**WHO'S MOST AT RISK?** is a role play activity that enables pupils aged 11-18 to understand some of the key factors placing people at risk from the effects of natural hazards such as floods.

**To run the activity you need:**
- A class set of character profiles
- A class set of blank profile sheets
- Key word sheet
- Six chance cards
- Vulnerability sheet
- Natural Hazards Strike sheet
- A clear room or outdoor space with enough room for pupils to take up to 10 steps forwards or backwards… the school hall would be perfect

**Instructions for use:**
- Give each pupil a character profile and a card from the blank profile sheet. Explain to the pupils that they will be taking on the role of that person. Ask them to read their character profiles then use the information to fill in their blank profile card.
- You may wish to use the key word sheet to check and reinforce pupils’ understanding of the words natural hazard, risk, vulnerability and disaster before starting the activity.
- Ask the class to stand in a line with their profile cards. You need to ensure pupils have enough space behind and in front of them to step backwards and forwards.
- Randomly place three of the chance cards on the floor in front of the pupils, and three behind.
- Read out Statement 1 from the Vulnerability sheet then allow time for pupils whose profile meets that statement to take a step backwards or forwards.
- Continue through the list of 10 Statements, allowing pupils time to take the appropriate steps.
- If any of the pupils stand on a chance card ask them to read out what is written on the card and move accordingly. Ask them to leave the card on the floor.
- When you’ve finished reading out the statements from the Vulnerability sheet, the pupils should be now standing in different parts of the classroom. The pupils at the back of the class will be most vulnerable to natural hazards while those at the front are more likely to be resilient. Select a few pupils standing in different parts of the classroom to share their profile.
- Finally read out two or three statements from the Natural Hazards Strike sheet about a natural disaster that might affect them, for example ‘Unseasonal rainstorm causes a river to flood. If you live close to a river take two steps back’. The pupils will need to think more carefully about whether they are likely to be affected before they take their steps. You might want to use the explanation to prompt pupils’ understanding as to whether they are likely to be affected.
- When the activity is complete, spend a moment discussing and explaining why some people are more likely to be more vulnerable to natural hazards.

**You might want to use the explanations in the Vulnerability sheet and Natural Hazard Strike sheet to help explain the reasons for peoples' vulnerability in more detail.**

**Teacher’s notes**

**Time: 15-20 mins**
with possible extension into the Beat the Flood or Floating Garden challenges or research into Practical Action’s work in Disaster Risk Reduction.

**You could ask questions such as:**
- Who was the most/least vulnerable to flooding and why?
- How were members of the same family affected by natural hazards?
- What are the main reasons that place people at risk of natural hazards including flooding?
- What have you learnt from the activity?
- How are people in Europe affected by natural hazards in comparison to people living in developing countries?
**Character Profiles**

### Ahmed Abdullah
Ahmed is a 9 year old pastoralist and part-time school pupil who lives with his family of eleven in Darfur, Sudan.

Ahmed and his nine brothers share the responsibility for looking after their herd of 140 goats and cattle, travelling to water points and feeding pastures. Ahmed and his brothers use the same water holes as their animals as there is no option for clean water. The health of the pasture land and his animals depends upon the weather.

### Miss Sara Abubakr
Miss Abubakr is 18 and she lives in Fato in the East of Sudan. Her family moved to the town ten years ago.

Miss Abubakr’s father works as a carpenter doing ad hoc work for small businesses. Miss Abubakr lives with her parents and five siblings. As the oldest girl she is responsible for most of the cooking and housework and completed primary school at age ten. Miss Abubakr’s father provides a steady income for the family; however the family struggle in times of ill health as they have no savings and no relatives nearby to help out with child care or loans when needed. As a result Sara has a very heavy workload and little time to rest.

### Mr Abdul Ahmed
Mr Ahmed is 37 and lives in Fato Town in the east of Sudan. He moved here with his family ten years ago after spending two years in a refugee camp. He attended secondary school.

Mr Ahmed is a carpenter who works for small businesses in the town. He has enough work as he is quite skilled and recently purchased a mobile phone so he could be easily contacted. He has a wife and six children, one of his children is blind, so needs constant looking after.

### Mr Prem Anup
Mr Anup is 37 and lives in central Nepal with his wife and three children. They settled in Butwal town which is located on the banks of the Tilottama River.

Mr Anup went to primary school and left to become an apprentice mechanic.

Mr Anup now works as a low paid mechanic in a garage and his wife also works. She has a mobile cosmetic shop at the local market. Their children attend the local school.

Mr Anup is also a local rescue volunteer helping people in the city respond to local disasters such as flooding and earthquakes so he has a mobile phone.

### Mrs Lucky Asmar
Mrs Asmar is 18 and lives in a rural village in the Faridpur district of Bangladesh. The village is situated in the floodplain of the Padma River. The community lacks access to electricity.

