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Bündnis Entwicklung Hilft

Gemeinsam für Menschen in Not.

# WorldRiskReport 2018

## Focus: Child Protection and Children's Rights

# WorldRiskReport 2018

# Imprint

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# Foreword

In regards to climate, 2018 was an eye-opening year. In Germany and Europe, temperatures of almost 40 degrees Celcius, parched fields, and forest fires sharpened many people's perception of climate change's impact. In Indonesia, earthquakes and tsunamis emphasized the country's very high exposure and vulnerability. Again, it has become apparent that being well prepared for extreme natural events is crucial. This WorldRiskReport shows just how much preparedness, coping skills, and the capacity to adapt differs from country to country. It provides a tool to assess disaster risks worldwide, and identifies where the need for better measures to cope with, and adapt to, extreme natural events is greatest.

Since 2011, the WorldRiskReport has been published annually by Bündnis Entwicklung Hilft. With this volume, a new scientific partner, the Institute for International Law of Peace and Armed Conflict (IFHV) at Ruhr-University Bochum, has joined in and taken over the calculation of the WorldRiskIndex. Being a founding member and deeply embedded within the Network on Humanitarian Action (NOHA), the IFHV brings in extensive research expertise from different disciplines and universities and contributes to the consolidation of the WorldRiskReport at an international level. New partnerships always offer an opportunity for change. Thus, an important element of this cooperation was to analyze the WorldRiskReport in its previous form and enhance its further development. This process started in November 2017 with a jointly organized conference of international experts in the field of disaster preparedness, with both scientific and practical backgrounds. It provided the basis for renewing not only the design of the report, but also the presentation of contents in the WorldRiskReport and indicators in the WorldRiskIndex.

This year's focus on "Child Protection and Children's Rights" draws attention to a particularly vulnerable section of the population. The number of children who have had to flee because of disasters, who were exploited, abused, injured, or even killed over the last few years is alarming. About one out of every four children worldwide lives in a country affected by disasters. The WorldRiskReport 2018 explores the rights of children in the context of disasters, explains the particular vulnerability of young people, and clarifies the vital need for action in this area. A comprehensive and participatory concept is required to protect girls and boys in fragile situations and strengthen their rights. This is the only way to create the foundations for coming generations to develop their own life perspectives, particularly in high-risk countries. With research into the rights of children based on international law, and worldwide projects on the protection and participation of children, the IFHV and NOHA, as well as Bündnis Entwicklung Hilft, together with its local partners, advocate to shape fairer and safer structures for children in the future.

Angelika Böhling
Chairwoman
Bündnis Entwicklung Hilft

Prof. Dr. Pierre Thielbörger
Managing Director IFHV

**Further information**

In-depth information, methodologies, and tables are available at **www.WorldRiskReport.org.**

The reports from 2011-2017 can be downloaded there as well.

# Contents

**Key Results** ..... **page 6**

**1. The Situation of Children in Disasters** ..... **page 9**
Peter Mucke

**2. Focus: Child Protection and Children's Rights** ..... **page 15**

**2.1 The International Legal Protection of Children in and after Disaster Situations** ..... **page 15**
Hans-Joachim Heintze

**2.2 Most Disaster Victims are Children** ..... **page 26**
Barbara Küppers, Frank Mischo, Tanja Pazdzierny, Friederike Strube

**3. The WorldRiskIndex 2018** ..... **page 35**
Katrin Radtke, Holger Mann, Daniel Weller, Lotte Kirch, Ruben Prütz

**4. Conclusions and Recommendations** ..... **page 45**
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**Appendix** ..... **page 48**

**Bibliography** ..... **page 54**

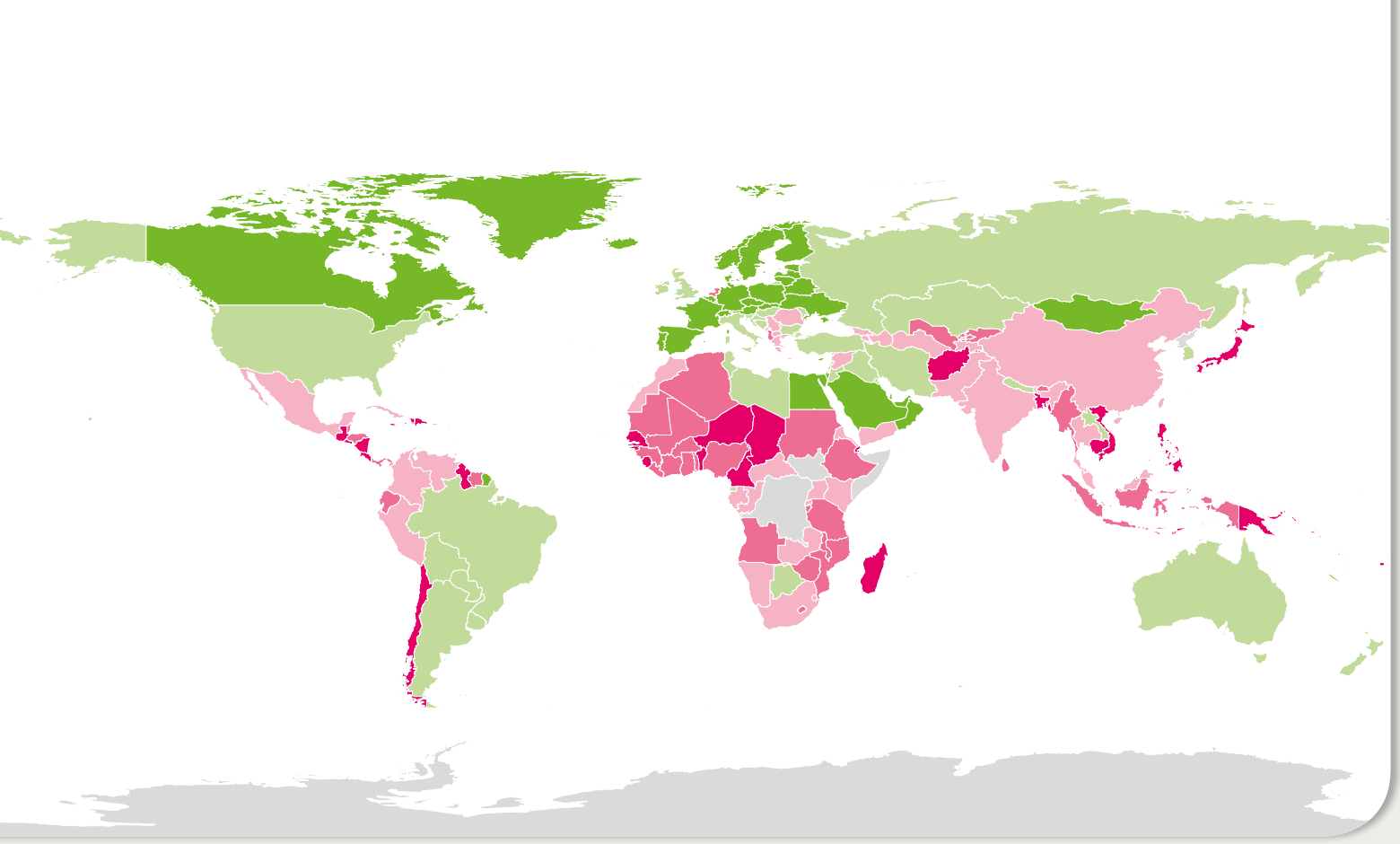


Figure 1: WorldRiskIndex 2018

# Key Results

**WorldRiskIndex 2018**

+ The disaster risk hotspot regions are located in Oceania, Southeast Asia, Central America, and in West and Central Africa (see the Map of the World in the Appendix).

+ Vanuatu is the country with the highest disaster risk (index value: 50.28) of the 172 countries covered by the WorldRiskIndex 2018. Tonga (index value: 29.42) is in second place, and the Philippines are in third place (index value: 26.70). In these countries, exposure to extreme natural events such as cyclones or earthquakes is very high. Concurrently, they show a very high level of societal vulnerability.

+ Germany is on rank 155 (index value: 2.42).

+ The countries on ranks 170 to 172, i.e. those with the lowest disaster risk, are Saudi Arabia (index value: 1.39), Malta (index value: 0.57), and Qatar (index value: 0.36). They are only very slightly endangered by natural hazards, and have a low to very low societal vulnerability.

+ 13 of the 15 countries with the highest societal vulnerability are in Africa.

+ Nine island states are represented among the 15 countries with the highest disaster risk. They are particularly exposed to natural hazards such as floods, cyclones, and sea-level rise.

+ The WorldRiskIndex 2018 has been calculated on a slightly modified base. In the dimension of exposure to natural hazards, the changes affect the data on sea-level rise. In the dimension of societal vulnerability, five indicators have been replaced, while the rest have been updated.

## Focus: Child Protection and Children's Rights

+ About one out of every four children worldwide lives in an area affected by disasters. Crises and disasters have a massive impact on children's development. Children can be inhibited all their lives by direct and indirect physical and mental consequences, especially when injuries and traumas are not treated and cannot heal.

+ Crises and disasters bear immeasurably higher risks for children than they do for adults as they are physically inferior, can take less mental strain, and are often not as protected by the law.

+ Children's rights were comprehensively established in the Convention on the Rights of the Child in 1989. It defines the child as an independent bearer of rights. The Convention on the Rights of the Child also applies without restrictions in emergency situations, such as disasters due to extreme natural events.

+ In many countries throughout the world, the needs of children and their representation do not receive sufficient attention – whether it be in the family, at school, or in the community. In disaster management too, the needs of children are insufficiently considered.

+ The survival and protection of children are the prime objectives in all humanitarian missions run by child protection organizations. The most important instruments here are child protection centers, offering children protection, food, lessons, as well as health and mental care.

+ In many respects, education plays a key role. In the wake of a disaster, children should be reintegrated into a functional public school system as quickly as possible in order for them to gain access to society.

+ Even before an extreme natural event occurs, disaster preparedness systems to protect children have to be set up. The introduction of a child protection policy for international, national, and local non-governmental organizations should be part of an overall strategy to mitigate the impact of extreme natural events. Local authorities and services have to integrate child protection measures in their emergency plans.

| Rank | Country | Risk (%) |
|---|---|---|
| 1. | Vanuatu | 50.28 |
| 2. | Tonga | 29.42 |
| 3. | Philippines | 25.14 |
| 4. | Solomon Islands | 23.29 |
| 5. | Guyana | 23.23 |
| 6. | Papua New Guinea | 20.88 |
| 7. | Guatemala | 20.60 |
| 8. | Brunei Darussalam | 18.82 |
| 9. | Bangladesh | 17.38 |
| 10. | Fiji | 16.58 |
| 11. | Costa Rica | 16.56 |
| 12. | Cambodia | 16.07 |
| 13. | Timor-Leste | 16.05 |
| 14. | El Salvador | 15.95 |
| 15. | Kiribati | 15.42 |
| ... | ... | ... |
| 155. | Germany | 2.42 |
| ... | ... | ... |
| 158. | Singapore | 2.31 |
| 159. | Norway | 2.29 |
| 160. | Estonia | 2.25 |
| 161. | Switzerland | 2.23 |
| 162. | Israel | 2.20 |
| 163. | Sweden | 2.19 |
| 164. | Luxembourg | 2.16 |
| 165. | Finland | 2.06 |
| 166. | Egypt | 1.90 |
| 167. | Iceland | 1.61 |
| 168. | Barbados | 1.40 |
| 169. | Grenada | 1.39 |
| 170. | Saudi Arabia | 1.25 |
| 171. | Malta | 0.57 |
| 172. | Qatar | 0.36 |

Figure 2: Extracts from the WorldRiskIndex 2018

+ Children should be actively involved in disaster preparedness. Compiling information on risks for and with children is just as recommended as the corresponding education programs. This is one way to motivate children to engage in environmental protection and help develop climate change adaptation strategies.


RENZ

# 1 The Situation of Children in Disasters

**Peter Mucke**
Managing Director, Bündnis Entwicklung Hilft

*In accordance with the Convention on the Rights of the Child, children are independent actors and bearers of rights. At the same time, they have special needs in the wake of extreme natural events such as earthquakes or cyclones since they are more vulnerable than adults. The international action plans on disaster management have only gradually started to consider these circumstances since 2005. Since then, efforts have been made to increasingly involve children in disaster response and disaster preparedness measures. The WorldRiskIndex explicitly takes the situation of children in disaster situations into account in three of its indicators.*

„The corridor collapsed as I was walking. Two of my classmates were trapped beside me. I tried as hard as I could to climb out, and after I had climbed out I pulled a classmate out."" This is how ten-year-old Lin Hao experienced the Sichuan earthquake in his school in the Chinese town of Yingxiu. The school building collapsed, burying Lin and many of his classmates under it. After the injured Lin managed to save himself and one of his classmates, he went back into the collapsed building and helped another friend out. Lin became a hero of the great earthquake that had shaken the Sichuan province in May 2008. Sadly, just ten out of the 31 children in his class survived (BBC 2008). It has been estimated that almost 70,000 people lost their lives in the earthquake and millions became homeless.

Examples such as Lin Hao have contributed to step-by-step changes in how disasters are viewed. Children are by no means just victims; they can also be helpers. They can take part both in coping with a disaster and in preventing it from happening. For example, children can play an important role in preparatory training programs and can be actively integrated in early warning schemes once their perception of warning signs has been trained. In many cases, however, government institutions and rescue organizations have yet to recognize this.

## Children's rights are child protection

Recognizing children as autonomous individuals with agency and granting all children across the world the same rights is the great achievement of the Convention on the Rights of the Child, which was adopted by the United Nations on November 20, 1989. According to the Convention on the Rights of the Child, "a child means every human being below the age of 18 years, unless, under the law applicable to the child, majority is attained earlier" (UN General Assembly 1989). In accordance with the Convention, children have a right to hold their own opinion and to freely express it. At the same time, the Convention determines that the period of childhood is a protected phase of life and assigns responsibility to the family, the community, and the state to ensure such protection.

The Convention on the Rights of the Child features four basic principles (UNICEF 2016):

+ The right to equal treatment (Article 2, Paragraph 1)
+ The right to the ensuring the child's best interest (Article 3, Paragraph 1)
+ The right to life and development (Article 6)

+ The right to express their views and be heard (Article 12).

These four principles demonstrate the significance of universally applicable children's rights, even in disaster situations. The rights to care, protection and participation, derived from the above, are listed on page 11 and described in more detail in Chapter 2 of this report.

### Plans of action for children and with children

It took several decades for the principles of the Convention on the Rights of the Child to be given serious consideration in the international action plans to reduce disaster risks.

With the motto, "a safer world for all," the international community gathered in Kobe, Japan, in January 2005 at the second World Conference on Disaster Risk Reduction. The World Conference adopted the Hyogo Framework for Action (UNISDR 2007). Its priorities for action also refer to measures for children. Thus, knowledge transfer on disaster preparedness is to be integrated in the curricula of educational institutions. Social security nets and reconstruction and rehabilitation programs, including psychosocial training aimed in particular at helping children to cope with the psychological consequences of disasters, are to be consolidated and expanded.

The Hyogo Framework generally considers children as a particularly vulnerable section of the population, who are therefore in special need of protection. However, the perception of children as individuals with agency, which was achieved with the Convention on the Rights of the Child, was further postponed in disaster preparedness in an international context.

Margareta Wahlström, formerly the Special Representative of the UN Secretary-General for Disaster Risk Reduction, stresses the importance of such a changed perception: "One of the easiest disaster risk reduction measures we can take is to empower children and youth and ensure they are actively involved in disaster risk reduction and contribute to making their cities and communities resilient to disasters." (UNISDR 2017)

This step was taken at the next World Conference on Disaster Risk Reduction, which took place in Sendai, Japan, in March 2015. There, the participants adopted the Sendai Framework for Disaster Risk Reduction 2015–2030. This framework states firstly that children sustain immeasurably more harm in vulnerable situations. Furthermore, it demands their integration in plans and the setting of standards to reduce disaster risk. The states are called upon to provide scope and opportunities for children to actively participate in disaster preparedness in the framework of the laws, the national plans of action, and the educational sector (UNISDR 2015b). Thus, in the context of reducing disaster risk, children are seen in a fundamentally new way.

In addition, in 2012, an international group of relief organizations and experts developed minimum standards for child protection during humanitarian aid operations. Among other things, they relate to the coordination and management of relief measures, adequate communication and information, special protective measures for children, consideration of special needs, access to child-friendly protective areas and activities, and the establishment of children's rights in other fields of humanitarian aid (CPWG 2012).

Involving children in the development of action plans for children in areas strongly affected by extreme natural events could be the next step.

### The special susceptibility of children

Involving children and giving them a say has to be a priority in disaster management. It must not be overlooked that extreme natural events harm children to a much higher degree, sometimes with long-term consequences (Kousky 2016).

Disasters can impair **physical health**. Children are more easily injured or killed in disasters, and due to poor food supply and contaminated water, they suffer more frequently from undernourishment or malnutrition, or, for example, diarrheal diseases. In severe cases, this can have an impact on a child's physical development. Furthermore, basic healthcare is

## Convention on the Rights of the Child

### Welfare

Children have a right to functioning healthcare, education, adequate living conditions, food and clothing, social security, and decent housing. The right to a name and entry in a register of births is a fundamental right, as is nationality and the right to a personal identity.

### Protection

Children have a right to protection from physical and mental violence, from abuse or neglect, from cruel or humiliating treatment and torture, from sexual abuse, from economic or sexual exploitation. The states commit themselves to safeguarding children from abduction and child trafficking, and to ensuring that they receive special protection in wartime, in displacement, or in disasters.

### Participation

Children have a right to freely express their opinion and are entitled to information appropriate for children. The states must protect the right of children to be heard, to have a say, and to enjoy freedom of thought and faith.

(Convention on the Rights of the Child, summarized in accordance with UNICEF 2016)

often restricted in disasters, and consequently, diseases can be insufficiently treated, or cannot be treated at all.

Disasters can also be a threat to children's **psychological health**. Disasters are frightening and stressful for children, and their effects, such as the destruction of their homes, displacement, or the loss of people in their immediate environment, may lead to excessive mental strain or even traumas. In addition, experiencing the enormous burden on parents or other carers, as well as familiar bonds and the collapse of social networks or neighborhoods can deeply shake children's basic trust.

Furthermore, after extreme natural events, children are particularly susceptible to becoming victims of **violence and exploitation**. In this context, the dangers that may also emanate from relief workers have attracted increased attention over the last few years. In the period from April to July 2018, a total 70 cases of child abuse were reported to the United Nations ombudsman or registration offices, 18 of them among children under the age of 18 years. 17 of the victims were female and one male (UN 2018). Relief organizations are called on to prevent all forms of abuse, exploitation, and violence committed by their staff as well as by outsiders.

In addition, disasters can also negatively affect or even interrupt **children's education** when families are separated or are forced to flee, or when schools are destroyed. Also, when disasters have occurred, more children are pressured into working in order to help their families to make ends meet.

However, the impacts of disasters on children can be very different. Newborns, infants, schoolchildren, and adolescents are all referred to as children, despite having reached different levels of development and, therefore, differing degrees of susceptibility.

Beyond extreme natural events, children and adults are also affected by wars and displacement. It is often the case that the impacts of natural and anthropogenic crises reinforce each other, for example when a refugee camp

is flooded during the monsoon. Because of this, the member organizations of Bündnis Entwicklung Hilft had to extend their aid measures for the Rohingya in the refugee camps in Bangladesh in 2018. In these cases, the international community is called upon to develop long-term political solutions alongside humanitarian support.

**Quantitative risk assessment**

The annually compiled WorldRiskIndex also provides important statements on the topic of "Child Protection and Children's Rights". Data on the situation of children is explicitly fed into the Index via the details on the age dependency ratio of the under 15- and over 65-year-olds to the working population, the literacy rate, and the combined gross school enrollment.

In risk assessment, the WorldRiskReport is based on the general notion that the force of the extreme natural event is not the only factor of relevance to the disaster risk, but that the society's level of development is equally important. If it is less developed, a society will be more vulnerable to natural events than if it is better prepared in regards to susceptibility, coping capacities, and adaptive capacities (Bündnis Entwicklung Hilft 2011).

## The concept of the WorldRiskReport

"Whether it be an earthquake or a tsunami, a cyclone or floods, the risk of a natural event turning into a disaster only partly depends on the force of the natural event itself. The living conditions of the people in the regions affected and the options available to respond quickly and to provide assistance are just as significant. Those who are prepared, who know what to do in the event of an extreme natural event, have a greater chance of survival. Countries that see natural hazards coming, that are preparing for the consequences of climate change and are providing the financial means required will be better prepared for the future. The WorldRiskReport should contribute to considerations of these links at a global level and draw future-oriented conclusions in regards to assistance measures, policies and reporting". (Bündnis Entwicklung Hilft 2011)

As usual, the WorldRiskReport contains the WorldRiskIndex. Beginning this year, it has been compiled in cooperation with the Institute for International Law of Peace and Armed Conflict (IFHV) at Ruhr-University Bochum. The calculation of the disaster risk has been performed for 172 states worldwide and is based on four components (see Figure 3):

+ **Exposure** to earthquakes, cyclones, floods, drought, and sea-level rise
+ **Susceptibility** depending on infrastructure, food supply, and economic framework conditions
+ **Coping capacities** depending on governance, healthcare, social and material security
+ **Adaptive capacities** related to coming natural events, climate change, and other challenges.

The representation of the disaster risk using the Index and its four components provides a good illustration of the disaster risk hotspots across the world and the fields of action to achieve the necessary reduction of risks (see Chapter 3). Nevertheless, it is important to keep the limits of this representation in mind. The WorldRiskIndex can only consider indicators for which comprehensible, quantifiable data is available. For example, while immediate neighborhood assistance cannot be measured in a disaster event, it is nonetheless very important. Due to the lack of data, it cannot be incorporated into the WorldRiskIndex. Furthermore, variances in data quality among different countries may occur if data is only gathered by national authorities and not by an independent international institution.

