WHERE WILL WE GO?
The human consequences of the rising sea level.

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Introduction

A significant sea level rise is one of the major anticipated consequences of climate change. This will cause some low-lying coastal areas to become completely submerged, while others will increasingly face short-lived high-water levels. These anticipated changes could have a major impact on the lives of coastal populations. The small island developing states (SIDS) will be especially vulnerable to the effects of sea level rise, and to changes in marine ecosystems, because of their major dependence on marine resources.

For the past two years the photojournalist Kadir van Lohuizen, with the support of Displacement Solutions, has been looking at the global consequences of rising sea levels caused by climate change and traveled to Bangladesh, Fiji, Kiribati, Panama (Guna Yala islands), Papua New Guinea (the Cartaret atoll), the United Kingdom and the USA.

In the different regions he not only looked at the areas that are affected or will be affected, but also at the places where people have already relocated. He photographed and interviewed people who are still in the affected areas, as well as other members of the family who have already moved to safer ground, highlighting the often-overlooked fact that people are already being forced to evacuate many regions well before they are completely flooded and uninhabitable. This is due to the fact that the sea is already intruding in these areas through ever-higher tides, making once-fertile land infertile and drinking water brackish and undrinkable.

The future human cost of rising sea levels is dramatic in the extreme. The entire country of Kiribati, for example, will eventually have to relocate, while in Bangladesh it is estimated that about 50 million people will need to move from the delta region by 2050 and nobody knows where they will go. The east coast of the USA is experiencing sea level rise which is three-times higher than the global average, and it is predicted that major centres such as the Miami beach area will need to be evacuated by 2060.

Today, no one doubts any longer that glaciers the world over are retreating, and even more worryingly that Greenland and Antarctica are melting at an increasing pace. It is alarming that past estimates of the speed and impact of these developments appear to have been too conservative and that we should start preparing for the biggest displacement in human history. As people in all of the world’s regions become displaced at ever growing scales, the biggest question is: where will they go?

The Where Will They Go? Exhibition is designed to highlight both the immense complexities associated with internal and cross-border human displacement, as well as the specific human rights implications involved with such involuntary population movements. The material contains multimedia components, including stills, video, text and audio.
Photographic exhibitions have a high educational value, especially when they consist of various complementary elements that can tell a story in an immersive, illustrative, comprehensive and to-the-point manner. Exhibitions are unmatched in their ability to cover a wide variety of content and engage the viewer in a spatial and interactive experience at the same time.

The exhibition was composed and designed by Jeroen de Vries, who has been responsible for many photographic installations, including Kadir van Lohuizen's Via PanAm, The Pursuit of Happiness, an exhibition that is now traveling the world. De Vries proposes to turn Where Will They Go? into an exhibition that can be adapted to very different situations and spaces. He aims to create an exhibition that can be put up in a couple of hours for conferences and seminars. An exhibition that does not necessarily need wall space. A presentation fit for (photo) galleries and (art) museums, but also for university campuses, headquarters of NGOs and various international organisations, and public spaces. In short, it is envisioned as an exhibition that can be adapted to different goals, levels of ambition, financing, space and time. The design will allow for relatively easy language adaptations.

The central element in the exhibition will be a large audio-visual presentation about the global consequences of sea level rise. It will bring together photography, film, infographics, sound and text. This presentation will show the alarming situation in Fiji, Kiribati, Bangladesh, Guna Yala in San Blas, Panama, The Carteret atolls in Papua New Guinea, Greenland, the UK and Miami, USA. It tells the whole story in an integrated way and can be used as a stand-alone presentation. It will be presented on three 65-inch monitors, sitting on the floor in specially-designed supports, combined with benches and a sound installation. This is the basic form of the exhibition. (Fig. 1+2)

The exhibition will also feature about 30 photographic prints of 80x120 cm, mounted on dibond. They will be presented on cantilevered supports, sitting on the floor. In this form the complete exhibition can be put up in a matter of hours. This is the preferred form of the exhibition. (Fig. 3)

If there is more time and less floorspace available, some, or all of the photographic prints, can be hung on the walls. (Fig. 4)

For very large spaces the number of prints can be extended. They can be hung back-to-back, free in the space, combined with images presented on the walls of the space and on the cantilevered supports. (Fig. 5)
Fig. 3

Cantilevered supports, sitting on the floor are the preferred form for this exhibition setup.
Fig. 4

With more time and less floorspace prints can be hung on the walls.
For very large spaces the number of prints can be extended - hung back to back, free in the space, combined with images on the walls and on the cantilevered supports.
Fig. 6
Installation shot of Via Panam, San Jose, Costa Rica 2014
APPENDIX
Story Overview
Fiji

Unlike many of the small island states in the Pacific, most of the islands of Fiji are mountainous and significantly above sea level - a stroke of great fortune in an era of climate change.