Mrs Asmar’s husband farms a small plot of land growing rice and other crops. In the winter he produces enough for him and his wife and is able to sell the surplus in the local market. Mrs Asmar is currently pregnant with her first child. She plans to attend the village community health centre when she goes into labour. If Mrs Asmar experiences complications she will have to make the three hour journey to Faridpur hospital.

### Mr Ahmed Azif
Mr Azif is 18 and has lived in a temporary shelter in a camp in Darfur, Sudan for the past six years. The region where he lives is an arid zone, struck by regular drought.

Mr Azif works as a labourer in the camp market, and earns enough to buy relief supplies delivered by lorries. He hopes one day to be able to leave on one of the lorries but has to wait until he gets his identification papers. He is also being taught to read and write in the camp school. Although he recalls his father as a livestock herder he doesn’t want to live like his father, instead he wants to go to Khartoum and get a job in the city.
### Mrs Halima Eltayib

Mrs Eltayib is 40 years old and lives in Kobi Algadi village in Darfur, Sudan. She attended a primary school, but did not continue her education after that.

Mrs Eltayib has lived in this village all of her life. She is bringing up three young children on her own after her husband left. She makes a living by making handicrafts that are sold in the local market. Mrs Eltayib is also good at cultivation and earns some extra money cultivating saplings from seeds that she collects in the community forest.

### Mrs Eshe Esmasse

Mrs Esmasse is 25 years old and lives with her two young children and husband in the village of Namoruputh, in Turkana district, Kenya. Eshe completed her primary education, but did not continue to secondary education.

Mrs Esmasse doesn’t earn an income but she is responsible for collecting water for her household. This task can take up to half of the day as she often has to walk long distances to collect water from hand-dug wells. The drought in Turkana seems to increase in length each year and many livestock farmers, including Mrs Esmasse’s husband, have lost animals due to the drought.

### Mr Guillan Castro

Mr Castro is 28 and lives in a village high up in the Andes, in Peru. He lives with his wife and two small children, aged three and five. He attended a small primary school.

Mr Castro’s main source of income comes from a small herd of Alpacas that provide his extended family with milk, cheese and wool that they can consume and sell at the local market. Mr Castro also uses his Alpacas to transport goods for himself and his neighbours across the mountains to the nearest market which is one days travel.

One of the biggest challenges faced by the villagers is the extreme cold, which has become more severe in recent winters.

### Miss Dalia Garcia

Miss Garcia is a 20 year old woman living in Cuzco City, the capital of the major potato growing region of Peru. Her parents were both school teachers and Miss Garcia and her two older brothers all went to school before continuing into further education.

Miss Garcia recently graduated with a diploma in crop management. She now works at a potato trading company, advising local farmers on potato cultivation techniques. Miss Garcia is hoping that her field experience and college diploma will enable her to study a degree in agriculture in Lima or possibly overseas.

### Mr Maxwell Gwazani

Mr Gwazani is 55 and from Gungwe village in Zimbabwe. He lives with his wife and they farm a small plot land that they rent. He used to be a successful livestock farmer, but the on-going drought and high costs of food in Zimbabwe have meant the couple have had to sell their livestock to pay for basic commodities.

Due to the increased threat of drought in Zimbabwe, they are attempting to grow new varieties of crops including tobacco, maize and soya bean that need less water.

### Mr Abdi Hassan

Mr Hassan is 21 years old and lives in the Mandera region of Kenya. He attended primary school, but did not continue to secondary education. He is the eldest son of six brothers and sisters and lives with his extended family.

Mr Hassan is a goat herder, so he’s dependent on good rainfall to maintain the grazing land to feed his goats. However the region where Mr Hassan lives has been stricken by drought for a number of years. To boost his income, he also collects and sells firewood and water. The nearest shallow well is situated 16 kilometres from his home.
Mr Razib Hassan
Mr Hassan is 70 years old and lives with his wife on the bank of the Jamuna River in Northern Bangladesh. His family are recovering from the recent summer’s erosion of the river bank, caused by the endless flooding.
Mr Hassan’s household has survived this erosion with only a minor loss of land. For the time being he plans to remain living this way. He has two sons, their wives and his grandchildren living nearby. The family owns a young cow and chickens, and have been able to harvest a small amount of rice this year which covers his staple diet.

Mr Osman Humden
Mr Humden is 32 years old. He is married with two children and lives in a temporary shelter in a camp established to house refugees from the conflict in Darfur, Sudan. The region is an arid zone, with average rainfall of 600mm and regular drought.
Mr Humden works as a carpenter in the local market, and earns about 70p-£1 per day. His wife adds to their income by selling Zalabia (sweets) in the local market. The family income provides enough to feed their two children and is average for the camp, but they are unable to save any money. They are able to send their son to school but don’t earn enough to send their daughters as well.

Mrs Zienab Humden
Mrs Humden is 32 years old. She and her husband live in a temporary shelter in a refugee camp in Darfur, Sudan. The region is an arid zone, with average rainfall of 600mm and regular drought.
Mrs Humden’s husband works as a carpenter in the local market, and earns about 70p-£1 per day. Mrs Humden makes a vital contribution to the household income by selling sweets in the local market earning about 30p to 50p each time. This is a time-consuming enterprise as she has to shop for flour and oil on a daily basis to make her products. The market is an hours walk away too far to carry enough ingredients to last the week. The family income provides enough to feed their two children and is average for the camp. They are able to send their son to school but don’t earn enough to send their daughter as well.

