

# Strategies for an ageing world under a changing climate



The world is ageing rapidly and will continue to do so over the coming century. By 2030 there will be more people aged 60 and over than children under 10; and 73 per cent of the world's older population will be living in developing countries.<sup>1</sup> Ageing is a triumph of development and improved health systems, however, people also retain significant vulnerabilities as they age.

Population ageing coupled with today's increasing climatic risks, environmental degradation, land pressure and resource scarcity could present a significant vulnerability nexus over the coming decades. Growing proportions of older populations and their families could be increasingly exposed to risks, especially in low- and middle-income countries. Without responding to the realities of the world's ageing demographic under a changing climate, climate adaption and national development and resilience strategies are unlikely to succeed.

This paper draws in part on an earlier discussion paper, *Rio+20: The emerging challenges of an ageing world*,<sup>2</sup> which explains that older people are not only affected by environmental change but they can also be key contributors to sustainability and resilience. This paper highlights the impact of environmental and climatic risk on older people and the ageing world, and presents what strategies can be developed to address this issue.

# Increasing environmental risks and disasters

**Hazardous land use, environmental resource degradation and loss, conflict, and emergencies, are likely to increase in the future as a direct or indirect result of climate change.** The 2012 report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) by the UN Intergovernmental Panel on Climate Change indeed warns that, “unprecedented extreme weather and climate events are likely” in the coming decades as a result of the changing climate.<sup>3</sup> With growing environmental and climatic risks, and the increasing numbers of older people who already face significant risks in emergencies, vulnerability to these events could significantly increase. This is an issue that needs to be addressed both by those working for older people and those working to reduce and respond to disaster and climatic vulnerability.

**Older people’s specific vulnerabilities and needs in emergencies are very different from those of other groups,** such as children. Older age brings reduced mobility and strength, impaired sight and hearing, and greater vulnerability to heat and cold. Minor conditions can quickly become major handicaps that overwhelm an older person's ability to cope. During emergencies, many frail or housebound older people are less able or less willing to flee from potential harm. They can struggle to obtain food, travel long distances or endure short periods without shelter.<sup>4</sup>

After a disaster, there is a focus on immediate relief, but this is often not appropriate for or accessible to older people. In the medium-term, emergency health services need to respond to the ongoing needs of older people, especially healthcare for chronic conditions, such as coronary heart disease, diabetes, strokes, respiratory illnesses, rheumatism and dementia.

Loss of family members, carers and community ties can also leave older people isolated. Coping with day-to-day life after a disaster can be difficult; in many cases, the psychological impact of a disaster on older people can be greater than other groups.<sup>5</sup> Yet, international humanitarian, national, and local disaster management operations and emergency planning are ill-equipped to respond to older people’s specific vulnerabilities and needs. There is significant data that shows older people are inadequately considered in the majority of humanitarian responses,<sup>6</sup> and that older people are often over-represented in mortality and morbidity rates from the impact of disaster – for example, during the tsunami in Japan and Hurricane Katrina.<sup>7</sup>

However, while older people are highly vulnerable to disasters, **they have a wealth of knowledge and skills which are central to planning for disasters and a changing climate.** Older people’s knowledge – whether it be life experience, traditional, or indigenous knowledge – can provide vital information on past climatic histories, hazard and disaster impacts, a community’s vulnerabilities and capacities, or social-environmental relationships, and can be key to understanding the nature of climatic vulnerability. Yet despite this, older people are often not consulted in planning, adaption and response programmes; if they are, the contributions they can make are often not acknowledged. Climate adaption and disaster risk management solutions can benefit from combining traditional local knowledge with science and technology. Without this combination, strategies are unlikely to succeed.

As well as utilising the knowledge, experience and skills of older people, community and national-based disaster risk management work must reflect older people’s needs and difficulties in mitigation and preparedness planning, and meet these needs in response. Without this, the impact of increasing disaster risk due to climate change on older people will be significant.

**Strategy 1:** *Develop national and community disaster risk management programmes which proactively engage older people's knowledge and skills, and ensure their needs and vulnerabilities are considered in mitigation, preparedness and response work.*



© Louise O' Gorman/HelpAge International

## Livelihoods, food and water security

**In the majority of developing countries, most older people continue to work well into old age.** Retirement is a luxury most cannot afford. Worldwide figures from the United Nations show that more than 70 per cent of men and nearly 40 per cent of women over 60 continue to work.<sup>8</sup> In some countries, these figures are even higher. Most older people have often worked in the informal sector or subsistence agriculture most of their lives, and so have few savings or social pension to rely on. Further, their livelihoods are put at risk as subsistence agriculture is being acknowledged as one of the livelihood strategies most at risk of climatic change.

