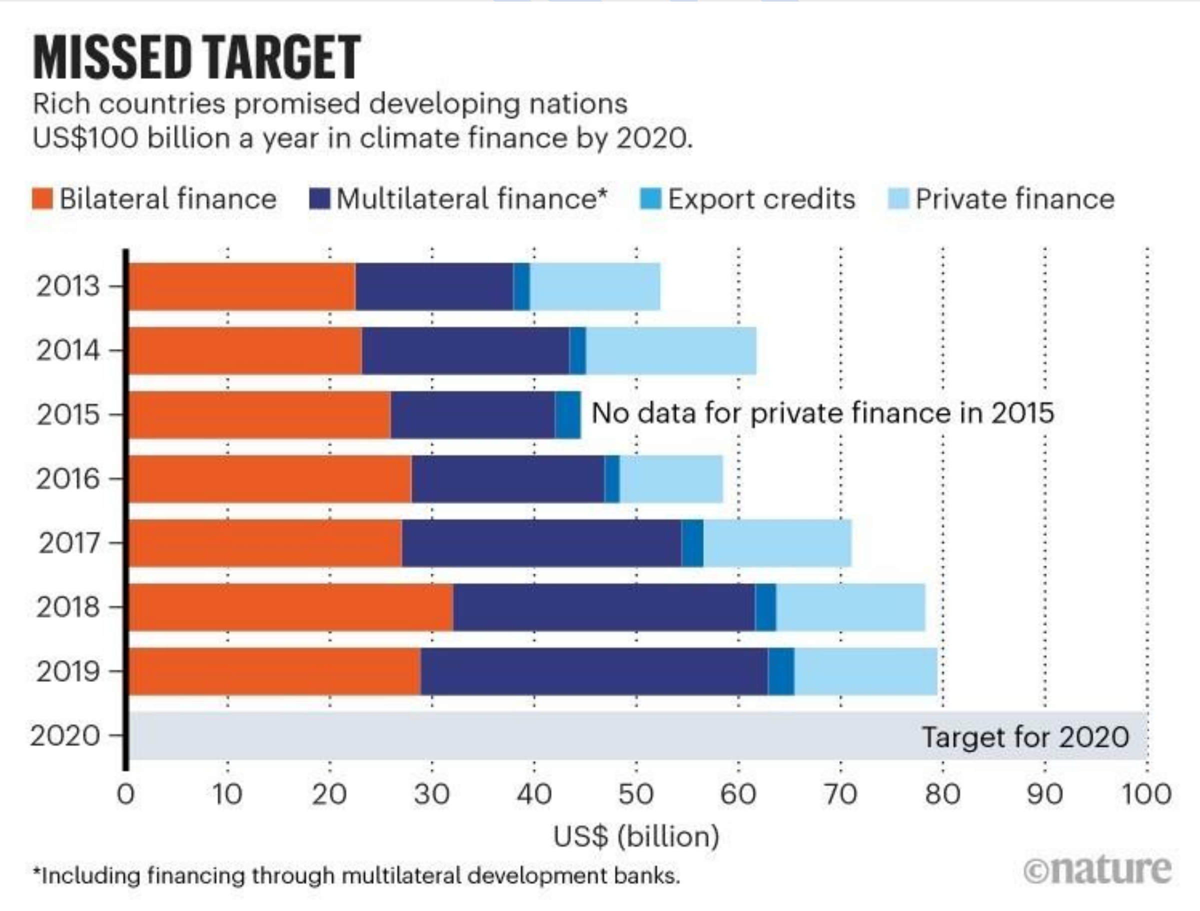
1. On climate finance to developing nations

Introduction

The 29th Conference of the Parties (COP29) of the UNFCC to be held in Baku, Azerbaijan, from November 11 to 22 is expected to be a “finance COP” as key climate finance issues feature at the top of its agenda.

Are developing states more at risk?

Economically developing countries are among the most vulnerable to climate change’s effects. This is because of geographical factors and, because their economies rely more on sectors like agriculture, which are particularly sensitive to climate change.