Mr Abukir Idriss
Mr Idriss is a 55 year old farmer who lives with his wife and six children in Tashatoy, a village near Kassala in Sudan. He has never been to school.
Mr Idriss is a farmer, so goes to the market every day to sell his crops. He also sells traditional handicrafts that his wife and two daughters make. Mr Idriss does not have running water in his house and so it is the responsibility of his six grandchildren (all aged under 12) to collect the drinking water. The family relies on rainwater to water the crops that they grow on rented land.

Mrs Sharmila Kafle
Mrs Kafle is 35 and lives with her husband and three children in the Rupandehi district, western Nepal. Her family lives on the banks of the Tilottama River.
The family survives on her husband’s earning as a low paid mechanic in a garage and Mrs Kafle’s income from a mobile cosmetic shop that she operates at the district market. She carries her cosmetic items in a bamboo basket on her back supported by a strap around her forehead, walking up to five miles to visit the market. At each market she earns around £1.80 and manages to attend up to six markets each month. Her children attend the local school and the family depend on the local village market for their food and needs.

Miss Afrah Karar
Afrah Karar is a 16 year old woman from Bagadir village, 30kms from the nearest town of Kassala in Eastern Sudan. She lives with her parents and three siblings, one of whom has a physical disability. They live in a one bedroom home, and Afrah has never been to school.
Afrah has recently started work on a small farm set up for women close to where they live. Afrah helps grow crops including okra, henna and bananas. The money earned from selling these crops at local markets provides a useful income for her family.
Mr Mulu Ken

Mr Ken is 33 years old and is a local government employee in Asosa, the capital of the Gumaz region of Ethiopia. His father was a local village chief and after completing school he applied for a job as a district land registration official.

Mr Ken is married and has five children. His wife is a teacher at the local school and they own a small shop in the district centre selling stationary. Mr Ken has also bought a large piece of land in the district which he farms for oil seed crops, employing local people to cultivate the land for him. He hopes that the land will increase in value.

Mr Ranjith Kumar

Mr Kumar is 40 and lives in the Hambantota district of southern Sri Lanka. This is a traditional rice growing area with paddy fields covering a broad coastal area. Hambantota is an area that was badly affected by the Indian Ocean tsunami in 2004. Mr Kumar and his family were lucky to survive.

Mr Kumar farms rice to provide food and a small income for his wife, two children and his first grandchild. This year the yield was almost half of what he usually harvested because of the increasing saltiness of the soil and a lack of fresh water for irrigation. His wife owns ten chickens which are becoming increasingly important as she sells surplus eggs to neighbours at the local market.

Mr Leoncio Leando

Mr Leando is 46 and lives in San Martin, one of the largest coffee and cocoa producing areas in Peru located in the Amazon region. He moved to the area five years ago with his two sons, nephew and wife in search of farmland. Mr Leando completed his secondary education.

The young family work and live on the banks of the Sisa River and grow maize, cassava, coffee and cocoa. They moved to the area because of the availability of cheap land and the reputation for successful crop growing in the region. However, they have little experience of growing coffee plants and are having to learn how to farm within a tropical rainforest system where flooding is a huge risk.

Mrs Martha Lino

Mrs Lino is 31 and lives in Tingabamba village, located in the mountainous region of Canchis, Peru. Mrs Lino has been alone since her husband left shortly after the birth of her second child. She lives with her two children.

Mrs Lino is an alpaca farmer, living on what she earns from selling her animals’ fleeces, which is around £3 a week. They are dependent on the local markets to buy their food and sometimes go hungry when the community is isolated during period of extreme weather (night-time temperatures can drop below -20°C and fierce wind and rain often buffet the village for days on end).

Mrs Susan Maina

Mrs Maina is 68 and lives in one of the informal settlements in Nakuru, Kenya.

Mrs Maina lost her husband in 1989, and of their six children, four died while they were still young. She lives with her two children and two grandchildren who go to the local school. The family lives in a house made from reclaimed materials. Water can be a huge problem in Nakuru; Mrs Maina has to buy it from water sellers, or from the few houses that have piped water in the neighbourhood.

Her income comes from her two children who work in the local factories, and she supplements this income by selling second-hand clothing in the market.

Mrs Rosa Maria

Mrs Maria is 43 and lives in Ancash in Peru, a coastal region with high mountains and deep valleys making travel very difficult. The area is strongly affected by the El Nino weather of severe rains that damages roads and bridges often isolating her village for many days.