However, since the overall quality of the data is good enough, it has been possible to formulate recommended action for national and international, governmental and civil society actors (see Chapter 4) based on the WorldRiskIndex. This is supported by their combination with qualWorldRiskReport, of which this year's volume focuses on "Child Protection and Children's Rights."

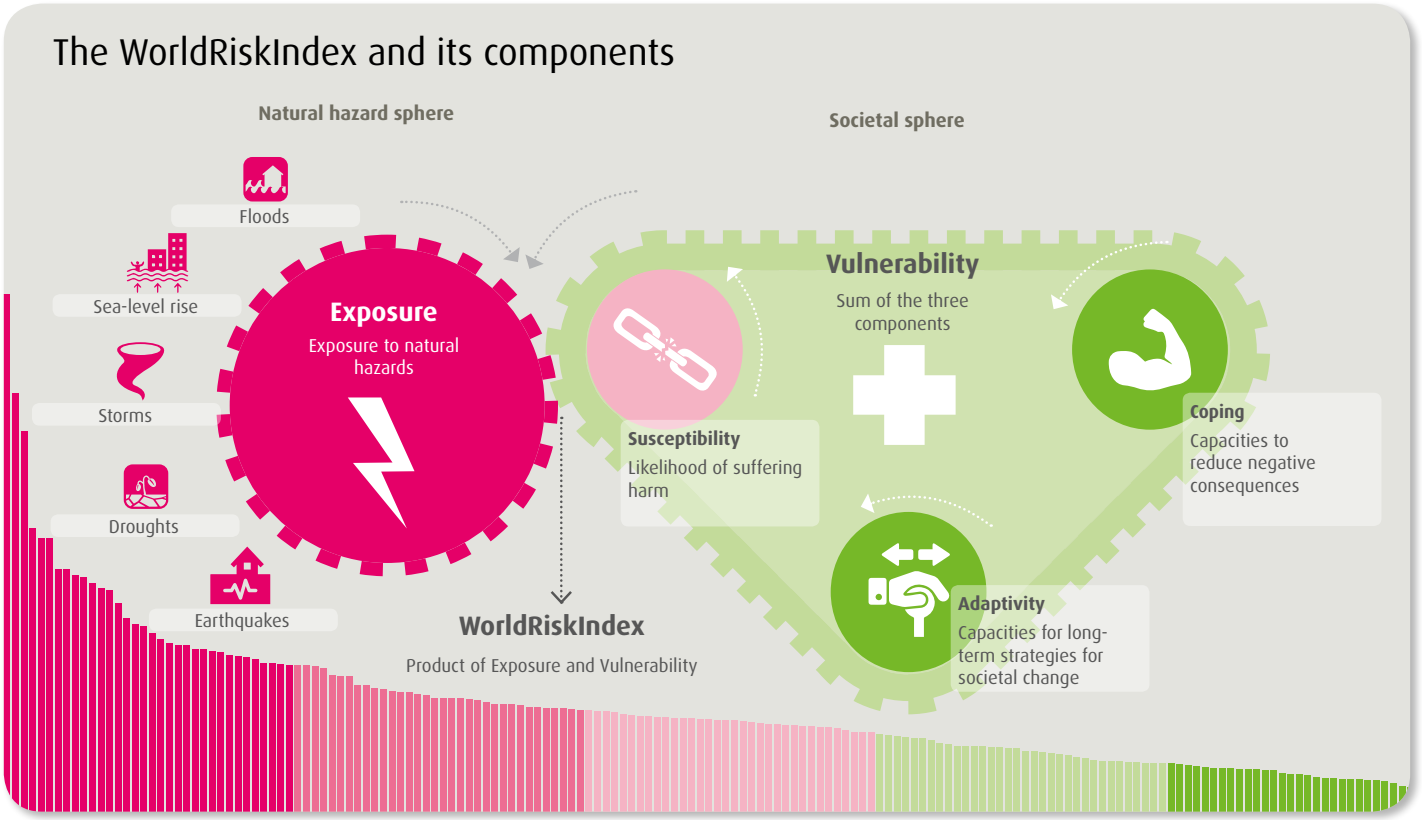



Figure 3: The WorldRiskIndex and its components


My school will look like this:
My school will look like this:
My school will look like this:
My school will look like this:
My school will look like this:
ht meine Traumschule aus:

# 2 Focus: Child Protection and Children's Rights

## 2.1 The international legal protection of children in and after disaster situations

**Hans-Joachim Heintze**
Professor of International Law at the IFHV, RUB

*Children's rights are based on the human rights codified in the Covenants on Human Rights in 1966. The Civil Covenant establishes a child's right to protection. It was not before 1989 that children's rights were comprehensively stipulated in the Convention on the Rights of the Child (CRC), which defines the child as an individual bearing rights. The CRC also applies without any restrictions in emergency situations, such as disasters resulting from extreme natural events. The wellbeing of the child enshrined in the General Clause of the CRC is conceived as a guide to action, and it also has to be considered in all measures taken after a disaster. Since 2014, children finding their rights to be violated are to lodge complaints with the Committee on the Rights of the Child. So far, the Committee has dealt with eleven complaints.*

Until the end of the Second World War, international law focused on states. It was only when the United Nations Charter came into force on October 24, 1945, that human rights protection was adopted in international law. The Charter merely contained a very general commitment to human rights and basic freedoms, but did not define them. Only the Universal Declaration of Human Rights of December 12, 1948, laid out what the world organization actually understood as human rights. While the rights of children were not mentioned in this declaration, Article 12 did protect the family against arbitrary interference. The Universal Declaration created the framework for the United Nations' understanding of human rights, which were codified in a long process that fed into the International Covenants on Civil and Political Rights (Civil Covenant) and on Economic, Social and Cultural Rights (Social Covenant) in 1966. With these two covenants, a comprehensive codification of human rights was introduced that also provided legal security regarding the status and protection of the child in international law. The Convention on the Rights of the Child (CRC) of 1989 and the three Optional Protocols referring to it are at the heart of this body of law (UN General Assembly 1989).

### The child as a holder of rights

Article 24 of the Civil Covenant solely mentions a child's right to measures of protection. The article guarantees the right to the protection of the child by the family, society, and the state, without any discrimination. By prioritizing the family, this article assigns it the chief responsibility for the protection of the child. However, the state has a comprehensive duty to ensure the child's right to protection. This means that it has to support the families in fulfilling their obligations towards children. If a child gets into a situation, whether or not of its own making, in which it has a special need for protection, the state is obliged to take positive legal or administrative measures. However, Article 24 does not codify any special rights of the child as an individual and does not allow the provisions of the Covenant to generally be applied to children. Neither does it contain any definition of the

legal concept of a "child." However, the overall context suggests that emancipated minors and youths ought to be covered as well. The rights enshrined in the Covenant on Economic, Social and Cultural Rights are of prime significance for children. They include the rights to education, health, and reasonable living standards.

In the context of East-West détente, increased cooperation became possible on the hotly debated issue of human rights towards the end of the eighties. It also comprised a detailed regulation of children's rights. With the CRC, an agreement was created in 1989 that no longer defines the child merely as a vulnerable legal subject but as an individual bearing rights. Just like adults, it is entitled to certain rights, albeit rights specially designed for children. The child has rights because it is a child, rather than its being denied rights because it is not yet an adult. Moreover, the child is no longer regarded merely as part of the family or a social group. Except where national legislation sets another age of legal majority, the CRC defines the child as a person under the age of 18 years. It has to be noted that with the exception of the USA, the CRC applies worldwide and contains political and civil rights as well as economic, social, and cultural rights. For example, in accordance with the CRC, the child enjoys the right to acquire a nationality (Article 7), to freely express its views (Article 12), to protection from physical or mental violence and abuse (Article 19), to primary education (Article 28), and to physical and psychological recovery and social reintegration (Article 39).

### Rights of the child in disaster situations

The Child Protection Working Group, a worldwide forum for the coordination of child protection in humanitarian crises, has addressed the denial of children's rights and the abuse and exploitation of and violence against children in emergency situations. It has formulated minimum standards on what a response to these violations of children's rights should look like and how they can be prevented (CPWG 2012). The group of experts has identified a special need for the protection of children's rights in crisis and emergency situations. Issues to be considered include the number of children affected, the type of protection issue, how the state is organized, how stable it was before and during the emergency situation, the options the state affected has to respond, and the nature of the emergency. All child protection measures

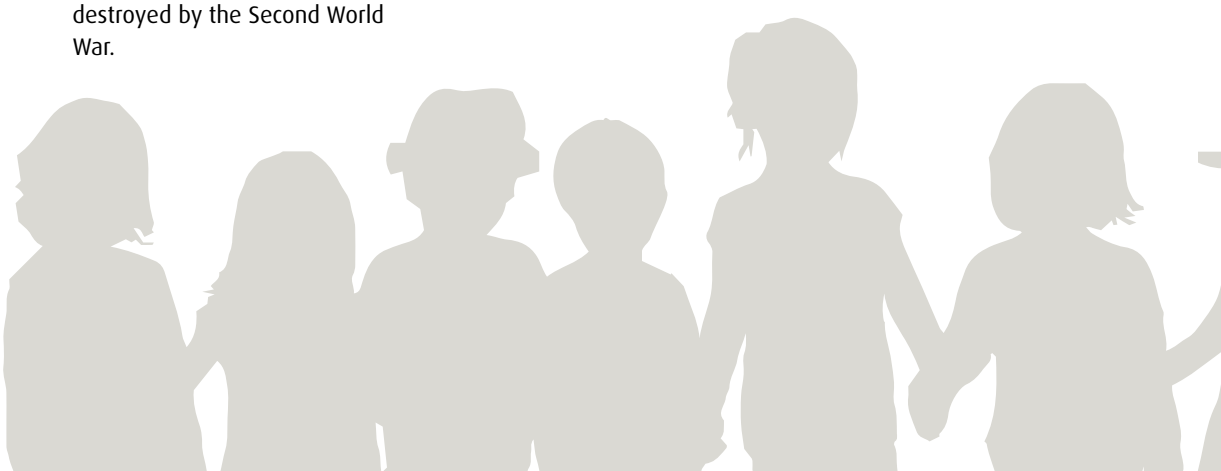
## International history of children's rights since 1945

**1945**
→ With the UN entry into force of the UN Charter on October 24, the protection of human rights is represented for the first time in international law. Human rights were previously centered on states.

**1946**
→ In December, the United Nations International Children's Emergency Fund (UNICEF) is set up to provide emergency relief for children in those countries destroyed by the Second World War.

**1948**
→ In December, Article 25 of the Universal Declaration of Human Rights establishes children's entitlement to special care and support.

**1953**
→ UNICEF is established as a permanent element of the UN system and is focused on global support for children.



in natural or anthropogenic disasters have to be based legally on the respective applicable human rights agreements.

In accordance with the concept of international human rights protections, children are also holders of the rights laid down in the agreements. However, the CRC, as a virtually universally ratified version of these rights that have specifically been tailored to children, should be applied. This sequence is rather significant since, in accordance with Article 4 of the Civil Convention, in the event of a public state of emergency threatening a nation's existence and having been publicly declared, states can repeal human rights to the extent that the situation requires. As the 2010 earthquake in Haiti demonstrated, a disaster caused by an extreme natural event can threaten a nation's existence, so that political and civil rights, such as freedom of expression, may be restricted. Against this background, it is an advantage for the implementation of children's rights that, unlike in Article 4 of the Civil Covenant, neither the Social Covenant nor the CRC are restricted by any emergency clauses. Thus the rights laid down in the CRC and the Social Covenant are fully in force in terms of content, and failing to observe them is not even permitted in emergency situations. The CRC does not explicitly refer to complex emergency situations and child protection. Nevertheless, all protective measures have to be based on the wellbeing of the child, as enshrined in Article 3, the general clause of the CRC. Article 4 deliberates that states have to take all measures for the realization of the rights recognized in the CRC. Regarding the economic, social and cultural rights, the measures are to be taken making exhaustive use of their available resources and, should the need arise, in the context of international cooperation.

**Protection:** The physical and mental development of children, which is still in progress, the social conditions, and dependence on adults influence the possibilities children have to survive disasters or cope with their consequences. This is also one of the reasons why children often represent the majority of victims of extreme natural events. For example, two thirds of the victims of the 1998 earthquake in Armenia were children who died in schools. The 2010 floods in Pakistan affected 20 million people, half of them children, out of whom 2.8 million were younger than 5 years (Bizzarri 2012, 396). Thus the wellbeing of children also has to be at

**1959**
→ The Declaration of the Rights of the Child is adopted as Resolution 1386 by the UN-General Assembly.

**1966**
→ The International Covenant on Civil and Political Rights establishes the right of every child to registration after birth, a name, and a nationality (Article 24).

→ The International Covenant on Economic, Social and Cultural Rights establishes the right to protection from economic and social exploitation for children, the right to a minimum age for the employment of child labor (Article 10.3), the right to health (Article 12), the right to education (Article 13) and compulsory school attendance for all children (Article 14).

**1979**
→ The UN proclaims the International Year of the Child with the aim of giving more attention to children's needs.

the forefront in complex emergency situations such as extreme natural events in connection with conflicts and mass flight. In extreme natural events, this, above all, has to mean providing them with protection. This includes both measures against the impacts of natural events and protection from kidnapping, physical and psychological violence, and neglect. Against this background, it becomes clear that observing the civil rights of children gains fundamental importance. This starts with the commitment in accordance with Article 7 CRC, to enter the child in a register immediately after birth, give it a name, and obtain a nationality. Thereby the child acquires an identity that has to be protected by the state. Article 19 CRC demands that states – including those affected by a disaster – take all suitable legislative, administrative, social, and educational measures to protect the child from any form of physical and psychological violence, harm or abuse, neglect, bad treatment or exploitation. This provision is not contained in any other agreement on human rights. It refers, above all, to shortcomings within a family unit that may have severe consequences in the event of emergency situations. This is why the state has the obligation to provide a guarantee that may also justify interventions in the family's life.

The 2004 tsunami demonstrated that because of the poverty they were in, and given the destruction of their livelihoods, parents may resort to negative coping mechanisms and marry or sell off their children at a very low age. For example, girls under the age of 13 years were sold to much older "tsunami widowers" in India, Sri Lanka and Aceh (Felten-Biermann 2006, 82). Practice revealed that the obligation to guarantee children's rights was frequently too much for the administrative organs of the regions affected to cope with. Therefore, in similar situations, international support needs to be intensified, and in this context, the CRC can provide a suitable legal basis.

If the state itself already has to intervene in families to ensure the wellbeing of children in the above cases, this applies all the more to other areas in which children have to be protected from violence. In concrete terms, this means that in emergency situations, greater alertness is required on the part of the police and authorities in order to prevent crimes and enable family reunion. Practice has confirmed how important the enforcement and control of children's welfare is. Orphaned and unaccompanied children in emergency shelters after disasters owing

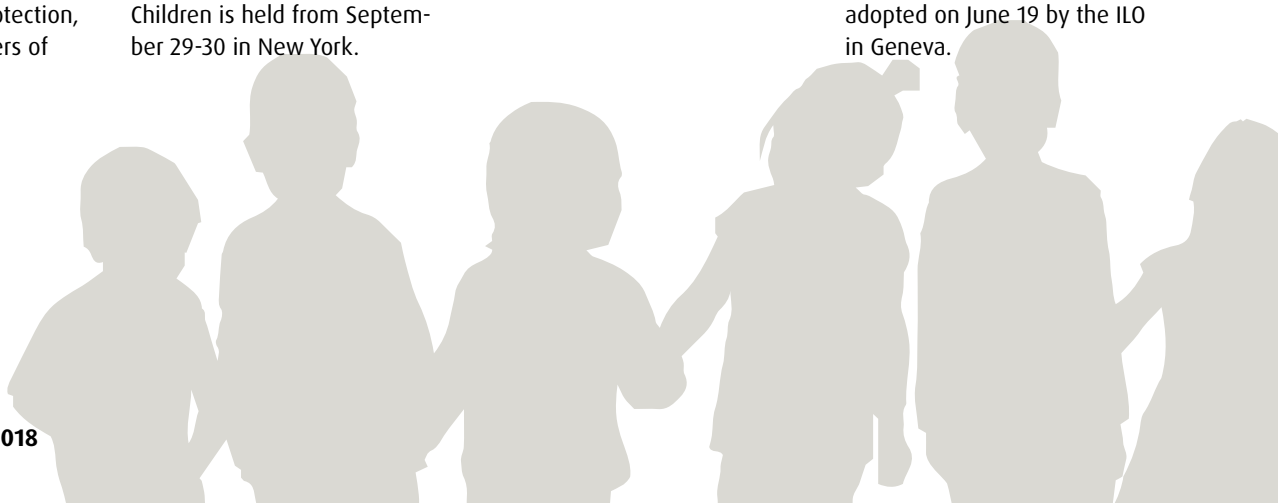
**1989**
→ The Convention on the Rights of the Child is adopted by the UN General Assembly on November 20. From then on, children are not only legal subjects in need of protection, but independent holders of rights.

**1990**
→ The Convention on the Rights of the Child enters into force on September 2.

→ The first World Summit for Children is held from September 29-30 in New York.

**1991**
→ The Committee on the Rights of the Child is set up on February 27 and monitors compliance with the Convention on the Rights of the Child.

**1999**
→ The Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour (ILO Convention No. 182) is adopted on June 19 by the ILO in Geneva.



to extreme natural events represent a special problem since they are particularly vulnerable to becoming victims of human trafficking, forced labor, illegal adoption, sexual exploitation, and forced recruitment to armed forces. The statistics highlight this. The tsunami in Banda Aceh turned 2,800 children into orphans. The 2010 earthquake in Haiti resulted in human traffickers taking 7,300 children to the Dominican Republic. In the wake of Cyclone Nargis in Myanmar in 2008, hundreds of children were forced to become domestic servants (Bizzarri 2012, 396).

**Health:** Emergency situations cause considerable health risks since the water supply often breaks down and contagious diseases spread. For example, the incidence of diarrheal diseases strongly increased after the flood disaster of 1990 in Bangladesh, and in connection with poor nutrition, resulted in the deaths of many children (WHO 2003). Article 24 CRC obliges states to commit themselves to achieve maximum health standards. All available means have to be used to ensure this. New options have to be applied to improve health protection effectively and as quickly as possible. This article highlights the link between health and adequate food. Basically, the duty to combat malnutrition refers, above all, to developing countries, but following disasters, it can also be applied to other states. Furthermore, disasters often result in a wide range of mental health problems among children that require treatment.

**Education:** Alongside health, the right to education also represents a considerable challenge for states that are affected by extreme natural events. For example, the 2010 floods in Pakistan destroyed nearly 8,000 schools, which became all the more problematic since the schools also served as places of refuge for flood victims. The right to education is enshrined in Article 28 of the CRC and demands that equal opportunities have to prevail in this respect. Therefore, the right to education also has to be ensured in emergency situations. The CRC applies a comprehensive concept of education that encompasses both the acquisition of basic abilities and the development of intellectual and social abilities, meaning the development of personality. Implementing the right to education is up to both formal and informal education institutions. In and after emergency situations, education institutions have the task of providing a protected environment in which children can learn and play in safety in order to find their way back into a

**2002**

→ The Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution, and child pornography enters into force on January 18.

→ The Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflicts enters into force on February 12.

→ The Special Session of the UN General Assembly on Children is held in May in New York with the motto "A World Fit for Children."

**2012**

→ The Global Protection Cluster, an alliance of NGOs and UN organizations, presents the Minimum Standards for Child Protection in Humanitarian Action. The standards are implemented by relevant state and non-state actors as well as UN organizations (e.g. UNHCR, UN OCHA).

**2014**

→ The Optional Protocol to the Convention on the Rights of the Child on a communications procedure enters into force on April 14.


Rank 55 in WorldRiskIndex

| | |
|---|---|
| WorldRiskIndex | 8.10 % |
| Exposure | 17.63 % |
| Vulnerability | 45.94 % |

## Ecuador

# Child Protection – Turning Words into Deeds

**Country profile**

Located on the northwest coast of South America, Ecuador is a remarkably diverse country in many respects. Geographically, its landscapes comprise the coastal regions in the West, the central Andean region with its high mountain ranges dominated by volcanos in the center, and the Amazon lowlands in the East. Furthermore, the Galapagos Islands in the Pacific are part of Ecuador's territory. Ecuador is a multilingual, multi-ethnic, and multicultural country.

Due to its location along the Pacific Ring of Fire, Ecuador is extremely vulnerable to volcanic eruptions, earthquakes, and tsunamis. Out of at least 55 volcanoes, 18 are thought to be active. In addition, Ecuador is strongly affected by the impact of climate change. Extreme weather phenomena, such as intensive hot and cold periods, droughts, and hailstorms as well as sea-level rise and a decline in biodiversity are threatening agricultural productivity and the livelihoods of the population.

**The situation of children**

In Ecuador, little significance is attributed to the rights of children. Children of ethnic minorities in particular are often discriminated against. Also, in Ecuador's strong patriarchal society, girls are structurally disadvantaged and frequently become victims of violence. Even though Ecuador has ratified most of the international agreements on child protection, their implementation and compliance with them are still insufficient.

## The situation of children

**28.4 %**
Share of population under the age of 14 years

**2.1 %**
Share of out-of-school children of primary school age

**Not specified**
Share of children in employment (7–14 years)

**Not specified**
Share of underweight children (0–5 years)

**3.8 %**
Child mortality under the age of 5 years (per 1,000 live births)

**Project context and project activities**

On April 16, 2016, a 7.8 magnitude earthquake struck off the Pacific Coast of Ecuador, killing more than 660 people. Some 80,000 people lost their homes and livelihoods. In addition, the earthquake caused damage to roughly 560 schools throughout the country. Ecuador's government declared a state of emergency for six provinces.

