing family expenses. Some forms of clean energy also help to resolve problems such as waste disposal. Many forms of distributed sustainable energy are less expensive than current energy sources, and many are far safer for children.

Scaling up ecosystem restoration – Most resources are still focused on technological, input-driven interventions, and not enough funding, time, people or focus is devoted to lower-cost, more sustainable work that better empowers community-level capacity to secure well-being. This focus must be reversed so that the most synergistic, empowering and cost-effective forms of development programming have the greatest priority in receiving resources.

Contributing to international and local policy debates – It remains difficult for local communities to restore and secure their ecosystems when outside interests (including their own non-local governments) focus on activities, systems and structures that undermine those resources for short-

[9] A watershed is the area of land where all water under it or draining off of it goes into the same place. For more information: http://water.epa.gov/type/watersheds/whatis.cfm.

term gain. World Vision can provide significant added value to communities by helping them increase their capacity to work with local and international governments and structures to achieve the ends they need for their ecological and economic security.

Being part of the solution – World Vision communities are distributed throughout the world. They are well placed to participate in research work such as weather station monitoring, ecosystem restoration, ecosystem mapping and monitoring processes, and natural resources-based risk reduction and sustainable food security methodology. Many communities have generations of experience in sustainable management of their particular local environment. Research is regularly identifying these traditional practices as the most appropriate and sustainable means of restoring and maintaining healthy ecosystems.

World Vision communities have a lot of knowledge to contribute. World Vision itself also has a significant role to play in being part of the solution: As the largest NGO in the world and having representation in so many countries, World Vision is a visible leader, and our areas of priority, stewardship and advocacy will affect the direction of national and international policy. We need to make sure we are prioritising those activities that most directly and effectively influence immediate and long-term well-being.

Starting Now

Developing communities have both great opportunity and significant need to affect the course of environmental stewardship and climate change over the next 20 years. World Vision has experience and capacity that can help. Scaling this up is possibly the most valuable and the most sustainable contribution World Vision can make to child well-being, to community development and to disaster risk reduction. The Natural Environment and Climate Issues (NECI) team as well as teams in a number of national, regional and support offices are working to position World Vision to lead in this vital area, but it will not come without work and appropriate resources. Further information on the ways World Vision is positioned to make a difference in children's and families' lives is available in the Natural Environment and Climate Issues strategy on the NECI website, from the NECI work team and community of practice.

Annex: Terms as They Are Used in this Document

What is 'development'?
The World Vision glossary defines it thusly: 'Development is a continuous process of positive change through which children, families and communities in interdependent relationships with governments, churches, civil society organisations, NGOs and businesses address social, environmental and economic issues that affect them. The movement of individuals and communities from a state of poverty to fullness of life'.[xxii]

Other definitions include similar concepts, specifically a change in a positive direction achieving new, stronger, more advanced conditions or status.

These definitions do not leave room for regression: A programme that does not result in positive change is not development; it is, at worst, a harmful waste of effort and, at best, a learning opportunity. Positive change that does not last is not development – at best, it is charity and, at worst, it is damaging.

'Development' in this paper, then, will mean long-term – *continuing* – progress in the direction of well-being.

What is 'the environment'?
'The environment is where we live'.[xxiii] This simple definition is important because we sometimes place *The Environment* on a pedestal, reserving it for use when speaking of pristine mountain streams, majestic vistas and windswept savannahs. In this paper, however, and in World Vision's business, the environment means 'where we live', specifically with regard to the homes, compounds, neighbourhoods, villages, cities, landscapes and lands that World Vision communities live in.[xxiv] People living in high-rise apartments in large cities have the environment to deal with just as truly as people living on farms or in the forest.

What is 'environmental stewardship'?
Environmental stewardship means managing the environmental resources under one's sphere of influence. The word 'stewardship' is value neutral, and stewardship may be done well or poorly regardless of what is being stewarded. However, this term is more commonly used to imply good or responsible stewardship as described in Jesus' parable of the talents.[10]

What is 'sustainable development'?
This is, in part, where development and the environment return to each other. It implies also a return of systems, policies and people to truly *developmental* thought rather than silos, which can hinder development.

The most widely used definition of sustainable development states:

> Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.[xxv]

[10] See Matthew 25:14–30.

There are many variations on this theme, but the important concepts boil down to two families of thought:

1. Sustainable development (SD) is about helping people attain better lives and requires that positive changes do not fade away once a programme ends, but continue on. This can also be designated *sustained development,* and we will use this term when it is useful to emphasise that we are specifically focusing on development gains that last, rather than necessarily emphasising the following.
2. SD is about developing in a way that maintains or grows the resource base so that a community does not end up with a few years of progress followed by decline or utter desolation afterwards because the resource base was destroyed to extract short-term gain with no long-term solution.

