

since
1953



Daily News Simplified - DNS

07

Oct

21

Notes

SL. NO.	TOPICS	THE HINDU PAGE NO.
1	Trade multilateralism at risk	07
2	WHO recommends first anti-malarial vaccine	01
3	Duo win Nobel Chemistry Prize for work on catalysts	12

NEW DELHI CAMPUS & HO

309, Kanchenjunga Building,
18 Barakhamba Road, Connaught
Place, New Delhi – 110001
Tel: 011 – 4078 6050, 23317293,
23318135/36, 23738906/07

JAIPUR CAMPUS

3rd Floor, UDB Corporate Tower
(Nawal Tower), A-I, J.L.N. Marg, Near
Fortis Hospital, Jaipur – 302017
Tel: 0141 – 410 6050/57,
2722050

BENGALURU CAMPUS

2nd Floor, AKS Plaza, 10 Industrial
Layout, Jyoti Niwas College (JNC)
Road, 5th Block Koramangala,
Bengaluru – 560 095
Tel: 080 – 255 35536/ 37/ 38/ 39,
9916035536

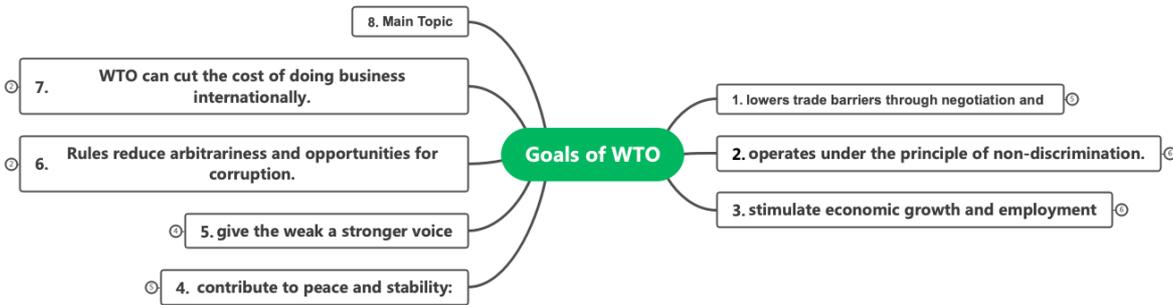
1. UPSC Current Affairs: Trade multilateralism at risk | Page – 07

