Combating Desertification and Land Degradation: The World’s Best Policies
Land degradation is a widespread but slow onset crisis, destabilizing nations and communities on a global scale. Droughts kill more people than any other single weather-related catastrophe. Conflicts among communities over water scarcity are gathering pace. Reversing the effects of land degradation is not only achievable but it is the logical step for the global sustainable development agenda and for governments at all levels.

Monique Barbut, Under-Secretary-General of the United Nations and Executive Secretary of the United Nations Convention to Combat Desertification (UNCCD)

The Future Policy Award identifies and celebrates exemplary laws and policies that address the most pressing political challenges the global community is facing today. The Award highlights achievements in policy-making and its implementation, as well as visionary new approaches. We commit to ensuring that these solutions are shared across the globe to inspire further progress towards a sustainable and peaceful world.

Alexandra Wandel, Director and Vice-Chair, Management Board, World Future Council

Land degradation has far-reaching impacts, but prevention and restoration can reach even further. We must balance our narrative about the negative impacts of land degradation by highlighting success stories in sustainable land management. Governments should learn from these best policies and their successful implementation. It is time to enter the restoration age.

Luc Gnacadja, Former Executive Secretary of the United Nations Convention to Combat Desertification (UNCCD); former Minister of Environment, Housing, Urban and Regional Development of Benin; Councillor of the World Future Council
AWARD-WINNING POLICIES

GOLD
The Tigray region’s interpretation of Ethiopia’s development strategy focuses on food self-sufficiency and economic growth by conserving land and promoting sustainable agriculture. Thanks to a unique combination of collective action, voluntary labour and the involvement of youth, the people of Tigray are restoring land on a massive scale.

VISION AWARD
International: The 4 per 1000 Initiative: Soils for Food Security and Climate (2015)
This awareness raising, high-level political initiative communicates a new concept for mitigating climate change through the annual increase in soil organic carbon by 0.4 per cent in the top 30-40 cm of the agricultural soils. It encourages a paradigm shift in agricultural practice.

SILVER
Brazil: Cistern Programme (2003, enshrined into law in 2013)
This programme is a participative, bottom-up way to provide water for consumption and for growing food and keeping livestock in Brazil’s drought-prone Semiarid region using simple rainwater collection technology. It empowers millions of the region’s poorest people to be in control of their own needs, to generate income and enhance their food security, and learn to not just survive but thrive on their land in the Semiarid.

BRONZE AWARDS
Indigenous Rangers are at the forefront of turning around environmental degradation right across Australia. 75 Indigenous Protected Areas, covering over 67 million hectares, now make up more than 44 per cent of the National Reserve System and have created largest contiguous area of protected arid land in the world.

Bedouin people in Jordan have governed their rangelands through their own land tenure systems and grazing rights known as “Hima” for millennia. The Rangeland Strategy embraces this traditional, holistic concept, which effectively integrates natural resources, community life, ethics, animal welfare and more.

This is a large-scale, cross-sectoral initiative that is enhancing the sustainable agricultural development and socio-economic resilience of farmers and herders. The policy was developed in an inclusive and participatory process. Since 2011, Niger has reduced the proportion of people suffering from hunger by 50 per cent.

SILVER
This is the world’s first integrated law dedicated to combating desertification. It provides a framework for China’s National Action Programme and a host of projects aimed at rehabilitating land at risk. Over the last 15 years, China has reversed the trend of desertification. It is no coincidence that the country lifted more than 700 million people out of poverty during the same period.
40% of the world’s population (up to 2.8 billion people) are now living in water–scarce regions (UN Water)

325 million people in Africa live in drylands; that is nearly half of the continent’s population (UN-ECE)

135 million people will be at risk of being displaced by desertification over the coming decades due to water and food shortages (Global Humanitarian Forum)

2 billion people worldwide depend on 500 million small-scale farmers for their food security (IFAD)

25% of all land globally is highly degraded (FAO)