Nevertheless, many of the low-lying coastal areas in Fiji are still affected by rising sea levels and coastal erosion is widespread. Many beaches are disappearing quickly and a number of towns and villages will need to be relocated to higher and safer ground. Fiji has a population of 850,000, who live on a total of 110 islands.

Neighbouring low-lying countries Tuvalu and Kiribati are looking at the possibility of permanently relocating some or perhaps even all of their people to Fiji. The government of Kiribati recently purchased 6000 acres of land from the Anglican church on Fiji’s second largest island Vanua Levu. Officially this land will be used to grow crops for the people of Kiribati, but could in the future very well become home to a significant portion of Kiribati’s population when it succumbs to the rising seas.

Kiribati

The Republic of Kiribati in the central Pacific Ocean is on the frontline of climate change. The impact of storm surges and coastal erosion are already very visible across the 32 low lying atolls which make up the Republic, and - as remarkable as it may seem - it is exceedingly likely that the whole nation will effectively disappear under the rising seas in 30-60 years.

The population of Kiribati is 100,000, and all of these people will eventually have to be evacuated. Currently, more than half of the population lives in the overcrowded capital of South Tarawa, with the remainder on the atolls which are dispersed over an area of the size of India.

Despite the communities’ efforts to protect the atolls with seawalls and sandbags, during king tides ever-larger areas experience sea water intrusion which is negatively affecting the availability of fresh drinking water and the ability of the land to continue to produce crops.

As a result, the 6000 acres of land in Fiji recently purchased by the Kiribati government will provide crops which can no longer be grown domestically, as well as provide a potential future relocation site for much of Kiribati’s population.
Bangladesh

Bangladesh is the country most affected in the world by rising sea levels: it is estimated that in the near future, 50 million people will need to be evacuated to higher ground. Being so densely populated, land in Bangladesh is already very scarce. An estimated 6.5 million people in Bangladesh have already been displaced by climate change.

Bangladesh has been affected by floods and cyclones for a long time. Usually when the water recedes, people return to their homes and fertile land. Today, however, the water often does not recede, leaving large stretches of land flooded or infertile due to seawater intrusion and turning fresh water brackish, making return impossible.

There are not many viable locations for the displaced to go to within Bangladesh. The Chittagong Hill Tracts have been proposed as one option, but this tribal area is far too small to house so many ‘climate refugees’. Other alternatives are the slums in Dhaka and Chittagong, but some of these areas are also low-lying and just as vulnerable as already affected areas in the delta. Given the scale of the problem, it is anticipated that at some point other countries may need to provide refuge to those displaced by climate change in Bangladesh.

Guna Yala (San Blas), Panama

The Guna Yala region of Panama is another region already affected by climate displacement. Based on current projections of sea level rise, the Guna Yala islands, which are home to some 30,000 indigenous people, could be underwater in only 20-30 years.

Guna Yala is an autonomous indigenous region of Panama and consists of an archipelago of 365 islands, the majority of which are uninhabited, and a strip of mainland. Because of rising sea levels, storm surges and flooding have increased dramatically in recent years, leading to life becoming increasingly risky in some of the overpopulated islands.

While there is some land on the mainland where the islanders could be relocated, it lacks the housing and other infrastructure necessary for human habitation. The government did have plans to build houses and provide for the evacuation of the first group of islanders to the mainland in 2013, but the funds allocated to do so ended up being redirected to another emergency. As a result, the people still remain where they are in ever worsening conditions.
Carteret Atolls, Papua New Guinea
Papua New Guinea consists of numerous offshore islands and atolls. Although the population is only just over 6 million, more than 800 languages are spoken making the country one of the most culturally diverse anywhere on the planet.