While the government's emergency aid started relatively quickly in urban areas, support initially remained at a low level in the rural regions, although there was a considerable need for humanitarian aid. In the improvised tents and shelters, built by people themselves, there were no water nor sanitation facilities, nor any protection or security. Overcrowding as well as related problems such as lack of privacy caused or exacerbated violence, with women and children being particularly vulnerable.

Together with international partners, and in close coordination with the government authorities, Plan International launched an emergency relief program in the highly affected Province of Manabí. The emergency relief program included the setting up of 23 child protection areas in emergency shelters in eight districts in order to safeguard children from exploitation, violence and abuse and counter cases of children's rights being violated at an early stage. Information sessions and activities for children of different age groups were conducted on a daily basis. Psychosocial workers encouraged children to talk about the traumatic experience they had been exposed to in order to help them recover. They also organized age-appropriate activities and emergency situation drills for the children to learn how to protect themselves in dangerous situations and in case of extreme natural events. For example, the children were trained in emergency evacuation, in how to pack an "emergency kit" with important items and durable food, as well as in basic hygiene practices with the goal of disease prevention.

In addition, child protection committees were set up in the villages, and their members were trained in violence prevention, protective mechanisms, and children's rights. One of the central tasks of the committees was to strengthen the protective structures for children in their communities, to identify children at risk, and to provide the necessary support in case of violence. Information sessions were conducted to sensitize parents and caregivers on child protection. They dealt with symptoms of psychosocial stress and how to respond without resorting to violence. Activities they took part in about disaster preparedness included compiling maps of particularly dangerous areas in their communities and identifying safer places without hazards such as collapsing buildings, electricity poles, or trees.

**Challenges**

In the aftermath of the earthquake, Ecuador's government implemented a variety of emergency responses in the regions affected by themselves. This resulted in less support provided by other governments and institutions than originally expected. Furthermore, the Ecuadorian government set up their own coordination forums for emergency relief, in parallel to those of the United Nations. In order to ensure a useful cooperation, the relief organizations had to participate in both forums. This raised the need for coordination, making the work load and the decision-making process more difficult in some cases.

**Results and impact**

By April 2017, emergency relief provided by Plan International after the earthquake had reached 36,900 children. 3,250 girls and boys benefited directly from the activities in the domain of child protection. Headed by the psychosocial workers, many children developed life plans that helped them to regain a positive attitude towards the future.

In the course of the emergency relief measures, the Ministry of Education adopted the manual "More education, less risk" in its curriculum. The manual has been developed in the frame of a previous project carried out by Plan International. In training programs, teachers improved their knowledge of evacuation and first aid and learned psychosocial support methods.

Before the earthquake, the government authorities did not have any uniform guidelines for child protection in emergency situations. The areas of responsibilities were often unclear and there was a lack of coordination of child protection measures between the various institutions. In cooperation with UNICEF, Plan International has trained administration and organization staff on the importance of clear procedures and referral systems as well as on the importance of meeting minimum standards for child protection in emergency situations. As a result, the government procedures now match the minimum standards.

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normal life and come to terms with the mental strain of the crisis.

### Enforcing the rights of children

Just like with all other UN human rights agreements, monitoring the progress of states in implementing the CRC is up to a special committee of experts. In the case of the CRC, this is seen to by the Committee on the Rights of the Child. It consists of ten experts (not representatives of states) who are elected by the member states. The CRC states commit themselves to presenting a report every five years on the implementation of each right referred to in the convention regarding legislation, jurisdiction and the administrative measures. In addition, the committee requests a shadow report from the NGOs of the reporting state and discusses matters with representatives of the reporting state on the basis of the reports and other information sources. The Committee subsequently assesses the implementation of the convention, states progress made, and comments on weaknesses in realization and, should they exist, violations of the commitments entered. The entire construction is based on cooperation between the committee and the states to achieve improvements in fulfilling the convention. In the case of the convention being violated, the name and shame principle is applied. All reports, their discussion and appraisal by the the Commitee, as well as the recommendations to the respective contracting state are published and are publicly accessible on the UN website. In addition, the contracting states are obliged to "widely distribute" their reports in their own country, so that children, families, and NGOs can comprehensively inform themselves about the positions and assurances of states, and can refer to them.

The CRC and its enforcement mechanism are international instruments for disaster preparedness and relief, since they force all member states to present and justify their activities in this area. However, practice has also revealed the weaknesses of the mechanism. The comprehensive and detailed state reports – accounts have to be given of the legislative, judicial, and administrative measures to enforce the 41 material articles of the CRC – that have to be submitted every five years represent an enormous bureaucratic challenge for each state. Crisis situations aggravate the problem of orderly reporting. For example, Haiti, a country that again and again has had to deal with disasters resulting from extreme natural events, ratified the CRC on December 23, 1994, but only submitted its first state report with delay in 2001 (UN Doc. CRC/C/51/Add.7). Since then, no further reports have been handed in. However, given the country's political instability and numerous disasters resulting from extreme natural events as well as epidemics, the Committee showed understanding for this. At the same time, the Committee is reckoning with the government continuing to display a strong interest in implementing the agreement (UN Doc. CRC/C/HTI/2-3). In view of this state of affairs, the Committee submitted a list of topics that were thought to be of particular significance for the enforcement of the CRC in Haiti and that were to be addressed by the state in its two forthcoming state reports (UN Doc. A/HRC/28/76). The problem of disaster preparedness is not specially referred to. Instead, detailed information is requested on the implementation of the general clause in Article 3, which provides for a priority consideration of the child's well-being. Thus, disaster relief is placed into the context of the implementation of all CRC norms. Therefore, the the Committee is following an approach that is generally practiced by the UN. For example, the Advisory Council appointed by the Human Rights Council on best practice in post-disaster situations stresses the need for the special protection of children in order to guarantee their safety and wellbeing (UN-Doc. A/HRC/28/76, para. 32). Nevertheless, the Advisory Council only refers in detail to children threatened by armed conflict. In the case of disasters due to extreme natural events, which usually bring significantly more children into a vulnerable situation, only the enforcement of the rights listed in the CRC is called for normally. No reference is made to special rights and corresponding measures that could possibly become necessary with regard to the disaster situation following the natural event. This impression is reinforced by General Recommendation No. 14 of the Committee. General Recommendations are interpretations by the Committee of the individual articles in the CRC. They reflect the experiences that the Committee has gained

in cooperation with the member state. In this respect, the interpretation of the concept of the child's wellbeing, which is to be given priority consideration, is instructive. Here, the Committee comments on the situation of the child's special vulnerability, regarding it as given e.g. when a child is disabled or belongs to a minority. Disasters due to extreme natural events are not seen as a situation of special vulnerability (UN Doc. CRC/C/GC/14, lit. e). Thus the Committee assumes that the child's wellbeing is also a priority in disasters and has to be enforced.

The Committee assesses and evaluates the enforcement of all children's rights with the aid of the state reports, the Shadow Reports, and discussions with state representatives. On this basis, the Committee formulates recommendations on the further implementation of the commitments for the respective member state. It can be assumed that this procedure is quite suited to fulfill the requirements on the enforcement of child rights in and after disasters due to extreme natural events. Thus, the Committee follows the construction of the CRC, which does not contain a derogation clause, implying that deviations from child rights are not permitted in emergency periods after disasters.

In accordance with the concept of the child as a legal entity, an optional protocol on the CRC was adopted in 2014 that allows children to lodge a complaint with the Committee referring to violations of Convention rights (UN Doc. A/RES/66/138). So far, 39 states have joined the protocol. The precondition for the Committee assuming responsibility is that the state concerned is party to the protocol and the child has made full use of the means of legal redress in the state concerned. The Committee then ascertains whether the rights of the child have been violated and requests the member state to observe the legal obligations and, should this be necessary, provide compensation for any damages incurred. So far, the Committee has dealt with eleven individual complaints, six of which were declared improper for procedural reasons or for being unjustified. As of yet, only one procedure has been concluded with a recommendation. It related to a child's wellbeing in a flight situation. Given the workload of the Committee, individual complaints are most likely not going to be the key instrument to enforce children's rights in the future. Nevertheless, the significance of decisions arrived at in individual cases should not be underestimated, as they represent important instruments to interpret the individual articles of the CRC. Thus they could also be of relevance to the observance of children's rights in and after disasters due to extreme natural events.


Rank 95 in WorldRiskIndex

| | |
|---|---|
| WorldRiskIndex | 5.80 % |
| Exposure | 14.52 % |
| Vulnerability | 39.98 % |

China

# Education and Support after the Earthquake

**Country profile**

With its more than 1.3 billion inhabitants, China has the largest population worldwide, although in terms of area, it only ranks fourth. Stretching more than 5,000 kilometers from east to west as well as from north to south, China is characterized by strong regional differences in regards to ethnicities, culture, and geography. The most common extreme natural events in China include cyclones, floods, earthquakes, and to a lesser degree, landslides and droughts. Whereas the north of China and the regions of Sichuan and Tibet are frequently affected by earthquakes, the coastal regions in the south of the country are more likely to experience typhoons and floods. The major share of disaster-related damage to the economy is due to flooding, while the majority of deaths through disasters can be traced back to earthquakes. In order to reduce disaster risk at national level, the country has increasingly opted for international cooperation in the context of the Sendai Framework for Disaster Risk Reduction. For some years now, more attention has been given to quakeproof construction concepts in the expansion of infrastructure. In May 2018, President Xi Jinping announced that the present measures aimed at reducing disaster risk would be intensified in the future.

**The situation of children**

In the last few years, considerable progress has been made in many areas relating to children, such as education, food,

## The situation of children

**17.7 %**
Share of population under the age of 14 years

**10.9 %**
Share of out-of-school children of primary school age

**Not specified**
Share of children in employment (7–14 years)

**2.4 %**
Share of underweight children (0–5 years)

**9.9 %**
Child mortality under the age of 5 years (per 1,000 live births)

healthcare, and combating child poverty. China has signed the United Nations Convention on the Rights of the Child in addition to, so far, two of the three Facultative Protocols. However, much remains to be done to holistically and sustainably improve the situation of children. For example, children belonging to ethnic minorities have so far benefited only little from China's progress. All in all, rapidly advancing socioeconomic progress, the unbalanced prosperity of various regions in the country, and considerable migration flows within China have presented obstacles to the development of many children and the enforcement of their rights.

**Project context**

The province of Sichuan in the country's southwest is regarded as heavily threatened by earthquakes, since this is the area in which the Indian continental shelf presses against the Eurasian shelf. In the past, severe earthquakes and landslides have occurred again and again, leaving many dead and injured, and causing enormous damage. This was also the case in 2008, when 70,000 people died as a result of the "Great Earthquake of Sichuan." More than 20,000 deaths were recorded in the city of Beichuan alone.

After the earthquake, the old urban area of Beichuan became an untouched memorial, given the risk of further landslides. With its present 35,000 inhabitants, New Beichuan lies 23 km away from the destroyed city of Beichuan, and it is no longer located in a valley basin, which has reduced the threat of more landslides. In addition, the new buildings have to meet stringent earthquake safety standards. People's material livelihoods were quickly and successfully restored by the Chinese authorities, although the psychological consequences of the tragedy prevail. In addition, follow-up problems have developed. For example, newly created housing was distributed via a lottery system, which disrupted many social links. The situation has been particularly problematic for children who lost one or both parents in the earthquake, with those fortunate enough now staying with relatives. Children of migrant workers, whose parents often leave them behind with relatives, are especially hard-hit. In their case, traumas caused by the earthquake and being left behind reinforce each other.

**Project activities**

Three months after the earthquake, the non-governmental organization Qiang Soul together with several hundred volunteers launched a project supported by Misereor that provided assistance in coping with trauma among orphans, semi-orphans, and children of migrant worker families. The volunteers were trained in psychological counseling in order to be able to professionally support the children. In camps organizing musical and creative activities (art, creative writing, photo documentation of their lives, theater), the children learned how to improve coming to terms with their situation. For many children, coping with life first of all meant not dropping out of school. For this purpose, Qiang Soul obtained special conditions from the school authorities. For example, children were also able to continue attending lessons without sitting exams that they would not have passed owing to their traumatic experiences. Coaching lessons helped them slowly catch up with the others. Working in parallel with the teachers created a better understanding of the children's situation. The Qiang Soul activities were supplemented by government-supported disaster preparedness measures such as evacuation exercises at schools.

**Results and impacts**

The project has made an important contribution to supporting the children affected in coping with their traumatic experiences and the challenges they face in China's strongly performance-oriented school system. The exemptions obtained from the local authorities gave the children concerned more time to reintegrate in day-to-day life at school. Thanks to intensive support and counseling, a major share of the children affected were able to continue to attend school and complete their education. Now, a decade after the earthquake, the project addresses not only the children traumatized by the earthquake but children of poorer families in general. The project aims to help process the long-term psychological effects of the earthquake. It also aims to make people more resilient towards future damaging events by preventing them from becoming detached from society and slipping further into welfare dependency.

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# **2.2** Most disaster victims are children

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*About one in every four children lives in an area affected by disasters. Crises and disasters are much riskier for children than they are for adults since children are physically inferior, can take less mental strain, and are frequently less well protected under the law. Furthermore, insufficient care or mental traumas can massively and, in the worst case, irreversibly inhibit a child's development. The setting up of child protection centers has proved to be a worthwhile means of providing children with protection, access to support, and educational measures. One of the key tasks after a disaster has to be to pave the way for school-aged children to re-enter the public education system. Even in disaster preparedness, considering the needs of children and actively involving children is essential. This also includes making information child-friendly (e.g. evacuation plans in schools).*

### Every fourth child lives in a high-risk area

In 2017, disasters resulted in 136 million people in 25 countries becoming dependent on humanitarian aid (UN OCHA 2017). More than 68 million people had to leave their homes, 52 per cent of whom were children under the age of 18 years (UNHCR 2018). Worldwide, about every fourth child – 535 million girls and boys – lives in a country affected by disasters (UNICEF 2017). Even before a disaster strikes, these children frequently do not have access to healthcare, quality education, or protection from violence.

### The vicious cycle of conflicts and disasters as a result of extreme natural events

Climate change, environmental destruction, rapid urbanization, persistent violence, growing inequality, and conflicts in many parts of the world are leading to more frequent and intensive disasters (UNISDR 2015a). More and more people in all parts of the world are exposed to more frequent and intense flooding, droughts, and cyclones. Concurrently, the intensity and complexity of years-long conflicts, such as those in Yemen, South Sudan, the Democratic Republic of Congo, Nigeria, or Syria, is rising. For 2018, all but two of the United Nations humanitarian relief plans were drawn up in response to situations brought about by violent conflict (UN OCHA 2017).

Today, many countries dependent on humanitarian aid are confronted with different types of disasters that influence and aggravate each other. The impacts of climate change and disasters due to extreme natural events can worsen already fragile situations. Conflicts over scarce resources sharpen, e.g. in struggles for natural resources such as water. Conversely, armed conflicts can worsen extreme natural events, as well. Major dust storms, for example, get stronger when entire swathes of land are no longer cultivated because people have had to flee, as was the case for example with the dust storm that swept over Iraq and Syria in September 2015. As a result of extreme weather events, this vicious cycle is expected to intensify in the future. The children of today and future generations will be confronted with significantly more, and stronger, disasters.

### Children are particularly vulnerable

Crises and disasters have a massive impact on the development of children. Direct and indirect physical and mental consequences can affect children for a lifetime, especially when injuries and traumas are not treated and cannot heal. Just how much children suffer from such extreme events also depends on whether or not schooling is interrupted for a long period of time or is stopped altogether. The way children respond to crises differs from that of adults, both physically and mentally. Moreover, in many societies, children have no voice, and their

## Energy requirements of children for healthy development

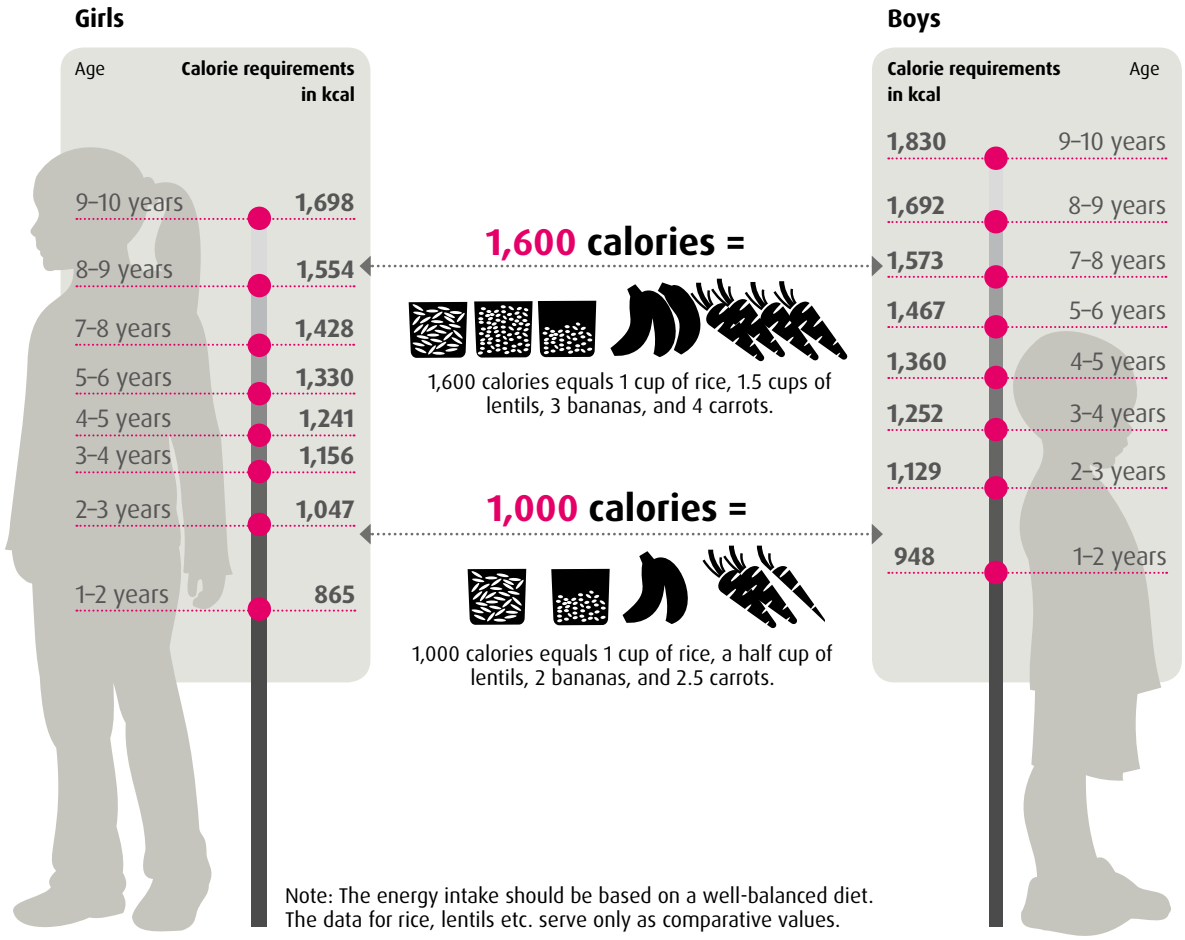


Figure 4: Energy requirements of children by age

special needs and concerns are not considered, or may not even be known. These include the following characteristics:

+ Children are **physically** inferior to adults and are not as fast or strong. They are smaller and run a higher risk of becoming ill at an early age since they have thinner skin, store less liquid, and dehydrate more quickly. Infants up to the age of twelve months, in particular, are not able to sufficiently regulate their body temperature and are susceptible to heat stroke. Dehydration, which may occur as a result of extreme heat and drought, in turn encourages the incidence of disease. Even a short interruption in the supply of water and food quickly becomes life-threatening for babies and infants. In addition, children are at a greater risk of developing (chronic) respiratory diseases due to air pollution. Children at an early age lose body heat more quickly and are in contact with the ground and the exterior more frequently. They pick up pathogens more quickly, for example when they play on the ground, grasp objects lying around, or stick their hands

in their mouths. Additionally, diseases can spread quickly among children if they are not vaccinated. In disaster situations, basic sanitation and hygiene facilities are lacking in many cases. Both after floods and during droughts, there is an increased risk of waterborne diseases, and in particular diarrheal diseases. Diarrheal diseases transmitted via water are responsible for around two million deaths a year, the major share of the victims being children under the age of five years (WHO 2018). For a healthy development, children also need an adequate and balanced diet. If natural events such as droughts or floods cause food scarcity, children will be affected more quickly by malnutrition and undernourishment (see Figure 4). Especially during the first two years of childhood, malnutrition can result in physical and mental retardations in development. In the worst case, children suffer long-term health impairments or may even die.

+ Children react **psychologically** in different ways than adults. Their coping strategies are not as developed as those of adults. During and after disasters, they may not be in a position to understand and come to terms with what has happened. This is why children are more quickly overburdened and lose control more quickly. They are at greater risk of being traumatized or exposed to toxic stress, which affects a child's mental health and development (Letourneau / Giesbrecht 2011). During our work, we frequently found that it is particularly difficult for children to process disasters that have been caused by people. In armed conflicts, they experience people committing gruesome offences – and the perpetrators may even be known to the children as family members or neighbors. Such experiences shake their trust in other people. Protracted, recurrent traumatic experiences have a devastating impact on the mental state of children. They include torture, being held hostage, long-lasting natural disasters, multiple diasters, or the loss of loved ones (violent death, separation from one's parents). In disaster situations, important protective factors, such as stable social relationships and a safe environment, may be destroyed that are crucial to their survival and which can also help them process difficult experiences. Often, parents cannot properly look after their children during and after disasters, and children experience their parents as helpless in such situations, which frightens them and triggers additional stress. This is why there is a considerable danger of traumas manifesting themselves permanently. As a result, children develop fear, cling to their parents, wet themselves, struggle with concentration, show signs of retrograde development, and are restless, overexcited, aggressive, or depressive.