Mrs Maria is a guinea pig farmer with two decades of experience. Her income is steady but each year she worries about the cold winters and the affect it has on her stock. Mrs Maria’s husband died in an earthquake in Ica in 2006 and Rosa worries about her future and her two children who attend the local school. They both want to leave the village when they finish school and find employment in the state capital Huarez.
Mrs Mary Mufiri

Mrs Mufiri is 42 and lives in the Gwanda district of Zimbabwe with her two daughters. The village and surrounding area in which she lives is dry for most of the year. This has led to considerable seasonal migration of men, tempted to work in the greener farms in neighbouring South Africa, while the women remain at home.

Mrs Mufiri is financially dependent on her husband, who sends her money from his work in South Africa. Water is scarce for those who stay, meaning that women and girls spent much of their time each day walking long distances, up to five kilometres, to fetch water.

Mrs Rahel Mutai

Mrs Mutai is 64 and a former school teacher and councillor for her community in Mendera district, North Eastern Kenya.

Mrs Mutai moved to Mendera with her husband who she met at university while they were both training to be teachers. Her husband, who died four years ago, was the headmaster of the local secondary school. Four of Mrs Mutai’s seven children live in the area, two have moved to Nairobi, and the youngest is studying overseas. Mrs Mutai lives with her eldest son, his wife and their five children in the local town centre.

Miss Phoebe Nakiru

Phoebe Nakiru is 11 years old lives with her mother in Turkana, Kenya. She doesn’t go to school and relies on the income of her uncle to provide food and shelter.

Phoebe and her mother collect water and fuel every day. As more rains fail and the rivers dry up, Nakiru and her mother are forced to walk more miles each day in the searing heat. The only water they find is dirty and often contaminated by animal dung. Water can only be collected by climbing deep into pits that are in danger of collapse at any moment.

Mrs Mita Nirmola

Mrs Nirmola is 35 and lives on the banks of the Jamuna River in Bangladesh with her husband and four children.

Mrs Nirmola had owned nearly five hectares of land, but since the Jamuna River flooded most of her land has now been lost. As a result the family often have to move, taking refuge on the river embankment. They survive on a low income largely from fishing. Her eldest daughter aged 13 has recently married a local farmer, but she still struggles to feed her family and cannot afford to pay the cost of schooling.

Mrs Grace Nosandile

Mrs Nosandile is 38 years old and lives with her husband and their five children in an informal settlement outside of Nairobi, Kenya. Due to his physical disability, her husband needs a wheelchair to get around. Her family lives in a traditional home, made from mud and grass.

Mrs Nosandile provides the only income for her family, through the sale of fruit and other products which she buys and sells at local markets. When the business gets tough she looks for domestic work. Her eldest son is 16 and will soon start work as a waste collector and recycler. Her other four children are all still at school.

Mrs Betty Ochola

Mrs Ochola is 62 years old and is the head of Ochola family who live on the outskirts of Kisumu, the third largest city in Kenya. Mrs Ochola’s house is made from mud walls and corrugated tin roof. She has no access to a sewerage system or clean water.

Mrs Ochola heads a family of eight and she has been a widow for the past two years. The family make their living from farming a small plot of land they own and providing domestic work in Kisumu. With no piped water supply, Mrs Betty has to buy her water from a local water vendor.
**Daniel Omondi**
Daniel Omondi is 8 years old and lives in Silanga Village on the outskirts of Nairobi, the capital of Kenya. Silanga is one of a number of villages in Kibera, an extremely densely populated area, with poor quality housing. Daniel’s parents rent their home which has no access to clean water or a toilet.

Daniel shares a room with 6 other relatives including his parents, siblings and cousins most of whom travel into the city each day to collect rubbish, and to take any unskilled manual labour jobs that are available. The income of the family is roughly £1 per day.

**Mrs Maya Pandey**
Mrs Pandey is 29 years old and lives in Shanti Tole, Butwal, in Nepal. Her husband left her four years ago and now she is raising their two children aged five and ten years alone. Butwal is located on the banks of the Tilottama River.

Mrs Pandey has a small grocery stall that she sets up on a side street in her village to earn a living. Mrs Pandey’s children do not go to school and she worries about leaving her children at home each day. Shanti Tole has been built on low-lying land near the river and is always the first place to flood and the last place to dry out. During last year’s floods, several people died of disease.

**Mr Nandi Paswan**
Mr Paswan is 59 and is a small-scale farmer living in Shreepur, in the east of Nepal. Shreepur is a small village that lies on flat land next to the Koshi River, which regularly floods - occasionally lasting for many days.

Mr Paswan is married and takes responsibility for his elderly mother (74), his three children and daughter-in-law. They all live in a small single-roomed house made of mud brick with a thatched roof. He earns his money by farming mangoes on a quarter of an acre of land with his children. His daughter is working in a carpet factory and sends about £50 home each year. The family owns two cows which they keep for milk, selling any extra in the local market alongside their mangoes.

**Yam Pradham**
Yam Pradham is 15 and goes to school in Pokhara City, Nepal. Pokhara is Nepal’s second biggest city and is vulnerable to many natural hazards, especially major earthquakes and flooding.