52% of land used for agriculture is moderately or severely affected by soil degradation (United Nations)

2 billion hectares of degraded land worldwide – an area larger than South America – have the potential for land rehabilitation and forest restoration. (World Resources Institute)

3 billion tons of carbon annually can potentially be stored in the soil by restoring degraded land (Research by Professor Rattan Lal, Ohio State University)
DEAR READERS,

We at the World Future Council envision a sustainable, just and peaceful future where universal rights are respected. With our annual Future Policy Award, we research, identify and disseminate the best and most sustainable policy solutions. In 2017, in partnership with the United Nations Convention to Combat Desertification (UNCCD), we are highlighting laws and policies that contribute to the protection of life and livelihoods in the drylands, and help achieve Sustainable Development Goal 15, target 3, to “combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.”

A Call for Nominations was sent to over 600 experts from intergovernmental organizations, non-profit organizations, academic and research institutions, government agencies, development banks, and other notable institutions active in this field. Twenty-five policies from 18 countries were nominated, plus a policy from the European Union and an international initiative. These nominations from all continents reflect a wide range of law making and policy approaches addressing different aspects of this complex topic.

It is embedded in the design of the 2017 Award that, in order to qualify, policies must specifically contribute towards SDG target 15.3. Desertification and land degradation is a major threat to food security and poverty reduction efforts. You will find that SDG 1, no poverty, and SDG 2, zero hunger, are addressed in different ways by all the awarded policies. Some policies are centred on water management and therefore closely linked to SDG 6, clean water; others have a specific focus on empowering women and girls, and reducing inequalities, SDGs 5 and 10.

Our policy evaluation is based on the “Seven Principles for Future Just Lawmaking”. Principle 1, the “duty to ensure sustainable use of natural resources”, guides us to select policies that tackle desertification and land degradation using overarching, integrated approaches at the landscape level. The “principle of equity” requires that policies address poverty issues, improve social justice, gender equity and indigenous rights, and recognize the needs of future generations. Restoring land is hard work and often requires manual labour. Our “principle of public participation” guides us to rate policies higher if they not only include local people as labourers and beneficiaries, but engage communities early on in the process of policy design.

In a nutshell, policies score highly in the Future Policy Award evaluation not only by advancing the sustainable use of resources but also by addressing equity, the eradication of poverty, community participation, and the peaceful resolution of conflicts.

We seek to inspire lawmakers worldwide with these exemplary, award-winning policies, and hope to see their key elements being spread and implemented in the months and years ahead.

Yours sincerely,
The 2017 Future Policy Award Team
‘More people, less erosion’ – Ethiopia’s Tigray region, home to over 4.3 million people, shows this can be a reality. Through unique collective action, voluntary labour and the involvement of youth, the people of Tigray are restoring land on a massive scale.

A Vast Transformation of the Landscape

- The systematic management of mountains and hillsides with stone walls and pits has recharged groundwater levels. Since 1991, soil and water conservation activities have been undertaken on 960,000 hectares (12 per cent of the land area) and 1.2 million hectares (15 per cent) have been closed off to allow vegetation to reestablish.

- Erosion has decreased significantly. The decrease in sheet and rill erosion resulted from changes in crop cover (48 per cent) and conservation practice (29 per cent).

- The uptake of sustainable agricultural practices such as the construction of stone terraces and microdams, establishment of enclosures and community woodlots, regulation of grazing lands, reduced burning and the application of manure and compost, has made a significant contribution to food self-sufficiency and economic growth.

The development strategy of the Ethiopian Government is called Agricultural Development-Led Industrialization (ADLI). The focus of ADLI is not the same in all states. Tigray added “conservation-based” to the strategy and emphasizes public participation as one of the underlying principles for agricultural development. Tigray’s ADLI catalysed significant international investment and is implemented through a number of policies and programmes.