+ Children are even less protected in and after disasters where their **rights** are not recognized, there is no sensitization or institutional support and protection regarding massive violations of rights, or where the conflict parties can even instrumentalize them. Especially in armed conflicts, but also in the wake of disasters due to extreme natural events, children are at risk of being killed, kidnapped, abused, and exploited. If children are separated from their adult person of reference, their risk rises enormously. Children who are left to their own devices, even for just a short time, run the risk of being kidnapped and exploited. Organized criminals kidnap children and offer them for "adoption" at a high price, regardless of whether their parents or relatives are still alive or not. For example, following the 2011 earthquake disaster in Haiti, child relief organizations had to warn of illegal adoption worldwide in order to protect children in Haiti from being sold by child traffickers and adoption agents (Reiser 2010). Adults sexually abuse children – girls and boys – or sell them off to prostitution. The earthquake in Nepal bore sad testimony to this. Girl traffickers presented themselves to parents as representatives of international organizations and sold the girls to Indian brothels (Hedemann 2015). Humanitarian crises can lead to an increase in child labor, as demonstrated by Syria's neighboring countries, where farmers employ refugee children during the hazelnut harvest. Even when parents or other persons of reference lack an adequate supply of life's necessities, children

may become endangered. Parents may opt for negative coping strategies if they see no other way out. For example, in drought periods, girls are taken out of school to walk the long distances to the nearest source of water. Refugee families marry off their daughters at a significantly earlier age than they would at home, hoping that the girl will have better prospects in the family of the man she is wedded to and that they will have one child less to care for. The children themselves have been traumatized by a diversity of violent experiences and therefore are sometimes unable to ask for help. Their own protective mechanisms fail, and there is a considerable danger that they will not hesitate to accept dubious offers or rely on strangers.

### Disaster relief has to protect children

In many countries around the world, the needs of children and their having a say in things, whether in the family, at school, or in the community, are not given sufficient attention. Unfortunately, this also applies to disaster management. Children are not adequately considered in disaster management concepts. Often, their individual requirements are not addressed or may not even be known. Children's vulnerability could be reduced if societies and institutions were to respect the rights of children and give their needs priority.

In the wake of disasters, schools, kindergartens, and local authorities or housing districts are often destroyed. Individuals and institutions protecting children are often not available or do not work, and staff cannot be contacted. Local government and non-governmental child protection actors are frequently either insufficiently known to the implementing disaster relief organizations, or they have to suspend their activities in a crisis situation. This gives potential perpetrators the opportunity to take advantage of the insecure situation, and subject children and youths to different forms of violence without having to answer for their deeds. Whenever a disaster strikes, child relief organizations observe that perpetrators are quick to respond, and sometimes even travel to the scene from other countries. Therefore, setting up child protection centers during or after a disaster is a key aspect in safeguarding children from physical and psychological violence, as well as ensuring their access to relief services (see below).

### Demands on humanitarian relief and disaster management

In order to give children effective and optimum protection in crises and natural disasters, at least the minimum standards for child protection in humanitarian relief have to be implemented (CPWG 2012).

**Prevention:** Even before an extreme natural event has occurred, preventive systems have to be established to protect children and youths. As part of an overall strategy for the reduction of the impacts of extreme natural events, a child protection policy should be introduced to international, national, and local non-governmental organizations. This ensures that staff in the respective organization are sensitized to the topic, clear rules on behavior are in place, and case management is institutionalized to deal with any suspicious cases. In Germany, the submission of an extended certificate of good conduct is a further measure in place to prevent people with relevant entries from entering into employment that would facilitate their contact with children. Wherever possible, local or national staff working in the respective project country should also submit relevant documentation or another official certificate of conduct after two weeks, at the latest, in order to minimize potential threats to children from the staff.

The respective government authorities and services (disaster management, youth authorities, fire services, police, and if appropriate, the armed forces) also have to systematically establish child protection in their emergency plans. Child protection should be enshrined in law, and a plan of action should be developed for emergency situations.

The resilience of children and youths can be increased by active participation in disaster preparedness that explicitly considers their needs. Such a framework gives children and youths the opportunity to identify dangers where they live, find solutions, develop ideas on how to best cope with disaster, and determine

what support is required for this purpose from government and non-governmental actors, especially since children perceive their environment and dangers differently from adults. Therefore, it is important to conduct participatory project monitoring with children and youths at all times. With appropriate action, the needs of children can be swiftly and effectively met (see Case Study Bangladesh: How Schools Can Contribute to Disaster Preparedness).

Education also plays an important role. Programs work towards to sensitizing children to environmental protection, as well as motivate families and local communities to change their behavior. Climate change adaptation activities, such as environmental clubs in schools, support children in gaining more awareness of their environment and becoming active.

**Intervention:** The survival and the protection of children are the prime objectives of all humanitarian missions run by child protection organizations. The most important instruments in these activities are child protection centers, in which children are provided with care, food, education, and physical and mental healthcare.

Children are not small adults – this above all applies in disaster situations. In the wake of earthquakes, floods, or droughts, girls and boys require special protection and have special needs. For example, while adults can survive on rice and water for long periods without much harm, children need high-energy food in order to endure such emergency situations without long-term health impairments. In addition, special measures are needed to protect children from being subjected to violence, exploitation and disease in places like emergency shelters where chaotic conditions reign. Registration of girls and boys and regular attendance checks have proved to be of particular importance in the running of child protection centers. In cooperation with other organizations involved in child protection, this is a way to significantly reduce the risk of child abuse and child trafficking.

Maintaining education and a daily routine is also important for a child's long-term development. When children have been ripped out of their daily school routine for a long period, many of them do not find their way back. This has a negative impact on society as a whole, as the lack of educational opportunities will make poverty worse in the community. Child protection centers can step up and provide educational facilities in the direct aftermath of a catastrophe. In the initial intervention phase, information and education help children to cope with bad experiences, provide structure in daily life, and help to re-establish a certain level of normality. Education that sensitively addresses the reasons for conflict can provide explanations for what at first seemed unexplainable, enables participation in social life, and can contribute to peaceful interaction with other people.

What individual child protection centers look like depends on the respective needs resulting from the post-disaster situation. Both the building design and the programs that are run can differ considerably. Sometimes, even the simplest means are sufficient to set up an effective child protection center. In Haiti, for example, when no building material was available immediately after the earthquake in 2010, plastic tarps were spread out between trees. In the midst of chaos, this place was a sign of structure and offered opportunities to play. It was a great success. The children became lively, laughed, and could be children again at last. It was only later on, when building material was available again, that proper pavilions could be built on the site. Just like the buildings, the programs can vary depending on what is needed. Services range from open playing and learning activities to child-friendly nutrition and health checks, to trauma treatment involving, monitoring behavior, speaking groups, and psychosocial care.

Child protection centers have to be set up as quickly as possible. Work then continues until the situation has normalized again, for example when schools recommence operation. This period may sometimes last six months or even a year.

**Transitional aid:** Educational programs are an important part of transitional aid. In order to move on from initial interventions to long-term development cooperation, school lessons should be maintained for children normally required to attend school. The key objective is to get children

and youths back into a functioning state school system as quickly as possible. A system working in parallel ought to be avoided. Organizations can support the reintegration of schoolchildren into the state education system by teachers taking part in furthering education measures, which enables them to recognize potential traumas among children and youths and handle them appropriately. Destroyed schools are re-erected, and equipment is provided.

However, education for children and youths in and after disasters in general is not regarded as a priority, and in many cases, it comes too late. Worldwide, far more financial resources are needed for this area than is currently available. In 2017, the financial gap was at 8.5 billion US dollars a year. This corresponds to roughly 37 million children who do not go to school. In particular, disasters and crises which nowadays are lasting longer and longer present challenges for humanitarian aid, transitional aid, and development cooperation. When emergency situations last for years or even decades, entire generations are denied uninterrupted education and training (Globale Bildungskampagne et al. 2017, 3 ff.).

Presently, a mere two percent of the global humanitarian budget flows into the field of education. The G7 states have now taken up the topic of funding education as a priority, particularly for girls in crisis and conflict situations. The German government has also pledged a total of 75 million euros for this purpose. In addition to existing educational measures in crisis and conflict situations, the global education initiative “Education Cannot Wait” is also supported (German Federal Government 2018).

Transitional aid must be based on a holistic concept, and closer links between humanitarian aid and long-term development cooperation have to be achieved. Transitional aid is the bridge leading to long-term development after a disaster. It has to ensure that children and youths, especially those from marginalized or vulnerable groups, are considered and given more support and protection. These groups include, children belonging to ethnic minorities, children with disabilities, and girls.

Rank 9 in WorldRiskIndex

| | |
|---|---|
| WorldRiskIndex | 17.38 % |
| Exposure | 29.95 % |
| Vulnerability | 58.03 % |

Bangladesh

# How Schools can Contribute to Disaster Preparedness

**Country profile**

Bangladesh is among the world's countries that are most threatened by disasters due to extreme natural events. In this country, which lies between the foothills of the Himalaya Mountains in the north and the Gulf of Bengal in the south, floods and landslides are the primary causes of death, injury, and enormous economic loss year after year. The annual monsoon season and cyclones, which come from the Gulf of Bengal and head for the south of the country, are responsible for these disasters. Many inhabitants of the densely populated country still have vivid memories of Cyclone Sidr, which claimed the lives of 3,400 people eleven years ago.

**The situation of children**

In 1990, Bangladesh ratified the Convention on the Rights of the Child (CRC), although little has changed since then regarding the precarious conditions that many children live in. There is a lack of comprehensive regulations and strategies for adherence to children's rights at a national level. So far, the third Optional Protocol of the CRC has not yet been ratified. Generally, children are insufficiently protected by the Bangladeshi government, which leads to a number of protection issues, such as a high rate of child marriages. Given the precarious situation they live in and the lack of protective measures, many children have little chance of coping with extreme natural events.

## The situation of children

**28.4 %**
Share of population under the age of 14 years

**5.1 %**
Share of out-of-school children of primary school age

**5.0 %**
Share of children in employment (7–14 years)

**32.6 %**
Share of underweight children (0–5 years)

**34.2 %**
Child mortality under the age of 5 years (per 1,000 live births)

**Project context and project activities**

Northern Bangladesh is affected by annual floods during the monsoon season in July and August. The rural district of Gaibandha is located at the confluence of the Tista and Brahmaputra Rivers. The main source of income for the locals is based on rice and vegetable farming. The annual floods are both a blessing and a curse for the district: they are important since they wash fertile soil from the north through the district, which improves harvest yield. However, if the floods happen to be too strong, which has frequently been the case over the last few years, they can cause massive damage. The houses, which are often simply built, are either damaged or completely destroyed, livestock drowns, and rice and vegetables in the fields wither away.

In order to better prepare the local population for the annual floods, Christoffel-Blindenmission (CBM) and its local partner organizations, the Center for Disability in Development (CDD) and Gaya Unnayan Kendra (GUK), launched a disaster preparedness project in the community a few years ago. Schools in particular play an important role in the community-based project. In the past, teachers and students were often not well prepared for the annual floods. Therefore, no arrangements were made to continue education during the flood periods – resulting in no school for weeks at a time. In order to improve this situation and simultaneously take advantage of schools as an important resource in disaster preparedness, CDD and GUK implemented aid measures between 2013 and 2017, with a special focus on inclusion and accessibility.

First of all, the project initiated so-called "school disaster management committees" with teachers and students at nine primary schools in the region. The people involved were provided with a wide range of training measures in of disaster preparedness, the conclusion of which being the formation of a detailed emergency plan for their schools. At the same time, the schools received equipment such as umbrellas, rain jackets, and flashlights. Furthermore, the topic of disaster preparedness was adopted in the school curriculum. Now, the students learn in a playful during how to prepare themselves and their families for the floods, as well as other dangers that occur as a result of floodings, such as diarrheal diseases from the consumption of contaminated water. Emergency situations are also regularly simulated during lessons, so that students can practice what to do in the event of an earthquake. Together with their families, the students were encouraged to save money during more secure times that they could then fall back on in crises.

**Results and impact**

The success of the measures is already visible. Now, the primary schools in the region remain closed for a much shorter period than they did in the past. At the same time, in addition to their regular teaching commitments, teachers who took part in the new training programs engage in emergency relief measures in their communities as soon as the floods set in. The number of children attending school lessons in the monsoon season has risen consistently, despite submerged or destroyed roads continuing to prevent some pupils from reaching schools. Interviews with teachers and students in 2017 revealed that today, the students are much more motivated to not miss any lessons.

Close coordination with governmental disaster relief authorities remains a challenge. It is important to avoid miscoordination or duplication of civil protection responsibilities, both the national and local level. Since local community or district representatives change periodically, it is a lengthy process to permanently fix disaster risk management in local policies and annual budget plans, and constant lobbying is necessary.

Moreover, the project has a significant indirect impact on the communities involved, since students share disaster preparedness know-how they have acquired in school with family members and neighbors. The students thus make an important contribution in strengthening the resilience of their communities. The fact that schools have now been integrated into a comprehensive disaster preparedness concept has also generated a discussion about the greater inclusion of children with disabilities, a positive side-effect of which being that more and more children with disabilities have enrolled in schools since the beginning of the project.

**Oliver Neuschäfer**, Emergency Relief Coordinator, Christoffel-Blindenmission Deutschland

# 3 The WorldRiskIndex 2018

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*The WorldRiskIndex states the disaster risk for 172 of the world's countries. The Index considers exposure to extreme natural events such as earthquakes or cyclones, and calculates a society's capacity to respond to such events. Vanuatu, Tonga, and the Philippines top the WorldRiskIndex list as the countries with the highest disaster risk. Overall, Oceania has the highest WorldRiskIndex values, followed by Africa, America, Asia, and Europe. The overwhelming majority of the most vulnerable countries are in Africa. Nine of the 15 countries bearing the highest risk worldwide are island states, due, above all, to their high level of exposure. Island states are particularly affected by sea-level rise, a consequence of global warming.*

In the summer of 2018, large parts of Europe were groaning under an unusually hot spell. Many places in Germany had no rain for weeks, and the resulting drought caused considerable harvest losses. Particularly among farmers growing their own animal feed, the drought led to bottlenecks and the premature selling off of livestock to slaughterhouses at a significantly reduced price – a scenario that is also familiar in typical drought regions such as the Horn of Africa or the Sahel Zone. It was the comparatively low vulnerability of the countries affected by the drought that ultimately spared Europe from disaster. This fact is also reflected in the relatively low risk values of the countries concerned in the WorldRiskReport which, compared to the previous years, has been calculated with a slightly modified concept.

## The concept

Based on a mathematical concept, the WorldRiskIndex establishes a disaster risk value for 172 countries. This value provides an indication of how high the risk is that a country will be affected by a disaster due to an extreme natural event in the future. The individual index values are represented in the form of maps based on a Geo-Information System (GIS), enabling the comparison of countries with one another.

The model was developed in 2011 by scientists from the Institute for Environment and Human Security at the United Nations University in Bonn and experts from Bündnis Entwicklung Hilft and its member organizations (cf. Birkmann et al. 2011, Welle / Birkmann 2015). In 2017, the concept was revised and modified slightly by scientists from Ruhr-University Bochum and Bündnis Entwicklung Hilft staff in order to take changing data situations and new insights in risk analysis into account (cf. next section).

The basic idea of the WorldRiskIndex is that the occurrence of extreme natural events – e.g. droughts, earthquakes, cyclones, etc. – is not the only relevant factor to disaster risk, but that societal factors are also responsible for whether a disaster develops in the context of extreme natural events or not. Every society can either directly or indirectly make preparations that reduce the impact of natural hazards – for example, with well-considered building regulations, functioning emergency services, or minimizing extreme poverty and inequality among the population (Bündnis Entwicklung Hilft 2011).

In order to understand the interaction between natural events and social influencing factors, the Index is divided into two dimensions: exposure and vulnerability. Exposure covers threats due to extreme natual events, while vulnerability encompasses the societal sphere. The WorldRiskIndex is the product of these two dimensions.

**Exposure** means that a certain protected entity (population, buildings, environmental areas) is exposed to the impacts of one or more natural events (earthquakes, cyclones, floods, droughts, and sea-level rise).

**Vulnerability** consists of the following components: susceptibility, lack of coping capacities, and lack of adaptive capacities (Bündnis Entwicklung Hilft 2011), and relates to social, physical, economic, and environmental factors which make people or systems susceptible to the impacts of natural hazards, the adverse effects of climate change, or other transformation processes. Moreover, vulnerability covers the abilities of people or systems to cope with the negative impacts of natural hazards and develop adaptation strategies. The way in which vulnerability is used here refers to societies in a more comprehensive sense.

A total of 27 indicators feed into the Index that are calculated on the basis of data that is available and publicly accessible worldwide. The modular structure of the Index is shown in figure 5.

The different components of vulnerability are described in detail in the following:

**Susceptibility** is understood here as the likelihood of suffering from harm in an extreme natural event. Susceptibility describes the structural characteristics and framework conditions of a society.

**Coping** comprises various abilities of societies to be able to minimize negative impacts of natural hazards and climate change through direct action and the resources available. Coping capacities encompass measures and abilities that are immediately available to reduce harm and damages in the occurrence of an event. To calculate the WorldRiskIndex, the opposite value, i.e. the **lack of coping capacities**, which is the value 1 minus the coping capacities, is used.

**Adaptation**, unlike coping, is understood as a long-term process that also includes structural changes (Lavell et al. 2012; Birkmann et al. 2010) as well as measures and strategies dealing with and attempting to address the negative impacts of natural hazards and climate change in the future. As with coping capacities, the **lack of adaptive capacities**, resulting from the value 1 minus the adaptive capacities, is included in the WorldRiskIndex.

## Conceptual innovations and data 2018

In 2017 and 2018, the WorldRiskIndex was revised on the basis of new insights. The basic concept and the modular structure of the Index have been retained, and changes have only been made at the level of the indicators. The modifications are only in regards to exposure and vulnerability, and enable more precise and up-to-date statements to be made on the risk values. The final section explains how the changes affect the comparability of individual WorldRiskIndex volumes.

In the exposure component, the data set on the number of total inhabitants of a country (which up until now has been from the World Bank) has been replaced by a data set (LandScan) that is more accurate regarding the WorldRiskIndex. One of the features of the new data set is that it works with satellite images in order to take the building density of regions into account. Therefore, it can give more accurate information on population distribution in individual regions. In the WorldRiskIndex 2018, this data set is also used to calculate the share of people who are affected by sea-level rise in a country (in past volumes, GRUMP 2010). Particularly in coastal regions, this new base has resulted in altered shares of the population being exposed to sea-level rise and explains the significant changes in the risk values of some of the countries. Thus, all population data sets now originate from the same source, forming a more consistent base for calculations as well as greater precision. The population statistics used in working out sea-level rise are from 2016. All

other forms of exposure have been calculated on the basis of population statistics from 2010, since this is modeled data from the "PREVIEW Global Risk Data Platform" from the United Nations Environment Programme (UNEP) and more current data from UNEP was unavailable at the time of calculation.

Five indicators in the area of vulnerability were replaced by new ones. The other indicators have been updated.

In the component of susceptibility, four of the seven indicators have been updated:

**C** Share of undernourished population
**D** Dependency ratio
**F** Gross domestic product (in purchasing parities) per capita
**G** Gini Index.

Three indicators have been replaced because they were no longer available in the previous form:

**A** Share of the population without access to improved sanitation has been replaced by share of the population without access to basic sanitation services
**B** Share of the population without access to an improved water source has been replaced by share of the population without access to basic drinking water services
**E** Share of the population living on less than 1.25 US dollars a day has been replaced by the share of the population living on less than 1.90 US dollars a day.

The modifications of the indicators are based on changes resulting from the measurement of Sustainable Development Goals.

In the area coping capacities, four of the five indicators have been updated:

**A** Corruption Perception Index
**B** Fragile States Index
**C** Number of physicians per 1,000 inhabitants
**D** Number of hospital beds per 10,000 inhabitants

The component adaptive capacities now only consists of ten indicators, all of which have been updated. Two indicators were replaced:

**C** Share of female students in education institutions
**D** Share of female representatives in the National Parliament

The new indicator chosen is the:

**C** Gender Inequality Index

The new indicator, the Gender Inequality Index, is a value based on the following variables: the maternal mortality rate, the adolescent birth rate, the share of seats in the national parliament held by women, the share of women and men with at least some secondary education, and the labor force participation rate of males and females.