Despite being among the most vulnerable, developing countries have contributed relatively little to the cumulative emissions that cause climate change. According to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, developed countries account for 57% of cumulative global emissions since 1850 despite hosting smaller populations than the developing world. Developing countries also face competing developmental needs, vexing their ability to take climate action by themselves. The 2009 Copenhagen Accord had developed countries commit to providing $100 billion a year in climate finance to developing countries by 2020, later also made applicable through 2025. A new mobilisation target for the post-2025 period is on the agenda at COP29.

What is climate finance?

The United Nations Framework Convention on Climate Change (UNFCCC) defines climate finance as "local, national, or transnational financing — drawn from public, private, and alternative sources — that seeks to support mitigation and adaptation actions addressing climate change." This specifies two aspects of climate finance: sources (public or private, and flowing either domestically or across borders) and end-uses (climate mitigation or adaptation). The Organisation for Economic Co-operation and Development (OECD) publishes reports on climate finance flows from developed to developing countries. They cover flows from four sources, including international public finance and the private finance mobilised by it. International public climate finance is composed of commercial and concessional loans, grants, equity and other instruments. Loans typically constitute the largest share (69.4% in 2022), followed by grants (28%). However, developing countries and observers such as Oxfam have noted several shortcomings with the OECD's reports. They have argued they should represent actual disbursals and not simply commitments to provide climate finance; that a flow should be new and additional and not simply a reclassification of existing aid; and that only grants, or grant-equivalents of concessional finance, should be counted, not finance provided on a commercial basis.

Who needs climate finance?

Developing countries require external financing for climate action. According to the International Energy Agency (IEA), 675 million people in the developing world didn't have access to electric power in 2021. Developing countries need to universalise access and increase electricity consumption.

Developing countries also have smaller domestic financial systems relative to their GDPs and face higher costs of capital. For instance, the cost of capital for solar photovoltaic and storage technologies is about twice as high in developing economies than in developed ones, according to the IEA. Therefore, if developing countries are to balance development and climate action, external finance should be made available.

How much does India need?

India has both short-term and long-term climate targets. By 2030, India aims to install 500 GW of generating capacity from non-fossil-fuel sources; five million metric tonnes per annum of green hydrogen (GH2) production capacity; and differentiated levels of penetration for various Electric Vehicle (EV) categories. The authors have estimated (as part of a co-authored report) that achieving 450 GW of renewable energy by 2030 will require an additional ₹16.8 lakh crore investment. Per the National Green Hydrogen Mission, India's GH2 target will need ₹8 lakh

crore. Consumers will also need to spend around ₹16 lakh crore to purchase EVs to achieve this vision. A long-term perspective reveals a greater requirement: ₹850 lakh crore in investments between 2020 and 2070 to achieve net-zero emissions.
What should the NCQG quantum be?

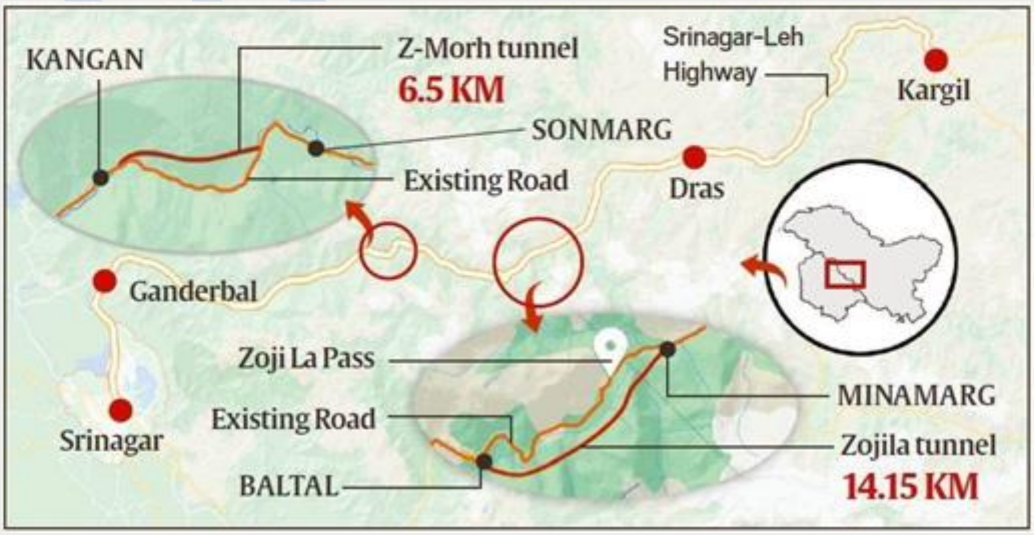
Determining a new annual climate finance mobilisation target — called the New Collective Quantified Goal (NCQG) — is a top priority. The NCQG should include flows that are (i) actual disbursals, not just commitments; (ii) new and additional (iii) public capital in the form of direct grants; and (iv) private capital that is mobilised by public capital. However, organically flowing private finance to developing countries should not be counted. An independent high-level expert group constituted by the presidencies of COP26 and COP27 has already determined that developing countries (excluding China) will require around $1 trillion in external finance by 2030.