UPSC Syllabus: GS Paper II – International Relation

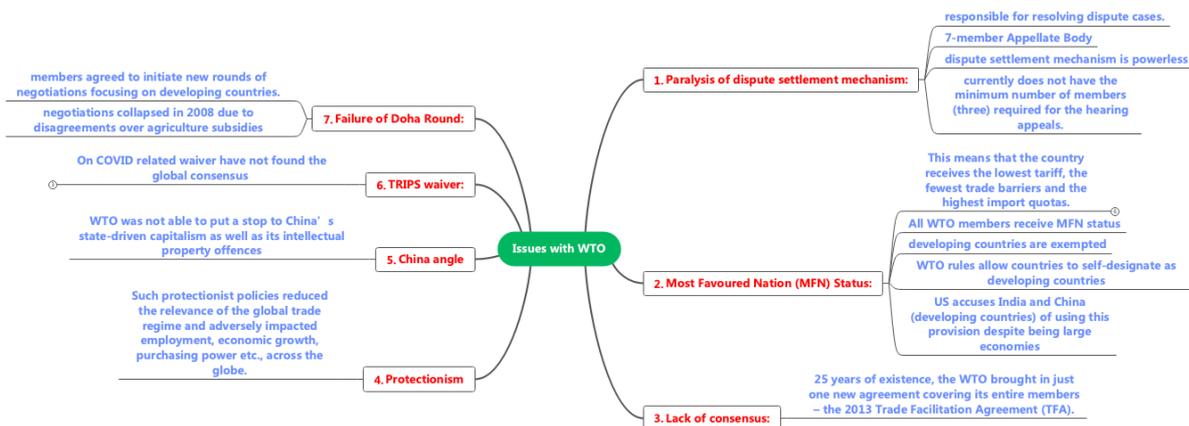
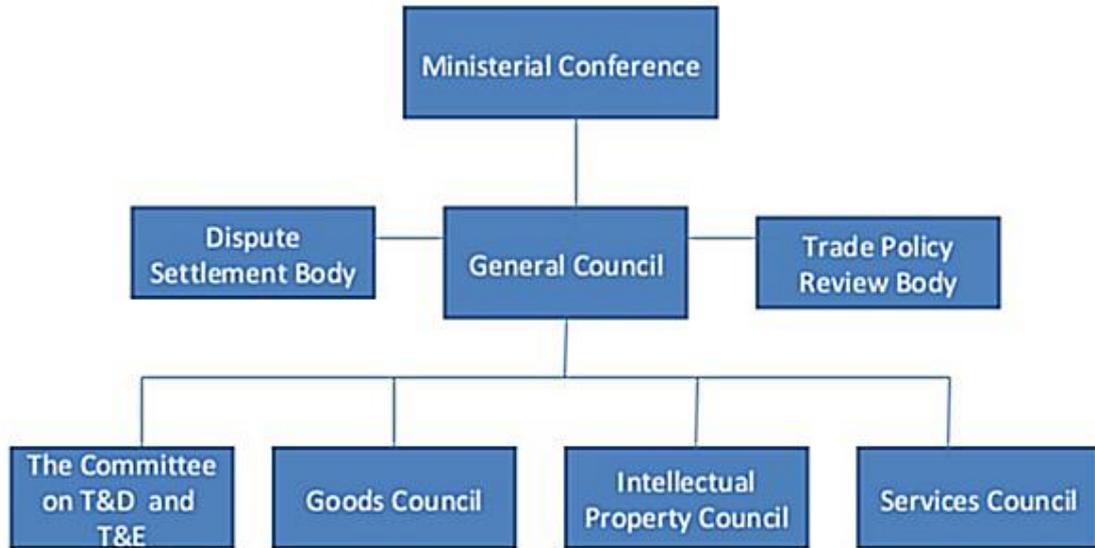
Sub Theme: Trade multilateralism |UPSC

Context: Role of World Trade Organisation in getting multilateralism is mostly diluted.

- World Trade Organisation was General Agreement on Tariffs and Trade (GATT)
- GATT traces its origins to the 1944 Bretton Woods Conference.
- The conference recommended the establishment of a complementary institution to be known as the International Trade Organization (ITO).
- Meanwhile, an agreement as the GATT signed by 23 countries in Geneva in 1947 came into force on Jan 1, 1948 with the following purposes:
 - to phase out the use of import quotas
 - and to reduce tariffs on merchandise trade,
- The GATT became the only multilateral instrument (not an institution) governing international trade from 1948 until the WTO was established in 1995.
- WTO is not a UN specialized agency.