## Calculation of the WorldRiskIndex

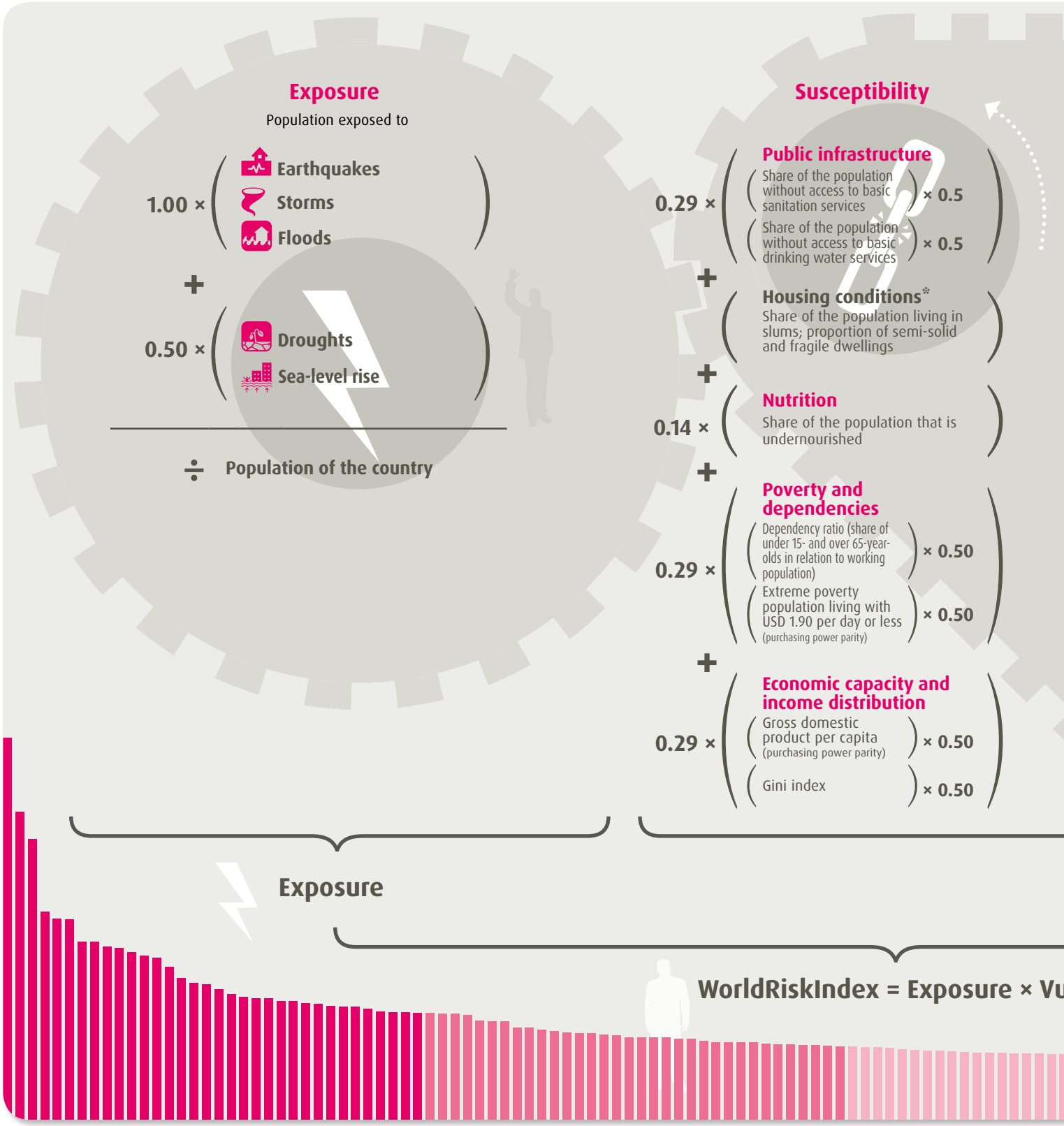



Figure 5: Calculation of the WorldRiskIndex

## Coping

**0.45 ×**

- **Government and authorities**
  - Corruption Perception Index × 0.50
  - Fragile States Index × 0.50

**+**

- **Disaster preparedness and early warning***
  National disaster risk management policy according to report to the United Nations

**+**

**0.45 ×**

- **Medical services**
  - Number of physicians per 10,000 inhabitants × 0.50
  - Number of hospital beds per 1,000 inhabitants × 0.50

**+**

- **Social networks***
  Neighbors, family, and self-help

**+**

**0.10 ×**

- **Material coverage**
  Insurance (life insurances excluded)

## Adaptation

**0.25 ×**

- **Education and research**
  - Adult literacy rate × 0.50
  - Combined gross school enrollment × 0.50

**+**

**0.25 ×**

- **Gender equality**
  Gender Inequality Index

**+**

**0.25 ×**

- **Environmental status / Ecosystem protection**
  - Water resources × 0.25
  - Biodiversity and habitat protection × 0.25
  - Forest management × 0.25
  - Agricultural management × 0.25

**+**

- **Adaptation strategies***
  Projects and strategies to adapt to natural hazards and climate change

**+**

**0.25 ×**

- **Investitionen**
  - Public health expenditure × 0.33
  - Life expectancy at birth × 0.33
  - Private health expenditure × 0.33

**Vulnerability = ⅓ × (Susceptibility + (1 – Coping) + (1 – Adaptation))**

## ılnerability

* Not incorporated because of insufficient availability of indicators.

Values of exposure and vulnerability, as well as the WorldRiskIndex are given in percent.

# Results of the WorldRiskIndex 2018

### Risk

Vanuatu continues to be the country with the highest disaster risk in the WorldRiskIndex 2018. With Tonga, the Philippines, the Solomon Islands, Papua New Guinea, Brunei Darussalam, Fiji, Timor-Leste, and Kiribati, a total of nine island nations are among the 15 countries with the highest risk.

In regards to continents, all in all, Oceania (16.58) has the highest median of WorldRiskIndex values, followed by Africa (8.31), America (7.11), Asia (6.11), and Europe (3.10). In Africa, the hotspots are in Mauritius (rank 16), Djibouti (rank 18), and Guinea Bisseau (rank 19), while in Asia, in addition to the island nations already mentioned, Bangladesh (rank 9) and Cambodia (rank 12) also perform very poorly. On the American continent, Guyana (rank 5), Guatemala (rank 7), Costa Rica (rank 11), and El Salvador (rank 14) have the highest risk. Some European countries are also in the "high risk" class. The risk of an extreme natural event turning into a disaster is especially high in Albania (rank 45) and the Netherlands (rank 65). These two countries are followed by Serbia, which falls into the medium risk group, at rank 77.

### Exposure and risk

When looking at the individual components of the WorldRiskIndex, conclusions can then be drawn more precisely regarding the causes of risks. Seven of the island nations (Vanuatu, Tonga, Brunei Darussalam, the Philippines, the Solomon Islands, Fiji, and Papua New Guinea) and four further countries (Costa Rica, Guyana, Guatemala, and El Salvador) with very high risks are also among those 15 countries that are particularly exposed. The island nations are particularly affected by sea-level rise, as well as by cyclones and earthquakes. Four further top risk countries are among ranks 16-19 regarding exposure, meaning that they are also highly endangered by natural events. However, Japan, the Netherlands, and Chile, which rank at 5, 13 and 14 respectively in terms of exposure, show that even a very high exposure does not necessarily imply a very high risk. Owing to their location close to the edges of tectonic plates, Japan and Chile are threatened in particular by earthquakes, while the Netherlands are particularly affected by sea-level rise. Nevertheless, these countries are at ranks 29, 65, and 28 in the WorldRiskIndex.

### Vulnerability and risk

The reason for the relatively good positions of Japan, the Netherlands, and Chile in the WorldRiskIndex is their low level of vulnerability. Here, the three countries have very good values. Japan and the Netherlands are among the ten countries with the lowest vulnerability worldwide. Chile is at least among the 50 countries with the lowest vulnerability. The countries which have a very high risk do not lead the list in terms of vulnerability. But they are still so vulnerable that they cannot sufficiently minimize the risks that may arise from natural events. Coming in at number 20 in the vulnerability ranking, Papua New Guinea has the highest vulnerability among the high-risk countries, followed by the Solomon Islands at rank 39, Timor-Leste at rank 41, Cambodia at rank 42, and Kiribati and Vanuatu at ranks 44 and 45. As the World Map of Vulnerability shows in the appendix, the hotspots of vulnerability are in the Sahel Zone and the tropical regions of Africa. A total of 13 out of the 15 most vulnerable countries are in Africa. The Central African Republic, Chad, Niger, Eritrea, and Guinea Bissau are particularly vulnerable. Only two countries outside Africa, Haiti and Yemen, are comparably vulnerable.

### Susceptibility

The African continent is not only the hot-spot in terms of vulnerability in general, but also in terms of susceptibility, a component of vulnerability. Susceptibility is particularly high in the Central African Republic, Eritrea, Madagascar, Mozambique, and Chad. Here, different patterns emerge. Whereas, for example, Chad

has extremely poor values for the indicators "basic sanitation services," "basic drinking water services," "undernourishment," and particularly in regards to the "dependency ratio," the country does comparatively well in terms of "extreme poverty," "per capita gross domestic income," and the indicator on "inequality" (valued with the Gini Index), and fares better than the bottom ten per cent. Nevertheless, Chad ranks fifth in terms of susceptibility. The situation is the other way around in Malawi. This country does comparatively well in several indicators (basic sanitation services, basic drinking water services, undernourishment, and inequality), and here, it does not belong to the bottom ten per cent of the countries in the WorldRiskIndex. In the indicators "extreme poverty," "dependency ratio," and "gross domestic product per capita," however, the country fares so badly that it is in rank 11 in terms of susceptibility. Other countries, such as the Central African Republic, Eritrea, and Madagascar have very poor values in almost all indicators.

### Lack of coping capacities

The lack of coping capacities is less clearly concentrated on the African continent. With Afghanistan, Haiti, Iraq, and Syria, other countries are also represented among the top 15 that belong to Asia or America. Yemen, Afghanistan, Chad, the Central African Republic, and Haiti show the greatest lack of coping capacities. In this group, it is notable that all countries, with the exception of Haiti, have all either been involved in a civil war or are post-civil war countries. Especially in the indicators "Corruption Perception Index" and "Fragile States Index," these countries also perform poorly. Healthcare appears to perform better. Here, at least, Syria and Iraq are in the middle field in terms of physicians per inhabitants and the number of hospital beds. Although Yemen generally has poor values, it does not belong to the bottom 20 per cent of the countries in the WorldRiskIndex in regards to these two indicators. However, the fact that these countries provide more hospital beds and physicians per inhabitant does not necessarily mean that in this case, healthcare meets the high demand resulting from civil war. It is also quite possible that the values will significantly change in the course of the next assessment owing to the civil war.

### Lack of adaptive capacities

The countries with the lowest adaptive capacities are Niger, Yemen, Liberia, Chad, and Mali. Alongside numerous countries in sub-Saharan Africa, various countries in South and Southeast Asia also show a high to very high lack of adaptive capacities. Niger's especially poor results are, above all, due to the low literacy rate and low level of educational participation. Also in terms of gender equality, public health expenditure, and life expectancy, the country is among the bottom ten per cent of the countries in the WorldRiskIndex. However, in regards to biodiversity (rank 55), forest (rank 123), and agricultural management (rank 131), Niger fares better in comparison. This also applies to the majority of the other 15 countries with the lowest adaptive capacities. Here, especially in the indicator on agriculture, only Haiti belongs to the ten per cent of countries with the poorest value. All other countries have much better values. For example, Mali, at rank 79, and Chad, at rank 93 in regards to the indicator of agricultural management, belong to the middle field.

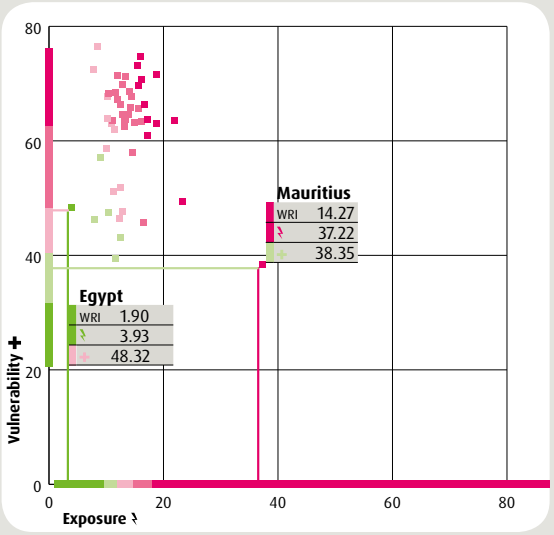
### Options and limitations of the Index

Generally, working with indices always has advantages and disadvantages. The fact that the WorldRiskIndex offers the possibility to reduce an extremely complex state of affairs to a single value allows decision-makers to orient themselves swiftly and also makes the Index a valuable tool in public relations activities. At the same time, however, owing to the high level of abstraction, the complexity of disasters is eclipsed. Thus, valuable information for practitioners can also be lost.

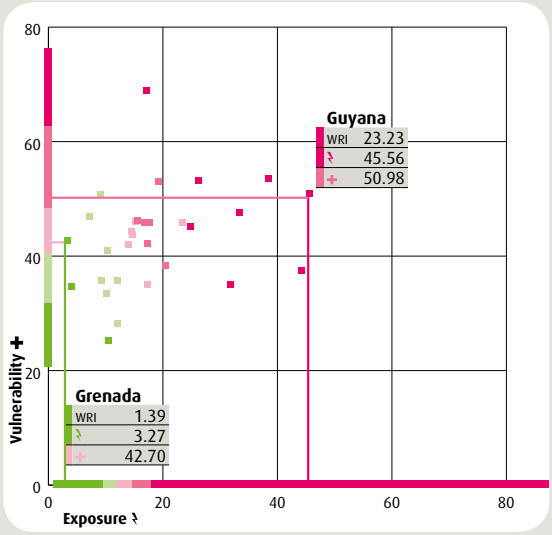
A further problem results from the availability of data, as corresponding, up-to-date sets of data do not exist for all 193 countries. Owing to an increased amount of missing data, the countries Andorra, Antigua and Barbuda, the Democratic Republic of Congo, Dominica, North Korea, Liechtenstein, the

# How exposure and vulnerability interact

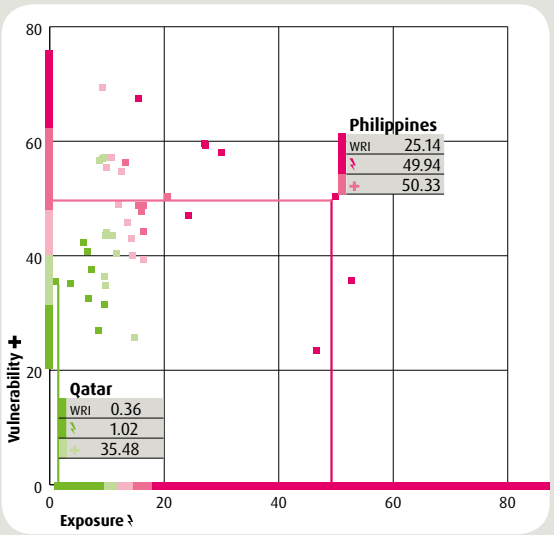
Africa



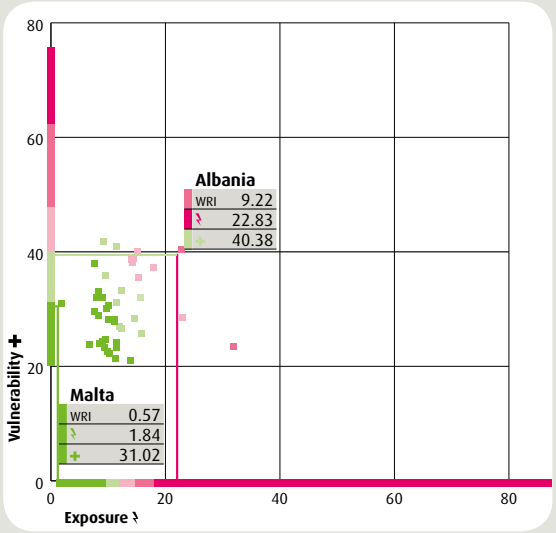

America



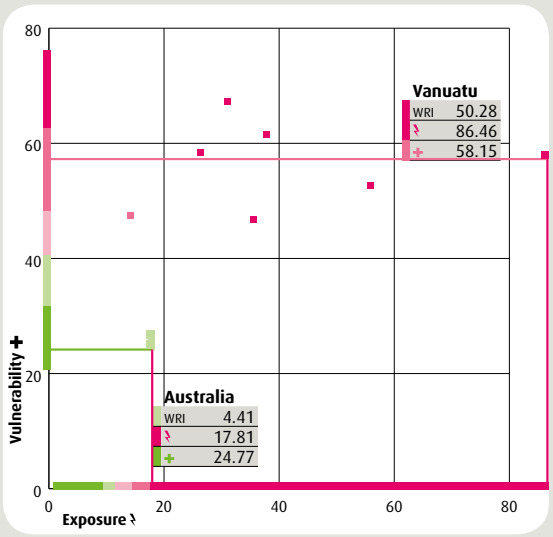

Asia




Europe




Oceania




The WorldRiskIndex (WRI) is the product of the exposition and the vulnerability of a society towards natural hazards. Every dot represents a country. The color of the dot indicates the class (very high / high / medium / low / very low) the country belongs to. The country with the highest / lowest value in the WorldRiskIndex 2018 is highlighted for every world region.

| Exposure | |
|---|---|
| very low | 1.02 – 9.53 |
| low | 9.54 – 11.70 |
| medium | 11.71 – 14.50 |
| high | 14.51 – 17.73 |
| very high | 17.74 – 86.46 |

| Vulnerability | |
|---|---|
| very low | 20.97 – 32.01 |
| low | 32.02 – 40.77 |
| medium | 40.78 – 48.60 |
| high | 48.61 – 63.00 |
| very high | 63.01 – 76.47 |

Figure 6: WorldRiskIndex by geographical location

Maldives, Monaco, Montenegro, Nauru, the Federated States of Micronesia, the Marshall Islands, Palau, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, San Marino, São Tomé und Principe, Somalia, South Sudan, and Tuvalu could not be considered in the WorldRiskIndex. This also applies to the territories not fully recognized internationally: Kosovo, Palestine, and Taiwan. The data on the Vatican State was assigned to Italy, and data of overseas territories, as far as possible, to the respective country (e.g. the population statistics of French Guyana have been added to those of France). Since not all of the data sets clearly indicated how these assignments were made, inaccuracies cannot be entirely ruled out in this matter.

Complete data is available for many of the countries contained in the Index. For the countries with only a small amount of missing data, plausible values have been estimated as a substitute with the aid of statistical methods (see data sheet). The replacements used contain uncertainties in interpretation. Owing to some of the indicators having been replaced, a comparison of the individual WorldRiskReport volumes is only possible for those parts in which no changes have been made. In order to be able to draw comparisons between the years, the previous values of the indicators that have been replaced would have to be incorporated in the calculation of the indices from previous years.

Another problem that needs to be considered results from applying the quantile method, in which the countries of the WorldRiskIndex are divided into five classes and assigned a corresponding color code. These classes always contain exactly 20 per cent of the countries considered in the WorldRiskIndex. The level of disaster risk can then be recognized on maps at a glance. However, the classes the countries belong to may change without fundamental changes in their values because the values of other countries have changed, causing a corresponding shift in the class borders.

## Conclusion

All in all, the WorldRiskIndex 2018 confirms the most important results of the previous years. Disaster risks are unevenly distributed, and they mostly affect island nations and countries with low and medium income in Oceania, Asia, and Central America.

The Index shows that it is possible to reduce disaster risks by eliminating susceptibility and developing good coping and adaptive capacities. Two highly exposed countries, Japan and the Netherlands, have achieved this particularly effectively. At the same time, they figure among the world's 20 richest countries.

The WorldRiskIndex 2018 also unequivocally demonstrates that island nations such as Vanuatu, Tonga, and the Solomon Islands are unable to reduce the disaster risk without external support. Even if they were capable of reducing their vulnerability to a considerable degree, their risk value would remain in the high or very high area owing to their very high exposure. For these countries, changes regarding their exposure are also essential. Theoretically, sea-level rise, storms, and floods in particular, all of which especially affect island nations, could be reduced, since they are influenced by global warming. However, the political will among many industrial nations to implement the measures required to achieve the aims of the Paris Agreement is still not sufficiently recognizable. Thus, the countries threatened by natural hazards have fallen into a trap from which they cannot break free on their own.


NATURALLY
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# 4 Conclusions and recommendations

**Bündnis Entwicklung Hilft**

Children are particularly affected by crises and disasters. In order to protect them and reduce the impact of disasters on them and their families, as well as to allow for healthy development, establishing child protection and children's rights in disaster preparedness and development cooperation and corresponding measures are indispensable. To ensure this, states, above all, have to fulfill their duty of care to which they have committed themselves by ratifying the Convention on the Rights of the Child.

Here, the school education of girls and boys takes on a key role – both before and after a disaster, in preparing for it and coping with it. Maintaining and resuming education should be regarded as a priority. Global education initiatives such as "Education Cannot Wait" are a significant step in this context, and high importance should be placed on expanding such programs.

In addition, children's involvement in disaster preparedness needs to be strengthened in a sustainable manner. Since they perceive and identify other risks, it is essential to integrate and engage them in developing strategies. One important step can be involving children in the formation of action plans for children in areas strongly affected by extreme natural events.

In regards to climate change and the resulting extreme weather events, as well as responsibility towards coming generations, strengthening adaptive strategies, and the development of long-term sustainable solutions are necessary, too, since children and future generations have a right to a healthy environment. Therefore, it is ultimately up to every individual to take steps today to stop climate change and preserve the environment.

### Recommendations for strengthening children in disaster management

+ Disaster management plans and disaster preparedness concepts have to address the needs of children as an especially vulnerable group in prevention, intervention, and transitional aid.

+ Children have to be integrated in preparedness, intervention, and transitional aid. Their perception of risks, their ideas and solutions, and their demands should be heard.

+ Action plans for children in areas strongly affected by extreme natural events should be developed together with children.

+ Schools and kindergartens are important actors both in preparedness and in relief measures and transitional aid. They require adequate financial and human resources. Support provided by specialists in the form of staff training programs or disaster management drills are urgently required.

+ The transfer of knowledge regarding climate change and disaster risks should be adopted in school curricula and extracurricular project programs.

+ Financial resources for child protection during disasters and particularly for education have to be boosted.

+ Reporting procedures and complaint mechanisms must also be accessible to and comprehensible for children.

+ In the wake of a disaster, special measures have to be set up for children as quickly as possible. Here, one important step is the setting up of child protection centers.

+ National authorities have to support searches for families and family reunion, as well as to ensure the resumption of formal school education or other educational programs.