Older people work for long hours on low pay, in insecure and hazardous jobs, and both in rural and urban settings. Those who are unable to work often face destitution and hunger. It is often a myth that older people in developing countries can rely on their families to look after them in old age. Because of changing social structures due to migration and development, the impact of HIV/AIDS on households, and growing inequality, poverty and livelihoods at risk, families often struggle to support older people.

As well as lacking regular income, **a high proportion of older people live in areas that are increasingly affected by water shortages**<sup>9</sup> brought on by extreme weather conditions linked to climate change and environmental degradation. Many are finding it difficult to grow enough crops to feed themselves and their families. As the need for farmland becomes more acute, older people can be the victims of land-grabbing. Widows, for example, are often denied their right to inherit land. In households where food is short, older women and men often bear the brunt of the shortage because they give their share to younger family members.<sup>10</sup> Food price hikes particularly affect older people with low incomes. In Kyrgyzstan, for example, some older people are now spending their entire pension on flour to make bread.<sup>11</sup>

**Further, as younger generations migrate to cities to look for work, older farmers are often left behind to farm the land.** In some countries such as Indonesia, Japan and Thailand, the government has acknowledged that this "age drain" on agriculture could present a significant food security risk.<sup>12</sup> When the issue of the ageing farming workforce is coupled

with increasing climatic threats, isolated older farmers – who are often left out of agricultural support and climate adaption programmes which can result in national and global food security – are likely to become more vulnerable.

Ecologically sound farming practices and conservation agriculture techniques which utilise better technology and science are becoming more central to climate adaption thinking. In many cases, **older people have knowledge of these techniques and the integrated systems within local ecosystems**. They may also hold knowledge of more traditional seed and crop varieties on smallholdings; which in many cases may be more resilient to climate change than mono-culture type agriculture, such as rice and maize, that have been more recently introduced. Reintroducing traditional varieties and their diversity may be key to food security in increasingly precarious climatic and environmental conditions in some areas.

Despite their role in agriculture and their knowledge and skills, older people continue to be marginalised. A recent study in Zimbabwe found that while the skills and knowledge of older farmers and the role they played in food production are acknowledged, they are not included in agricultural extension programmes. Further, while older farmers' advice and knowledge was identified, they were not given the opportunities themselves to pass this on to other farmers in farmer field schools, or be included in agricultural learning themselves.<sup>13</sup>

However, some conservation agriculture methods are extremely labour intensive, which can hinder those older people who are less able to do physical labour from taking them up, and so excludes them from these processes. Techniques that are responsive to age and disability, alongside ecologically sound and high yield-producing agriculture systems need to be better employed. Labour-saving technologies must also be included to reduce high levels of morbidity from agricultural livelihoods.

**Water insecurity is also a major source of stress and expense for poor older people** who – due to a combination of factors including distance, cost, design of latrines and unsuitability of water points – are often unserved by existing services and facilities. Water stress is increasing in many parts of the world due to climate change, as well as from pressure from over-exploitation due to increasing populations and economic growth. The potential risk of this to older people is significant as their access to water could become more precarious in the future, affecting their livelihood, health and wellbeing.

***Strategy 2: Policy makers acknowledge the role older people play in farming and food security, and ensure that these are supported in adaptive agricultural and food security policies, as well as in access and utilisation of food and water.***

***This should include conservation agriculture practices, which are inclusive of labour-saving techniques to make them more appropriate for older farmers and those with disabilities.***

***Strategy 3: Ensure mechanisms are in place so that older farmers' knowledge of resilient agricultural methods and environmental service and management can be integrated and acknowledged in adaptive strategies, and combined and shared with modern knowledge and technological advances.***



**Strategy 4:** Support the empowerment of sustainable smallholder farming, including older farmers, to collectively develop more economic power, but also to work together through risk and knowledge-sharing initiatives, so that older farmers become more resilient and increase their adaptive capacity.

