

Reducing the Effects of a Tropical Storm

Learning Objective:

- **Assess** the strategies to save lives in a tropical storm



Learning Outcomes:

- **Describe** how to predict tropical storms
- **Explain** how to protect people from tropical storms
- **Assess** strategies of planning for tropical storms



Predict / Forecast

Forecasts are made available to residents on the **internet** so that they can make decisions about whether they need to evacuate. This is much more useful means of **communication** in developed countries where the percentage of residents with internet access is high and the **infrastructure** is well developed.

The '**cone**' of **uncertainty** is shown on a weather forecast map. It shows the areas that a tropical storm could potentially hit within a 3-day or 5-day period.



Act

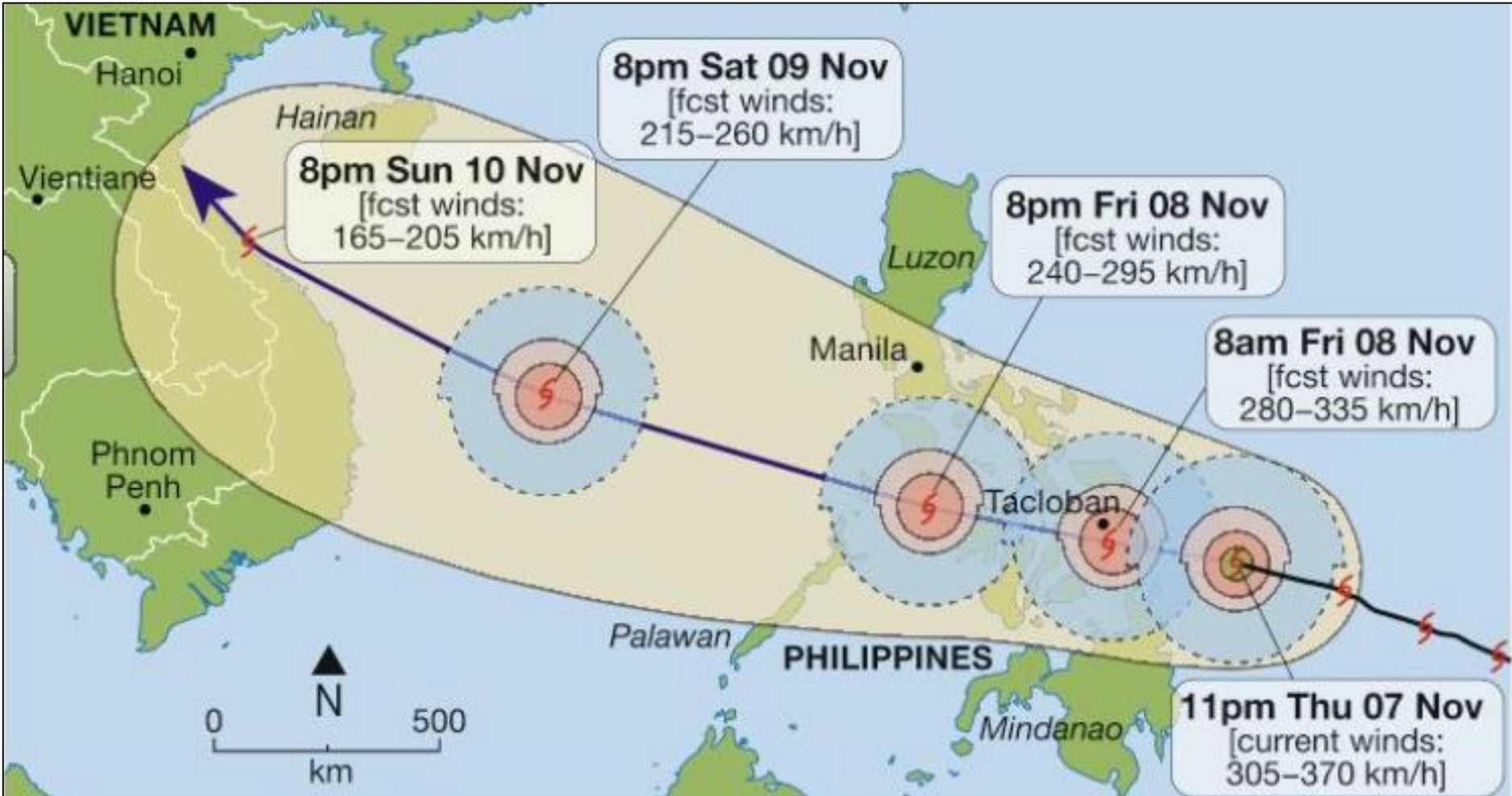
When landfall has been forecast, action needs to be taken. This might include **boarding** up windows and doors, or **evacuating** the area.