+ Prosecuting authorities should be created that specialize in the prosecution of criminal offences against children, human trafficking, and organized crime, that are fully acquainted with the situation in the countries affected, and that are part of an international network. They have to become active immediately after disasters.

+ Institutional child protection has to be introduced immediately and implemented in all state and non-state organizations. It must be based on the minimum standards for child protection in humanitarian action.

+ State donors can require relief organizations to observe high standards in implementing child protection, since states can create the legal foundations for this.

# Appendix

# WorldRiskIndex 2018 Overview

| Classification | WorldRiskIndex | Exposure | Vulnerability | Susceptibility | Lack of coping capacities | Lack of adaptive capacities |
|---|---|---|---|---|---|---|
| very low | 0.36 – 3.15 | 1.02 – 9.53 | 20.97 – 32.01 | 8.26 – 17.05 | 35.16 – 53.90 | 13.33 – 23.60 |
| low | 3.16 – 5.45 | 9.54 – 11.70 | 32.02 – 40.77 | 17.06 – 20.81 | 53.91 – 67.73 | 23.61 – 33.84 |
| medium | 5.46 – 7.13 | 11.71 – 14.50 | 40.78 – 48.60 | 20.82 – 28.80 | 67.74 – 76.73 | 33.85 – 41.82 |
| high | 7.14 – 10.43 | 14.51 – 17.73 | 48.61 – 63.00 | 28.81 – 46.48 | 76.74 – 84.10 | 41.83 – 54.77 |
| very high | 10.44 – 50.28 | 17.74 – 86.46 | 63.01 – 76.47 | 46.49 – 70.00 | 84.10 – 92.28 | 54.78 – 72.52 |

Max. = 100 %, Classification according to the quantile method.

| Rank | Country | WorldRiskIndex | Exposure | Vulnerability | Susceptibility | Lack of coping capacities | Lack of adaptive capacities |
|---|---|---|---|---|---|---|---|
| 1. | Vanuatu | 50.28 | 86.46 | 58.15 | 36.07 | 86.37 | 52.00 |
| 2. | Tonga | 29.42 | 55.92 | 52.61 | 28.93 | 80.06 | 48.82 |
| 3. | Philippines | 25.14 | 49.94 | 50.33 | 29.58 | 81.57 | 39.83 |
| 4. | Solomon Islands | 23.29 | 37.81 | 61.59 | 47.28 | 82.30 | 55.19 |
| 5. | Guyana | 23.23 | 45.56 | 50.98 | 27.33 | 77.36 | 48.25 |
| 6. | Papua New Guinea | 20.88 | 31.05 | 67.24 | 55.58 | 83.80 | 62.35 |
| 7. | Guatemala | 20.60 | 38.50 | 53.50 | 32.98 | 81.35 | 46.17 |
| 8. | Brunei Darussalam | 18.82 | 52.71 | 35.71 | 14.80 | 61.50 | 30.83 |
| 9. | Bangladesh | 17.38 | 29.95 | 58.03 | 33.72 | 84.96 | 55.42 |
| 10. | Fiji | 16.58 | 35.51 | 46.68 | 22.33 | 75.48 | 42.24 |
| 11. | Costa Rica | 16.56 | 44.27 | 37.41 | 20.42 | 62.19 | 29.61 |
| 12. | Cambodia | 16.07 | 27.13 | 59.22 | 40.97 | 86.03 | 50.67 |
| 13. | Timor-Leste | 16.05 | 26.96 | 59.56 | 45.22 | 78.69 | 54.76 |
| 14. | El Salvador | 15.95 | 33.46 | 47.65 | 25.63 | 75.86 | 41.46 |
| 15. | Kiribati | 15.42 | 26.37 | 58.47 | 41.64 | 82.61 | 51.15 |
| 16. | Mauritius | 14.27 | 37.22 | 38.35 | 17.69 | 59.26 | 38.09 |
| 17. | Nicaragua | 13.99 | 26.27 | 53.25 | 31.45 | 80.21 | 48.11 |
| 18. | Djibouti | 13.90 | 21.87 | 63.54 | 40.03 | 83.52 | 67.05 |
| 19. | Guinea-Bissau | 13.40 | 18.70 | 71.67 | 59.88 | 89.59 | 65.53 |
| 20. | Chad | 11.88 | 15.90 | 74.70 | 63.09 | 91.51 | 69.49 |
| 21. | Haiti | 11.86 | 17.20 | 68.99 | 51.38 | 90.35 | 65.24 |
| 22. | Cameroon | 11.81 | 18.76 | 62.96 | 46.79 | 85.60 | 56.49 |
| 23. | Cape Verde | 11.52 | 23.33 | 49.38 | 32.44 | 68.74 | 46.98 |
| 24. | Sierra Leone | 11.49 | 16.23 | 70.80 | 58.67 | 85.70 | 68.02 |
| 25. | Viet Nam | 11.35 | 24.17 | 46.98 | 25.54 | 75.22 | 40.17 |
| 26. | Niger | 11.34 | 15.48 | 73.23 | 60.69 | 86.50 | 72.52 |
| 27. | Jamaica | 11.22 | 24.83 | 45.19 | 25.23 | 70.21 | 40.13 |
| 28. | Chile | 11.15 | 31.84 | 35.02 | 18.70 | 59.01 | 27.37 |
| 29. | Japan | 11.08 | 46.55 | 23.81 | 17.60 | 38.39 | 15.43 |
| 30. | Benin | 11.04 | 16.65 | 66.28 | 55.66 | 80.76 | 62.43 |
| 31. | Gambia | 10.92 | 17.15 | 63.65 | 44.23 | 84.35 | 62.37 |
| 32. | Madagascar | 10.89 | 15.63 | 69.68 | 66.53 | 84.72 | 57.80 |
| 33. | Dominican Republic | 10.77 | 23.44 | 45.94 | 25.77 | 73.79 | 38.26 |
| 34. | Senegal | 10.51 | 17.25 | 60.92 | 46.48 | 79.31 | 56.96 |
| 35. | Afghanistan | 10.45 | 15.48 | 67.53 | 49.23 | 91.64 | 61.71 |
| 36. | Indonesia | 10.36 | 20.57 | 50.38 | 27.20 | 78.42 | 45.51 |
| 37. | Angola | 10.31 | 15.71 | 65.63 | 51.61 | 86.27 | 59.02 |

| Rank | Country | WorldRiskIndex | Exposure | Vulnerability | Susceptibility | Lack of coping capacities | Lack of adaptive capacities |
|---|---|---|---|---|---|---|---|
| 38. | Zimbabwe | 10.23 | 16.14 | 63.36 | 51.77 | 88.39 | 49.92 |
| 39. | Honduras | 10.19 | 19.20 | 53.07 | 32.66 | 81.30 | 45.26 |
| 40. | Burkina Faso | 9.82 | 14.48 | 67.79 | 56.48 | 82.47 | 64.43 |
| 41. | Mali | 9.61 | 14.01 | 68.58 | 51.38 | 85.27 | 69.09 |
| 42. | Mozambique | 9.52 | 13.37 | 71.19 | 64.91 | 86.34 | 62.33 |
| 43. | Sudan | 9.41 | 14.89 | 63.18 | 46.46 | 85.22 | 57.87 |
| 44. | Togo | 9.35 | 14.19 | 65.84 | 56.01 | 84.11 | 57.40 |
| 45. | Albania | 9.22 | 22.83 | 40.38 | 19.39 | 71.57 | 30.18 |
| 46. | United Republic of Tanzania | 9.01 | 13.94 | 64.66 | 58.69 | 82.20 | 53.10 |
| 47. | Burundi | 8.99 | 12.86 | 69.87 | 62.08 | 88.61 | 58.92 |
| 48. | Mauritania | 8.53 | 13.39 | 63.71 | 38.94 | 86.62 | 65.56 |
| 49. | Liberia | 8.52 | 11.92 | 71.49 | 58.10 | 85.68 | 70.69 |
| 50. | Ghana | 8.43 | 14.53 | 58.04 | 43.74 | 78.79 | 51.57 |
| 51. | Comoros | 8.36 | 13.13 | 63.67 | 47.48 | 84.06 | 59.46 |
| 52. | Nigeria | 8.34 | 12.56 | 66.43 | 50.27 | 87.46 | 61.56 |
| 53. | Cote d'Ivoire | 8.28 | 12.83 | 64.53 | 47.49 | 83.86 | 62.24 |
| 54. | Lesotho | 8.20 | 13.12 | 62.54 | 50.15 | 80.26 | 57.22 |
| 55. | Ecuador | 8.10 | 17.63 | 45.94 | 26.22 | 73.78 | 37.83 |
| 56. | Malawi | 8.02 | 11.92 | 67.27 | 58.70 | 83.80 | 59.32 |
| 57. | Guinea | 7.99 | 11.67 | 68.49 | 51.16 | 88.72 | 65.57 |
| 58. | Uzbekistan | 7.99 | 16.37 | 48.78 | 30.55 | 76.12 | 39.67 |
| 59. | Trinidad and Tobago | 7.86 | 20.45 | 38.43 | 18.68 | 64.79 | 31.82 |
| 60. | Belize | 7.73 | 16.85 | 45.89 | 27.98 | 68.17 | 41.51 |
| 61. | Sri Lanka | 7.65 | 16.01 | 47.81 | 24.62 | 76.44 | 42.38 |
| 62. | Bhutan | 7.56 | 15.48 | 48.82 | 25.59 | 72.29 | 48.57 |
| 63. | Algeria | 7.54 | 16.50 | 45.69 | 21.13 | 76.93 | 39.01 |
| 64. | Myanmar | 7.49 | 13.30 | 56.29 | 33.74 | 85.23 | 49.90 |
| 65. | Netherlands | 7.45 | 31.86 | 23.39 | 15.07 | 40.89 | 14.20 |
| 66. | Panama | 7.28 | 17.26 | 42.21 | 25.24 | 66.03 | 35.36 |
| 67. | Kyrgyzstan | 7.25 | 16.40 | 44.21 | 25.17 | 75.22 | 32.25 |
| 68. | Suriname | 7.20 | 15.56 | 46.23 | 29.49 | 68.70 | 40.51 |
| 69. | Ethiopia | 7.15 | 10.47 | 68.24 | 58.38 | 86.64 | 59.71 |
| 70. | Rwanda | 7.10 | 11.47 | 61.95 | 55.40 | 78.67 | 51.76 |
| 71. | Venezuela | 7.03 | 15.27 | 46.06 | 23.87 | 76.88 | 37.43 |
| 72. | Kenya | 7.00 | 11.01 | 63.56 | 52.69 | 84.92 | 53.08 |
| 73. | Uganda | 6.90 | 10.19 | 67.77 | 62.73 | 87.47 | 53.10 |
| 74. | Zambia | 6.88 | 10.92 | 63.01 | 60.65 | 80.57 | 47.80 |
| 75. | India | 6.83 | 12.47 | 54.78 | 35.16 | 79.11 | 50.08 |
| 76. | Samoa | 6.71 | 14.12 | 47.53 | 26.28 | 72.11 | 44.19 |
| 77. | Serbia | 6.68 | 17.91 | 37.30 | 20.12 | 64.13 | 27.64 |
| 78. | Greece | 6.56 | 23.06 | 28.46 | 17.65 | 50.71 | 17.03 |
| 79. | Congo | 6.52 | 10.19 | 63.95 | 53.74 | 86.97 | 51.12 |
| 80. | Gabon | 6.52 | 12.56 | 51.88 | 33.45 | 74.64 | 47.56 |
| 81. | Peru | 6.45 | 14.55 | 44.34 | 26.43 | 73.00 | 33.60 |
| 82. | Malaysia | 6.44 | 16.35 | 39.41 | 17.95 | 67.06 | 33.23 |
| 83. | Central African Republic | 6.44 | 8.42 | 76.47 | 70.00 | 90.68 | 68.73 |
| 84. | Yemen | 6.43 | 9.26 | 69.42 | 44.86 | 92.28 | 71.13 |

| Rank | Country | WorldRiskIndex | Exposure | Vulnerability | Susceptibility | Lack of coping capacities | Lack of adaptive capacities |
|---|---|---|---|---|---|---|---|
| 85. | Colombia | 6.42 | 14.63 | 43.86 | 24.10 | 72.76 | 34.71 |
| 86. | Turkmenistan | 6.20 | 13.53 | 45.86 | 28.42 | 70.90 | 38.25 |
| 87. | Morocco | 6.13 | 12.87 | 47.67 | 26.55 | 74.75 | 41.70 |
| 88. | Thailand | 6.12 | 14.22 | 43.04 | 18.91 | 74.81 | 35.39 |
| 89. | Pakistan | 6.11 | 10.70 | 57.11 | 33.62 | 84.24 | 53.46 |
| 90. | Cuba | 6.06 | 17.27 | 35.09 | 20.73 | 53.45 | 31.09 |
| 91. | Armenia | 6.06 | 15.13 | 40.03 | 20.52 | 70.41 | 29.16 |
| 92. | Mexico | 5.88 | 13.99 | 41.99 | 21.54 | 72.65 | 31.76 |
| 93. | Tajikistan | 5.85 | 11.97 | 48.88 | 33.41 | 77.22 | 36.02 |
| 94. | Swaziland | 5.85 | 9.99 | 58.59 | 43.94 | 81.20 | 50.63 |
| 95. | China | 5.80 | 14.52 | 39.98 | 23.02 | 68.05 | 28.89 |
| 96. | Namibia | 5.79 | 11.33 | 51.14 | 45.08 | 70.05 | 38.30 |
| 97. | South Africa | 5.75 | 12.39 | 46.42 | 32.07 | 70.25 | 36.95 |
| 98. | Eritrea | 5.62 | 7.77 | 72.38 | 67.61 | 89.07 | 60.46 |
| 99. | The former Yugoslav Republic of Macedonia | 5.59 | 14.36 | 38.92 | 20.11 | 65.32 | 31.32 |
| 100. | Syrian Arab Republic | 5.53 | 9.98 | 55.39 | 28.60 | 87.57 | 49.99 |
| 101. | Georgia | 5.47 | 14.15 | 38.63 | 24.17 | 60.12 | 31.61 |
| 102. | Romania | 5.46 | 15.37 | 35.52 | 18.50 | 57.90 | 30.18 |
| 103. | Azerbaijan | 5.46 | 14.31 | 38.15 | 17.92 | 69.09 | 27.45 |
| 104. | Nepal | 5.44 | 9.53 | 57.10 | 36.39 | 84.07 | 50.85 |
| 105. | Tunisia | 5.41 | 12.55 | 43.08 | 21.21 | 71.09 | 36.95 |
| 106. | Lao People's Democratic Republic | 5.30 | 9.30 | 56.94 | 33.97 | 82.07 | 54.77 |
| 107. | Equatorial Guinea | 5.13 | 8.97 | 57.18 | 41.22 | 85.13 | 45.20 |
| 108. | Hungary | 5.01 | 15.63 | 32.07 | 16.23 | 55.66 | 24.31 |
| 109. | Botswana | 4.94 | 10.39 | 47.56 | 36.99 | 67.51 | 38.17 |
| 110. | Iraq | 4.93 | 8.72 | 56.55 | 29.16 | 87.89 | 52.61 |
| 111. | Lebanon | 4.75 | 10.90 | 43.54 | 19.67 | 72.67 | 38.30 |
| 112. | Turkey | 4.73 | 11.74 | 40.33 | 18.33 | 70.74 | 31.92 |
| 113. | New Zealand | 4.71 | 17.76 | 26.50 | 16.18 | 42.60 | 20.70 |
| 114. | Bosnia and Herzegovina | 4.67 | 11.40 | 41.01 | 18.81 | 69.15 | 35.07 |
| 115. | Seychelles | 4.59 | 11.64 | 39.44 | 18.22 | 60.88 | 39.22 |
| 116. | Bolivia | 4.58 | 9.02 | 50.80 | 34.76 | 79.38 | 38.26 |
| 117. | Jordan | 4.41 | 10.00 | 44.12 | 22.65 | 66.81 | 42.89 |
| 118. | Australia | 4.41 | 17.81 | 24.77 | 15.66 | 41.94 | 16.72 |
| 119. | Bahamas | 4.34 | 12.12 | 35.78 | 18.97 | 55.14 | 33.24 |
| 120. | Iran (Islamic Republic of) | 4.28 | 9.82 | 43.55 | 19.64 | 76.51 | 34.50 |
| 121. | Brazil | 4.25 | 10.38 | 40.93 | 22.56 | 69.17 | 31.06 |
| 122. | Italy | 4.12 | 14.51 | 28.39 | 17.05 | 52.82 | 15.31 |
| 123. | Bulgaria | 4.09 | 12.30 | 33.21 | 20.94 | 54.59 | 24.10 |
| 124. | Ireland | 4.06 | 15.76 | 25.77 | 15.58 | 44.97 | 16.75 |
| 125. | Republic of Moldova | 3.84 | 9.18 | 41.85 | 23.76 | 67.31 | 34.48 |
| 126. | Korea, Republic of | 3.82 | 14.86 | 25.68 | 13.72 | 45.10 | 18.22 |
| 127. | Libyan Arab Jamahiriya | 3.66 | 7.91 | 46.30 | 22.38 | 77.54 | 38.97 |
| 128. | Croatia | 3.59 | 11.51 | 31.21 | 17.26 | 54.82 | 21.56 |
| 129. | Kazakhstan | 3.50 | 9.61 | 36.36 | 17.81 | 62.50 | 28.76 |
| 130. | Russia | 3.42 | 9.53 | 35.90 | 18.98 | 61.05 | 27.67 |

| Rank | Country | WorldRiskIndex | Exposure | Vulnerability | Susceptibility | Lack of coping capacities | Lack of adaptive capacities |
|---|---|---|---|---|---|---|---|
| 131. | United States | 3.42 | 12.15 | 28.16 | 16.18 | 48.65 | 19.64 |
| 132. | Kuwait | 3.39 | 9.74 | 34.84 | 13.06 | 64.79 | 26.67 |
| 133. | Uruguay | 3.36 | 10.06 | 33.42 | 19.50 | 50.59 | 30.17 |
| 134. | Paraguay | 3.35 | 7.13 | 46.97 | 25.30 | 77.20 | 38.41 |
| 135. | Argentina | 3.32 | 9.30 | 35.74 | 20.54 | 56.70 | 29.97 |
| 136. | United Kingdom | 3.31 | 12.39 | 26.68 | 16.33 | 46.02 | 17.68 |
| 137. | Slovenia | 3.23 | 11.97 | 26.98 | 15.15 | 49.24 | 16.53 |
| 138. | Portugal | 3.13 | 11.08 | 28.21 | 17.15 | 45.91 | 21.57 |
| 139. | Slovakia | 3.11 | 10.12 | 30.69 | 14.85 | 53.73 | 23.48 |
| 140. | Czech Republic | 3.10 | 11.16 | 27.80 | 15.13 | 48.92 | 19.34 |
| 141. | United Arab Emirates | 2.99 | 9.50 | 31.51 | 9.58 | 56.01 | 28.93 |
| 142. | Poland | 2.94 | 9.73 | 30.15 | 16.14 | 53.06 | 21.26 |
| 143. | Austria | 2.92 | 13.91 | 20.97 | 14.41 | 35.16 | 13.33 |
| 144. | Latvia | 2.90 | 9.08 | 31.99 | 18.55 | 52.87 | 24.54 |
| 145. | Ukraine | 2.90 | 7.63 | 37.98 | 19.00 | 62.71 | 32.24 |
| 146. | Spain | 2.80 | 9.97 | 28.12 | 16.45 | 51.64 | 16.27 |
| 147. | Belarus | 2.77 | 8.36 | 33.13 | 17.20 | 56.74 | 25.44 |
| 148. | Belgium | 2.77 | 11.41 | 24.24 | 15.05 | 42.40 | 15.26 |
| 149. | Bahrain | 2.73 | 7.24 | 37.65 | 15.57 | 69.61 | 27.76 |
| 150. | Oman | 2.69 | 6.62 | 40.67 | 22.66 | 65.14 | 34.21 |
| 151. | Denmark | 2.68 | 11.52 | 23.23 | 15.14 | 40.34 | 14.23 |
| 152. | Canada | 2.63 | 10.43 | 25.18 | 15.48 | 44.33 | 15.74 |
| 153. | Cyprus | 2.53 | 7.89 | 32.11 | 15.44 | 57.77 | 23.12 |
| 154. | Mongolia | 2.46 | 5.82 | 42.26 | 29.29 | 63.22 | 34.27 |
| 155. | Germany | 2.42 | 11.31 | 21.36 | 15.09 | 35.38 | 13.60 |
| 156. | Lithuania | 2.38 | 8.23 | 28.88 | 18.21 | 47.32 | 21.11 |
| 157. | France | 2.34 | 9.48 | 24.66 | 16.94 | 43.22 | 13.83 |
| 158. | Singapore | 2.31 | 8.56 | 26.98 | 11.89 | 47.73 | 21.31 |
| 159. | Norway | 2.29 | 10.30 | 22.21 | 14.20 | 37.59 | 14.84 |
| 160. | Estonia | 2.25 | 7.61 | 29.56 | 17.05 | 50.04 | 21.60 |
| 161. | Switzerland | 2.23 | 9.87 | 22.62 | 14.03 | 37.16 | 16.66 |
| 162. | Israel | 2.20 | 6.76 | 32.55 | 19.07 | 58.00 | 20.57 |
| 163. | Sweden | 2.19 | 9.02 | 24.33 | 15.88 | 41.41 | 15.71 |
| 164. | Luxembourg | 2.16 | 9.27 | 23.33 | 12.13 | 40.95 | 16.91 |
| 165. | Finland | 2.06 | 8.55 | 24.06 | 15.81 | 40.90 | 15.46 |
| 166. | Egypt | 1.90 | 3.93 | 48.32 | 22.21 | 80.85 | 41.89 |
| 167. | Iceland | 1.61 | 6.75 | 23.87 | 14.14 | 41.88 | 15.58 |
| 168. | Barbados | 1.40 | 4.03 | 34.69 | 20.59 | 51.88 | 31.59 |
| 169. | Grenada | 1.39 | 3.27 | 42.70 | 27.39 | 63.87 | 36.83 |
| 170. | Saudi Arabia | 1.25 | 3.55 | 35.09 | 13.25 | 64.63 | 27.37 |
| 171. | Malta | 0.57 | 1.84 | 31.02 | 15.07 | 57.65 | 20.35 |
| 172. | Qatar | 0.36 | 1.02 | 35.48 | 8.26 | 59.07 | 39.13 |

