Commodity Prices set to rise

Oil prices are forecast to average $65 a barrel over 2018, up from an average of $53 a barrel in 2017, on strong demand from consumers and restraint by oil producers, while metals prices are expected to rise 9 percent this year, also on a pickup in demand and supply constraints. .

Prices for energy commodities – which include oil, natural gas, and coal -- are forecast to jump 20 percent in 2018, a 16 percentage point upward revision from October's forecast. The metals index is expected to rise at 9 percent Agricultural commodities, including food commodities and raw materials, are anticipated to see a price rise of over 2 percent this year on diminished planting prospects. Weather disruptions are expected to be minimal.

Makeni?

What will be the economic and social implications of such price increases for Sierra Leone?

Global Warming

The wealthiest areas of the world will experience fewer changes in local climate compared to the poorest regions if global average surface temperatures reach the 1.5°C or 2°C limit set by the Paris agreement, according to new research.

The new study, published today in *Geophysical Research Letters*, a journal of the American Geophysical Union, compares the difference between climate change impacts for wealthy and poor nations.

"The results are a stark example of the inequalities that come with global warming," said lead author Andrew King from the ARC Centre of Excellence for Climate Extremes at the University of Melbourne in Australia.

"The richest countries that produced the most emissions are the least affected by heat when average temperatures climb to just 2°C, while poorer nations bear the brunt of changing local climates and the consequences that come with them."

The least affected countries include most temperate nations, with the United Kingdom coming out ahead of all others. By contrast, the worst affected are in the Equatorial regions, including countries like the Democratic Republic of Congo.

This pattern holds true even if global average surface temperatures only reach 1.5°C above pre-industrial levels.

To get their results the researchers used a simple metric -- the signal to noise ratio. The signal in this case is the local change in average temperatures caused by climate change. The noise is how variable the temperature is for that region.

In places outside the tropics, where there is greater year-to-year variability and those locations are better adapted to a wide range of temperatures, the warming will be less noticeable.

But in Equatorial regions, where there is already a very high average temperature and less variation through the year, a small rise in temperatures due to climate change will be distinctly felt and have immediate impacts.

This difference in experienced temperature combined with the distribution of wealth across the world, with richer nations tending to be in temperate regions and the poorer nations in the tropics, adds to the future climate change burden of developing nations.

"Economically powerful nations, who are most responsible for the emissions that led to global warming, are going to have to pick up the slack if they want to maintain economic growth in developing countries," said co-author Luke Harrington from the University of Oxford.

"It's why we need to invest in limiting the worst impacts of climate change for developing nations today. By assisting developing nations to meet these challenges we help maintain their economic stability and security into the future and by extension, our own as well."

Makeni?

How are perceived global climate changes beginning to affect the lives of the poorest citizens?

Better weather forecasts

As the sun sets over Lake Victoria, Africa's largest lake, tens of thousands of fishermen ready themselves to head out on the water for the night, fishing mostly for tilapia and Nile perch.

As they push off, they know they are risking their lives - some of them may never be seen again.

Lake Victoria - a lake so big it straddles Uganda, Tanzania and Kenya - is notorious for its deadly storms. At this time of year, strong winds, rain, lightning and huge waves are a regular occurrence.

Up to 5,000 fishermen lose their lives each year, says the International Red Cross.

"The storms usually start at midnight and last until around 6am," says Amone Ponsiano, officer in charge at the Marine Police, Nkose Island, Uganda.

"This is the exact time when the fishermen are very busy, collecting their nets. It's very dangerous and we have a lot of people disappearing."

Recently, one man's boat was smashed on the rocks as he tried to escape a violent storm, but Mr Ponsiano's team managed to fish him out of the water in the nick of time.

But a new early warning system developed by an international team of scientists and technologists could end up saving hundreds of lives.

Simply put, real-time satellite data from Nasa is applied to a statistical model and used to forecast the probability of an extreme thunderstorm. This probability is translated into a simple warning message delivered to fishermen via text message, Twitter or WhatsApp.

Prof Wim Thiery, lead researcher on the project - a joint venture between Brussels-based university Vrije Universiteit Brussel, Switzerland's ETH Zurich university, Nasa, and CodeForAfrica - says there is a "great potential" for new technologies, in particular machine learning, to improve the prediction of extreme weather

As erratic weather becomes more common due to climate change, such tech will become increasingly important to make us "less vulnerable", he says.

"Just like with the traditional weather forecast, there will always be misses and false alarms," he admits. "We are dealing with a deterministic chaos system, so you can't predict everything.

"But we clearly see that with time, our ability to forecast extreme events improves, thanks to better weather models, better supercomputers, and innovative techniques."

Makeni?

Line squalls are familiar occurrences along the coast of Sierra Leone. If the weather forecasts were more accurate how might this not only reduce the risks faced by fishing families? Also, if fishing were made safer and mobile phones used to track catch sizes, then the fishing boats could try to catch the fish fetching the best prices and stay in touch with weather conditions.

I write these News Letters whenever I can, if you have any questions to ask me, please email me on: Birchall.john68@gmail.com. Please NO linking me with illegal sites, or those with whom I do not want to communicate – thanks,

John