Yam has witnessed fires, floods and storms and experienced earthquakes tremors. He lives in a two room house in the city with his mother, younger brother and elder sister. The house has recently been rebuilt by his uncle to include earthquake-resistant construction techniques. However, his school is an older construction and has not been built with this risk in mind. Yam’s father recently passed away and the household income comes from his older sister and his mother. Yam wants to go to university and study engineering.

**Mrs Swecha Pradham**
Mrs Pradham aged 35, lives in Pokhara City, Nepal. Lying at the foot of the Himalayas, Pokhara is Nepal’s second biggest city. It is a beautiful city, but it is vulnerable to many natural hazards, especially major earthquakes and flooding.

Mrs Pradham has witnessed floods, storms and earthquake tremors and her husband died two years ago when an earthquake struck the city. She lives in a two room house in the north-western part of the city with her three children aged 12, 15 and 18. Their house has recently been rebuilt by her brother who lives nearby, using earthquake-resistant construction techniques. Mrs Pradham cleans for a local family to earn money and her daughter works in a restaurant.

**Mr Bahadur Soti**
Mr Soti is 37 and lives with his wife and their two children in the Lalmonirhat district of Bangladesh. The family live in a small house on his cousin’s land. They have had to move several times in recent years due to floods washing away their home and belongings.

Mr Soti is an agricultural labourer and for five months of every year he travels to other areas to find work. As a result of their lack of land or a permanent house of their own, they are not officially invited to join their local community meetings. The family live with great uncertainty over whether they have enough food and other essentials.

[practicalaction.org/who-is-most-at-risk](practicalaction.org/who-is-most-at-risk)
### Mrs Violah Sugut
Mrs Sugut is 19 years old and lives with her husband in Turkana district, Kenya. Many people in the region are struggling with the on-going drought.

Mrs Sugut doesn’t earn an income but she is responsible for collecting water for her household. This task can take up to half a day as she often has to walk long distances to collect water from hand dug wells. Due to less rainfall she feels there is less and less water available for her community, which is also a threat to her husband’s job as a cattle herder. The drought is getting worse each year causing occasional violent conflict between neighbouring villages for access to limited water points.

### Mrs Florence Syprose
Mrs Syprose is a 63 year old woman who lives in a slum village called Nyalenda on the outskirts of Kisumu, in Kenya. A significant problem faced by the village is the water supply. The village currently relies on a natural spring that flows through the village but there is no guarantee that the water remains unpolluted.

Mrs Syprose is the head of her household and is responsible for looking after five young grandchildren as her four children died of AIDS. Her husband Daniel died three years ago after stepping on a nail and contracting septicaemia. She has no source of steady income and relies on casual domestic work.

### Mrs Naomi Wangai
Mrs Wangai is 59 and lives in Nairobi, Kenya. She is a retired secondary school teacher who now owns a number of small coffee shops in Nairobi. She has a small modern house near to her old school.

Mrs Wangai went to university in Kenya and then went to America to study for a Masters degree in public health. She is married and has two grown up children who both work in Nairobi. Her husband died four years ago, but she receives a monthly pension payment from the company he used to work for.

### Mr Stanley Ukel
Mr Ukel is 33 years old and lives in the Kapiri-Mposhi township in Zambia, where HIV/AIDS is rife. Mr Ukel contracted the disease six years ago and has been struggling since he lost his wife to the disease two years ago.

Mr Ukel now lives with his parents and eldest son, aged fifteen who take care of him. His mother grows vegetables and herbs on their small plot of land and his son works in the local market. His other children aged seven and nine are at the local school.

The land on which their house is built is regularly flooded by the river, but is being considered for redevelopment. Stanley has to visit the local hospital which is on the other side of the township, regularly to get his medicines, but often has to send his son when he is too unwell to walk.
### Ms Shakira Azim
Ms Shakira Azim is 32 years old and lives with her partner in a rented flat in London. They are expecting their first baby next month.

After finishing university, Ms Azim and her partner both trained to become solicitors and now work for London based law firms. Ms Azim is planning to return to work full-time after the baby is six months old as her own mother has offered her free childcare.

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### Mr Francesco Caprizzi
Mr Francesco Caprizzi is 34 and lives with his parents in a small town near Bologna, Italy. He graduated as a biochemist five years ago but hasn’t been able to find a job in his field. He works as a driver for a local courier company but is always looking for a job as a biochemist.

He is considering going to Germany to look for work there as the courier company is beginning to cut back on staff due to the economic crisis. He moved back in with his parents after University to try and save some money.

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### Mr Marios Christodoulou
Mr Christodoulou is 67 years old and lives with his wife in their cottage near the sea, in Limassol, Cyprus. He and his wife were teachers at a local secondary school but they both retired four years ago.

He has three children and five grand-children, and they all live in the capital city, Nicosia. He loves spending time with his grand-children, who usually visit him during the weekends and in the summer, when schools are closed.

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### Mr Beppe Cincirelli
Mr Cincirelli is 72 years old and lives with his wife in a small village near Siracusa in Sicily, Italy. He is retired with a small pension but has always had a small vegetable garden which provides him and his wife with most of the vegetables they need.