A **mandatory evacuation** is where the authorities command everyone in an area to leave.

It is vital to ensure that **only those people** who are in the **danger area** try to leave – why?

...otherwise the road system will get clogged up and people will be put at greater risk.





- Key**
- ← Forecast track
 - Previous track
 - ∩ Potential track area
 - ⚡ Typhoon or super typhoon
 - ⊙ Area of 120 km/h winds
 - ⊙ Area of 95 km/h winds
 - ⊙ Area of 65 km/h winds
 - ⊙ Rain area

Predict / Forecast

Suggest how forecasting the path of a tropical storm would help people who live in areas at risk.

It can help them prepare for the possibility of a hurricane hitting them. Forecasts are regularly updated on the internet so if people realise that they are in the 'cone' of uncertainty they might choose to evacuate the area.



Protection

In **HIC** countries such as USA, what options are there?

- Buildings
- Streets
- Coastal areas


Protection

In **LIC** countries such as Bangladesh, simple but cheap measures can be put in place to ensure that people are well prepared for tropical storms.







We are educating women in what to wear in case they have to swim during a cyclone.



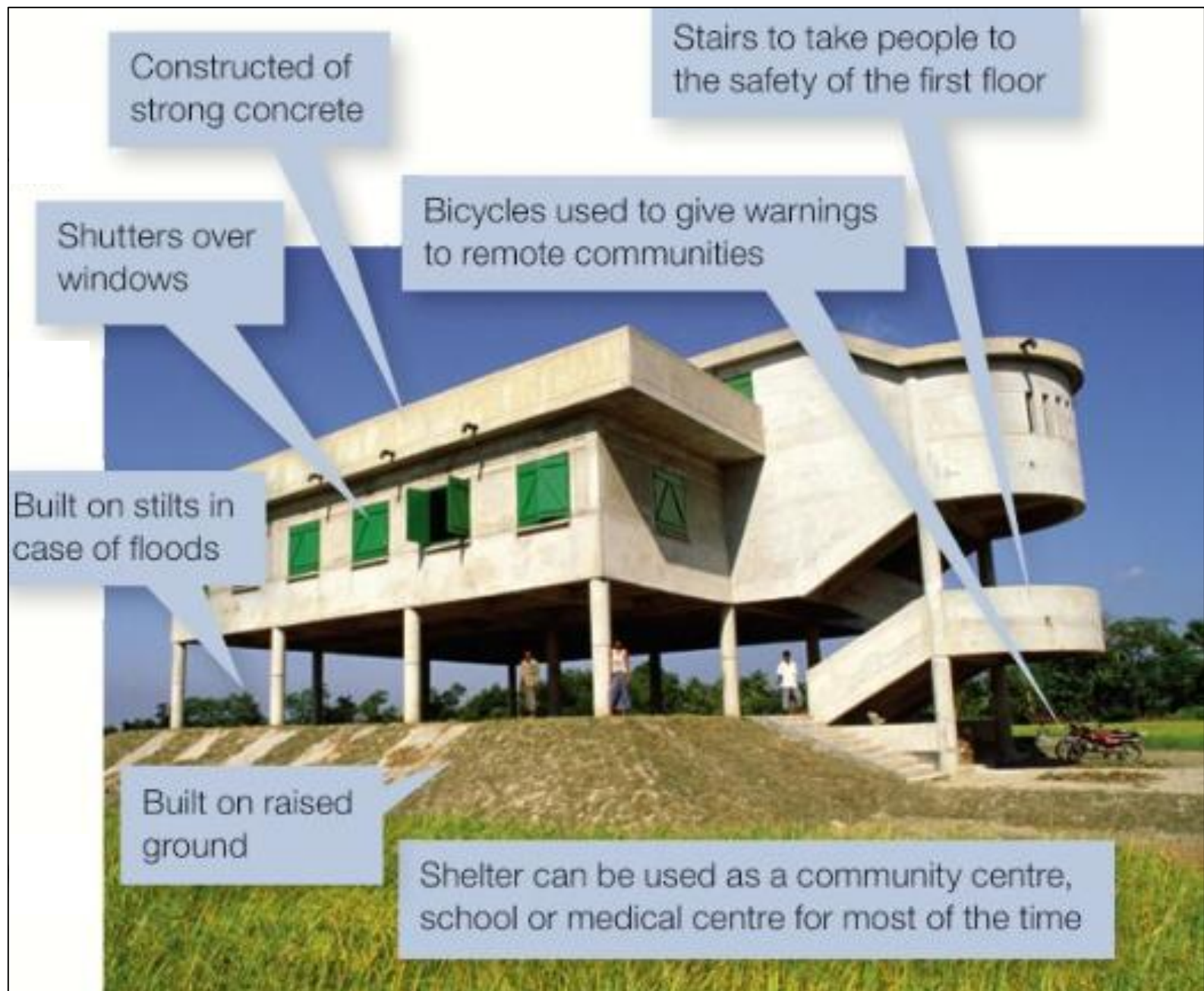
We are building homes on stilts in case of a storm surge.