Mass Mobilization

Villagers in Tigray are expected to contribute 20 days per year of voluntary labour towards building public and productive assets, such as the construction of terraces, irrigation projects and public infrastructure. However, in advance of this physical work, the planning of projects also builds on bottom-up, local-level participation. The community organizes into development groups and associations of men, women, and youth. During communal work, the group leaders, together with officials from the Bureau of Agriculture, organize people and tasks, and ensure that the work is carried out. In a study by the International Food Policy Research Institute (2011), farmers stated that their motivations for participating were “livelihood improvements, increase in food crop production, and increase in groundwater availability”. The study points out that it is “remarkable that the perception of land degradation and awareness of the problem have also played an enormous role in their willingness to contribute labour for ecological conservation.”

Youth Groups

The central mechanism of the Youth Responsive Land Policy is to give legal landholding certificates and extension support to landless youth. In exchange, they restore degraded communal lands. Groups form local cooperative organizations based on cooperative law and develop their
own bylaws. They elect a board, require a business plan, and are subject to regular auditing. A research team that covered the policy concluded that there is a high degree of compliance with Nobel Laureate Elinor Ostrom’s Design Principles across the youth groups, and that the youth group model shows promise as an approach for engaging landless and unemployed youth in productive activities and as environmental custodians in other parts of the world.

“The Tigray region of Ethiopia is now greener than it has ever been during the last 145 years. This is not due to an increase in rainfall, but due to human investment in restoring degraded land to productivity. Large-scale restoration under harsh environmental conditions (steep slopes, poor soils) was possible because the regional government of Tigray decided to make restoration a pillar of its development strategy. It developed a set of good policies, and the people of Tigray were mobilized to invest their labour in restoration activities. In about 15 years, men, women and children moved at least 90 million tonnes of soil and rock by hand to restore their landscapes on about 1 million hectares. In the process many communities have overcome the impacts of climate change.”

Chris Reij, Senior Fellow, World Resources Institute
This policy was introduced to support the goal of installing 1 million rainwater collection cisterns to provide drinking water in the dry season for millions of the poorest rural people in the Semiarid region of Brazil. Since 2011 the original initiative has been complemented by the provision of additional larger cisterns that enable families to collect water for productive uses, such as growing food and keeping livestock to generate income and enhance food security. These cisterns allow smallholder farmers and their families to become the protagonists of their own sustainable development. Local people are trained in sustainable water management and ecological, locally-adapted farming techniques, and encouraged to store their resources – water, seeds, food, fodder – for use in periods of drought and hardship. The key principles of the policy are local ownership and decision-making, using local materials and labour for construction, and integrating training into the programme. There is a major focus on reducing the huge burden on women and children, who are responsible for the collection of water which, without a cistern, can take several hours every day.

**A Social Movement**

The Cisterns Programme originated in, and remains driven by, a genuine social movement. In 1999, civil society organizations launched the Declaration of the Brazilian Semiarid Region, calling for sustainable co-existence with drought, not simply relief from it. Work began through local civil society groups, churches and unions, initially with support from international NGOs and donors. In 2003, the initiative was adopted by the Federal Government and the Cisterns Programme became a key component of Brazil’s new Zero Hunger strategy. The 2013 Law formalized the programme, and facilitated and streamlined its delivery. The construction of cisterns consequently accelerated: in 2014 alone, the programme built just over 360,000 cisterns, 300,000 for human consumption and 60,000 for production.

**Living with Drought – Democratizing Access to Water**

- 1.2 million cisterns were built between 2003 and 2016, benefiting 4.5 million people in the Semiarid. The 1 million goal was reached in 2014, and the programme is ongoing. The 16,000 litre domestic cisterns can supply a family of five with water for drinking, cooking and washing during a dry period of eight months, or even more.

- 200,000 productive water tanks have also been built. These 52,000 litre cisterns have helped families advance from subsistence farming to producing a more diverse range of products – including well-adapted native plants, small livestock and beekeeping - to supplement their diets and income. Some farmers sell their excess produce to the Government Food Purchase Programme, which uses it to relieve hunger, for example in free school meals. Almost 5,000 cisterns have also been built to provide water for rural schools.