# WorldRiskIndex 2018, Countries in Alphabetical Order

| Country | WRI | Rank |
|---|---|---|
| Afghanistan | 10.45 | 35. |
| Albania | 9.22 | 45. |
| Algeria | 7.54 | 63. |
| Angola | 10.31 | 37. |
| Argentina | 3.32 | 135. |
| Armenia | 6.06 | 91. |
| Australia | 4.41 | 118. |
| Austria | 2.92 | 143. |
| Azerbaijan | 5.46 | 103. |
| Bahamas | 4.34 | 119. |
| Bahrain | 2.73 | 149. |
| Bangladesh | 17.38 | 9. |
| Barbados | 1.40 | 168. |
| Belarus | 2.77 | 147. |
| Belgium | 2.77 | 148. |
| Belize | 7.73 | 60. |
| Benin | 11.04 | 30. |
| Bhutan | 7.56 | 62. |
| Bolivia | 4.58 | 116. |
| Bosnia and Herzegovina | 4.67 | 114. |
| Botswana | 4.94 | 109. |
| Brazil | 4.25 | 121. |
| Brunei Darussalam | 18.82 | 8. |
| Bulgaria | 4.09 | 123. |
| Burkina Faso | 9.82 | 40. |
| Burundi | 8.99 | 47. |
| Cambodia | 16.07 | 12. |
| Cameroon | 11.81 | 22. |
| Canada | 2.63 | 152. |
| Cape Verde | 11.52 | 23. |
| Central African Republic | 6.44 | 83. |
| Chad | 11.88 | 20. |
| Chile | 11.15 | 28. |
| China | 5.80 | 95. |
| Colombia | 6.42 | 85. |
| Comoros | 8.36 | 51. |
| Congo | 6.52 | 79. |
| Costa Rica | 16.56 | 11. |
| Cote d'Ivoire | 8.28 | 53. |
| Croatia | 3.59 | 128. |
| Cuba | 6.06 | 90. |
| Cyprus | 2.53 | 153. |
| Czech Republic | 3.10 | 140. |
| Denmark | 2.68 | 151. |
| Djibouti | 13.90 | 18. |
| Dominican Republic | 10.77 | 33. |
| Ecuador | 8.10 | 55. |

| Country | WRI | Rank |
|---|---|---|
| Egypt | 1.90 | 166. |
| El Salvador | 15.95 | 14. |
| Equatorial Guinea | 5.13 | 107. |
| Eritrea | 5.62 | 98. |
| Estonia | 2.25 | 160. |
| Ethiopia | 7.15 | 69. |
| Fiji | 16.58 | 10. |
| Finland | 2.06 | 165. |
| France | 2.34 | 157. |
| Gabon | 6.52 | 80. |
| Gambia | 10.92 | 31. |
| Georgia | 5.47 | 101. |
| Germany | 2.42 | 155. |
| Ghana | 8.43 | 50. |
| Greece | 6.56 | 78. |
| Grenada | 1.39 | 169. |
| Guatemala | 20.60 | 7. |
| Guinea | 7.99 | 57. |
| Guinea-Bissau | 13.40 | 19. |
| Guyana | 23.23 | 5. |
| Haiti | 11.86 | 21. |
| Honduras | 10.19 | 39. |
| Hungary | 5.01 | 108. |
| Iceland | 1.61 | 167. |
| India | 6.83 | 75. |
| Indonesia | 10.36 | 36. |
| Iran (Islamic Republic of) | 4.28 | 120. |
| Iraq | 4.93 | 110. |
| Ireland | 4.06 | 124. |
| Israel | 2.20 | 162. |
| Italy | 4.12 | 122. |
| Jamaica | 11.22 | 27. |
| Japan | 11.08 | 29. |
| Jordan | 4.41 | 117. |
| Kazakhstan | 3.50 | 129. |
| Kenya | 7.00 | 72. |
| Kiribati | 15.42 | 15. |
| Korea, Republic of | 3.82 | 126. |
| Kuwait | 3.39 | 132. |
| Kyrgyzstan | 7.25 | 67. |
| Lao People's Democratic Rep. | 5.30 | 106. |
| Latvia | 2.90 | 144. |
| Lebanon | 4.75 | 111. |
| Lesotho | 8.20 | 54. |
| Liberia | 8.52 | 49. |
| Libyan Arab Jamahiriya | 3.66 | 127. |
| Lithuania | 2.38 | 156. |

| Country | WRI | Rank |
|---|---|---|
| Luxembourg | 2.16 | 164. |
| Madagascar | 10.89 | 32. |
| Malawi | 8.02 | 56. |
| Malaysia | 6.44 | 82. |
| Mali | 9.61 | 41. |
| Malta | 0.57 | 171. |
| Mauritania | 8.53 | 48. |
| Mauritius | 14.27 | 16. |
| Mexico | 5.88 | 92. |
| Mongolia | 2.46 | 154. |
| Morocco | 6.13 | 87. |
| Mozambique | 9.52 | 42. |
| Myanmar | 7.49 | 64. |
| Namibia | 5.79 | 96. |
| Nepal | 5.44 | 104. |
| Netherlands | 7.45 | 65. |
| New Zealand | 4.71 | 113. |
| Nicaragua | 13.99 | 17. |
| Niger | 11.34 | 26. |
| Nigeria | 8.34 | 52. |
| Norway | 2.29 | 159. |
| Oman | 2.69 | 150. |
| Pakistan | 6.11 | 89. |
| Panama | 7.28 | 66. |
| Papua New Guinea | 20.88 | 6. |
| Paraguay | 3.35 | 134. |
| Peru | 6.45 | 81. |
| Philippines | 25.14 | 3. |
| Poland | 2.94 | 142. |
| Portugal | 3.13 | 138. |
| Qatar | 0.36 | 172. |
| Republic of Moldova | 3.84 | 125. |
| Romania | 5.46 | 102. |
| Russia | 3.42 | 130. |
| Rwanda | 7.10 | 70. |
| Samoa | 6.71 | 76. |
| Saudi Arabia | 1.25 | 170. |
| Senegal | 10.51 | 34. |
| Serbia | 6.68 | 77. |
| Seychelles | 4.59 | 115. |
| Sierra Leone | 11.49 | 24. |
| Singapore | 2.31 | 158. |
| Slovakia | 3.11 | 139. |
| Slovenia | 3.23 | 137. |
| Solomon Islands | 23.29 | 4. |
| South Africa | 5.75 | 97. |
| Spain | 2.80 | 146. |

| Country | WRI | Rank |
|---|---|---|
| Sri Lanka | 7.65 | 61. |
| Sudan | 9.41 | 43. |
| Suriname | 7.20 | 68. |
| Swaziland | 5.85 | 94. |
| Sweden | 2.19 | 163. |
| Switzerland | 2.23 | 161. |
| Syrian Arab Republic | 5.53 | 100. |
| Tajikistan | 5.85 | 93. |
| Thailand | 6.12 | 88. |
| T. f. Y. Republic of Macedonia | 5.59 | 99. |
| Timor-Leste | 16.05 | 13. |
| Togo | 9.35 | 44. |
| Tonga | 29.42 | 2. |
| Trinidad and Tobago | 7.86 | 59. |
| Tunisia | 5.41 | 105. |
| Turkey | 4.73 | 112. |
| Turkmenistan | 6.20 | 86. |
| Uganda | 6.90 | 73. |
| Ukraine | 2.90 | 145. |
| United Arab Emirates | 2.99 | 141. |
| United Kingdom | 3.31 | 136. |
| United Republic of Tanzania | 9.01 | 46. |
| United States | 3.42 | 131. |
| Uruguay | 3.36 | 133. |
| Uzbekistan | 7.99 | 58. |
| Vanuatu | 50.28 | 1. |
| Venezuela | 7.03 | 71. |
| Viet Nam | 11.35 | 25. |
| Yemen | 6.43 | 84. |
| Zambia | 6.88 | 74. |
| Zimbabwe | 10.23 | 38. |

**Countries not included in the WorldRiskIndex due to incomplete data:**

Andorra, Antigua and Barbuda, Democratic Republic of Congo, Dominica, Federated States of Micronesia, Liechtenstein, Maldives, Marshall Islands, Monaco, Montenegro, Nauru, North Korea, Palau, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, San Marino, São Tomé and Principe, Somalia, South Sudan and Tuvalu.

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Page 14: Children showing pictures they have painted of their dream school, Ramechhap region, Nepal © Sonja Eberle / Welthungerhilfe

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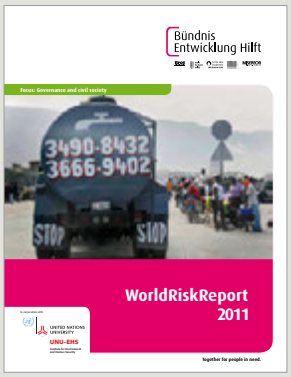
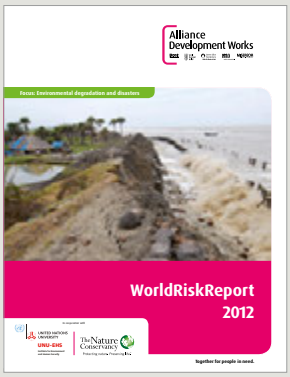



Focus: Governance and Civil Society

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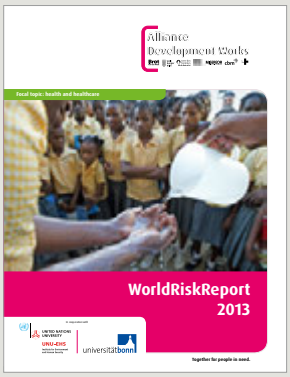


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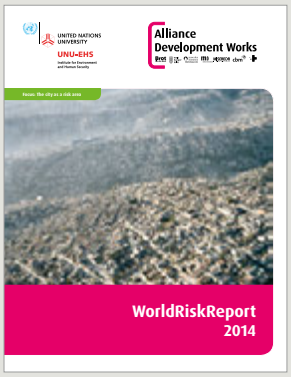


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Focus: Food Security


Focus: Logistics and Infrastructure


Analysis and Prospects

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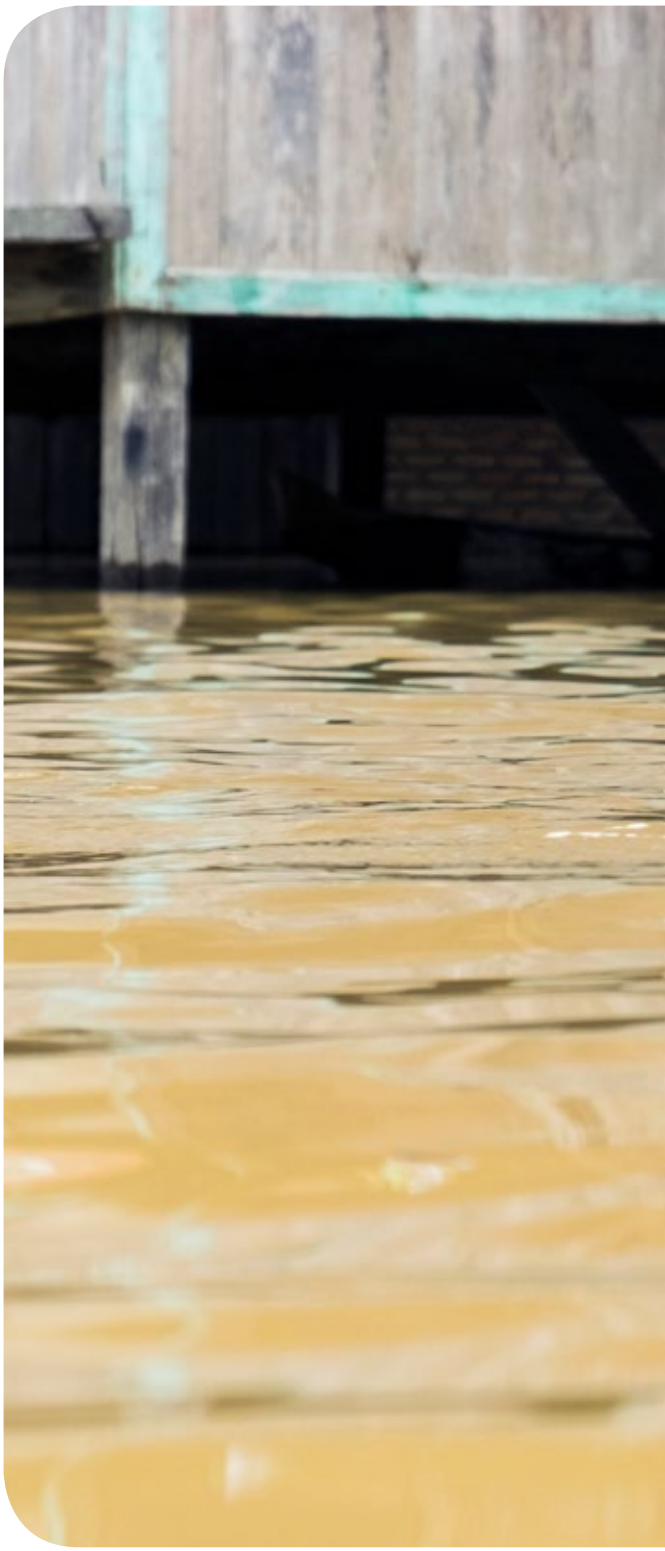

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Bündnis Entwicklung Hilft

Gemeinsam für Menschen in Not.

# WorldRiskIndex 2018

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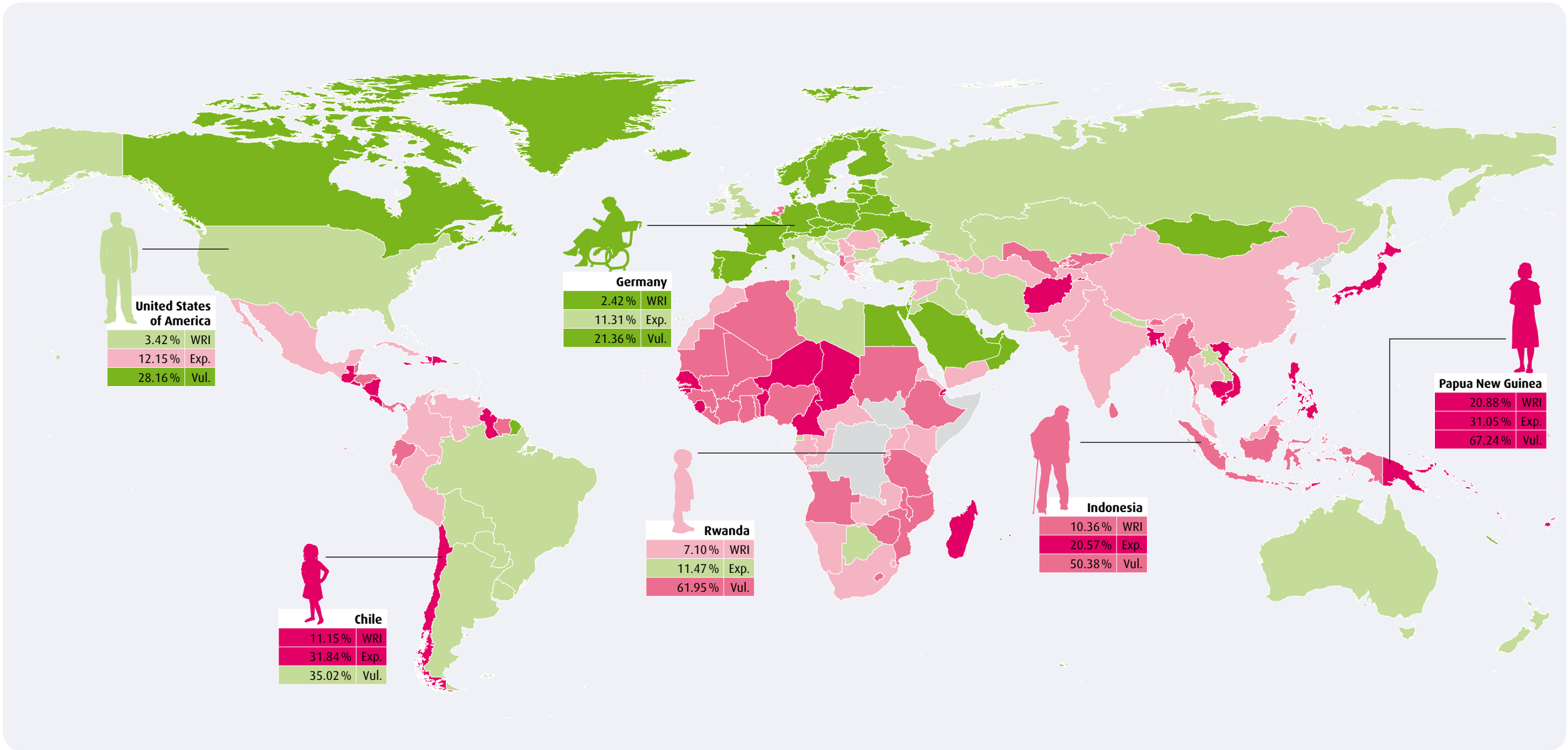
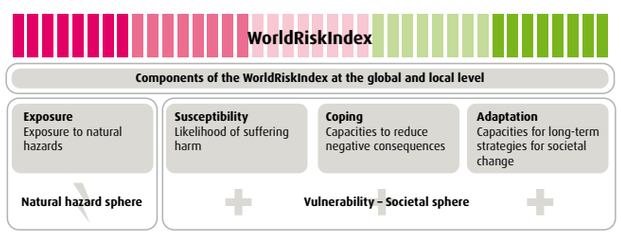



| WorldRiskIndex (WRI) in % | |
|---|---|
| very low | 0.36 – 3.15 |
| low | 3.16 – 5.45 |
| medium | 5.46 – 7.13 |
| high | 7.14 – 10.43 |
| very high | 10.44 – 50.28 |
| no data available | |

| Exposure in % | |
|---|---|
| very low | 1.02 – 9.53 |
| low | 9.54 – 11.70 |
| medium | 11.71 – 14.50 |
| high | 14.51 – 17.73 |
| very high | 17.74 – 86.46 |
| no data available | |

| Vulnerability in % | |
|---|---|
| very low | 20.97 – 32.01 |
| low | 32.02 – 40.77 |
| medium | 40.78 – 48.60 |
| high | 48.61 – 63.00 |
| very high | 63.01 – 76.47 |
| no data available | |

Max. = 100 %, Classification according to the quantile method.




| 10 countries with highest risk | |
|---|---|
| Vanuatu | 50.28 |
| Tonga | 29.42 |
| Philippines | 25.14 |
| Solomon Islands | 23.29 |
| Guyana | 23.23 |
| Papua New Guinea | 20.88 |
| Guatemala | 20.60 |
| Brunei Darussalam | 18.82 |
| Bangladesh | 17.38 |
| Fiji | 16.58 |

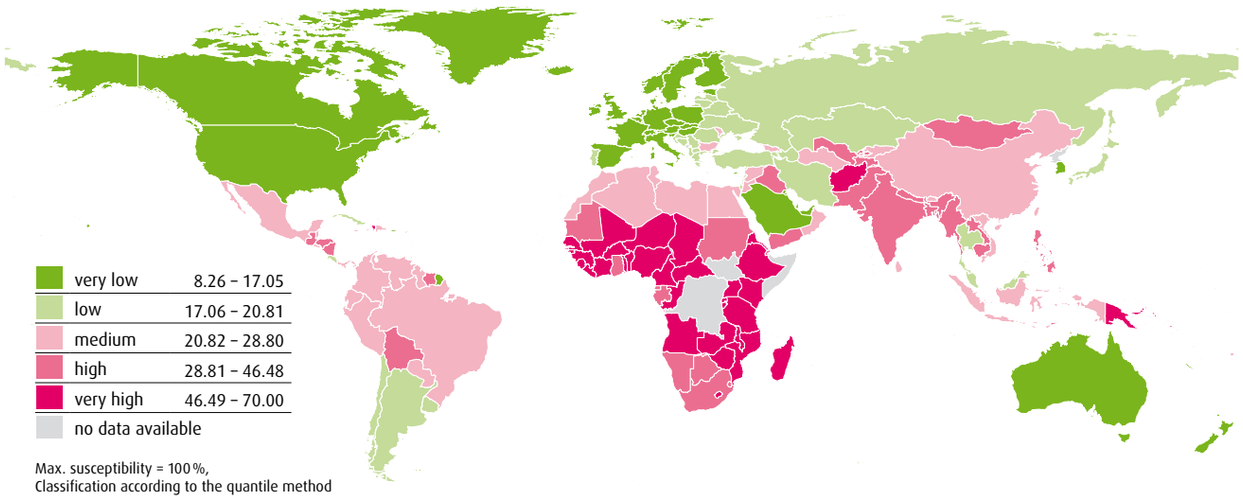
| 10 countries with highest exposure | |
|---|---|
| Vanuatu | 86.46 |
| Tonga | 55.92 |
| Brunei Darussalam | 52.71 |
| Philippines | 49.94 |
| Japan | 46.55 |
| Guyana | 45.56 |
| Costa Rica | 44.27 |
| Guatemala | 38.50 |
| Solomon Islands | 37.81 |
| Mauritius | 37.22 |

| 10 countries with highest vulnerability | |
|---|---|
| Central African Republic | 76,47 |
| Chad | 74,70 |
| Niger | 73,23 |
| Eritrea | 72,38 |
| Guinea-Bissau | 71,67 |
| Liberia | 71,49 |
| Mozambique | 71,19 |
| Sierra Leone | 70,80 |
| Burundi | 69,87 |
| Madagascar | 69,68 |

Data source: IFHV, based on the PREVIEW Global Risk Data Platform, CReSIS, CIESIN and global databases; detailed information at www.WorldRiskReport.org

## Susceptibility

Dependent on public infrastructure, nutrition, income, and the general economic framework

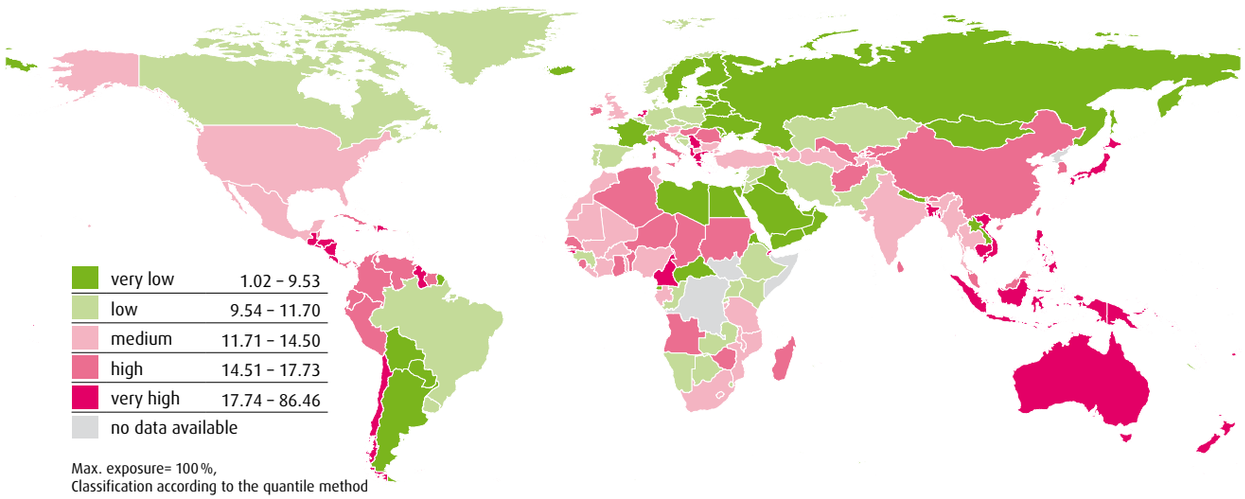


| | |
|---|---|
| very low | 8.26 – 17.05 |
| low | 17.06 – 20.81 |
| medium | 20.82 – 28.80 |
| high | 28.81 – 46.48 |
| very high | 46.49 – 70.00 |
| no data available | |

Max. susceptibility = 100 %,
Classification according to the quantile method

## Exposure

Exposure of the population to the natural hazards earthquakes, cyclones, floods, droughts, and sea-level rise.