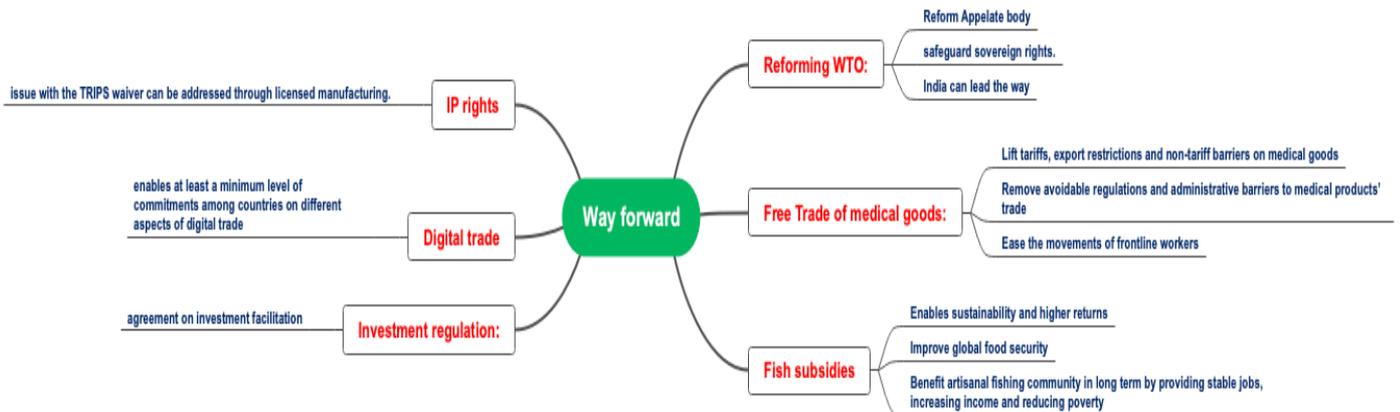


STRUCTURES OF WTO



India's issues with WTO

- Facing issues with TRIPS violations or legislations to avoid it.
- India raises concerns on subsidies under Agreement on Agriculture.
- India has raised very high standards on sanitary and Phyto-sanitary.
- India wants to make peace clause as permanent provision in WTO.
- India has been targeted by developed nations for imposing import tariffs.
- India has sought a clear dispute settlement mechanism in the global agreement to end harmful fisheries subsidies
- India has also sent reservations on dispute resolution mechanism and its weakening status.



Practice question:

Q. Multilateral institutions are going through the process of degradation at global stage. World Trade organisation is under the stage of passive functioning. What are different issues faced by the WTO? Also state some measures to rectify such issues. (250 words)

2. UPSC Current Affairs: WHO recommends first anti-malarial vaccine | Page – 01

UPSC Syllabus: GS Paper II – Social issues – Health & Disease – Vaccines

Sub Theme: Malaria Vaccine | UPSC

Context: New vaccine proposal for Malaria by World Health Organisation

Malaria

- life threatening disease.
- mosquito borne blood disease
- By plasmodium parasites.
- Location: tropical and subtropical areas of Africa, South America as well as Asia.
- Transmission: through the bites of infected female Anopheles mosquitoes.
- Process: After entering the human body, parasites initially multiply within the liver cells and then attack the Red Blood Cells (RBCs) resulting in their rupture.
- Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness.
- It is preventable as well as curable.

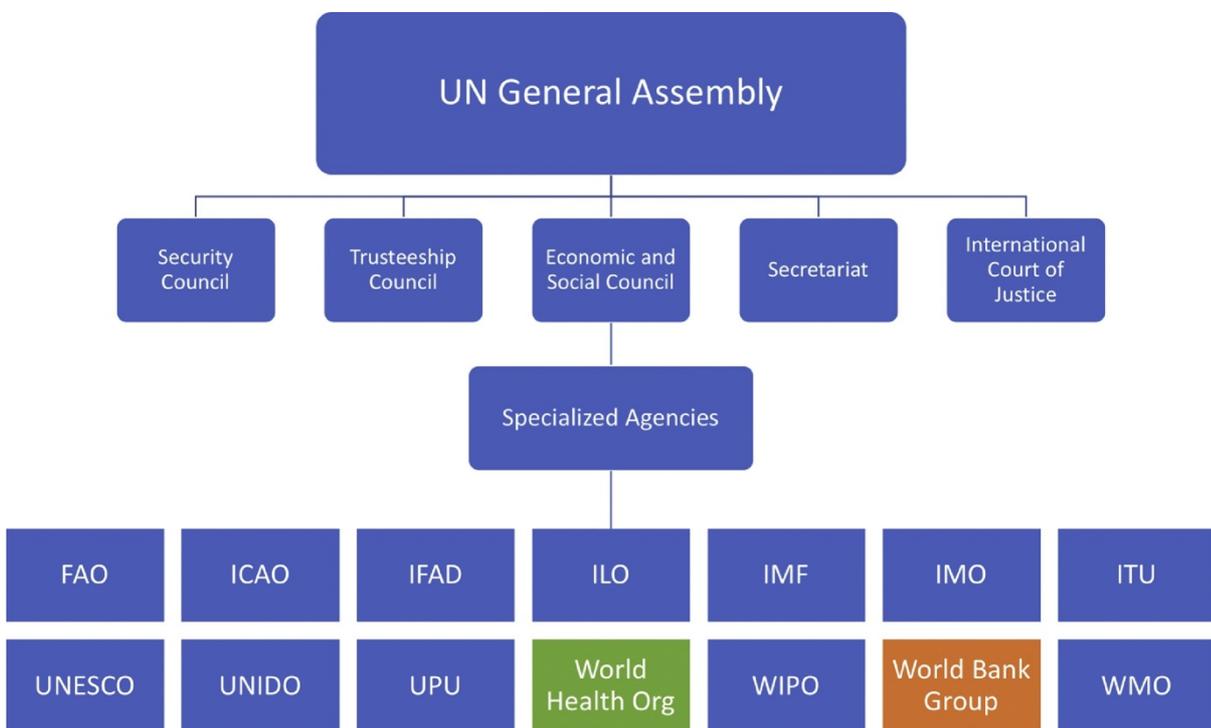
World Health Organization (WHO)

- United Nations’ specialized agency for Health
- 1948.
- Headquarters: Geneva, Switzerland.
- 194 Member States.