- The policy has made the Right to Water a reality for millions, and focus on eradicating poverty and ensuring food security.

- Far fewer people now leave the region due to drought. Since 2012, the region has experienced
one of the worst droughts ever recorded. The situation is extremely difficult, but reports indicate that the very worst effects of drought – child mortality, starvation, mass migration – that used to be widespread in the Semiarid are not occurring.

- For women, the policy is transformational. Cisterns are registered in the name of the female head of the household, giving them ownership and responsibility, and a leading role in providing for their families and communities.
This law provides a legal framework to support the implementation of China’s National Action Programme to Combat Desertification and a host of projects aimed at rehabilitating and revegetating land at risk, from the vast Great Green Wall to local tree planting initiatives. It is the world’s first integrated law dedicated to combating desertification.

Desertification: Reversing the Trend

Desertification and land degradation are the most severe ecological threats facing China, affecting over 400 million people. The Law fortifies the country’s efforts to address these challenges.

According to the findings of a national monitoring study in 2004, completed soon after the enactment of this Law, the area affected by desertification was 2.6 million km², covering 27 per cent of the total territory of China. The Government announced in June 2017 that the area of desertified land in China shrank by an average of 1,980 km² per year in the 2010-2014 period, a sharper decline than 1,717 km² per year from 2005 to 2009 period and 1,283 km² between 2000 and 2004. This represents remarkable progress. In its 2006 report to UNCCD, China reported that, by the end of the 20th Century, the area of desertification was expanding by 10,400 km² each year.

China intends to rehabilitate 10 million hectares of desertified land in the 2016-2020 period, which amounts to more than half of the country’s reclaimable desert land.

Sand storms are a huge problem in China, affecting many of its major cities. The area of desertified land due to wind erosion in 2004 was 1.8 million km². This aeolian desertification through wind erosion is reported to have been reversed from a 3,600 km² per year expansion during 1988-2000, to an annual decrease of 1,375 km² from 2000 to 2010. Beijing now only experiences two to three sandstorms each year, compared with over 13 around the year 2000, according to official data released in 2016.

Strong Government Action

The Government has been taking strong action against desertification for many decades, the largest intervention being the intergenerational Three-North Shelterbelt “Great Green Wall” Project, launched in 1978, which has planted over 66 billion trees across 30 million hectares of land in the north, northeast and northwest of the country. China signed up to UNCCD in 1994 and ratified it in 1997. In 1994, the National Bureau to Combat Desertification was established, and in 1996 China submitted its first National Action Programme to Combat Desertification to UNCCD, which was updated in 2000 and 2003.

The National Action Programme divides into three levels: key large-scale national projects, regional demonstration projects, and local, non-governmental and private projects. The Law provides a legal framework for implementing this Action Programme and the many integrated projects aimed at controlling desertification. The plan is described as the “soft policy”, while the law is the “hard policy”.

The State Forestry Administration, under the leadership of the State Council, is responsible for organizing, coordinating and guiding efforts to
implement this Law. Local people’s governments at or above County level are charged with taking effective measures to combat desertification in accordance with the Law. Private companies are increasingly active.

The Law stipulates which activities are prohibited on land experiencing or threatened by desertification, such as cutting or digging shrubs, and provides for the creation of reserves where all activities that damage vegetation are prohibited. It also provides the legal basis for establishing a system of cost-benefit incentives to encourage land rehabilitation by land-users. This can include financial awards, tax exemptions, and land use rights of up to 70 years. The Law also allows for financial compensation to be awarded to people who change to more sustainable land-use, for example from farming or grazing to forest land.
The 4 per 1000 Initiative communicates a new concept for mitigating climate change through the annual increase in soil organic carbon by 0.4 per cent in the top 30-40 cm of agricultural soils. It encourages farming techniques which combat soil erosion and improve soil health, such as agro-ecology, agroforestry, conservation agriculture or landscape management. With this initiative, agriculture takes centre stage in combating climate change, while at the same time producing more food. The initiative has been path-breaking in changing discourse and improving awareness on soil health.