In the last 10 years, rainfall has fallen by nearly 50% and Mr Cincirelli cannot successfully grow as many vegetables as he needs to during the summer months. Sicily needs to import drinking water during the summer as it doesn’t have enough for all its inhabitants. Recently his wife’s health has worsened and she needs to have some medicine which is expensive and not covered by the health system.

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### Mr Alfie Howard
Mr Howard is 24 years old and lives in Leicester, UK with his mother and younger sister in rented accommodation. Alfie left school at 18, with a few GCSE qualifications.

Mr Howard has not worked for nearly two years, but has an interview next week for part-time work in a local supermarket. Mr Howard’s mum works part-time in a school and receives benefits from the government to top up her income. Mr Howard has asthma which often gets worse in the winter, particularly if he doesn’t keep up his medication.

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### Mr Peter Jones
Mr Jones is 88 years old and since his wife died two years ago lives in care home in Coventry in the UK. He has two children with their own families who live nearby. He recently had a brain seizure which affected his confidence and left him needing to use a wheelchair.

Mr Jones spent his working life as an engineer in the Royal Air Force, so has a good pension. He is well respected by the local community as has carried out lots of fundraising activities for local and international charities.
Ms Anna Krajewska
Ms Krajewska is aged 41 and lives on her own in Szczecin, Poland. She has lots of friends who she spends time with and her home is always full of people.

Since graduating from university, Ms Krajewska has had a successful career working in marketing and management. Following a car accident 15 years ago, that left her needing to use a wheelchair Ms Krajewska has become interested in rehabilitation equipment and aids to help people with physical injuries.

Two years ago she set up an on-line business working from home that sells rehabilitation equipment. She employs two people and so far her business is making a profit.

Ms Angela Lepratti
Ms Lepratti is 34 years old and married with two small children. She is a pharmacist and used to work in a local, family owned chemist’s in the small coastal town of Vernazza, in the Liguria region of Italy.

The town was hard hit in 2011 by heavy rain which caused a mud slide, floods and total destruction in the town. Since then Ms Lepratti’s family have been living with their grandmother in a nearby town which was not badly affected. They have been trying to restore their house and the chemist but it’s taking time. Ms Lepratti hasn’t worked since 2011 so her family now have to depend on her husband’s salary and grandmother’s help.

Mr Alexis Loannou
Mr Loannou is 42 years old and lives in Larnaca, Cyprus with his family. He has been married for 15 years and has two children, a 12 year old daughter and a nine year old son. They all live in a big house in the centre of the city.

Mr Loannou is a professor at the University of Cyprus and he loves travelling. His annual income is approximately €50,000. At the moment, he is thinking of accepting a new job as a professor at a University in Italy and move there with his family.

Ms Grażyna Michalak
Ms Michalak aged 54 and lives in Cukrówka, Poland, a small village 30km away from the city of Radom with her husband and two of their school aged children. She has two older children who live in Ireland and Germany, who come back to visit her for Christmas and Easter holidays.

Ms Michalak used to work in a local grocery shop, but in the past two years she’s been mainly taking care of her home and doing some seasonal work at a local farm that pays a reasonable wage. Two years ago the farm where Ms Michalak used to work was hit by a tornado. She lost job and her earnings.

Eleni Petrou
Eleni Petrou is 14 years old and lives in Panagia, a rural village near Pafos, Cyprus with her parents and her three younger siblings. She was born with a motor neuron disease, so she needs help for her daily activities and medical supervision.

Eleni’s father is a farmer and her mother is unemployed. Last year’s high temperatures caused the destruction of his crops and as a result the reduction of the family’s income. Eleni attends a local secondary school where she is a straight A grade student. She hopes that one day she will become a doctor. Her biggest concern is that because of her disease she might not find a good job in order to be able to pay for her studies as her family won’t be able to help her financially.

Ms Aliki Papadopoulou
Ms Papadopoulou is 33 years old and is a single mother of a three year old girl. She has studied Business Administration but because of the unemployment in Cyprus, as a result of the economic crisis, she currently works at a local supermarket as a cashier.

Ms Papadopoulou lives in a big apartment in Nicosia, close to her parents’ house. She comes from a wealthy family and her mother babysits her daughter while she is working at the supermarket. She usually spends the weekend with her parents and she rarely goes out with her friends.
Darek Piaskowiak
Darek Piaskowiak is 13 and lives with his parents and sister in Zawonia, Poland. Darek travels 11 km to a school in Trzebnica with other kids from nearby. His parents are farmers and have a 13 hectare farm where they grow rapeseed and wheat.

Last year there was a drought in Zawonia which affected the crop yields - they were 40% lower than average. The months that followed were financially really tight, which led Darek’s parents to quarrel more often. Sometimes Darek thinks of what he’d like to do in the future, but it’s difficult as changing weather patterns in Europe make the future uncertain for farmers.