Relevance: GS Prelims & Mains Paper III; Environment
Source: The Hindu

2. What is the Z-Morh project in Kashmir, where 7 were killed by militants?

Introduction
Seven people were killed in Jammu and Kashmir recently when suspected militants targeted the workers of infrastructure company APCO Infratech, which is constructing the Z-Morh tunnel on the Srinagar-Sonamarg highway. This is the first militant attack on a key infrastructure project in Jammu and Kashmir. In the past, militants have not targeted such infrastructure projects in the region.

What is the Z-Morh tunnel?
The Z-Morh tunnel is a 6.4-kilometer tunnel connecting the Sonamarg health resort with Kangan town in central Kashmir's Ganderbal district. The tunnel has been constructed near Gagangir village ahead of Sonamarg. The tunnel will provide all-weather connectivity to Sonamarg, a famous tourist destination on the Srinagar-Leh highway.



The tunnel has acquired its name for the Z-shaped road stretch at the place where the tunnel is being constructed.

What was the need for the tunnel?
The stretch where the tunnel is under construction is situated at an altitude of over 8,500 feet, and is prone to snow avalanches in the winter. The road to Sonamarg as such remains closed for most part of the winter.

When did work commence, what is its cost and when is it likely to be completed?
The tunnel project was originally conceived by the Border Roads Organisation in 2012. The Border Roads Organisation awarded the construction contract to Tunnelway Ltd. However, the project was later taken over by the National Highways & Infrastructure Development Corporation Limited (NHIDCL). The NHIDCL retendered the tunnel project and the contract was bagged by APCO Infratech, which executed the project through a special purpose vehicle, APCO-Shri Amarnathji Tunnel Private Limited.

While the project was expected to be completed by August 2023, it was delayed. The soft-opening of the tunnel was carried out in February this year. While the tunnel project is almost complete, its inauguration was delayed by the Model Code of Conduct (MCC) in place because of the Jammu and Kashmir Assembly elections.

What is the strategic importance of the Z-Morh tunnel?
The Z-Morh tunnel is part of the Zojila tunnel project that aims to provide all weather connectivity from Srinagar to Ladakh throughout the year.

While the tunnel would give all-weather connectivity to Sonamarg health resort in the Valley, it is essential for all-weather connectivity to Ladakh. This is important, as it would provide quick access for military personnel to the border areas of Ladakh. While the construction of the Zojilla tunnel at an altitude of approximately 12,000 feet connecting Sonamarg in Kashmir valley to Drass in Ladakh is under way and is expected to be completed by December 2026, the opening of the Z-Morh tunnel is essential for its all-weather connectivity.

The construction of the tunnel will provide safe connectivity between Srinagar, Dras, Kargil and Leh regions. The Indian defence forces are deployed against Pakistan in Siachen Glacier and in the Turtuk sub sector, which abuts Baltistan in Pakistan-Occupied Kashmir (PoK). Similarly, there is widespread Indian Army deployment against Chinese forces in Eastern Ladakh, which has increased manifold after the 2020 face off with Chinese troops.

All-weather road connectivity will lessen the dependence of air maintenance of the forward locations of the Army through the transport aircraft of the Indian Air Force. The transportation of troops and supplies will be done by road and this will lead to lesser expenditure on the use of aircraft and also increasing the life of the aircraft.

Relevance: GS Prelims & Mains Paper III; Internal Security
Source: Indian Express

3. More rural households now 'agricultural': what data says, what this means

Introduction

Is dependence on farming for livelihoods and incomes rising in India, reversing a decades-old trend of the rural countryside becoming increasingly less tethered to agriculture?