**Strategy 5:** Develop social protection floors to support people across the life course.



© Barbara Hoyer/HelpAge International

## Health

**As temperatures rise and water and food resources become more precarious and changeable, the health impacts on increasing numbers of older people could be significant.** Older people are often more susceptible to infectious disease, and as environments change, so will disease patterns and prevalence. In developing countries, this susceptibility is due mainly to poverty and malnutrition. Older people encounter different pathogens that are increased through poor infrastructure and the lack of resources to treat their specific needs. A higher proportion of severe forms of malaria has been reported to be associated with older individuals without immunity, compared with younger adults.<sup>14</sup> Further, a recent study by HelpAge and Médecins Sans Frontières found that older people suffered more from the impact of cholera in Haiti than other groups.<sup>15</sup>

**Further, the changing climate and environment is increasing prevalence of non-communicable diseases (NCDs)** such as diabetes, heart disease, cancer, obesity, sensory-organ disease and dementias.<sup>16</sup> NCDs are not simply a problem affecting only wealthy countries; four-fifths of deaths from NCDs are in low- and middle-income countries, and older people in developing countries are particularly at risk. This is often forgotten, but is a chronic health security issue, which will be further exacerbated by the changing climate, mainly due to temperature increases. For example, more frequent and severe heat waves are a major but hidden disaster, often causing huge mortality rates in older populations.

**Strategy 6:** Invest in health and social wellbeing systems for the growing numbers of older people, especially in areas where NCDs and other infectious diseases will be exacerbated by increasing temperatures and public health risks, especially in cities.

# Migration and displacement

**As more people migrate to cities or are forcefully displaced, older people will be increasingly vulnerable either through being left behind in hazardous environments with care and financial responsibilities for grandchildren, or through lack of facilities, rights and protection in new unfamiliar urban environments.**

Due to poor rural investment and increasingly risky livelihoods – such as agriculture, which are subject to a range of climate and environment induced shocks and stresses – many working-age adults are suddenly displaced or migrate to find work and better services. They may leave behind vulnerable, isolated older people, who are often left to look after and raise grandchildren. This is a trend that may increase significantly with increasing push factors from the changing climate and environment – such as drought, natural disasters and sea level rise – and the range of socio-economic impacts of this. But older people may choose to stay rather than migrate. When asked about migration in the HelpAge 2009 report, *Witness to climate change*, almost all older people said they would prefer to stay in environmentally risky rural areas than migrate to urban areas.<sup>17</sup> This has major implications for the safety of older people in a changing climate.

There is a growing body of evidence that shows older people are often left behind when the rest of their community is displaced. This is because they may not be physically capable of making the journey to safety, ill-health or having a disability; they may be unable to either keep up with their family or risk slowing down their progress. Further, they may feel particularly tied to their home and lands and decide not to leave. The family may decide that it is important for someone to remain behind to secure their assets, and this responsibility may fall to the older person.<sup>18</sup>

When older people do move, migration and displacement in later life can be particularly traumatic. Older people often become completely dependent on their families for support, and those who have no one to look after them often end up doing petty trading or begging. The culture shock, loss of community and the loss of status can impact severely on the wellbeing of older people. As more people migrate to cities or are forcefully displaced, older people will be increasingly vulnerable either through being left behind in precarious environments with care and financial responsibilities for grandchildren, or through lack of facilities, rights, opportunity and protection in new, unfamiliar urban environments.



© Gacheru Maina/HelpAge International

**Strategy 7: Develop age-friendly and resilient cities and urban areas, which address both the infrastructural, economic and employment, social and wellbeing needs of growing older migratory populations.**

**Strategy 8: Ensure that the development of social protection systems and floors are resilient and adaptable, allowing older people to be supported whether they remain in environmentally risky areas or face climate-induced migration.**

**Further ensure that in crises or disasters, those social protection mechanisms can be augmented and used to deliver quick and effective cash aid to those most affected.**

## Resource security

**Older people are often among the most resource-poor – fuel and energy poverty being a key example of this.** Older people are often fuel-poor due to low income, their increased heating needs, especially in colder climates, and the long hours they spend at home. In many developing countries, they are also considered “energy poor” as access to fuel is often difficult. It is estimated that 1.5 billion people are living in energy poverty.<sup>19</sup> As fuel prices increase due to dwindling resources, the poorest and most marginalised, including older people, will be the hardest hit. This problem is often more pronounced in colder climates across Europe and central Asia, however, this is also true in places where fuel is needed for cooking, lighting and safety.