Small Changes – Great Effects

Even small changes in the soil carbon pool can have large-scale effects both on agricultural productivity and on greenhouse gas balance. A 4 per 1000 annual growth rate of the soil carbon stock would make it possible to stop the current increase in atmospheric CO2 and help limit the average global temperature increase to +1.5/2°C. Increase in soil carbon is also a major tool for improving soil fertility and agricultural production.

High-Level Support

This high-level political initiative was launched by France in 2015, during the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) and was immediately backed by more than 20 European ministers and other high-ranking politicians. Initiated by the scientific community, it is being developed through a unique and transparent process involving a range of partners including smallholder farmers.

Even though the Initiative is fairly recent, it has already received high-level endorsement and support internationally. As of May 2017, 34 countries were partners (including many European countries, Australia, Mexico and Ethiopia), as well as numerous international organizations, research institutions, producers’ organizations, NGOs, development partners, foundations and businesses. The Initiative is open to all stakeholders. Partners commit to a voluntary action plan to maintain and enhance soil carbon stocks.

1.2 billion tonnes of carbon could be stored every year in agricultural soils (cropland and grassland). 24 - 40 million tonnes more grain could be produced every year in Africa, Asia and South America, by storing one tonne of organic matter per hectare of land.

www.4p1000.org

“Carbon sequestration in soil is a win-win-win strategy. It improves soil health, strengthens delivery of essential ecosystem services and makes agriculture a solution rather than a problem. Soil carbon sequestration is a bridge to the future. It buys humanity time while low-carbon or no-carbon fuel sources take effect.”

Professor Rattan Lal, Distinguished Professor of Soil Science, Ohio State University
4 PER 1000
CARBON SEQUESTRATION IN SOILS
FOR FOOD SECURITY AND THE CLIMATE

The quantity of carbon contained in the atmosphere increases by 4.3 billion tons every year.

The world’s soils contain 1500 billion tons of carbon in the form of organic material.

Absorption of CO₂ by plants:

Storage of organic carbon in soils:

If we increase by 4% (0.4%) a year the quantity of carbon contained in soils, we can halt the annual increase in CO₂ in the atmosphere, which is a major contributor to the greenhouse effect and climate change.

Increased absorption of CO₂ by plants:

Farmlands, meadows, forests...

+4% carbon storage in the world’s soils:

= more fertile soils
= soils better able to cope with the effects of climate change

HOW CAN SOILS STORE MORE CARBON?

The more soil is covered, the richer it will be in organic material and therefore in carbon. Until now, the combat against global warming has largely focused on the protection and restoration of forests. In addition to forests, we must encourage more plant cover in all its forms.

- Never leave soil bare and work it less, for example by using no-till methods.
- Introduce more intermediate crops, more row intercropping and more grass strips.
- Add to the hedges at field boundaries and develop agroforestry.
- Optimize pasture management – with longer grazing periods, for example.
- Restore land in poor condition e.g. the world’s arid and semi-arid regions.

“This international initiative can reconcile the aims of food security and the combat against climate change, and therefore engage every concerned country in COP21.”

Stéphane Le Foll, French Minister of Agriculture, Agrifood and Forestry
Indigenous Protected Areas (IPAs) are established following extensive consultation within a specific indigenous community, and agreement on a management plan to care for and protect the land, waters, biodiversity and cultural values of the area for present and future generations. IPAs are managed by indigenous partners, with support from the federal Government, according to contracts based on criteria that satisfy IUCN requirements. The Working on Country Programme was launched to provide skilled, paid employment for indigenous Rangers to work in these largely remote IPAs. These programmes are designed to be flexible, to allow for each indigenous group to determine their own goals and methods. To date, 75 IPAs make up 44.7 per cent of Australia’s National Reserve System and have created the world’s largest contiguous area of protected arid land.