The All India Rural Financial Inclusion Survey for 2021-22, released earlier this month, found that 57% of rural households in the country — including households in semi-urban centres with a population of less than 50,000 — were "agricultural". This was significantly higher than the 48% reported in the previous survey of 2016-17.

Findings

The survey, commissioned by the National Bank for Agriculture & Rural Development (NABARD), defined an "agricultural household" as one that (i) reported a total value of produce from farming exceeding Rs 6,500 (be it cultivation of field and horticulture crops, livestock and poultry rearing, or aquaculture, sericulture and apiculture); and (ii) had at least one member who was self-employed in such activities during the reference year (July 2021 to June 2022). In the 2016-17 survey, the threshold cut-off value of produce was Rs 5,000.

More krishi in Bharat

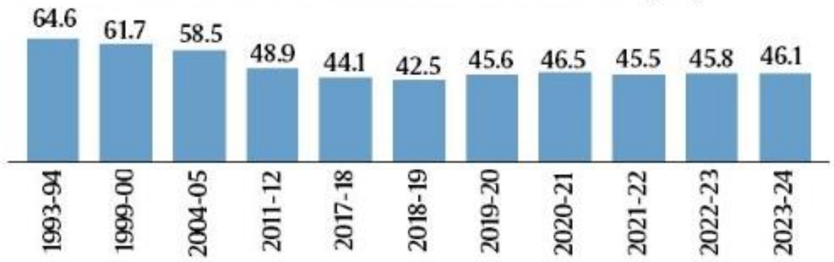
The share of rural households identified as agricultural, based on the above definitions, has gone up for nearly all states between 2016-17 and 2021-22. (see Table)

% SHARE OF AGRICULTURAL TO RURAL HOUSEHOLDS

	2016-17	2021-22		2016-17	2021-22
J & K	*77	**73	Uttarakhand	41	57
Jharkhand	51	69	Karnataka	59	55
Assam	47	67	Telangana	47	55
Uttar Pradesh	63	66	Gujarat	58	54
Chhattisgarh	55	66	Andhra Pradesh	34	53
Rajasthan	63	66	West Bengal	35	49
Madhya Pradesh	58	64	Bihar	47	45
Himachal	70	63	Tripura	39	40
Odisha	58	60	Punjab	42	36
Maharashtra	36	59	Kerala	13	18
Haryana	34	58	Goa	3	18
Tamil Nadu	13	57	All- India	48	57

*Includes only Jammu; **Excludes Ladakh.
Source: NABARD All India Rural Financial Inclusion Surveys, Data (In %)

AGRICULTURE SECTOR'S SHARE OF WORKFORCE (%)



Source: NSSO Employment & Unemployment Surveys (till 2011-12) and Periodic Labour Force Surveys (from 2017-18).

Percentage share of agricultural to rural households

Also, the all-India average monthly income of agricultural households, at Rs 13,661 in 2021-22, was more than the Rs 11,438 for non-agricultural rural households. In the 2016-17 survey, too, agricultural households earned a higher average monthly income (Rs 8,931) compared with their non-agricultural rural counterparts (Rs 7,269).

Within agricultural households, the contribution of cultivation and animal husbandry to total income was over 45% in 2021-22, up from 43.1% in 2016-17. This increased share of income from farming activities was seen for agricultural households across most size classes of land possessed: from 23.5% to 26.8% for those with less than 0.01 hectare, from 38.2% to 42.2% for those with 0.41-1 hectare, from 52.5% to 63.9% for those with 1.01-2 hectares, and from 58.2% to 71.4% for those with more than 2 hectares.

Simply put, the proportion of households in rural India reliant on agriculture as a livelihood source has registered a sharp increase between 2016-17 and 2021-22. Even for agricultural households, the income from farming has gone up as a share of their overall income. There is correspondingly a smaller share of income coming from non-farm sources (such as government/private jobs, self-employment, wage labour, rent, deposits and investments), which applies to all land size categories.

The recent period, in other words, has witnessed more, not less, of krishi (agriculture) in rural India or Bharat. Not only is there a higher share of agricultural households, their incomes are less diversified than before, and they are earning more from farms.