Further, as countries develop, older people’s reliance on different systems, such as electricity, changes. Without the proper social support to ensure older people can afford energy services in later life – especially as they are likely to get more expensive as fossil fuels become less available – this could create secondary vulnerabilities despite development gains. Equality in development and resource access must be assured.

Land, water and other natural resources are likely to be at risk from climate change unless managed more sustainably and made more resilient. With the growing global population, there will be increasing pressures on these resources, and the most vulnerable are likely to be affected hardest and lose access fastest. Already, older people are suffering from land grabbing, energy and fuel poverty, discrimination and marginalisation. Without support and protection, the negative impacts of climate change on the most vulnerable could increase.

***Strategy 9: Ensure social protection mechanisms facilitate access to fuel, energy, food and water, guaranteeing that the most vulnerable, including older people, are protected from food and resource price shocks and stresses.***

***Strategy 10: Introduce a rights convention for older people, which includes the protection of their ownership and equitable access to land, water and other natural resources, as well as wider social and economic entitlements.***

# Conclusion

Climate change is likely to put increasing pressures on already squeezed resources. Older people are already marginalised – and their numbers are likely to increase. Without increasing policies and services for older people and strategies for an ageing population under a changing climate, marginalised older people will be pushed further to the edge of safety and survival as the climate changes.

Therefore, this paper recommends the following strategies for an ageing world in a changing climate:

**Strategy 1:** Develop national and community disaster risk management programmes which proactively engage older people's knowledge and skills, and ensure their needs and vulnerabilities are considered in mitigation, preparedness and response work.

**Strategy 2:** Policy makers acknowledge the role older people play in farming and food security, and ensure that these are supported in adaptive agricultural and food security policies, as well as in access and utilisation of food and water.

This should include conservation agriculture practices, which are inclusive of labour-saving techniques to make them more appropriate for older farmers and those with disabilities.

**Strategy 3:** Ensure mechanisms are in place so that older farmers' knowledge of resilient agricultural methods and environmental service and management are integrated and acknowledged in adaptive strategies, and combined and shared with modern knowledge and technological advances.

**Strategy 4:** Support the empowerment of sustainable smallholder farming, including older farmers, to collectively develop more economic power, but also to work together through risk and knowledge-sharing initiatives, so that older farmers become more resilient and increase their adaptive capacity.

**Strategy 5:** Develop social protection floors to support people across the life course.

**Strategy 6:** Invest in health and social wellbeing systems for the growing numbers of older people, especially in areas where NCDs and other infectious diseases will be exacerbated by increasing temperatures and public health risks, especially in cities.

**Strategy 7:** Develop age-friendly and resilient cities and urban areas, which address both the infrastructural, economic and employment, social and wellbeing needs of growing older migratory populations.

**Strategy 8:** Ensure that the development of social protection systems and floors are resilient and adaptable, allowing older people to be supported whether they remain in environmentally risky areas or face climate-induced migration.

Further ensure that in crises or disasters, those social protection mechanisms can be augmented and used to deliver quick and effective cash aid to those most affected.

**Strategy 9:** Ensure social protection mechanisms facilitate access to fuel, energy, food and water, guaranteeing that the most vulnerable, including older people, are protected from food and resource price shocks and stresses.

**Strategy 10:** Introduce a rights convention for older people, which includes the protection of their ownership and equitable access to land, water and other natural resources, as well as wider social and economic entitlements.