Indigenous Values for Land Management

The Ranger programme concept enlists and revives the skills of indigenous people and combines their traditional ecological and cultural knowledge and practices with Western science. The success of the programme is credited to the value assigned to indigenous skills and priorities, strong connection to land, flexible working arrangements that allow for family and cultural commitments, and the trust built through long-term funding arrangements. The programme has grown to support 110 Ranger groups across Australia, employing over 2,600 indigenous rangers in full time, part time and seasonal work each year, working on – among other areas – fire management, endangered species protection, pest control, and water resources conservation. Thirty-six per cent of Rangers are women. Communities with active Ranger groups report positive health and education outcomes, job retention rates are over 80 per cent, and special programmes are being developed to engage more women, youth and elders. This is considered one of the Government’s most successful indigenous programmes; it helps strengthen and pass on indigenous stories, languages, and values while supporting families and protecting country.
In Islamic law the “Hima” signifies a natural area that is set aside permanently or seasonally for the public good and may not be privately owned. For more than fourteen hundred years, Himas have helped conserve natural resources and biodiversity in the Arabian Peninsula and adjacent areas. Experts consider the Hima to be the most widespread and longstanding indigenous traditional conservation institution in the Middle East. It integrates natural resources, community life, ethics, animal welfare, and more. It encourages communities to build their own institutions to manage the rangelands. In this, the Hima concept mirrors the landscape restoration approach which is promoted globally by key stakeholders in combating land degradation.

The Bani Hashem community in central Jordan has identified 1,500 hectares of public land that they refer to as “the last green area” in the rapidly industrializing Zarqa river basin. Negotiations between the Bani Hashem community and the Directorate of Rangelands and Badia Development, involving the Prime Minister’s office, were carried out to grant the community the right to manage the lands as rangelands. The community at Bani Hashem has developed a local tribal law (“Meathak Sharaf”) to help enforce the new land management system by restricting grazing. After one year of activities, biodiversity benefits can already be observed: indigenous floral species are back; shrubs and grasses are regenerating; and 36 native plant species were recorded.
In 2012, the Government of Niger developed this large-scale, cross-sectoral initiative against hunger through an inclusive and participatory process and in consultation with relevant ministries, academia, experts and civil society. By 2015, the initiative had restored 218,219 hectares of degraded land (83 per cent of the 260,000 hectares target set by the first five-year plan), fixed 33,839 km of dunes to protect infrastructure (52 per cent of the target), and installed 88,656 km of firebreaks. Niger has made significant progress in its fight against hunger, reducing the proportion of people suffering from hunger by 50 per cent since 2011.

**Drought Shall No Longer Mean Famine**

The policy focuses on soil fertility by enhancing sustainable agricultural practices - the Zaï technique, for example, where pits are created to collect water and nutrients from compost. It supports irrigation and erosion control measures, afforestation, and income generation, as well as social integration of vulnerable groups including women. The initiative has also provided transitional measures, such as financial and food assistance, to retain vulnerable groups in rural territories and to help them develop profitable farming. The first five-year plan (2011-2015) unfolded in three phases: Emergency Programme (2011-2012), Investment Programme (2012-2015), and Acceleration Programme (2014-2015). The second five-year plan (2016-2021) is currently being implemented.
Future Just Lawmaking Framework

Our “Best Policies” are those that meet the Future Just Lawmaking Principles and significantly support fair conditions for future generations. The International Law Association has adopted Seven Principles for Sustainable Development Law. These principles were the result of 10 years of academic work and are regarded as the “first blueprint for the emerging field of sustainable development law and policy” for professionals dealing with policymaking and evaluation. The Seven Principles methodology is applied as a framework for the evaluation of all policies that are www.worldfuturecouncil.org/seven-principles-for-future-just-lawmaking