Rising sea levels are directly threatening several offshore atolls, among them the Carteret islands. There is little or no food or potable water left on the Carterets anymore due to seawater intrusion. The situation is so urgent that people are being forced to relocate to neighbouring Bougainville, a bigger island some 100 kms away. While the PNG government promised to arrange the relocation effort, so far little has eventuated, forcing the local community to take matters into their own hands.

The Cartaret islanders formed their own community group, named Tulele Peisa, to find sites on Bougainville for the increasingly desperate islanders to relocate. Their efforts have been hampered, however, by complex challenges in identifying suitable and available land. In the Cartarets as elsewhere, finding land for “climate refugees” is perhaps the key issue in addressing climate displacement.

Greenland
The main reason for the world’s rising sea levels is the melting of Greenland’s icecap and glaciers which is occurring at an unprecedented pace.

For some of the people in the south of Greenland, this is perceived as good news: due to the absence of snow and ice, for the first time they can now grow crops - potatoes, onions, lettuce and even strawberries. People hope this will make them less dependent on Danish imports and that food prices will decrease.

In Greenland's north, however, it is a different story. Here sea ice is disappearing and glaciers are retreating at an alarming rate. In 2012 there was an extreme melting event where almost 100% of the icecap melted on the surface. On average, the summer melt currently lasts 70% longer than it did in the early 1970s. If the entire Greenland icecap melts, oceans would rise by 7 meters on average. For traditional hunters life has become difficult and sea animals are facing difficult times trying to survive in this changing environment.
United Kingdom

The coast of Yorkshire’s East Riding faces the fastest coastal erosion in Europe. On average, every year two meters of coastline is lost to the sea. Over the decades, tens of villages have disappeared into the sea.

The British government has accepted that the area is no longer capable of being permanently protected, and apart from a few towns which are fortified with seawalls and will end up as islands, nature has been allowed to take its course.

Local residents have been urged by the authorities to relocate to safer and many are inadequately insured. Homeowners therefore fear losing everything if they flee, leading many to resist leaving until the last moment. As one resident said: “I will only move feet first, which is in my coffin”.

United States - Miami / Boston

The US East Coast is experiencing rising sea levels at a rate three to four times faster than the global average. Nearly 40% of the US population lives in coastal zones, with these areas generating half of the US GDP. If nothing is done to counteract the effects of sea level rise, the US economy will be affected on a scale never seen before.

Miami is currently the most endangered city, built on very low, mostly swampy land. What makes the city most vulnerable is the fact that it is built on limestone, which is porous and allows water to seep through. Many engineers have worked on a master plan to protect the city, but so far all have concluded that it is not possible. It is believed that the Miami Beach and bay area should be evacuated by 2060.

In Boston, the downtown area, financial district and the waterfront are at serious risk. Each winter the coastline north and south of Boston are ever more affected by increasingly severe winter storms. In combination with rising sea levels, the coastline and beaches are eroding faster than ever.
Working to Repair Climate Displacement

Displacement Solutions (DS) has been actively involved in addressing the displacement consequences of climate change since 2007.

DS has advised various UN institutions, national governments and grassroots and civil society groups on climate change and displacement issues, in countries including Bangladesh, Fiji, Kiribati, the Maldives, Myanmar, Panama, Papua New Guinea, Thailand, Tuvalu and others. During numerous missions to these countries DS has carried out research on housing, land and property rights, issues of relocation and/or resettlement and on various themes linked to the displacement caused by the effects of climate change.

DS has produced several landmark publications on various aspects of climate displacement including: Land Solutions for Climate Displacement (2014), a Climate Change and Displacement Reader (2012) as well as Climate Displaced Persons and Housing, Land and Property Rights: Preliminary Strategies for Rights-Based Planning and Programming to Resolve Climate-Induced Displacement (2009). Photo-essays depicting the tragic reality of climate displacement in Bangladesh, Kiribati, Panama, PNG and Tuvalu have also formed part of DS efforts.

One of the most significant victories of DS efforts to support the rights of those affected by climate displacement are the Peninsula Principles on Climate Displacement Within States in August 2013 which provide an international legal normative framework on how governments should address this challenging theme.

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UNEP - United Nations Environment Programme

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