We are building cyclone shelters (Photo **D**).



We are training local people to organise others in an evacuation.



Constructed of strong concrete

Stairs to take people to the safety of the first floor

Shutters over windows

Bicycles used to give warnings to remote communities

Built on stilts in case of floods

Built on raised ground

Shelter can be used as a community centre, school or medical centre for most of the time

Planning

Most countries affected by tropical storms now have **education programmes** to raise awareness on preparing for storms. There is an annual **Hurricane Preparedness Week** in the USA when schools, businesses and families are encouraged to plan for possible strikes in the forthcoming hurricane season.



Leaflets, posters and school lessons are common ways of spreading the message. New technologies - such as Twitter are also being used to educate people.

NATIONAL HURRICANE PREPAREDNESS WEEK

MAY 24 TO 30, 2015



Sun	May 24	Hurricane Basics
Mon	May 25	Storm Surge
Tues	May 26	Wind
Wed	May 27	Inland Flooding
Thur	May 28	Forecast Process
Fri	May 29	Get a Plan
Sat	May 30	After the Storm



hurricanes.gov/prepare & ready.gov

HURRICANE PREPAREDNESS WEEK

MAY 24th-31st

- ☪ Check for storm information on the internet.
Listen to local TV and radio
- ☪ Board up windows or secure storm shutters
- ☪ Fasten roof straps
- ☪ Secure large items of furniture
- ☪ Turn off gas and electricity
- ☪ Put together a hurricane kit

**BE RED
CROSS
READY**

Get a kit



Make a plan



Be informed



Planning

People living in areas of the USA affected by hurricanes are encouraged to have a **hurricane emergency kit** and also to have thought about how they will protect their home and belongings. This might include boarding up windows and doors.

In developed countries, people may also be able to afford windproof tiles, water-resistant windows and strengthened building structures.

Hurricane Checklist

- Medical Supplies (2-4 week supply)
- First Aid Kit
- Tools
- Flashlights For All Family Members
- Lanterns With Batteries
- Battery Operated Radio or TV

How might these items be of help?

Any extra items?



<https://www.youtube.com/watch?v=7oRqBhjU04M>