1. Sustainable use of natural resources
2. Equity and poverty eradication
3. Precautionary approach to human health, natural resources and ecosystems
4. Public participation, access to information and justice
5. Good governance and human security
6. Integration and interrelationship
7. Common but differentiated responsibilities
INSIGHTS INTO OTHER POLICIES NOMINATED FOR THE AWARD


With this Programme, the Government involved all relevant ministries, governance bodies on all levels, international donors, civil society, private enterprises and local people, especially farmers, in sustainable land management practices (SLM). The Programme has so far improved about 3,394 hectares of vulnerable land, and supported capacity building of almost 1,000 government staff and 16,448 farmers, of which over 3,100 have adopted SLM practices.


The Strategy is the first policy approach specifically targeted at soil protection at the EU level. It was developed in a unique bottom-up process starting in 2001. The Strategy is comprehensive and underlines both that action is required at all levels, and that such action should take into account all the different functions that soils can perform, their variability and complexity, and the range of different degradation processes. As a result, soil protection was introduced in a number of policies, important research was undertaken, awareness was raised, and global initiatives were launched.


The world’s first comprehensive, dedicated national agroforestry policy is a ground-breaking, potentially transformative addition to India’s development platform. The policy recognizes the potential of agroforestry to reduce poverty, and enhance farm productivity and resilience. The Government estimates the policy will help increase the area under agroforestry from 25 to India’s target of 53 million hectares. The policy benefited from early, extensive and ongoing stakeholder engagement. The Government has dedicated considerable funding and is actively pursuing the deliverables; there has been rapid take-up at state and local levels.


This is a farmer driven policy. It works with “principles of sound rangeland management” rather than with rules and regulations. These principles find their origin in Holistic Management, which recognizes ecosystem health as a core of rangeland management. The implementation of the policy is organized through farmers’ unions and farmers’ associations. The policy is strong regarding the participation of stakeholders; it has been called inspirational by academics and “proof of concept” farms are emerging throughout the country.

**Nepal: Community Forestry Programme; Forest Act (1993) and Forest Rules (1995)**

The Forest Act and Rules set out provisions for the creation of community forests, and represent a breakthrough for more democratic, participative natural resources management in Nepal. About 1.45 million households are now involved in Community Forestry and over 1.8 million hectares of Community Forests have been created. Recent assessments found that Community Forests are in better condition than other forest
areas, and they are credited with the re-greening of large areas, particularly in Nepal’s mid-hills region.

**Rwanda: “Border to Border” Forest Landscape Restoration Initiative (2011)**

Rwanda was awarded the Gold Future Policy Award in 2011 for its National Forest Policy, which had the stated goal of achieving 30 per cent forest cover by 2020. This policy has lived up to our high expectations: as of May 2017, the level of forest cover is 29.6 per cent and the 30 per cent goal is expected to be met by 2018. The National Forest Policy has recently undergone an extensive review to reflect new priorities, including a new agroforestry strategy. With the Forest Landscape Initiative, Rwanda has committed to bring 2 million hectares under restoration by 2020, well over three-quarters of its total land area.

**Slovakia: Landscape Revitalization and Integrated River Basin Management Programme (2010)**

This Programme applied an alternative, decentralized low-cost approach to water management. Despite its brief existence (2010-2012), the Programme succeeded in constructing more than 100,000 small water retention measures in 488 villages all over Slovakia, which retain 10 million m³ of rainwater in the landscape. This reduced flooding and drought risks for about 1,000 municipalities in downstream river sections.

