At the international negotiating session in Egypt, demands for climate reparations — "Loss and Damage" in UN lingo — were front and center. The debate was focused on the obligations of developed countries. But there was another issue percolating in the background: Does China, the world's largest carbon emitter, have an obligation to compensate poorer countries for the harm it is causing?

Whether China should pay carbon reparations is an academic question in two very different senses. It's academic in the colloquial sense, given how unlikely it is that Xi Jinping would ever agree to reparations.

It's also an academic question in another sense: it really clarifies the differences between various arguments for reparations. Nearly all those arguments imply that the U.S. owes reparations. But as to whether China should be paying reparations, the answers are "ves," "no", and "maybe." Here are some key arguments for climate reparations and how they might apply to China.

The "Polluter Pays" Principle. The idea of the "polluter pays" principle is that polluters should bear the costs of their acts, which should be paid to the victims of their actions. This would suggest that as countries emit carbon, they should be make payments to other countries that will suffer harm due to their pollution. On this theory, China seems to have a clear duty to pay: it emits about 28% of world carbon, so it should be paying a hefty fee to other countries to compensate them for the harm its current emissions will cause them now and in the future.

**Compensation for Past Conduct.** This is related to the "polluter pays" principle, but it ties compensation to harm that is occurring today because of past carbon emissions, rather than compensation for future harm due to current emissions. China is responsible for about 11% of all the carbon now in the atmosphere, so that would mean paying for that percentage of damage from extreme events caused by climate change.

**The "Consumer Pays" Principle.** So far as I know, this label isn't in common use. However, it's not uncommon to hear arguments that China's emissions should really be charged to other countries because much of China's emissions stem from export industries. This suggests that a country's responsibility for climate change should be based on its share of global consumption. China has 18% of global GDP, of which about 60% is consumed domestically. That would still seem to leave it with a big share of responsibility (about 10% of all global emissions).

**Global Income Redistribution.** One argument for reparations is that Western countries

have an unfair share of global wealth making it especially unjust that their carbon emissions are wreaking havoc with other countries. Though it has the world's largest economy, China also has a huge population. Its per capital income is much lower than the U.S. and about the same as that of Russia or Costa Rica. On the other hand, a great many countries are poorer, so you could argue that China's remarkable growth has come partly at the expense of other developing countries harmed by its emissions. Overall, though, the redistributive argument for reparations seems to less compelling for China, at least at present.

One refinement on this argument involves taking into account the inequalities within countries. China actually has substantial income inequalities, so that would presumably mean that some share of the Chinese population with high incomes should be paying carbon reparations either within China or to developing countries.

**Sharing the Global Climate Budget.** The argument here is that there's a limit to the total amount of carbon humanity can put into the atmosphere without triggering dangerous climate change. Every country should get an equal per capita share of that budget. On a per capita basis, China ranks a bit lower than Poland and a bit higher than New Zealand, both of whom are much lower than the U.S. On the other hand, many other countries have stronger claims than China on the remaining carbon budget. For instance, per capita emissions in India are about a third of China's.

**Reparations for Colonialism.** The argument here, which is controversial, is that non-Western countries are poor because of colonialism, that colonialism fed the industrial revolution, and the industrial revolution inflicted further harm because of climate change. This historically based argument doesn't apply to China. That could change, however, if China becomes increasingly assertive in using its economic and political power to exploit poorer countries as sources of food and raw materials.

In general, the arguments for Chinese reparations are strongest to the extent they rely on current circumstance and progressively weaker as the emphasis switches to past history. That's an indication of both the differences between these reparation arguments and of the extraordinary speed of China's transformation, which has decoupled its economic past from its present.