Now, you may be asking, 'How is "sustainable development" different from the way we defined "development"?' It really isn't. In the simplified and specialised new world of industrialism, society briefly lost sight of the complexity of both development and the rest of reality outside factory walls. So, for a handful of decades we tried to squeeze 'development' into a box that was much too narrow. 'Sustainable development' was really only defined to make up for this little slip in our understanding of what development needed to comprise. If we get development right, it will naturally be sustainable, as that is the only way to achieve continual positive progress for the bulk of humanity.

Although the abbreviated definition of sustainable development above does not explicitly include them, trade and social justice, equity, enabling policies, and balance are inherent in sustainable development as it was originally conceptualised[xxvi] and are critical to securing child well-being.

What are 'ecosystems'?
Ecosystems are living things (like children or apple trees) interacting with each other and with non-living parts of their environments (like windstorms or boulders) as interdependent units. Although this term was initially the province of biologists, in recent decades it has been conscripted by many other groups due to its usefulness in describing relationship and interdependence. It can now be found describing social, political, even financial systems that exhibit complex, interdependent relationships with the structures and systems that comprise their environments.

What is the 'natural environment'?
We use this term to distinguish the parts of the environment that God made from modifications added by people. The natural environment is the foundation for all life, and, for most World Vision communities, it is the foundation of most livelihoods, as well. We will also talk about 'environmental resources' and 'environmental assets' within this paper. These terms mean, simply, those components of the natural environment that people use to support and further their well-being. 'Natural resources' and 'natural capitals' are other terms that describe this same basic subset of the environment.

What is 'environmental degradation'?
Because most applications of this term are industry- or situation-specific, it is worth discussing what it will mean in this document. Degradation means simply the lessening, breakdown or decline of something. Environmental degradation, then, will be the breaking down or decline of the environment. Visions of washed-out gullies and the creep of the Saharan sands may dance in our heads, and these are good examples of environmental degradation. It is important to note, though, that some of the most pervasive environmental degradation, much like HIV or cancer, may remain in the background, nearly invisible, for years.

Environmental degradation includes release of toxic chemicals into the land, air or water, and also includes incremental leaching of vital nutrients from arable soil. It includes brutal erosion that sweeps away farmland and also includes gradual sinking of the water table as trees are cut down and not replaced. Environmental degradation can be as local as loss of a treasured fishing pond to development, and as global as catastrophic climate change. Many forms and impacts of degradation show up far from their source, placing people and systems at risk with little control over the situation.

The degradation of people's immediate resource base compromises their health and ability to make a living today and also weakens future prospects. Degradation of the global resource base – manifested in such ways as ozone depletion, fish stock depletion, climate change and sea level rise – compromises health, local resources, livelihoods, and even entire countries more and more each day.

What are 'climate' and 'climate change'?
'Climate' means simply the overall or long-term weather patterns of an area, including variables like temperature, amounts of precipitation, winds, humidity, etc. So, rain this afternoon does not necessarily identify type of climate, but rain at a high level regularly throughout the year, year after year, does.

'Climate change', also called global warming, is a shift in the overall climate of the entire earth due to increased global atmospheric temperatures. Because climate change affects the whole globe, it affects all of the separate regional climates across the globe. Climate change tends to exacerbate conditions that make life hard or dangerous for human beings – making storms more dangerous and numerous, drying up some rivers and wells while flooding other places, forming heat waves, and increasing the spread of many serious diseases. Therefore, it is a major concern for development and well-being. Although climate change is one of the most serious threats to human well-being that humanity has faced, there is still significant opportunity to affect the degree of impact it has on children.

Endnotes and footnotes throughout this paper contain additional information on topics defined here and expanded definition material.

Endnotes

[i] Environmental factors directly affect children's nutritional status, exposure to illnesses, disaster risk, respiratory and diarrheal susceptibility, sanitation, and physical and mental development. Through parental/caregiver health, nutritional status, sanitation, income, physical and mental development, stress levels and hope, the environment also contributes profoundly to indirect drivers of children's well-being.

[ii] Barton, J., Pretty, J., 'What is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-Study Analysis'**.** *Environmental Science & Technology* 44/10 (2010), 3947–3955. Sherer, P., *The Benefits of Parks: Why America Needs More City Parks and Open Space* (2006). <http://www.eastshorepark.org/benefits_of_parks%20tpl.pdf> accessed 5 September 2012. Louv, R., *Last Child in the Woods: Saving our children from nature deficit disorder* (Chapel Hill, 2008).