**Turkey: Afforestation and Erosion Control Mobilization Action Plan (2008-2012) of the National Afforestation and Erosion Control Mobilization Law no 4122**

With this five-year Action Plan, the Government involved governance bodies on all levels, civil society, private enterprises and local people in tree planting activities and erosion control works. Implementation succeeded on a large scale, with the Government recording 2 billion seedlings planted on 2.4 million hectares in just five years. Part of the Action Plan was a massive outreach campaign to convince people of the importance of tree planting and to involve them in the tasks at hand.
PREVIOUS FUTURE POLICY AWARD WINNERS

2015: CHILDREN’S RIGHTS

Gold Award
Zanzibar’s Children’s Act, United Republic of Tanzania, 2011

Silver Award
Maryland’s Environmental Literacy Standards, USA, 2011

Finland’s Basic Education Act, 1998, and general education policies

2014: ENDING VIOLENCE AGAINST WOMEN AND CHILDREN

Gold Award
The City of Duluth’s Coordinated Community Response to Domestic Violence, 1981, USA

Silver Award
Prohibition of female genital mutilation (Law no. 43/96/ADP), Burkina Faso, 1996

Psychosocial and legal court assistance for victims of violence during criminal and civil procedure, Austria, 2006

2013: DISARMAMENT

Gold Award
Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), 1967, Latin America and the Caribbean

Silver Award
National Programme for the Voluntary Surrender of Firearms, Argentina, 2006

Nuclear Free Zone, 1987, New Zealand

2012: PROTECTION OF OCEANS AND COASTS

Gold Award
Shark Haven Act, 2009 and Protected Areas Network Act, 2003, Palau

Silver Award
Marine Resources Act, 2000, Namibia

Tubbataha Reefs Natural Park Act, 2010, Philippines

2011: FORESTS FOR PEOPLE

Gold Award
National Forest Policy, initiated in 2004, Rwanda

Silver Award
Community Forest Policy, initiated in 1995, Gambia

Lacey Act, with its amendment of 2008, USA

2010: BIODIVERSITY

Gold Award
Costa Rica Biodiversity Law, 1998, Costa Rica

Silver Award

2009: FOOD SECURITY

Gold Award
Belo Horizonte Food Security Programme, 1993, Brazil

Silver Award
Tuscan Regional Law 2004 on the Protection and Promotion of Heritage of Local Breeds and Varieties of Interest to Farming, Animal Husbandry and Forestry, 2004, Italy

Urban Agriculture Policy, Cuba
2017 FUTURE POLICY AWARD JURY


- **Dr. Marie-Claire Cordonnier Segger**, UK, Canada, Senior Director Centre for International Sustainable Development Law (CISDL), Affiliated Fellow LCIL, University of Cambridge, Councillor World Future Council.

- **Dr. Günay Erpul**, Turkey. University of Ankara, Faculty of Agriculture, Department of Soil Science and Plant Nutrition.


- **Dr. Qi Lu**, China. Director and Chief Scientist of the Institute of Desertification Studies Chinese Academy of Forestry, Executive Secretary of the National Research and Development Center for Combating Desertification.

- **Jan McAlpine**, USA. Former Director of the United Nations Division on Forests and Head of the United Nations Forum on Forests (UNFF), Councillor World Future Council.


- **Antonio Rocha Magalhães**, Brazil. Economist and former Chair of the Committee of Science and Technology of the UNCCD.


The Jury held its deliberations and decided on the winning policies on 27 June 2017, after which its mandate expired.

### KEY REFERENCES AND RECOMMENDED READING

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- **Bhutan**: National Soil Service Center (2011), Sustainable Land Management Project - Working the Land - Documenting the Key Lessons of Sustainable Land Management on Steep to Very Steep Slopes in Bhutan.

- **Brazil**: Fernando Gaiger Silveira, et al (2016), Public policies for rural development and combating poverty in rural areas, International Policy Centre for Inclusive Growth (IPC-IG), UNDP and IFAD.


- **Ethiopia / Tigray**: IFPRI (2011): Responding to Land Degradation in the Highlands of Tigray, Northern Ethiopia

- **European Union**: Ecologic (2016), Updated Inventory and Assessment of Soil Protection Policy Instruments in EU Member States

- **India**: CGIAR (2014), India’s New Agroforestry Policy


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