Sophie Smith
Sophie Smith is 11 years old and lives with her parents in a bungalow on their 300 acre farm in Somerset in the UK. Her mum drops her at the end of the farm lane to catch a bus to her secondary school eight miles from home.

The area where Sophie lives has flooded four times in the past six years. This year her family have had to leave the farm for a month and most of the farmland is still under water. Sophie is staying with another family nearer to her school until the flooding subsides.

Mr Amar Sorour
Mr Sorour is a 24 year old Moroccan who arrived illegally in Italy when he was 20. At the time he didn’t have a passport or any personal documents to allow him to travel. He comes from a rural village in the South East of Morocco and studied until the end of secondary school.

Mr Sorour now lives in Rome, near his brother who has lived in Italy for 15 years and is married to an Italian with two sons. Mr Sorour loves spending time with his nephews and works as an assistant chef in a Pizzeria. He dreams of visiting his family in Morocco but knows that he wouldn’t be able to come back to Italy. He rents a room in a house with five people, which is cheap but stressful.

Mr Marcin Swolewski
Mr Swolewski is 51 years old and lives on the outskirts of Kraków, Poland with his a wife and one year old daughter. He has worked as a builder since he graduated from a technical school.

A few years ago Mr Swolewski bought some land and built a family home near the Rudawa River. Mr Swolewski could afford to buy the land in this area, because it lies in floodplains. Mr Swolewski knows there’s a risk that one day Rudawa will flood their home, but the river has been quite stable in recent years and there are lots of houses like his in the area.
Who's most at risk? Profile TEMPLATES

Copy the template below and give a blank card to each pupil to complete.

Am I at risk of disaster?

Name: ________________________________
Age: ________________________________
People: I live with ________________________________

Country: I live in ________________________________
Location: [ ] Urban [ ] Rural
Health details: ________________________________
Education: ________________________________
Job: ________________________________
Wealth: I own ________________________________
Other details: ________________________________

Threats in my area: eg: flooding, drought.

Am I at risk of disaster?

Name: ________________________________
Age: ________________________________
People: I live with ________________________________

Country: I live in ________________________________
Location: [ ] Urban [ ] Rural
Health details: ________________________________
Education: ________________________________
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Threats in my area: eg: flooding, drought.

Am I at risk of disaster?

Name: ________________________________
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People: I live with ________________________________

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Location: [ ] Urban [ ] Rural
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Other details: ________________________________

Threats in my area: eg: flooding, drought.

Am I at risk of disaster?

Name: ________________________________
Age: ________________________________
People: I live with ________________________________

Country: I live in ________________________________
Location: [ ] Urban [ ] Rural
Health details: ________________________________
Education: ________________________________
Job: ________________________________
Wealth: I own ________________________________
Other details: ________________________________

Threats in my area: eg: flooding, drought.
**KEY WORDS**

The following words are used a lot during this activity. Check that you understand their meanings to help you get the most out of the activity.

<table>
<thead>
<tr>
<th>Natural hazards:</th>
<th>Risk:</th>
</tr>
</thead>
<tbody>
<tr>
<td>drought, earthquakes, floods, landslides, storms, wildfires and volcanic eruptions</td>
<td>the likeliness that people will be affected by a natural hazard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vulnerability:</th>
<th>Disaster:</th>
</tr>
</thead>
<tbody>
<tr>
<td>how susceptible people are to the damage caused by the natural hazard</td>
<td>when a natural hazard seriously affects people and their ability to recover from the hazard</td>
</tr>
</tbody>
</table>
You are affected by an outbreak of cholera in your community

Take three steps back
Someone breaks into your home and takes money and your identity papers.

Take three steps back.
A family member falls ill and you have to look after them

Take two steps back
Your landlord puts up your rent

Take two steps back
You are given a mobile phone

Take two steps forward
You and your family are invited to attend a training course that helps you to learn about preparing for natural disasters.