Relevance: GS Prelims & Mains Paper III; Economics
Source: Indian Express

4. On sanctions and shadow fleets

Introduction
While covering the Russia-Ukraine conflict, many western media outlets have used the term 'shadow fleet' to describe tanker ships that carry Russian crude oil or oil products to other countries. The term conjures up images of pirate-like vessels and phantom owners trading in illegal, contraband substances. India has been painted as a host of a shadow fleet that is 'laundering' Russian crude.

How are sanctions implemented?

When the U.S. sanctions a country, as is the case with Russia, it launches investigations into entities, companies and individuals who violate the sanctions. Their assets in the U.S. are seized, bank accounts accessible to the western banking system are frozen and, sometimes, criminal prosecutions are launched against them. U.S. sanctions against Russian oil mandate that Russia can only sell its crude oil at $60 a barrel. Current market prices are at least $15 more. This is to ensure Russia doesn't profit much from oil sales and use that to fund its war effort in Ukraine.

What is structure of global shipping?

The global shipping industry is highly diversified. Greeks own 20% of the global merchant shipping fleet with China now crossing Japan to become the second leading nation in terms of merchant shipping fleet ownership. Most ships are built and repaired in China, Japan and South Korea. Yet, marine insurance, ship finance as well as global shipping regulations revolve around the U.K. and rest of Europe. U.S. sanctions are sought to be enforced through these levers.

Each ship is associated with different stakeholders at various nations and locations. Although tracking systems allow authorities to access previous ports of call, some companies do succeed in hiding the original source of their cargo. Ships are registered in particular nations called flag states as they fly that country's flag. Flag states were meant to indicate the origins of the ship. To beat sanctions, ships often hop between flags. There are Flags of Convenience (FoCs), such as Panama and Liberia, which started out as tax avoidance entities, and to avoid too rigorous a scrutiny or inspection of a ship. FoCs obscure the ownership of ships. Then there are classifications societies (class, in shipping parlance) that certify ship structures and machinery for safety of life at sea and marine pollution, facilitating insurance cover for these. An insurance type called Protection and Indemnity (P&I) covers loss of life and damage to property. These P&I insurance firms form 'clubs' to pool the risk.

How do ships keep their insurance?

Turkey, a member of the NATO, has been found to be extensively trading in Russian oil. A Turkish-owned ship found to be trading in Russian oil at more than $60 a barrel may lose its P&I club, since clubs are controlled from London and the U.S. has leverage there. However, the owner can divest the management of the vessel and contract with a European manager that has P&I cover. And the ship will be back in business with the same owner but with a new European manager. Corporations with large fleets often set up shell companies that own just one or two ships. Such complex ownership structures hide the true identity of a ship and its owner. Yet, another phenomenon is registering the ships within jurisdictions that are not compliant with regulatory agencies such as the International Maritime Organization (IMO). Eswatini, a country in southern Africa, is not a signatory to the IMO charter. It has therefore emerged as a FoC.

What is the accusation against India?

Soon after sanction enforcements, many Russian ships struck alliances with Indian firms. Many switched their base to Dubai where Indians have a presence in shipping. The Indian Register of Shipping (IRS), a classification society, did see an increase in the ships it was certifying, bolstering charges of Indian involvement in shadow fleets. Noting that it has been linked to Russian shipping entities, the IRS said its primary responsibility is to the safety of a vessel and that it will not be compromised. IRS reported that it has indeed been asked to provide safety-related classification services to a number of vessels by Dubai-based entities. These vessels were registered under the flag administrations of Liberia and Cyprus and none flew the Russian flag, the IRS reported.

In 2015, when Iran was sanctioned, some 160 ships, many with trade links to Iranian oil, switched their classification society to the Korean Register of shipping — Korea is a U.S. ally. Sometimes renaming a vessel can help to erase association with sanctions.

Can U.S. sanctions be enforced?

Many agencies and shipping experts acknowledge that sanctions on Russian oil cannot be rigorously enforced because of its potential impact on world economy, the complex ways in which the shipping industry is structured, and because ownerships and origins of stakeholders are obscure and often based on voluntary disclosure.

More recently, the BBC reported that the U.K. had taken action only mild action against some 35 U.K. companies found to have violated the price cap set by sanctions. Industry voices there say that taking strong action would be bad for U.K. businesses.

Relevance: GS Prelims & Mains Paper II; International Relations
Source: The Hindu