[iii] CGIAR, 'Agriculture and Rural Development Day 2012: "Lessons in Sustainable Landscapes and Livelihoods"', Final Communique (2012). <http://www.cgiar.org/press-releases/agriculture-and-rural-development-day-2012-lessons-in-sustainable-landscapes-and-livelihoods/> accessed 5 September 2012. United Nations, 'Food Security and Sustainable Agriculture: Facts and figures' (2012). <http://www.un.org/en/sustainablefuture/food.shtml> accessed 5 September 2012. International Institute for Environment and Development (IIED), *Millennium Development Goals and Local Processes* (2003). <http://www.un-ngls.org/orf/MDG-booklet%20-%20The%20MDG%20and%20local%20processes.pdf> accessed 5 September 2012. United Nations, *Forests for People Fact Sheet* (2011). <http://www.un.org/esa/forests/pdf/session_documents/unff9/Fact_Sheet_ForestsandPeople.pdf> accessed 5 September 2012.

[iv] Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: General Synthesis* (Washington, DC, 2005). Reports and syntheses available from http://www.unep.org/maweb/en/index.aspx; accessed 5 September 2012.

[v] Correlation of environmental health to food and nutritional security, at both local and global levels, is well established. Increases and changes in disease patterns regularly correlate to changes in temperature, humidity and water availability and land use changes by increasing or decreasing the hospitability of the local area to disease agents or to the hosts and vectors that transport these to humans. Temperature changes associated with global warming, for instance, are enlarging the territory of the malaria vector Anopheles mosquito. Improved nutritional variety and security correlates with improved immune outcomes, and decreased nutritional status correlates with decreased immune outcomes, making disease harder to fight. Water availability and quality, both significantly influenced by the functioning of the natural environment, affect sanitation, which correlates strongly to both risk of contracting illnesses and also successfully resolving illnesses that have been contracted. Effective metabolism of food is also affected by a number of sanitation- and hygiene-related factors.

The overwhelming majority of slow- and rapid-onset disasters are influenced by the natural environment. As initially created, many natural systems (e.g. wetlands, mangrove forests) were inherently protective, separating human populations from sea and storm surge, high winds, and torrential rains. Human manipulation of these systems has decreased their efficacy, but this can be rebuilt. Forests and some other natural plant systems serve the function of slowing and capturing rain and flood water, which is vital to making it useful for human populations, especially for preventing seasonal deficits in useable water and for reducing droughts and floods. Many types of vegetation, in addition to affecting water harvesting, also secure land in place. This affects disaster risk from both landslide and famine. Other plant systems improve the quality of soil, replacing nutrients carried away with harvested corps so that the land can continue to produce, again directly affecting slow-onset risks associated with food insecurity.

Numerous studies demonstrate the physical and mental health impacts of the environment, pointing to improvements in both associated with access to the natural environment. This is of critical importance to children and also to the poor.
Some resources for further information:
http://www.who.int/water_sanitation_health/diseases/malnutrition/en/
http://www.epa.gov/climatechange/impacts-adaptation/health.html
http://www.unep.org/dewa/Portals/67/pdf/Black_Carbon.pdf
http://daraint.org/climate-vulnerability-monitor/climate-vulnerability-monitor-2012/data/
http://download.daraint.org/CVM2-Low.pdf (or summary: http://download.daraint.org/CVM2ndEd-FrontMatter.pdf)
http://daraint.org/wp-content/uploads/2010/12/CVM_Adaptation-Actions.pdf
http://www.economist.com/node/10566634?story_id=10566634
http://www.unescap.org/65/documents/Theme-Study/st-escap-2535.pdf
http://unctad.org/en/Docs/ditcted200715_en.pdf
http://www.srfood.org/images/stories/pdf/officialreports/20120306_nutrition_en.pdf
http://www.srfood.org/images/stories/pdf/officialreports/20110308_a-hrc-16-49_agroecology_en.pdf
http://english.neigaehrb.cas.cn/klma/
http://www.unep.org/dewa/Portals/67/pdf/Black_Carbon.pdf
http://www.un.org/esa/dsd/susdevtopics/sdt_pdfs/SG%20Report%20on%20Agriculture%20Development%20and%20Food%20Security.pdf

[vi] For further information see http://www.icrc.org/eng/who-we-are/history/overview-section-history-icrc.htm, http://www.msf.org.uk/about_history.aspx, http://www.iisd.org/pdf/2012/sd_timeline_2012.pdf.

[vii] International Institute for Sustainable Development, 'What is Sustainable Development?' (2013). <http://www.iisd.org/sd/>. Medicins Sans Frontieres, 'Our history' (2013). <http://www.msf.org.uk/about_history.aspx>.