- Inter-governmental organization
- The WHO provides leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.

Objectives

- Directing and coordinating authority on international health work.
- Maintain effective collaboration with the United Nations.
- Provide assistance.
- Promote cooperation among scientific and professional groups which contribute to the advancement of health.



3. UPSC Current Affairs: Duo win Nobel Chemistry Prize for work on catalysts | Page – 12**UPSC Syllabus:** GS Paper III – Science & Technology**Sub Theme:** *Asymmetric organocatalysis* | UPSC

Germany's Benjamin List and U.S. based David MacMillan on Wednesday won the Nobel Chemistry Prize for developing a ***tool to build molecules which has helped make chemistry more environmentally friendly.***

- They developed independently of each other in 2000. The tool can be used to control and accelerate chemical reactions, exerting a big impact on drugs research.
- Many research areas and industries are dependent on chemists' ability to construct molecules that can form elastic and durable materials, store energy in batteries or inhibit the progression of diseases. This work requires catalysts, which are substances that control and accelerate chemical reactions, without becoming part of the final product. For example, catalysts in cars transform toxic substances in exhaust fumes to harmless molecules. Our bodies also contain thousands of catalysts in the form of enzymes, which chisel out the molecules necessary for life.
- Catalysts are thus fundamental tools for chemists, but researchers long believed that there were, in principle, just two types of catalysts available: **metals and enzymes.**
- The new technique relies on small organic molecule called '***asymmetric organocatalysis***'. The technique is widely used in pharmaceuticals, allowing drug makers to streamline the production of medicines for depression and respiratory infections, among others.
 - **Asymmetric catalysis:** When molecules are being built, situations often occur where two different molecules can form, which – just like our hands – are each other's mirror image. Chemists will often only want one of these, particularly when producing pharmaceuticals. The selective production of one types can be done by **asymmetric catalysis.**
- **Organocatalysts allow several steps in a production process to be performed in an unbroken sequence, considerably reducing waste in chemical manufacturing.**
- Organocatalysts bind to the reacting molecules to form short-lived intermediates that are more reactive than the substrate molecules on their own. Having fixed structural conformation, the catalyst transfers its handedness to the substrate, controlling which side of the intermediate can react further.
- Organic catalysts have a stable framework of carbon atoms, to which more active chemical groups can attach. These often contain common elements such as oxygen, nitrogen, sulphur or phosphorus. This means that these catalysts are both environmentally friendly and cheap to produce.
- Using these reactions, researchers can now more efficiently construct anything from new pharmaceuticals to molecules that can capture light in solar cells. In this way, Organocatalysts are bringing the greatest benefit to humankind.

Important pointers for exam



- Catalysts are substances that control and accelerate chemical reactions, without becoming part of the final product.
- Some of the important characteristic features of catalysts:
 - It does not initiate a chemical reaction.
 - It does not be consumed in the reaction.
 - Catalysts tend to react with reactants to form intermediates and at the same time facilitate the production of the final reaction product. After the whole process, a catalyst can regenerate.
 - A catalyst can be either solid, liquid or gaseous catalysts. Some of the solid catalysts include metals or their oxides, including sulphides, and halides.
- **Positive Catalysts:** Catalysts that increase the rate of a chemical reaction are positive catalysts. Eg: In the preparation of NH_3 by Haber's process **Iron oxide** acts as a positive catalyst.
- **Negative Catalysts:** Catalysts that decrease the rate of reaction are negative catalyst. Eg: Decomposition of Hydrogen peroxide into water and oxygen is retarded by using Acetanilide.
- **Promoter or Accelerators:** A substance that increases the catalyst activity is known as a Promoter or accelerator. Eg: In Haber's process molybdenum or a mixture of potassium and Aluminium oxides act as Promoters.
- **Catalyst Poisons or Inhibitors:** Substances that decrease the catalyst activity are known as catalyst poisons or inhibitors.