## References

- <sup>1</sup> Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2010 Revision*, <http://esa.un.org/unpd/wpp/index.htm>
- <sup>2</sup> Harris C and Emmett B, *Rio+20: The emerging challenges of an ageing world*, HelpAge Discussion Paper, June 2012, London, HelpAge International, [www.helpage.org/download/4fd5db3ccbb7d](http://www.helpage.org/download/4fd5db3ccbb7d)
- <sup>3</sup> Intergovernmental Panel on Climate Change (IPCC), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change, Cambridge and New York, Cambridge University Press, 2012, p.7
- <sup>4</sup> HelpAge International, *The neglected generation: The impact of displacement on older people*, London, HelpAge International, 2012, [www.helpage.org/what-we-do/emergencies/the-neglected-generation-the-impact-of-displacement-on-older-people/](http://www.helpage.org/what-we-do/emergencies/the-neglected-generation-the-impact-of-displacement-on-older-people/)
- <sup>5</sup> HelpAge International, *Conflict and fragility*, unpublished.
- <sup>6</sup> HelpAge International, *A study of humanitarian financing for older people*, London, HelpAge International, 2010, [www.helpage.org/silo/files/a-study-of-humanitarian-financing-for-older-people.pdf](http://www.helpage.org/silo/files/a-study-of-humanitarian-financing-for-older-people.pdf); HelpAge International, *A study of humanitarian financing for older people and people with disabilities 2010-2011*, London, HelpAge International, 2012, [www.helpage.org/download/4f4222be3ce76](http://www.helpage.org/download/4f4222be3ce76)
- <sup>7</sup> Adams V, Kaufman SR, Van Hattum T and Moody S, 'Aging disaster: Mortality, vulnerability, and long-term recovery among Katrina survivors', *Medical Anthropology*, May 30(3), 2011, pp.247-270  
Also see [www2.ttcn.ne.jp/honkawa/4363f.html](http://www2.ttcn.ne.jp/honkawa/4363f.html)
- <sup>8</sup> UNDESA, *Population ageing 2006*, 2006, [www.un.org/esa/population/publications/ageing/ageing2006.htm](http://www.un.org/esa/population/publications/ageing/ageing2006.htm)
- <sup>9</sup> See Maplecroft Water Stress Index, 2011, <http://maplecroft.com/about/news/water-stress.html>
- <sup>10</sup> HelpAge International, *Food and nutrition*, Ageways 76, London, HelpAge International, 2011, p.4-5, [www.helpage.org/download/4d51468bc9898/](http://www.helpage.org/download/4d51468bc9898/)
- <sup>11</sup> HelpAge International, *Constant crisis: Perceptions of vulnerability and social protection in the Kyrgyz republic*, London, HelpAge International, 2009, [www.helpage.org/download/4c48df5bbf172/](http://www.helpage.org/download/4c48df5bbf172/)
- <sup>12</sup> Sulthani L, "Ageing farmers threaten Indonesia's food security", Reuters, [www.reuters.com/article/2011/06/10/us-indonesia-farmers-idUSTRE7591FD20110610](http://www.reuters.com/article/2011/06/10/us-indonesia-farmers-idUSTRE7591FD20110610) (01 May 2012); Bryant J and Gray R, *Rural population ageing and farm structure in Thailand*, Rome, Food and Agriculture Organization of the United Nations, 2005
- <sup>13</sup> HelpAge International, HelpAge Zimbabwe and Zimbabwe Farmers' Union, *Scoping the policy and institutional arena in support of older farmers in Zimbabwe*, 2012, Harare, Centre for Community, Development Solutions
- <sup>14</sup> Gavazzi G, Herrmann F and Krause KH, "Aging and infectious diseases in the developing world", in *Aging and Infectious Diseases*, 39, 2004, pp.83-91
- <sup>15</sup> HelpAge International, 2011, op.cit., p.30
- <sup>16</sup> Friel S, Bowen K, Campbell-Lendrum D, Frumkin H, McMichael AJ and Rasanathan K, "Climate change, noncommunicable diseases, and development: The relationships and common policy opportunities." *Annual Review of Public Health*, 32, 2011, pp.133-47
- <sup>17</sup> HelpAge International, *Witness to climate change: learning from older people's experience*, London, HelpAge International, 2009, [www.helpage.org/download/4c48a53f20327](http://www.helpage.org/download/4c48a53f20327)
- <sup>18</sup> HelpAge International, 2011, op.cit.
- <sup>19</sup> Robića S, Olshanskayab M, Vrbenskyb R, Morvajb Z, *Understanding energy poverty – case study: Tajikistan*, Paper presented at the World Energy Congress, Montreal, 2010

**HelpAge Discussion Papers provide background on ageing issues in development, to stimulate and inform discussion.**

This discussion paper was written by Clare Harris, DRR and Resilience Adviser, [charris@helpage.org](mailto:charris@helpage.org).

Front page photo © HelpAge Sri Lanka/HelpAge International

Copyright © November 2012 HelpAge International  
Registered charity no. 288180

IDLON0044

Any parts of this publication may be reproduced without permission for non-profit and educational purposes unless indicated otherwise. Please clearly credit HelpAge International and send us a copy of the reprinted sections.

**HelpAge International helps older people claim their rights, challenge discrimination and overcome poverty, so that they can lead dignified, secure, active and healthy lives.**

**[www.helpage.org](http://www.helpage.org)**