[viii] World Commission on Environment and Development, *Our Common Future* (Oxford, 1987).

[ix] For further information see http://www.iso.org/iso/iso14000.

[x] For further information see http://www.unicef.org/wsc/.

[xi] For further information see http://www.unicef.org/crc/. For the full text of the Convention see http://www2.ohchr.org/english/law/crc.htm or download at http://www2.ohchr.org/english/law/pdf/crc.pdf. Articles 24, 27, and 29 are particularly relevant to the interaction between natural environment and the fulfilment of children's rights.

[xii] The International Declaration of Human Rights also requires that all people have the right to free choice of employment and standard of living 'adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services' and that 'Motherhood and childhood are entitled to special care and assistance'. Improper stewardship and exploitation of environmental resources arguably deny these rights to those who preferentially choose natural resource-based livelihoods and to all who make their living from the land or water. For the full text of the Declaration see http://www.un.org/en/documents/udhr/.

[xiii] Transformational Development Policy, available under 'Development' from https://www.wvcentral.org/wvipolicy/Documents/Forms/PolicyGuideline.aspx.

[xiv] For further information see the World Vision Ministry Framework (https://www.wvcentral.org/cwb/Documents/Overview/Ministry%20Framework%20-%20English.doc) and World Vision Theory of Change (https://www.wvcentral.org/partnershipdirection/Documents/Theory%20of%20Change/WVI%20ToC%20narrative%20-Aug%202011.pdf).

[xv] CGIAR; United Nations (2011).

[xvi] An interesting example of the potential here is captured in the documentary *The Power of Community: How Cuba Survived Peak Oil* (2006). It chronicles Cuba's shift from a petroleum-based agriculture and a low regard for farmers and the land to a highly successful organic and restorative agricultural paradigm following the collapse of the Soviet Union, which left Cuba without options for importing petroleum products.

[xvii] See Endnotes iv and v, above, plus the following: Johns, T., and Sthapit, B. R., 'Biocultural diversity in the sustainability of developing-country food systems', *Food Nutr Bull*, 25/2 (June 2004), 143–155. Johns, T., and Eyzaguirre, P., 'Linking biodiversity, diet and health in policy and practice', *Proceedings of the Nutrition Society*, 65 (2005), 182 –189. Johns, T., and Maundu, P., 'Forest biodiversity, nutrition and population health in market-oriented food systems', *Unasylva* (2006), 224. Victoria, C., et al., 'Maternal and child undernutrition: consequences for adult health and human capital', *Lancet*, 371/9609 (2008 January 26), 340–357.

[xviii] See Endnotes iv, v and xvii, above.

[xix] See numerous case studies and presentations in the resource section at http://www.beatingfamine.com/resources.

[xx] High Level Panel of Experts, (HLPE) *Food security and climate change: A report by The High Level Panel of Experts on Food Security* (2012). <http://www.fao.org//fileadmin/user_upload/hlpe/hlpe_documents/HLPE_Reports/HLPE-Report-3-Food_security_and_climate_change-June_2012.pdf>. Overseas Development Institute (ODI), et al., *Confronting Scarcity: Managing water, energy and land for inclusive and sustainable growth* (2012). <http://erd-report.eu/erd/report_2011/documents/erd_report%202011_en_lowdef.pdf> accessed 5 September 2012.

[xxi] IIED; Millennium Ecosystem Assessment; United Nations (2011); United Nations (2012).

[xxii] The full glossary can be found on wvcentral from https://www.wvcentral.org/Lists/Glossary/English%20Index.aspx.

[xxiii] World Commission on Environment and Development.

[xxiv] For further thought on the varied definitions of 'Environment' see International Standardisation Organisation (ISO) 14001, United Nations Environment Programme (UNEP) and United Nations Conference on Environment and Development (UNCED) resources, and the World Vision Theory of Change.

[xxv] Ibid.

[xxvi] Ibid.

International Offices

World Vision International
Executive Office
Waterview House
1 Roundwood Avenue
Stockley Park
Uxbridge, Middlesex
UB11 1FG, UK

World Vision Brussels & EU
Representation ivzw
18, Square de Meeûs
1st floor, Box 2
B- 1050 Brussels, Belgium
+32.2.230.1621

World Vision International
Liaison Office
7-9 Chemin de Balexert
Case Postale 545
CH-1219 Châtelaine
Switzerland
+41.22.798.4183

World Vision International
United Nations Liaison Office
919, 2nd Avenue, 2nd Floor
New York, NY 10017, USA
+1.212.355.1779