Take two steps forward.
## Vulnerability

Read out the statements below one at a time, allowing pupils whose profile meets that statement to take steps backwards or forwards. The explanation is for your information to use in any follow up discussion.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Take two steps forward if you’re a man</strong></td>
<td>Men still often hold positions of power in developing countries, which could mean they have preferential access to information that enables them to prepare for disaster before it strikes.</td>
</tr>
<tr>
<td><strong>Take one step backward if you’re a child (under 10) or elderly (over 60 years)</strong></td>
<td>Children and the elderly are more vulnerable to natural hazards as they are less able to get to safe spaces, and may be less able to respond to emergency procedures without help.</td>
</tr>
<tr>
<td><strong>Take one step forward if you have a full-time job</strong></td>
<td>Full time employment gives a degree of financial security, which helps people prepare and deal with disaster more easily than if they have no regular income.</td>
</tr>
<tr>
<td><strong>Take one step backward if you or your child has a disability</strong></td>
<td>People with disabilities that affect their mobility, or those who have difficulty following instructions, are more likely to be vulnerable to natural hazards. Plans are often made within communities to organise the evacuation of children and people with disabilities first.</td>
</tr>
<tr>
<td><strong>Take two steps forward if you own land or a home</strong></td>
<td>Land and/or home ownership gives people more security from disasters as they have assets to sell in order to help re-build their lives after a natural disaster.</td>
</tr>
<tr>
<td><strong>Take two steps forward if you've finished school and have gone to university</strong></td>
<td>People who have completed a secondary education and university courses are more likely to have a wider network of support to help rebuild their lives and the knowledge what to do during and after a disaster.</td>
</tr>
<tr>
<td><strong>Take one step forward if you live in a city</strong></td>
<td>People in cities are more likely to have access to communication to find out about disasters before they occur, have access to emergency services, and have opportunities to get back to work more readily.</td>
</tr>
<tr>
<td><strong>Take two steps back if you live in a rural area</strong></td>
<td>People living in rural areas are less likely to have access to information that warns them about flash floods, etc. Transport, infrastructure and emergency services may not be in place to support people as readily as in urban areas.</td>
</tr>
<tr>
<td><strong>Take one step forward if you have a mobile phone</strong></td>
<td>Having a mobile phone can provide access to advance warning of disasters and access to help post disaster.</td>
</tr>
<tr>
<td><strong>Take one step forward if you have savings</strong></td>
<td>Savings are an important part of enabling people to cope when disaster strikes to help people buy replacement goods such as food, clothing and housing.</td>
</tr>
</tbody>
</table>
### Natural Hazards Strike

Read two or three of the scenarios below to your pupils to help them understand more about the natural hazards that put people at risk. The explanation is for your information to use in any discussion that may follow.

You might want to select statements that are most relevant to the follow-on activity you want to do with your pupils.

<table>
<thead>
<tr>
<th>Natural hazards scenario</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 An unseasonal rainstorm causes a flash flood. If you live within 1km of a river your home and land will be flooded, take two steps backwards.</td>
<td>Unseasonal rains even in the most parched landscape can cause destructive flash floods. Unfortunately these short but highly intense downpours provide little respite from the drudgery of collecting water once the rains cease, as the water quickly disappears.</td>
</tr>
<tr>
<td>2 A devastating flood washes away the local bridge to town (where the hospital, schools, markets and most urban workers are located). If you need access to a market, hospital, schools or work in a town take two steps back.</td>
<td>Bridges provide access to important services such as markets, hospitals and schools. The lack of access to these services will affect people’s ability to access healthcare, education and to earn a living.</td>
</tr>
<tr>
<td>3 A local development organisation advertises free lifejackets in the local paper and on TV. If you have access to the TV or newspaper you are more likely to get one, take one step forward.</td>
<td>Often the mechanism through which disaster preparation messages and materials are mobilised do not reach the most vulnerable. Signboards and adverts are often inaccessible to the poorest who cannot read.</td>
</tr>
<tr>
<td>4 A magnitude 7 earthquake strikes. &lt;br&gt; If you live in a city take one step backwards. &lt;br&gt; If you live in an urban slum take two steps backwards. &lt;br&gt; If you live in a rural area stay where you are.</td>
<td>Many cities are extremely vulnerable to earthquakes, especially in poorly planned and constructed slum areas. The buildings are poorly designed and incapable of resisting even a minor earthquake.</td>
</tr>
<tr>
<td>5 No rainfall for months. A drought strikes, affecting your access to water for drinking and watering crops. If you live in a slum or grow your own crops to feed your family take two steps back.</td>
<td>Slum communities with poor sanitation are often the most affected when drought strikes, due to competition over limited water resources and the increased chance of disease. People living in rural areas who grow food for their families and local markets are also affected.</td>
</tr>
</tbody>
</table>
At Practical Action, we recognise that natural hazards will continue to happen... so our approach is to reduce the risk of disaster for people living in affected regions. We do this by enabling people to access skills and technologies to adapt their lives to respond to these hazards and ensure they are as prepared as possible. We call this **Technology Justice**.

The following activities have been developed to give pupils the opportunity to learn how communities at risk of flooding are developing skills and technologies to reduce the risk of disaster. Both of the challenges make good follow on activities to the Who’s Most at Risk? activity as they offer pupils the opportunity to use their Science, Technology, Engineering and Maths (STEM) skills in a global context.

**Beat the Flood**

Based on the theme of housing, pupils get the opportunity to design, model and test a flood-proof house for their community on Watu Island.

**Floating Garden Challenge**

Based on the theme of food and agriculture, pupils have the opportunity to design a model of a floating garden to solve a problem caused by flooding in Bangladesh.

Both challenges have all the teacher’s notes and pupil activity sheets available to download for free at [practicalaction.org/stem](http://practicalaction.org/stem).

For pupils aged 11+, Practical Action’s main website offers excellent case studies and technical information from our international work in Disaster Risk Reduction. It includes examples of work in a range of natural hazards including drought, floods and earthquakes. View [practicalaction.org/disaster-risk-reduction](http://practicalaction.org/disaster-risk-reduction).