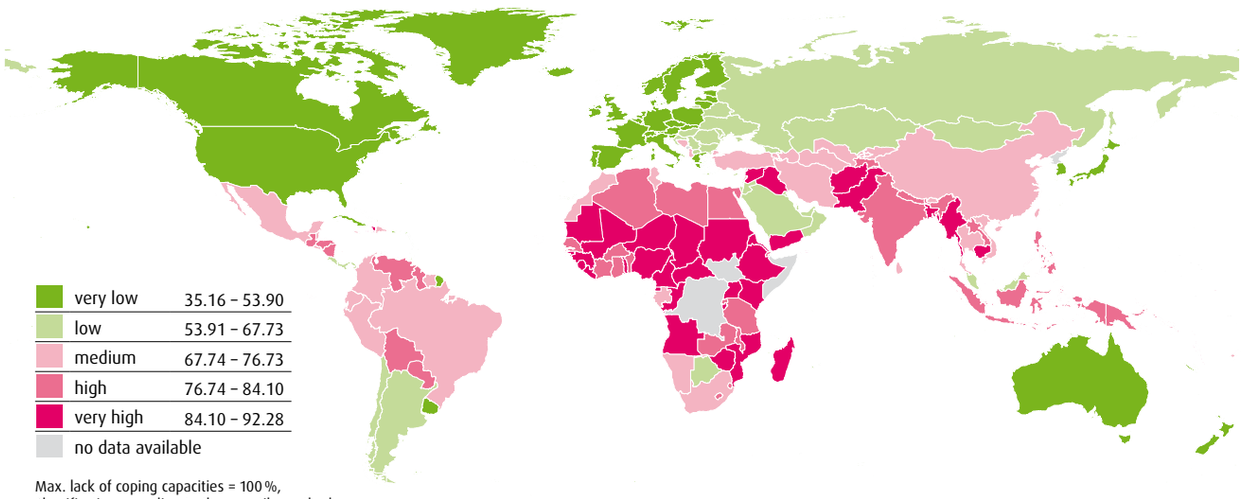


| | |
|---|---|
| very low | 1.02 – 9.53 |
| low | 9.54 – 11.70 |
| medium | 11.71 – 14.50 |
| high | 14.51 – 17.73 |
| very high | 17.74 – 86.46 |
| no data available | |

Max. exposure= 100 %,
Classification according to the quantile method

## Lack of coping capacities

Dependent on governance, medical care, and material security

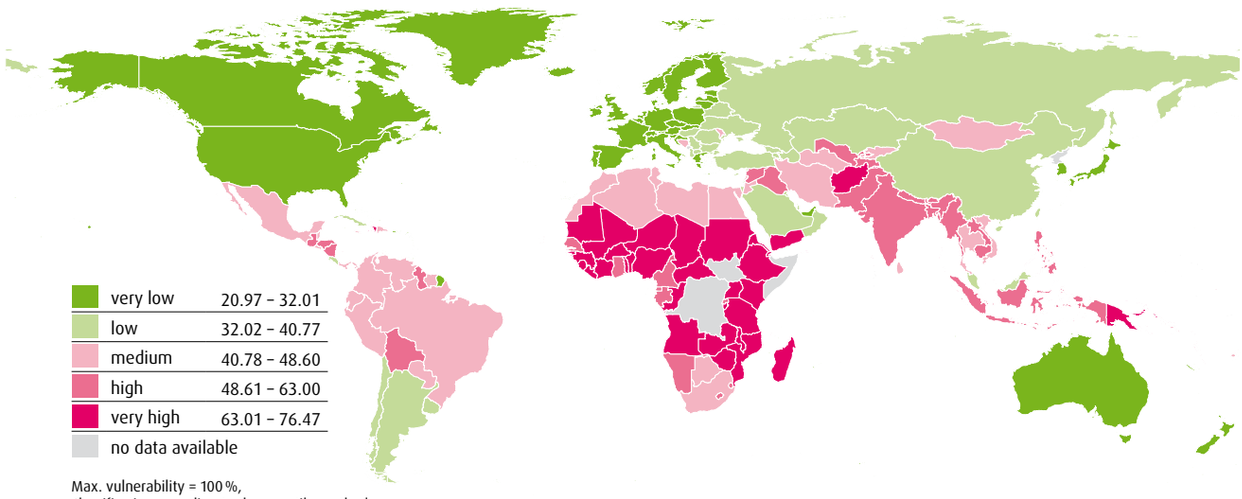


| | |
|---|---|
| very low | 35.16 – 53.90 |
| low | 53.91 – 67.73 |
| medium | 67.74 – 76.73 |
| high | 76.74 – 84.10 |
| very high | 84.10 – 92.28 |
| no data available | |

Max. lack of coping capacities = 100 %,
Classification according to the quantile method

## Vulnerability

Vulnerability of society as the sum of susceptibility, lack of coping capacities, and lack of adaptive capacities

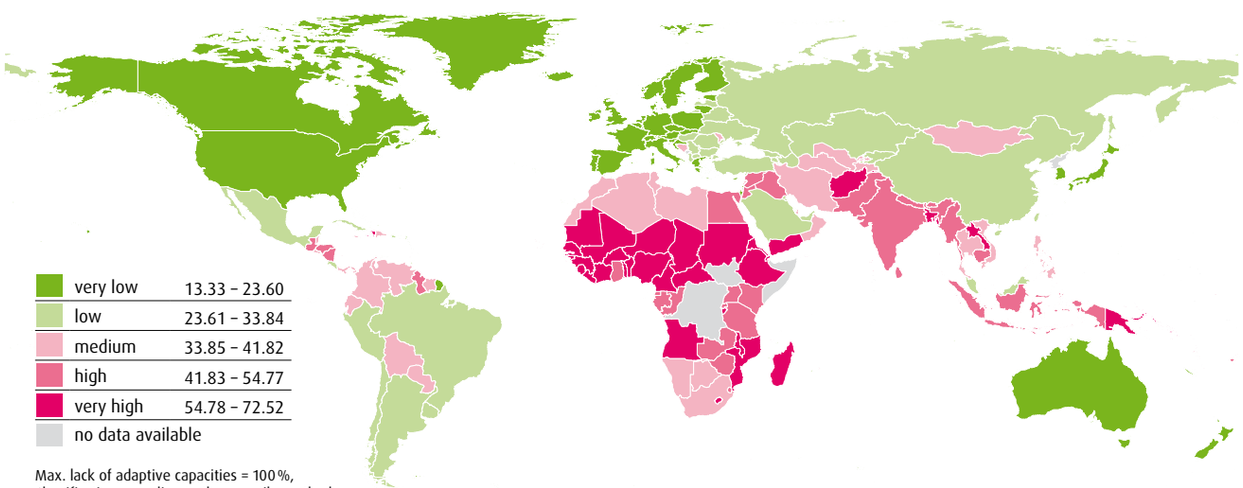


| | |
|---|---|
| very low | 20.97 – 32.01 |
| low | 32.02 – 40.77 |
| medium | 40.78 – 48.60 |
| high | 48.61 – 63.00 |
| very high | 63.01 – 76.47 |
| no data available | |

Max. vulnerability = 100 %,
Classification according to the quantile method

## Lack of adaptive capacities

Related to future natural events and climate change

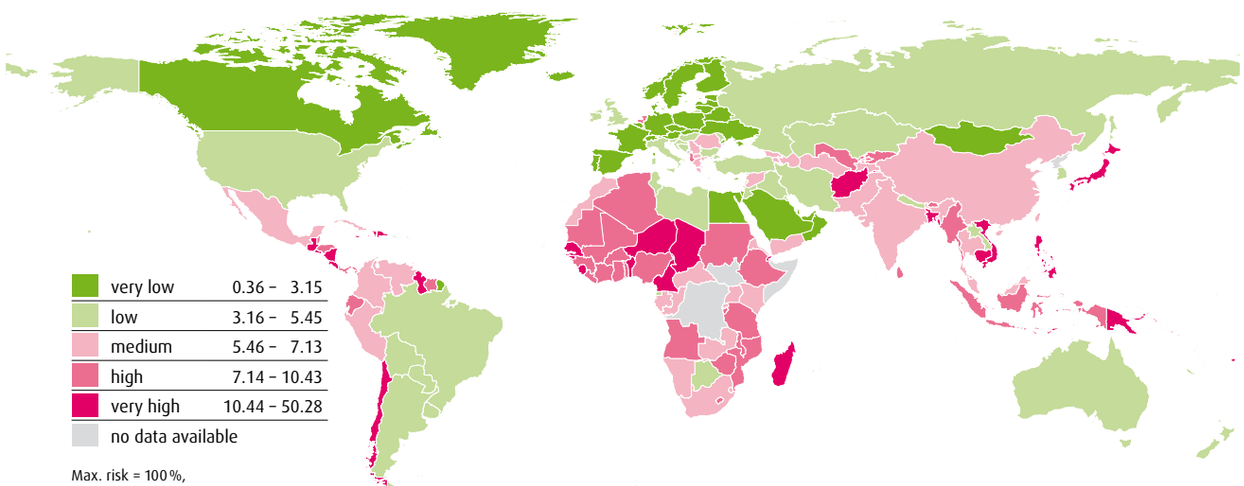


| | |
|---|---|
| very low | 13.33 – 23.60 |
| low | 23.61 – 33.84 |
| medium | 33.85 – 41.82 |
| high | 41.83 – 54.77 |
| very high | 54.78 – 72.52 |
| no data available | |

Max. lack of adaptive capacities = 100 %,
Classification according to the quantile method

## WorldRiskIndex

WorldRiskIndex as the result of exposure and vulnerability



| | |
|---|---|
| very low | 0.36 – 3.15 |
| low | 3.16 – 5.45 |
| medium | 5.46 – 7.13 |
| high | 7.14 – 10.43 |
| very high | 10.44 – 50.28 |
| no data available | |

Max. risk = 100 %,
Classification according to the quantile method

Data source: IFHV, based on the PREVIEW Global Risk Data Platform, CReSIS, CIESIN and global databases; detailed information at www.WorldRiskReport.org

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# Why are Children Particularly Vulnerable?

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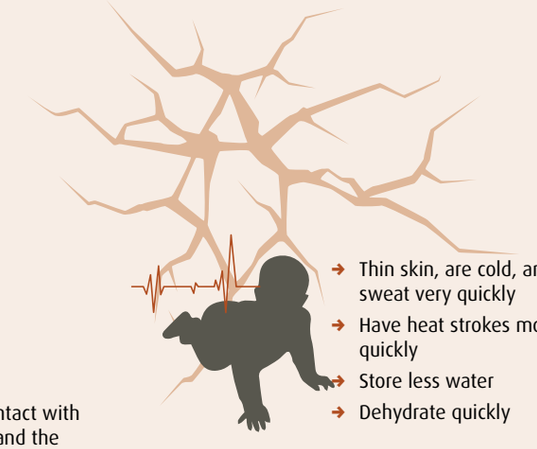
## Physical factors


- Small stature
- Not so strong physically



- Thin skin, are cold, and sweat very quickly
- Have heat strokes more quickly
- Store less water
- Dehydrate quickly

- Frequent contact with the ground and the outdoors through playing on the ground can promote the spread of pathogens.
- Low level of vaccination

- Fast breathing
- More susceptible to respiratory diseases

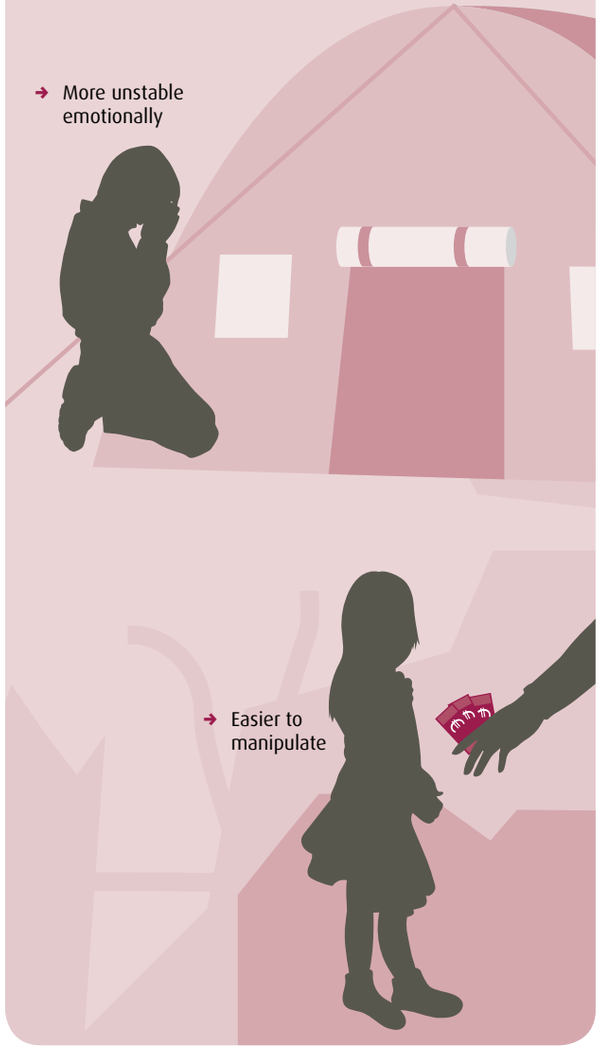
- Move more slowly and unsteadily
- Swim poorly or not at all


- Require a balanced and nourishing diet
- More quickly affected by malnutrition and undernourishment

- Higher risk of lasting physical impairments than among adults

## Psychological factors

- High risk of overtaxing
- High risk of traumatization
- Stress inhibits development

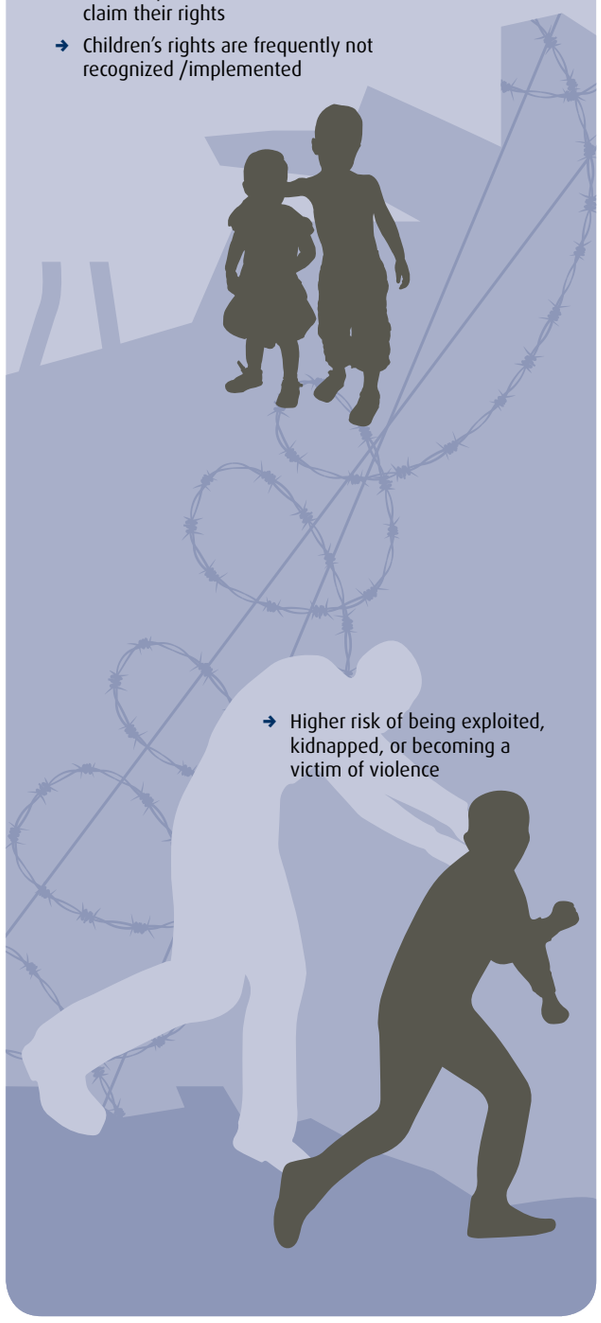


- More unstable emotionally

- Easier to manipulate

## Legal factors

- Often dependent on adults to claim their rights
- Children's rights are frequently not recognized /implemented



- Higher risk of being exploited, kidnapped, or becoming a victim of violence

Note: In this diagram, the term "children" refers to individuals below the age of 18 years. Risks and needs may differ depending on age, gender, and disabilities (where appropriate).

Bündnis Entwicklung Hilft

Gemeinsam für Menschen in Not.

# Protection in Disaster Management

RUHR UNIVERSITÄT BOCHUM RUB

IFHV

## Risk analysis

- Gathering and processing of data on children according to gender, age, and disability
- Analysis of risks in facilities for children (kindergartens, schools, youth centers, playgrounds)
- Considering risk knowledge among girls and boys on the basis of their observations and risk perception
- Child-guided mapping of hazards and vulnerability
- Intergenerational exchange in order to gain a better understanding of a region's disaster history

## Preparedness

- Setting up and securing of systems for children and youths in accordance with regulations on protection from extreme natural events
- Establishing disaster risk reduction, climate change, and environmental protection in the curriculum
- Providing information on existing risks and hazards as well as test drills in what to do in the event of emergencies
- Child-friendly emergency and evacuation plans
- Storage of important relief goods in kindergartens, schools, etc.
- Training programs for non-state and state actors on the protection of children in emergency situations

## Early warning

- Monitoring and evaluation of seasonal changes, signs of drought, and floods
- Risk communication drills
- Children as information disseminators and sources of information between educational institutions and families
- Establishment of early warning systems in schools (telephone chains, buddy systems)

**Disaster prepraredness**

**Disaster management**

**Extreme event or acute crisis**

## Reconstruction and rehabilitation

- Child-friendly support in coping with stress and traumas
- Supporting reintegration into everyday life
- Resumption or continuation of school lessons
- Family reunion
- Strengthening the capacities of state and non-state child protection systems/institutions

## Emergency relief

- Child-sensitive emergency aid with relief supplies such as diapers, baby food, and and children's clothes as well as family-friendly shelters
- Support for unaccompanied children through care, searching for families, and family reunion
- Setting up safe spaces for children with playing and learning facilities and psychosocial support provided by trained skilled staff
- Preventing and combating the abduction and exploitation of children, also in regards to suppliers and external service providers
- Screening of new staff and further education regarding child protection, commitment to child protection policy and control mechanisms to check compliance

Note: In this diagram, the term "children" refers to individuals below the age of 18 years. Risks and needs may differ depending on age, gender, and disabilities (where appropriate).